

Technical Report
LAX Master Plan EIS/EIR

4. Air Quality Technical Report

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Prepared for:

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1. INTRODUCTION

This Technical Report 4 was prepared to provide additional technical details and data supporting the air quality impact analyses performed for the LAX Master Plan EIS/EIR. These analyses included the preparation of an airport emissions inventory, an airport area dispersion analysis, a regional traffic emissions inventory, a roadway intersection analysis, a construction emissions and dispersion analysis, and a quantitative assessment of potential air quality mitigation measures. The supporting detail found in this report is in the form of various attachments, which contain much of the original data and values for variables used in the analyses, along with some unique reference materials which may not be readily accessible elsewhere.

The air quality impact analyses for the LAX Master Plan EIS/EIR were conducted in accordance with U.S. Environmental Protection Agency (USEPA) and Federal Aviation Administration (FAA) guidelines for assessing airport environmental impacts under the National Environmental Policy Act (NEPA) and with South Coast Air Quality Management District (SCAQMD) guidelines for evaluating air quality impacts under the California Environmental Quality Act (CEQA). References to these guidelines, associated source materials, and the methodologies developed to meet the guidelines are discussed in Section 4.6, *Air Quality*, Appendix G, *Air Quality Impact Analysis*, of the EIS/EIR.

The basic steps followed in conducting the air quality impact analyses included the identification of LAX-specific emissions sources, the development of associated emissions inventories for the environmental baseline and future conditions associated with all activities in the Master Plan, and dispersion modeling of future year pollutant concentrations with and without the proposed project. Impacts were quantified using these steps for the 2005 and 2015 horizon years. Other steps in the analyses included the estimation of future background concentrations, the estimation of interim year (years other than 2005 and 2015) emissions and concentrations, and the identification of potential mitigation measures. Much of the original data used in these steps is included in this Supplemental Report.

The analyses included an identification of all on- and off-airport emissions sources associated with LAX. These sources can be divided into three general categories: mobile, stationary, and area. Data for environmental baseline conditions were obtained through surveys of tenants and traffic as well as from various reference sources, including FAA operation summaries. Examples of LAX-related mobile sources include aircraft, ground support equipment, on-road motor vehicles, and construction vehicles. Examples of LAX-related stationary sources include the central utility plant, aircraft maintenance facilities, restaurants and catering kitchens, and emergency generators. Examples of LAX-related area sources include landscape maintenance equipment. Data describing the various emissions sources and their activity levels under the Master Plan are included in this Supplemental Report.

FAA's Emissions and Dispersion Modeling System (EDMS) was used as the primary model in calculating the emissions inventories and in predicting the future ambient concentrations associated with on-airport operations source emissions. The California Air Resources Board's EMFAC2000 model was used to develop emissions data for on-road motor vehicles. Emissions from construction equipment and soil disturbance were developed based on guidance from USEPA and SCAQMD. USEPA's Industrial Source Complex Short Term ISCST3 model was used to estimate the particulate matter concentrations from aircraft engines, the one-hour nitrogen dioxide concentrations from all sources, and the concentrations of carbon monoxide, nitrogen dioxide, and particulate matter from construction emission sources. USEPA's CAL3QHCR model was used to model carbon monoxide concentrations at selected off-airport street intersections due to vehicle traffic. The modeling plan (protocol) and values used for many of the modeling input variables are included in this Supplemental Report.

Attachment A

Air Quality Modeling Protocol for Criteria Pollutants

LAX MASTER PLAN EIS/EIR AIR QUALITY MODELING PROTOCOL FOR CRITERIA POLLUTANTS

I. PROJECT INTRODUCTION

The City of Los Angeles (the City) is updating the Master Plan for the Los Angeles International Airport (LAX) to identify facilities needed through the year 2015. As part of the environmental review for this project, emissions inventories will be developed, dispersion modeling will be conducted as appropriate, and the results will be analyzed to ensure compliance with all applicable state and federal laws, including NEPA, CEQA, Section 176 of the Clean Air Act¹, and 49 USC 47106 ©(1)(B), formerly Section 509 of the Airport and Airways Improvement Act.

This protocol identifies the assumptions and methodologies to be used in conducting the criteria pollutant² air quality impact analyses for the LAX Master Plan combined Environmental Impact Statement/Environmental Impact Report (EIS/EIR). Section II discusses the existing ambient air quality near LAX. Section III presents the general approach for determining future baseline emissions. Section IV presents the approach for developing the appropriate emission inventories. Section V presents the approach for conducting the air dispersion modeling. Section VI addresses the form and presentation of the final documentation of the analyses. Section VII provides the references used to develop this protocol.

II. EXISTING AIR QUALITY AND FUTURE BACKGROUND CONCENTRATIONS

II.1 Air Quality Status of Los Angeles County

The airport is located within Los Angeles County in Southern California. The regulatory agencies with primary responsibility for air quality around the airport include the South Coast Air Quality Management District (SCAQMD) and the California Air Resources Board (CARB) with oversight by U.S. EPA Region IX.

The CARB and U.S. EPA have established California Ambient Air Quality Standards (CAAQS) and National Ambient Air Quality Standards (NAAQS), respectively, for criteria air pollutants. These standards are applicable to the project area and are summarized in Table I.

The airport and associated study area are in an area that is designated as being in nonattainment of the NAAQS for ozone (O₃), carbon monoxide (CO), and particulate matter less than 10 µm in diameter (PM₁₀). In addition, the severity of the nonattainment status has been classified as "extreme" for O₃, "serious" for CO, and "serious" for PM₁₀. On July 24, 1998, the area was redesignated from nonattainment to attainment/maintenance status for nitrogen dioxide (NO₂) by the U.S. EPA (63 FR 39747). The area is in attainment of the NAAQS for sulfur dioxide (SO₂) and lead (Pb). The area also has been designated as being in nonattainment of the CAAQS for O₃, CO, and PM₁₀. The area is in attainment of the CAAQS for NO₂, SO₂, Pb, and sulfates.

¹ A separate protocol that provides the methodology for demonstrating conformity with the State Implementation Plan will be developed and submitted to FAA for approval.

² Criteria pollutants are those air pollutants for which National or California Ambient Air Quality Standards have been established. The criteria pollutants considered in this protocol include: carbon monoxide, lead, nitrogen dioxide, ozone, particulate matter less than 10 µm, sulfur dioxide, and sulfates. The health risk assessment for air toxics being conducted for the Master Plan EIS/EIR requires an additional set of emission factors as well as a modified set of dispersion models and parameters. Therefore, a protocol titled "Air Quality Modeling Protocol for Toxic Air Pollutants," is being developed and will be submitted separately for SCAQMD and CARB review and approval. That protocol addresses the air toxics analysis to be conducted to demonstrate compliance with CEQA.

Air Quality Modeling Protocol for Criteria Pollutants

Table I
National and California Ambient Air Quality Standards

Pollutant	Averaging Time	CAAQS	NAAQS	
			Primary	Secondary
Ozone (O ₃)	1-Hour	0.09 ppm (180 µg/m ³)	0.12 ppm (235 µg/m ³)	Same as Primary
Carbon Monoxide (CO)	8-Hour	9.0 ppm (10 mg/m ³)	9 ppm (10 mg/m ³)	N/A
	1-Hour	20 ppm (23 mg/m ³)	35 ppm (40 mg/m ³)	N/A
Nitrogen Dioxide (NO ₂)	Annual	N/A	0.053 ppm (100 µg/m ³)	Same as Primary
	1-Hour	0.25 ppm (470 µg/m ³)	N/A	N/A
Sulfur Dioxide (SO ₂)	Annual	N/A	0.03 ppm (80 µg/m ³)	N/A
	24-Hour	0.04 ppm (105 µg/m ³)	0.14 ppm (385 µg/m ³)	N/A
	3-Hour	N/A	N/A	0.5 ppm (1300 µg/m ³)
	1-Hour	0.25 ppm (655 µg/m ³)	N/A	N/A
Particulate Matter (PM ₁₀)	AAM	N/A	50 µg/m ³	Same as Primary
	AGM	N/A	N/A	N/A
	24-Hour	30 µg/m ³ 50 µg/m ³	150 µg/m ³	Same as Primary
Lead (Pb)	Quarterly	N/A	1.5 µg/m ³	Same as Primary
	Monthly	1.5 µg/m ³	N/A	N/A
Sulfates	24-Hour	25 µg/m ³	N/A	N/A

AAM = Annual arithmetic mean.
AGM = Annual geometric mean.
N/A = Not applicable.

II.2 Existing Ambient Air Quality Near LAX

Actual measurements of ambient air quality were undertaken at LAX for the Master Plan to provide a context for the modeling of air pollutant levels around the airport. Where data was not actually measured at LAX, use of measurements collected by the SCAQMD at a station nearby has been used. Ambient air quality monitoring was conducted on LAX property from August 13, 1997, through March 31, 1998 (AeroVironment 1998). The location of the on-site monitoring station was approximately 1.6 miles (2.6 km) east-southeast of the LAX Theme Building, as shown on Figure I. Pollutants analyzed at the on-site monitoring station included CO, NO₂, SO₂, and PM₁₀. The data collection period included the summer, fall and winter seasons. Therefore, this data is representative of both high O₃ periods (summer) and high CO and NO₂ periods (winter). The short-term (1-hour through 24-hour) average concentrations from the on-site monitoring station represent existing ambient air quality at LAX. The on-site monitoring results are presented in Table II.

Since data was collected at the on-site monitoring station for approximately 7.5 months, it does not include annual average concentrations of any pollutants. Nor were measurements of O₃, lead (Pb) or sulfates collected onsite. For these measurements, the nearest SCAQMD monitoring station will be used. The SCAQMD maintains a network of air quality monitoring stations throughout the Basin. The monitoring location nearest to LAX is Station No. 094, Southwest Coastal Los Angeles County, located in Hawthorne approximately 2.4 miles (3.8 km) southeast of the LAX Theme Building. The approximate location of this monitoring station is also shown on Figure I. Data from this station will be used to describe existing O₃, Pb and sulfate concentrations as well as annual average NO₂, SO₂ and PM₁₀ concentrations around the airport. These concentrations are presented in Table II. Since the Hawthorne monitoring station is not on-site, the highest O₃, Pb, sulfate, and annual average values from the previous three years (1996, 1997 and 1998) will be used to describe existing air quality for these pollutants (SCAQMD 1998a, 1997a, 1998a).

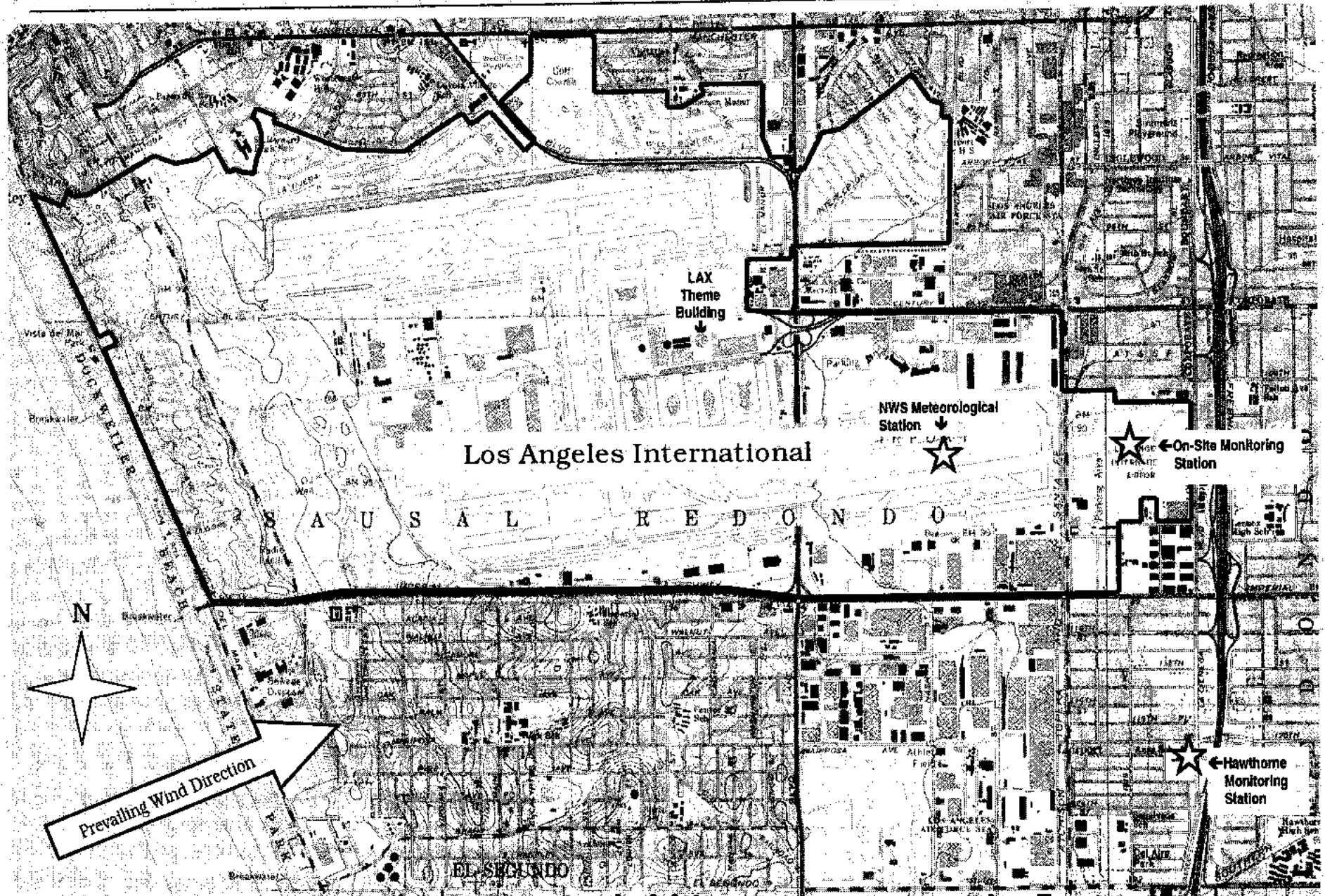


Figure I. Meteorological Station and Air Quality Monitoring Station Locations.

AIR QUALITY MODELING PROTOCOL FOR CRITERIA POLLUTANTS

Table II

Existing Ambient Air Quality and Projected Future Background Concentration in the Vicinity of LAX

Pollutant	Avg. Time	Existing ^a Air Quality	Future Background ^b 2005	2015	NAAQS/ CAAQS
O ₃ (ppm)	1-Hr	0.13 ^c	<0.09 ^a	<0.09 ^a	0.12 / 0.09
CO (ppm)	8-Hr	8.5 ^d	4.9	3.4	9 / 9.0
	1-Hr	10.6 ^d	6.2	4.2	35 / 20
NO ₂ (ppm)	AAM	0.0295 ^a	0.0196	0.0150	0.053 / -
	1-Hr	0.15 ^a	0.0998	0.0765	- / 0.25
SO ₂ (ppm)	AAM	0.0025 ^a	0.0023	0.0027	0.03 / -
	24	0.007 ^d	0.0065	0.0075	0.14 / 0.04
	3-Hr	0.017 ^d	0.016	0.018	0.50 / -
	1-Hr	0.021 ^d	0.019	0.022	- / 0.25
PM ₁₀ (µg/m ³)	AAM	36 ^e	28	24	50 / -
	AGM	34 ^e	24	20	- / 30
	24-Hr	62.3 ^d	61	43	150 / 50
Pb (µg/m ³)	Qtr	0.05 ^g	N/A	N/A	1.5 / -
	Monthly	0.06 ^g	N/A	N/A	- / 1.5
Sulfates (µg/m ³)	24-Hr	18.4 ^e	N/A	N/A	- / 25

Note: Existing conditions reflect actual measurements undertaken at LAX for the Master Plan. Where pollutants were not measured (O₃, Pb, sulfates, and annual averages) data collected by the SCAQMD at Monitoring Station 094 (about 2.4 miles southeast of the LAX Theme Building) were used, as noted below.

AAM = Annual Arithmetic Mean, AGM = Annual Geometric Mean, N/A = Not Available or Not Applicable

1 ppm NO₂ = 1890 µg/m³ NO₂

1 ppm SO₂ = 2615 µg/m³ SO₂

1 ppm CO = 1145 µg/m³ CO

^d - Less than 12 full months of data.

^e Existing ambient air quality includes the contribution from airport and non-airport sources.

^b Future background concentrations are estimated using a linear rollback approach and the current and future year controlled NO₂, CO, and SO₂ emission inventories from Appendices III and V of the 1997 AQMP (SCAQMD 1996b, 1996c). Future background concentrations are based on monitored ambient levels, and therefore include existing airport sources. Projected future airport contributions will be added to future background concentrations. Consequently, this approach represents a conservative method for estimating future total concentrations.

^c Highest reported 1996 through 1998 concentrations from SCAQMD Monitoring Station 094, SW Coastal Los Angeles County (SCAQMD 1996A, 1997A, 1998A).

^d Highest measured concentration from on-site monitoring station (LAWA 1998, AeroVironment 1998).

^e Ozone concentrations around the airport have been estimated by the SCAQMD in the 1997 AQMP (SCAQMD 1996c). The results of this analysis indicate that ozone concentrations will not exceed the 1-hour NAAQS and CAAQS in 2010 and 2020.

II.3 FUTURE BACKGROUND CONCENTRATIONS NEAR LAX

The modeling that will be undertaken for the LAX Master Plan cannot reflect all pollutant sources in the area that contribute to total air pollutant levels. Therefore, background concentrations must be defined which reflect the emissions from nearby sources. Background concentrations, when added to the airport modeling results, will reflect the total pollutant concentrations at a specific site.

The background concentrations of CO, NO₂ and SO₂ near LAX in 2005 and 2015 will be estimated using a linear rollback approach. This approach assumes that changes in emission inventories will change the background concentrations proportionally. The rollback equation can be written as (SCAQMD 1996c):

$$C_p = [(C_e - k) \times Q_p / Q_e] + k$$

Where C_p and C_e are the future year and existing concentrations, respectively, Q_p and Q_e are the future year and existing emission rates, and k denotes natural background. The value of k is assumed to be negligible for NO₂, CO, and SO₂ based on the composition of natural (clean) air (SCAQMD 1996c, Prinn 1992). The presence of these compounds in the basin is primarily from human (anthropogenic) activities (SCAQMD 1996b).

The annual emission inventories will be used for estimating future year SO₂ background concentrations, while the Winter Planning inventories will be used for estimating future year NO₂ and CO concentrations. Existing emission rates are taken from Appendix III of the 1997 AQMP (SCAQMD 1996b) for the 1997 year. The future year emission rates will be the controlled levels presented in Appendices III and V of the 1997 AQMP (SCAQMD 1996b, 1996c). The 2015 controlled emission rates will be estimated from linear interpolation of the controlled emission rates for 2010 and 2020. The calculated future background concentrations are presented in Table II.

The future year background concentration of PM₁₀ at LAX will be estimated from the ratio of future year to existing PM₁₀ concentrations for downtown Los Angeles multiplied by the current PM₁₀ concentrations at the airport. This approach assumes that changes in PM₁₀ concentrations at downtown locations are equivalent to changes in background concentrations in the LAX vicinity. The future year PM₁₀ concentrations for downtown Los Angeles will be those values presented in Appendix V of the 1997 AQMP (SCAQMD 1996c) for the years 2000, 2006 and 2010. The estimated value for 2005 will be interpolated and the estimated value for 2015 will be extrapolated. The downtown Los Angeles monitoring station is the nearest station to LAX for which existing and future year PM₁₀ concentrations are available.

The approach that will be used in the EIS/EIR to estimate future background will be based on existing ambient air quality measurements, which include the current contribution from LAX sources. Modeled airport contributions will be added to the background values and then compared to the NAAQS and CAAQS. Therefore, this methodology is conservative since airport sources are implicitly included in the calculated future background concentrations. Refinements to the background concentration calculation may be developed if the double counting of airport contributions significantly overstates the estimated future air quality values. Any proposed refinements to the calculation will be coordinated with the FAA, SCAQMD and U.S. EPA.

The estimates of future year O₃ concentrations have been presented in Appendix V of the 1997 AQMP (SCAQMD 1996c). These estimates are based on regional modeling and indicate that by 2010, the project area should not exceed the 1-hour O₃ NAAQS and CAAQS.

III. NO ACTION AIRPORT OPERATIONS

The total emissions and pollutant concentrations (dispersion) will be quantified for the No Action/No Project Alternative for the years 2005 and 2015, using FAA and EPA approved models. The No Action/No Project Alternative will represent the airport and its operation at specified future years, assuming the existing facilities remain and that the Master Plan recommendations are not implemented.

A survey of the 1997 tenants (CEQA Baseline) will be used to identify stationary sources of emissions on airport property. Projected increases in aircraft operations, tenant fuel consumption, utility plant and maintenance operations, and vehicular traffic will be used to calculate future emissions, under the assumption that none of the proposed project alternatives are implemented (No Action/No Project). The emissions expected from the alternatives will be compared to the No Action/No Project. In addition, the alternatives (including the No Action/No Project Alternative) will be compared to the CEQA Baseline. The emission differences will be contrasted with the appropriate data in Table III. The pollutant emissions and concentrations noted in Table III reflect the threshold of significance by which project related impacts will be measured. Projects with incremental emission rates that exceed the operation and construction emission thresholds in Table III must include an air quality impact (dispersion modeling) analysis in the EIS/EIR.

Air Quality Modeling Protocol for Criteria Pollutants

Table II

Existing Ambient Air Quality and Projected Future Background Concentration in the Vicinity of LAX

Pollutant	Avg. Time	Existing ¹	Future Background ²		NAAQS/ CAAQS
		Air Quality	2005	2015	
O ₃ (ppm)	1-Hr	0.13 ³	<0.09 ⁴	<0.09 ⁴	0.12/0.09
CO (ppm)	8-Hr	8.5 ⁵	4.9	3.4	9/9.0
	1-Hr	10.5 ⁵	6.2	4.2	35/20
NO ₂ (ppm)	AAM	0.0295 ⁶	0.0196	0.0150	0.053/-
	1-Hr	0.15 ⁶	0.0998	0.0765	-/0.25
SO ₂ (ppm)	AAM	0.0025 ⁴	0.0023	0.0027	0.03/-
	24	0.007 ²	0.0065	0.0075	0.14/0.04
	3-Hr	0.017 ²	0.016	0.018	0.50/-
	1-Hr	0.024 ²	0.019	0.022	-/0.25
PM ₁₀ (µg/m ³)	AAM	36 ⁴	28	24	50/-
	AGM	34 ⁴	24	20	-/30
	24-Hr	82.3 ⁵	51	43	150/50
Pb (µg/m ³)	Qtr	0.05 ^{1,4}	N/A	N/A	1.5/-
	Monthly	0.06 ^{1,4}	N/A	N/A	-/1.5
Sulfates (µg/m ³)	24-Hr	18.4 ⁴	N/A	N/A	-/25

Note: Existing conditions reflect actual measurements undertaken at LAX for the Master Plan. Where pollutants were not measured (O₃, Pb, sulfates, and annual averages) data collected by the SCAQMD at Monitoring Station 094 (about 2.4 miles southeast of the LAX Theme Building) were used, as noted below.

AAM = Annual Arithmetic Mean, AGM = Annual Geometric Mean, N/A = Not Available or Not Applicable

1 ppm NO₂ = 1880 µg/m³ NO₂

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¹ Less than 12 full months of data.

² Existing ambient air quality includes the contribution from airport and non-airport sources.

³ Future background concentrations are estimated using a linear rollback approach and the current and future year controlled NO₂, CO, and SO₂ emission inventories from Appendices III and V of the 1997 AQMP (SCAQMD 1999b, 1999c). Future background concentrations are based on monitored ambient levels, and therefore include existing airport sources. Projected future airport contributions will be added to future background concentrations. Consequently, this approach represents a conservative method for estimating future total concentrations.

⁴ Highest reported 1996 through 1998 concentrations from SCAQMD Monitoring Station 094, SW Coastal Los Angeles County (SCAQMD 1995A, 1997a, 1998a).

⁵ Highest measured concentration from on-site monitoring station (LAWA 1998, AeroVironment 1998)

⁶ Ozone concentrations around the airport have been estimated by the SCAQMD in the 1997 AQMP (SCAQMD 1996c). The results of this analysis indicate that ozone concentrations will not exceed the 1-hour NAAQS and CAAQS in 2010 and 2020.

II. FUTURE BACKGROUND CONCENTRATIONS NEAR LAX

The modeling that will be undertaken for the LAX Master Plan cannot reflect all pollutant sources in the area that contribute to total air pollutant levels. Therefore, background concentrations must be defined which reflect the emissions from nearby sources. Background concentrations, when added to the airport modeling results, will reflect the total pollutant concentrations at a specific site.

The background concentrations of CO, NO₂ and SO₂ near LAX in 2005 and 2015 will be estimated using a linear rollback approach. This approach assumes that changes in emission inventories will change the background concentrations proportionally. The rollback equation can be written as (SCAQMD 1996c):

Air Quality Modeling Protocol for Criteria Pollutants

$$C_p = [(C_b - k) \times Q_p / Q_b] + k$$

Where C_p and C_b are the future year and existing concentrations, respectively, Q_p and Q_b are the future year and existing emission rates, and k denotes natural background. The value of k is assumed to be negligible for NO₂, CO, and SO₂ based on the composition of natural (clean) air (SCAQMD 1996c, Prinn 1992). The presence of these compounds in the basin is primarily from human (anthropogenic) activities (SCAQMD 1996b).

The annual emission inventories will be used for estimating future year SO₂ background concentrations, while the Winter Planning inventories will be used for estimating future year NO₂ and CO concentrations. Existing emission rates are taken from Appendix III of the 1997 AQMP (SCAQMD 1996b) for the 1997 year. The future year emission rates will be the controlled levels presented in Appendices III and V of the 1997 AQMP (SCAQMD 1996b, 1996c). The 2015 controlled emission rates will be estimated from linear interpolation of the controlled emission rates for 2010 and 2020. The calculated future background concentrations are presented in Table II.

The future year background concentration of PM₁₀ at LAX will be estimated from the ratio of future year to existing PM₁₀ concentrations for downtown Los Angeles multiplied by the current PM₁₀ concentrations at the airport. This approach assumes that changes in PM₁₀ concentrations at downtown locations are equivalent to changes in background concentrations in the LAX vicinity. The future year PM₁₀ concentrations for downtown Los Angeles will be those values presented in Appendix V of the 1997 AQMP (SCAQMD 1996c) for the years 2000, 2006 and 2010. The estimated value for 2005 will be interpolated and the estimated value for 2015 will be extrapolated. The downtown Los Angeles monitoring station is the nearest station to LAX for which existing and future year PM₁₀ concentrations are available.

The approach that will be used in the EIS/EIR to estimate future background will be based on existing ambient air quality measurements, which include the current contribution from LAX sources. Modeled airport contributions will be added to the background values and then compared to the NAAQS and CAAQS. Therefore, this methodology is conservative since airport sources are implicitly included in the calculated future background concentrations. Refinements to the background concentration calculation may be developed if the double counting of airport contributions significantly overstates the estimated future air quality values. Any proposed refinements to the calculation will be coordinated with the FAA, SCAQMD and U.S. EPA.

The estimates of future year O₃ concentrations have been presented in Appendix V of the 1997 AQMP (SCAQMD 1996c). These estimates are based on regional modeling and indicate that by 2010, the project area should not exceed the 1-hour aO₃ NAAQS and CAAQS.

III. NO ACTION NO ACTION/NO PROJECT ALTERNATIVE AIRPORT OPERATIONS

The total emissions and pollutant concentrations (dispersion) will be quantified for the No Action/No Project Alternative for the years 2005 and 2015, using FAA and EPA approved models. The No Action/No Project Alternative will represent the airport and its operation at specified future years, assuming the existing facilities remain and that the Master Plan recommendations are not implemented.

A survey of the 1997 tenants (CEQA Baseline) will be used to identify stationary sources of emissions on airport property. Projected increases in aircraft operations, tenant fuel consumption, utility plant and maintenance operations, and vehicular traffic will be used to calculate future emissions, under the assumption that none of the proposed project alternatives are implemented (No Action/No Project). The emissions expected from the alternatives will be compared to the No Action/No Project. In accordance with CEQA guidelines, the alternatives (including the No Action/No Project Alternative) will be compared to the CEQA Baseline. The emission differences will be contrasted with the appropriate data in Table III. The pollutant emissions and concentrations noted in Table III reflect the threshold of significance by which project related impacts will be measured. Projects with incremental emission rates that exceed the operation and construction emission thresholds in Table III must include an air quality impact (dispersion modeling) analysis in the EIR.

Air Quality Modeling Protocol for Criteria Pollutants

Table III

Significance Thresholds for Air Pollutants in the South Coast Air Basin

Pollutant	Concentration Thresholds (Averaging Period)	Operations Emission Thresholds Lbs/day	Construction Emission Thresholds	
			lbs/day	tons/quarter
Sulfates	1 µg/m ³ (24-Hour)	N/A	N/A	N/A
Carbon Monoxide (CO)	0.45 ppm (8-Hour)	550	550	24.75
Nitrogen Dioxide (NO ₂)	1 ppm (1-Hour)	N/A	N/A	N/A
	0.005 ppm (Annual)			
Oxides of Nitrogen (NO _x)	0.01 ppm (1-Hour)	N/A	N/A	N/A
Volatile Organic Compounds (VOC)	N/A	55	100	2.5
Sulfur Oxides (SO _x)	N/A	55	75	2.5
Particulate Matter (PM ₁₀)	N/A	150	150	6.75
	1 µg/m ³ (Annual)	150	150	6.75
	2.5 µg/m ³ (24-Hour)			

Source: SCAQMD 1999 and 1993

IV. EMISSION MODELING AND INVENTORY PREPARATION

IV.1 Pollutants of Concern

The primary pollutants of concern at airports are CO and the precursors to O₃ and NO₂. Oxides of nitrogen (NO_x) are precursors to both O₃ and NO₂ formation, and volatile organic compounds (VOC) are precursors to O₃ formation. The definition of VOC for this protocol is presented in SCAQMD Rule 102, as amended June 12, 1998, and includes any volatile compound of carbon except methane, CO, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, and certain exempt compounds. (Exempt compounds are listed halogenated hydrocarbons that do not contribute to the formation of ozone.) In addition, airport activity may generate emissions of PM₁₀. The NEPA/CEQA analysis will evaluate the impact of the Master Plan alternatives relative to each of the pollutants for which there are NAAQS/CAAQS.

IV.2 Emission Estimating References and Models

A variety of reference materials will be used to calculate emissions from the various project sources. These references include, but are not limited to:

- *Air Quality Procedures for Civilian Airports and Air Force Bases* (U.S. FAA/USAF 1997a)
- *Emissions and Dispersion Modeling System (EDMS) Version 3.11* (U.S. FAA/USAF 1997b)
- *Compilation of Air Pollutant Emission Factors (AP-42)* (U.S. EPA 1999a)
- *EMFAC2000 On-Road Emissions Inventory Estimation Model (EMFAC2000)* (CARB 1999)
- *Tank Emissions Estimation model (TANKS 4.06)* (U.S. EPA 1999b)
- *Air Pollution Mitigation Measures for Airports and Associated Activity* (CARB 1994)
- *CEQA Air Quality Handbook* (SCAQMD 1993)
- *Caterpillar Performance Handbook, 24th Edition* (Caterpillar 1993)
- *National Construction Cost Estimator* (Kiley 1995)
- Aircraft engine manufacturers, per U.S. EPA (U.S. EPA 1992)
- Appropriate source test data
- Appropriate agency emission factor databases (e.g., FIRE, XATEF, SPECIATE, etc.)

The PM₁₀ emission factors for the newer aircraft engines (engines certified after approximately 1990) are currently unavailable. Very limited data is available from U.S. EPA for engines certified prior to 1980. The

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project team has attempted to update particulate matter mass emissions data from research conducted for analyzing aircraft emission impacts on the upper atmosphere. However, the data being measured by current researchers are not mass emissions. The project team will continue to pursue reasonable potential sources of aircraft engine PM₁₀ emission factors with the U.S. EPA, CARB, SCAQMD, and engine manufacturers. An addendum to this protocol will be prepared at such time as acceptable and appropriate factors can be identified.

IV.3 Mobile Sources

IV.3.1 Aircraft

Aircraft emissions will be calculated using methodology accepted by the U.S. Environmental Protection Agency (U.S. EPA 1992) and the Federal Aviation Administration (U.S. FAA/USAF 1997a). Emissions produced by LAX activity during five aircraft operational modes (approach, taxi/idle in, taxi/idle out, takeoff, and climbout) will be calculated for each of the alternatives noted earlier. Two types of modal data may be used when modeling airport emissions: default times-in-mode representing an average airport, or airport-specific times-in-mode. Since LAX handles more operations than a typical airport, LAX-specific times-in-mode will be used. Taxi/in, taxi/out and queue (idle) times will be developed from the LAX Master Plan airport simulation modeling (SIMMOD) results for each project alternative. The EDMS default times in mode will be the basis for climbout, approach, and takeoff times; however, climbout and approach times will be adjusted according to the average mixing height adjustment parameters contained in EDMS. An average mixing height of 542 meters (approximately 1,800 ft), based on U.S. EPA guidance (Holzworth 1972, U.S. EPA 1992), will be used to calculate the adjustments to approach and climbout times in mode. A mixing height of approximately 1800 ft has been used in other aircraft emission inventory calculations for LAX (SCAQMD 1994a, U.S. EPA 1994). The time-in mode (TIM) for each aircraft category and operational mode is presented in Table IV.

Table IV

Aircraft Time-in-Mode for Each Operational Mode

Aircraft Category	Time-in-Mode (TIM), in minutes			
	Taxi/Idle	Takeoff	Adjusted Climbout ^a	Adjusted Approach
Commercial				
Jet-Airliner (Turbo fan)	— ^c	0.7	1.14	2.40
Turbo-Prop	— ^c	0.5	1.30	2.70
Transport-Piston	— ^c	0.6	2.60	2.76
General Aviation				
Business Jet	— ^c	0.4	0.26	0.96
Turbo-Prop	— ^c	0.5	1.30	2.70
Piston	— ^c	0.3	2.60	3.60

^a Climbout TIM adjusted to average mixing heights using the following equation (U.S. FAA/USAF 1997b):
 $TIM_{CLIM2} = TIM_{CLIM1} \times [(H-500) / 2500]$

Where:
 TIM_{CLIM2} = Adjusted climbout TIM (min)
 TIM_{CLIM1} = Default climbout TIM (min)
 H = Average mixing height (feet)

^b Approach TIM adjusted to average mixing heights using the following equation (U.S. FAA/USAF 1997b):
 $TIM_{APP2} = TIM_{APP1} \times (H/3000)$

Where:
 TIM_{APP2} = Adjusted approach TIM (min)
 TIM_{APP1} = Default approach TIM (min)
 H = Average mixing height (feet)

^c Taxi/Idle (or queue) times are alternative-specific and will be developed from SIMMOD results

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Using aircraft engine emission factors from EDMS, emissions for each aircraft type will be calculated based on the following procedure (U.S. FAA/USAF 1997b):

$$E_{ij} = NE_j \times \sum_k [TIM_{jk} \times FF_{jk} \times E_{ijk}]$$

where: E_{ij} = total emissions of pollutant i produced by aircraft type j per LTO cycle (g/LTO).

NE_j = number of engines used aircraft type j

TIM_{jk} = time in mode k for aircraft type j (seconds/LTO)

FF_{jk} = fuel flow for mode k for each engine used on aircraft type j (kg/s).

E_{ijk} = emission index of pollutant i in mode k for engines used on aircraft type j (g/kg).

In addition to standard operations, engine testing or run-up emission will also be estimated. The emission rates will be based on the aircraft or engine type being tested, the duration of the test and the thrust setting for the test. The Project team and/or LAVA operations personnel will provide the engine type, test duration and thrust setting.

Total emissions for all aircraft types over the inventory period can be calculated as (U.S. EPA 1992):

$$E_{Ti} = \sum_j [E_{ij} \times LTO_j]$$

where: E_{Ti} = total emissions of pollutant i from aircraft operating at LAX (grams).

LTO_j = total number of LTO cycles for aircraft type j during the inventory period.

The FAA approved model EDMS (Version 3.11 or later) will be used to calculate aircraft engine emission inventories. If emission factors for specific engines in use at LAX are not available in EDMS, factors for other engines that can be used with the given airframe will be substituted. Fleet mix data and airport operations (LTOs) will be taken from the Master Plan forecasts. A list of the aircraft/engine combinations that will be included in the emissions and dispersion analysis is presented in Table V.

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Table V

Aircraft and Engine Combinations Assumed for Emissions and Dispersion Modeling

Aircraft Type	No. of Engines	Engine Type	Engine Model
Airbus A300 B	2	Turbo Fan	CF6-50C
Airbus A300 C4	2	Turbo Fan	CF6-50C2
Airbus A310	2	Turbo Fan	CF6-80C2A2
Airbus A319	2	Turbo Fan	CFM56-5A1
Airbus A320	2	Turbo Fan	CFM56-5B4
Airbus A330	2	Turbo Fan	CF6-80E1A1
Airbus A340	4	Turbo Fan	CFM56-5C2
ATR72-200	2	Turbo Prop	PW124-B
ATR42	2	Turbo Prop	PW121
BAE146-300	4	Turbo Fan	ALF502R-5
BH-1900	2	Turbo Prop	PT6A-65B
Boeing 727-200	3	Turbo Fan	JT8D-15
Boeing 737-200	2	Turbo Fan	JT8D-9A
Boeing 737-200 C	2	Turbo Fan	JT8D-17A
Boeing 737-300	2	Turbo Fan	CFM56-3C
Boeing 737-400	2	Turbo Fan	CFM56-3C
Boeing 737-500	2	Turbo Fan	CFM56-3C
Boeing 747-200	4	Turbo Fan	JT9D-7R4C2
Boeing 747-400	4	Turbo Fan	PW4056
Boeing 747 Combi	4	Turbo Fan	PW4056
Boeing 757-200	2	Turbo Fan	PW2037
Boeing 767-200	2	Turbo Fan	JT9D-7R4D
Boeing 767-300	2	Turbo Fan	JT9D-7R4D
Boeing 777	2	Turbo Fan	PW 4084
Canadair RJ50	2	Turbo Fan	CF34-3A1
Canadair RJ70	2	Turbo Fan	CF34-3A1
Dash 7	4	Turbo Prop	PT6A-50
DC8-70	4	Turbo Fan	CFM56-2C5
DC9-50	2	Turbo Fan	JT8D-17
DC10-30	3	Turbo Fan	CF6-50C2
Embraer 110	2	Turbo Prop	PT6A-27
Embraer 120	2	Turbo Prop	PW118
F-28-400D	2	Turbo Fan	SPEY-MK555
Fokker 50	2	Turbo Prop	PW125-B
Fokker 70	2	Turbo Fan	TAY620-15
Fokker 100	2	Turbo Fan	TAY620-15
General Aviation Jet	2	Turbo Fan	JT15D-1
General Aviation Prop	1	Turbo Prop	PT6A-67B
Ilyushin-96	4	Turbo Fan	PS-90A
Jetstream J1	2	Turbo Prop	TPE331-3
L1011-100/500	3	Turbo Fan	RB211-524B4
MD11	3	Turbo Fan	PW4460
MD80	2	Turbo Fan	JT8D-217A
MD87	2	Turbo Fan	JT8D-217
MD90	2	Turbo Fan	V2525-05
MD95 (Boeing 717)	2	Turbo Fan	BR709-710A1-10
New Large Aircraft ¹	4	Turbo Fan	PW4056
Saab 2000	2	Turbo Prop	AE2100A
Saab Fairchild 340	2	Turbo Prop	CT7-5
Shorls 380	2	Turbo Prop	PT6A-65AR
Swearingen Metro	2	Turbo Prop	TPE331-3

¹ New Large Aircraft are not yet designed and do not have specific engine assignments. The PW 4056 engine was selected as a large engine for which emissions data were readily available.

IV.3.2 Ground Support Equipment / Auxiliary Power Units

Emissions from ground support equipment (GSE) and auxiliary power units (APU) will also be calculated using FAA and U.S. EPA accepted procedures. The GSE are nonroad surface vehicles that operate primarily on the apron, near the gate, which are used to service a flight. The APU is a small, on-board engine that operates to provide power to an aircraft while it is parked at the gate. The GSE and APU used at terminal buildings are typically owned and operated by the airlines using the equipment. Assignments of appropriate GSE and APU to aircraft and associated usage times will be made based on site-specific

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data developed by the project team. Default values included in EDMS will be used to supplement the site-specific data as needed.

Emission factors for gasoline and diesel powered GSE will be obtained from EDMS. The penetration of alternative fuel and electric powered GSE in the fleet mix will be developed from studies conducted by the project team (CALSTART 1999). In addition to the factors identified by the California Air Resources Board (CARB) for CNG/LPG fueled GSE (CARB, 1994), literature searches will be conducted to identify other appropriate emission factors for alternative fueled GSE (CALSTART 1998). Emissions will be based on the equipment fuel type, brake horsepower, and/or time in mode. Zero emissions will be assumed for electric powered GSE. A central power system replacing ground power unit (GPU - ground vehicles with portable generators that can be used to provide power to aircraft parked at a gate) as well as most aircraft APU³ usage at terminal gates will be assumed for the project alternatives (Alternatives A, B, and C) as well as future No Action/No Project conditions (LADOA, 1997). The gate electrification is assumed to be completed by the year 2005, since a majority of the gates have already been electrified.

Pollutant emissions will be calculated using methodology accepted by U.S. EPA and FAA (U.S. EPA 1992, 1999a, U.S. FAA/USAF 1997a) for emergency generators, air-start units (ASUs - ground units used to start aircraft turbofan engines) and air conditioning (AC) units. Emissions will be calculated based on the generator or engine/turbine power rating, usage rate, and pollutant emission indices (based on power output and fuel type). Any air pollution control equipment in use, or required in the future as identified in SCAQMD, CARB or U.S. EPA rules and regulations, will be incorporated into the calculations.

The equipment capacities, typical operating hours, and pollution controls will be based on the existing conditions survey. Future condition emissions will be based on the number of aircraft operations for each alternative. The uncontrolled emission factor will be obtained from U.S. EPA's *Compilation of Air Pollutant Emission Factors*. Control efficiencies will be applied to those units with control devices/technologies. A central cooling system replacing portable AC units at terminal gates will be assumed for project alternatives and future baseline conditions (LADOA 1997). Cargo and general aviation gates will be assumed to have power connections also, which can run on-board AC units.

IV.3.3 On-Road Vehicles

Emissions from on-road, or ground access vehicles, will be calculated using CARB mandated methodology. Regional as well as on-airport ground access vehicles traveling to or from LAX will be included in the emission inventories. Ground access vehicles include privately owned vehicles, government owned vehicles, rental cars, shuttles, buses, taxicabs, and trucks. It is anticipated that vehicle emissions will be estimated using the emission factors from CARB's EMFAC2000 model (CARB 1999). Earlier versions of EMFAC may be used if the on-road vehicle emission inventory will be compared to the 1994 SIP or 1997 AQMP (EMFAC7F for the 1994 SIP and EMFAC7G for the 1997 AQMP).

Vehicle trip distances, idle times, hot start vs. cold soak, and average travel speeds will be based on specific roadway segments analyzed in the traffic impact studies conducted for the EIS/EIR. The CARB mandated default values will be used where appropriate. Temporal data for on-airport traffic will be determined from the project's transportation analysis.

Entrained road dust will also be estimated. Emission factors from the SCAQMD CEQA Air Quality Handbook (SCAQMD 1993) and AP-42 (U.S. EPA 1999a) will be used to calculate emissions from major roads and highways, as well as from aircraft runways and taxiways.

IV.3.4 Parking Facilities

Methodologies similar to those used to estimate on-road emissions will be used to estimate emissions from vehicles in on-airport parking facilities. EMFAC2000 will be used and site-specific data will be incorporated. Resting evaporation emissions will be included for parking lot emissions. PM₁₀ emissions from road dust are not included for the low vehicle speed parking areas.

Emissions will be calculated for each on-airport parking lot or garage. Assumptions will be made on the idle time, the average distance traveled, and the vehicle mix within each parking facility. Temporal files for parking lots will be provided by the project's transportation analysis.

³ APU's will operate approximately 7 minutes per LTO: 5 minutes during departure for initial flight checks and main engine starts, and 2 minutes during arrival to provide power after the main engines are shutdown while the aircraft is being connected to central power and air (U.S. FAA 1998a).

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IV.3.5 Construction Activities

Air emissions from construction activities are identified with one of the following four major construction source categories:

- On- and Off-Road Motor Vehicle Travel.
- Construction Equipment.
- Fugitive Dust.
- Construction Material (e.g., VOCs from architectural painting or asphalt paving and striping).

IV.3.5.1 On- and Off-Road Motor Vehicle Travel Exhaust Emissions

Mobile construction sources will include on-road, off-airport vehicle traffic. Such traffic will include construction employee traffic, construction material delivery trucks, and construction debris haul trucks. Mobile construction sources will also include on-road, on-airport vehicle traffic, such as vehicle traffic on internal roads to construction site locations. The emission factors used for this activity will be taken from the California EMFAC2000 model. The parameters needed to construct the on- and off-road emission inventory (such as vehicle miles traveled (VMT), cold soak and hot start percentages, vehicle mix, and average vehicle speeds) will be taken from either the SCAQMD CEQA Air Quality Handbook (SCAQMD 1993) or will be generated in the various traffic studies prepared for the LAX Master Plan. The project team will seek concurrence from U.S. EPA and SCAQMD for any parameter values not included in EMFAC2000 or CEQA Handbook.

IV.3.5.2 Construction Equipment Exhaust Emissions

Construction equipment emissions will be quantified using the construction schedule and activity levels developed by the project engineering team, and correlated with equipment types from the Caterpillar Performance Handbook (Caterpillar 1993) and the National Construction Estimator (Kiley 1995). Construction equipment usage will be based on common practices for the types of construction to be undertaken. Emissions based on these activity levels will then be calculated using emission factors from the *Compilation of Air Pollutant Emission Factors* (AP-42), SCAQMD CEQA Air Quality Handbook and specific equipment manufacturer supplied data.

IV.3.5.3 Fugitive Dust Emissions

The category of fugitive dust incorporates all sources of dust production during construction. These fugitive dust sources include but are not limited to: grading and excavation, paved and unpaved road entrained dust, concrete plant operations, and demolition. Emissions from these sources will be quantified using emission factors from the *Compilation of Air Pollutant Emission Factors* (AP-42), SCAQMD CEQA Air Quality Handbook, and available documentation addressing fugitive dust.

IV.3.5.4 Construction Material Emissions

The emissions from construction materials, including but not limited to asphalt paving and striping and architectural coating operations, will be calculated using activity levels and emission factors from the project engineering team and assumptions provided in the *Compilation of Air Pollutant Emission Factors* (AP-42) and SCAQMD CEQA Air Quality Handbook.

IV.4 Stationary Sources

Emissions from stationary sources will be included in the EDMS emissions analysis. The general methods for estimating stationary source emissions are discussed in the following sections.

IV.4.1 Power / HVAC (Utility) Plants

Emissions from on-site power plants and heating facilities will be calculated using U.S. EPA and FAA accepted methodologies (U.S. EPA 1999a, U.S. FAA/USAF 1997a), assuming that natural gas is the primary fuel. Natural gas is the primary fuel for the existing Central Utility Plant (CUP) and SCAQMD BACT Guidelines (SCAQMD 1994b) require that natural gas be used on any new utility boilers and turbines to minimize PM₁₀ and SO₂ emissions. Emissions for individual sources can be calculated based on the source's fuel consumption and pollutant emission factors:

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$$C_i = \sum [F \times EI_i]$$

where: E_{Ti} = total emissions of pollutant i emitted from the source during the inventory period (grams).
 F = total amount of fuel consumed during the inventory period (million cubic meters of natural gas).
 EI_i = emission index for pollutant i (grams of pollutant per million cubic meters of fuel).

The emission index for each pollutant is based on the fuel type and boiler type, and any air pollution control equipment in operation at the source. In addition, the SO_2 emission index is affected by the fuel sulfur content and the PM emission index is affected by the fuel ash content. The emission index can be calculated as follows:

$$EI_i = UI_i \times (1 - CF / 100) \times FM_i$$

where: EI_i = emission index for pollutant i (grams of pollutant per million cubic meters of fuel).
 UI_i = uncontrolled emission index for pollutant i (grams of pollutant per million cubic meters of fuel).
 CF = air pollution control factor (%)
 FM_i = fuel modifier (fuel weight percent sulfur for SO_2 emission index and fuel weight percent ash for PM emission index).

Fuel consumption and air pollution control information will be based on the existing conditions survey and future year forecasts of fuel usage and SCAQMD control requirements. Utility plant fuel usage will be based on the ratio of existing fuel usage to existing terminal area (in square feet). This ratio will be applied to future scenarios. Emission factors will be obtained primarily from the *Compilation of Air Pollutant Emission Factors (AP-42)* or FIRE database, and controlled or permitted emission limits for these sources.

IV.4.2 Fuel Storage Tanks

Emissions from fuel storage tanks will be calculated using Version 4.06 of the U.S. EPA's TANKS emissions estimation program. Emission estimates for future scenarios will consider storage tank type (floating or fixed roof), fuel type, fuel throughput, and tank-specific characteristics (color, breather vent settings, etc.). The Project team will provide data used to represent the relocated off-site fuel farm. Climatic data contained in the TANKS database will be used to calculate evaporative emissions. Storage tank requirements in the SCAQMD Rules and Regulations and BACT Guidelines will be addressed in the emission estimates.

Fuel transfer losses will be accounted for using methods presented in AP-42 (U.S. EPA 1998a). These transfer losses primarily occur during the filling of aircraft and GSE.

IV.4.3 Surface Coating Facilities

Surface coating operations emit volatile hydrocarbons (VOC or HC) into the atmosphere through evaporation of the paint vehicle, thinner, or solvent used to facilitate the application and clean up of the coatings. Emissions of volatile hydrocarbons will be calculated using methods recommended in *Air Quality Procedures for Civilian Airports and Air Force Bases* (U.S. FAA/USAF 1997a), taking into account requirements in the SCAQMD Rules and Regulations and BACT Guidelines:

$$E_{VOC} = \sum [Q_i \times VOC_i \times (1 - CF / 100)]$$

where: E_{VOC} = total volatile organic compound emissions from painting operations (g)
 Q_i = total quantity of coating type i used in inventory period (kiloliters)
 VOC_i = VOC content for coating type i (g VOC/kiloliter)

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CF = air pollution control factor (%)

Information regarding the types and quantities of coatings used at on-site facilities, in addition to any air pollution control information, will be based on the existing conditions survey. VOC contents of coatings will be obtained from Material Safety Data Sheets (MSDS), or default values from *Air Quality Procedures for Civilian Airports and Air Force Bases* (U.S. FAA/USAF 1997a) will be substituted if the MSDS information is unavailable. The VOC limits specified in SCAQMD Rules and Regulations and BACT Guidelines will also be accounted for when developing these emission inventories.

IV.4.4 Solvent Degreasers

The use of organic solvents such as chlorinated hydrocarbons, petroleum distillates, ketones, and alcohol results in the evaporation of VOC or other hydrocarbons. SCAQMD rules limit the quantity of VOC emitted from degreasing operations. Emissions are based on the assumption that the total amount of solvent used will be either recaptured and disposed of as waste liquid, or released into the atmosphere as evaporated VOC. Emissions from solvent degreasing will be calculated using methods recommended in *Air Quality Procedures for Civilian Airports and Air Force Bases* (U.S. FAA/USAF 1997a):

$$E_{VOC} = D \times (QC + QD)$$

where: E_{VOC} = volatile organic compound emissions from the solvent degreasing unit (grams)
 QC = quantity of solvent consumed during a given time period (kiloliter)
 QD = quantity of solvent disposed of as liquid in a given time period (kiloliter)
 D = density of the solvent (g/kiloliter)

Quantities of solvent consumed and disposed will be estimated for each alternative based on data from the existing conditions survey, taking into account the size of areas to be used for maintenance activities. If water-based or other inorganic degreasers are used, evaporation of VOC or hydrocarbons will not occur. The VOC limits specified in SCAQMD Rules and Regulations and BACT Guidelines will also be accounted for when developing these emission inventories.

IV.4.5 Deicing / Anti-Icing Operations

Due to the Airport location in Southern California, and the mild winter climate that accompanies the area, deicing/anti-icing operations are minimal. Some deicing fluid is used on a small portion of aircraft arriving from the east coast that have over the wing fuel tanks. However, the emissions of volatile hydrocarbons from deicing/anti-icing fluid are minor and will not be estimated.

IV.4.6 Training Fires

Air pollutants from the burning of training fires include PM, CO, NO_x , SO_x , and VOC. The emissions depend on the type of fuel burned and the duration of the burn (quantity of fuel burned). Emissions from the burning of training fires will be calculated using methods recommended by the FAA (U.S. FAA/USAF 1997a). The training frequency and quantity of fuel burned will be obtained from the aircraft rescue and fire fighting department at LAX for existing conditions. This frequency and quantity will be used to estimate training fire impacts for the No Action/No Project Alternative only, in 2005 and 2015. Emissions from the burning of training fires can be calculated as follows:

$$E_{Ti} = QF \times EF_i$$

where: E_{Ti} = Total emissions of pollutant i from the training fire for the inventory period (g)
 QF = quantity of fuel burned in the fire (kiloliters)
 EF_i = emission factor for pollutant i (g/kiloliter)

The LAX Master Plan proposes that future training fire operations be located off-airport and outside of the SCAB. Therefore, no emissions from training fires will be assumed for Project Alternatives A, B, and C in 2005 or 2015.

IV.4.7 Area Sources

Several areas within the airport property line may be developed for non-airport related activities, such as general commercial or light industrial facilities. These areas include the collateral development locations, primarily on the north side of the airport, and any new acquisition areas not used for airport operations. Emissions from these areas will be estimated following methodology in the SCAQMD CEQA Handbook (SCAQMD 1993).

V. DISPERSION MODELING

V.1 Model Selection/Implementation

V.1.1 On-Airport Source Modeling

The on-airport pollutant emissions will be generated from both mobile and stationary sources. The on-airport dispersion analysis will be conducted using EDMS Version 3.11 (or later) from FAA and the Industrial Source Complex – Short Term (ISCST3), dated 9/15/5 (or later) from EPA (U.S. EPA 1999c, 1995).

EDMS is the FAA-required model for airport air quality analysis of aviation sources (63 FR 18068) and will be used to assess concentrations associated with the alternatives relative to the federal air quality standards. The EDMS model will be used to determine CO, NO₂, and SO₂ concentrations from aircraft engines, GSE, stationary sources, training fires, and ground access vehicles (on road and parking) as well as PM₁₀ concentrations from on-airport sources other than aircraft engines. EDMS does not include the ability to model aircraft engine PM₁₀ emissions or dispersion.

The ISCST3 model will be used to estimate PM₁₀ concentrations from aircraft engines. ISCST3 is a steady-state Gaussian dispersion model capable of estimating the short-term and annual concentrations from point, area or volume sources (U.S. EPA 1995b). ISCST3 is an EPA-preferred dispersion model (40 CFR 51, Appendix W) and is identified as an available model by the FAA (U.S. FAA/USAF 1997a).

The ISCST3 model may also be used to compare concentrations associated with various alternatives with the California Ambient Air Quality Standard for NO₂. The California NO₂ standard is the only NO₂ standard in the United States using a one-hour averaging period. Therefore, ISCST3 and monitored air quality data may be used to supplement the EDMS one-hour NO₂ analysis. However, this supplemental analysis will not be relied upon in the analyses required under NEPA and CEQA.

Modeling of CO air quality impacts at the lower level of the Central Terminal Area (arrival passenger pickup locations) has been identified as a potential issue. As a first level screening analysis, total vehicle emissions from the upper and lower levels will be modeled as if all emissions occur on the lower level without applying physical restrictions on dispersion due to the upper-level roadway. This approach will provide conservative impact estimates at the nearest receptors. If this screening analysis indicates substantial (i.e., significant) impacts occur from Central Terminal Area roadways, a more refined analysis may be developed and proposed. Appropriate model selection and inputs for the refined analysis may be coordinated with the SCAQMD and U.S. EPA.

V.1.1.1 EDMS Modeling Input and Assumptions

Aircraft

The Federal Aviation Administration requires the use of EDMS for all airport air quality analyses of aviation sources. A very detailed model, EDMS requires the user to input information regarding all air pollutant emissions sources typically found at an airport. These sources include aircraft, aircraft support equipment (GSE/APU), ground vehicular traffic, training fires, and other stationary sources.

Aircraft/Engine Combinations and LTOs:

As discussed in Section IV.3.1 and shown in Table V, an appropriate engine for each airframe will be included in the analysis. The engines will accurately represent those available for the fleet for each study year. Yearly landing and takeoff (LTO) operations for each aircraft type will be used and appropriate temporal distributions will be incorporated to reflect the hourly, daily, and monthly variations. It should be noted that the dispersion algorithms in EDMS Version 3.11 only treat the aircraft operational modes in the

departure stream (taxi/idle out, take off, and climbout), but not the operational modes in the arrival stream (approach and taxi/idle in).

Runway/taxiway/queue /gate locations:

Runway coordinates will be obtained from site layout drawings and input into EDMS. Since EDMS uses only a portion of the runway for takeoff based on aircraft speeds and takeoff time-in-mode, the full length of the runways will be input. Takeoff times are the EDMS default values and are shown in Table IV.

Taxiway segment coordinates will also be obtained from site drawings. Full taxiways will be subdivided to allow EDMS to accurately account for reasonable movement of aircraft from gates to runways. Using the segment length and assuming a constant aircraft taxi speed of 12 miles per hour, taxiway times will be calculated by dividing the taxiway segment length by the aircraft speed.

The coordinates defining the queue segments will be obtained from SIMMOD data and site drawings. The first queue endpoint will always coincide with the runway endpoint. Since EDMS allows only one linear segment to define a runway's queue, the second endpoint will usually be located on a nearby taxiway. The maximum length of the modeled queue segment will be calculated by assuming 225 feet per aircraft for the peak number of aircraft in queue for each runway. The SIMMOD data indicate that approximately 40 aircraft (maximum) can depart from the main departure runways (7L/25R and 6R/24L) each hour, which is equivalent to an average departure interval of 1.5 minutes per aircraft. Therefore, queue times will be calculated assuming 1.5 minutes per aircraft for the peak number of aircraft in queue for each runway. Temporal distributions are also allowed and will be developed to incorporate the hourly variability of the queue into the analyses.

The EDMS model allows each defined aircraft/engine combination to be assigned to one gate, one runway and three taxiways. The SIMMOD runs analyze over 200 gates and many more aircraft/gate/taxiway/runway combinations than can reasonably be accounted for in EDMS. Therefore, representative gate locations, taxiways and runways for each defined aircraft type will be selected based on providing each terminal with an appropriate number of aircraft operations developed from the SIMMOD data. The consolidation of all gates into a representative gate (or gates) at each terminal conservatively combines the GSE emissions for the dispersion analysis.

Aircraft Runway/Taxiway/Gate Assignments

In order to accurately incorporate the spatial variations of the emitting sources, the aircraft's path from the gate to the runway must be determined. Since takeoff runways are located on both the northern and southern sides of the airport, the EDMS option to assign a given aircraft/engine combination to multiple gate/taxiway/runway combinations will be utilized.

The gate and runway assignments for each aircraft type will be obtained from inspection of the SIMMOD results. The most common northern (24) and southern (25) runway will be identified for and assigned to each aircraft type. Since the majority of takeoffs occur from east to west on the innermost runways, runways 24L and 25R are expected to be the most commonly used runways for takeoffs. The terminal associated with the most common gate(s) will be assigned to the aircraft. Following assignment of the runway and gate for each aircraft type, up to three taxiways will be assigned to each aircraft type to create a travel path from the gate to the runway.

Aircraft Temporal Factors

Temporal factors are used in EDMS to determine the annual number of LTOs from peak hourly LTOs for each aircraft in the modeled fleet. Temporal factors are a set of load factors that, taken together, profile the activity of a given source over the course of an entire year on an hour-by-hour basis. A series of three temporal factors are used in EDMS for each source which gives the temporal variation in operations by (1) hour-of-the-day, (2) day-of-the-week, and (3) month-of-the-year. The hour-of-the-day temporal factors are specific for each source and alternative and are determined from the SIMMOD runs for aircraft. The day-of-the-week and month-of-the-year temporal factors are developed from actual operations in 1996, and are assumed to be the same for all aircraft and all alternatives. The day-of-the-week and month-of-the-year temporal factors are presented in Table VI.

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Table VI

Month-of-the-Year and Day-of-the-Week Temporal Factors Used in EDMS Aircraft Modeling

Month	Temporal Factor	Day	Temporal Factor
January	0.9	Monday	1.0
February	0.9	Tuesday	1.0
March	1.0	Wednesday	1.0
April	1.0	Thursday	1.0
May	1.0	Friday	1.0
June	1.0	Saturday	0.9
July	1.0	Sunday	0.9
August	1.0		
September	1.0		
October	1.0		
November	0.9		
December	0.9		

Engine Testing

Engine testing emissions will be modeled as stationary point sources in EDMS. The Project team and LAWA operations personnel will provide the engine test locations.

GSE and APUs

GSE associated with individual aircraft types are discussed in the calculation of aircraft-related emissions in Section IV.3.2. EDMS assumes emissions from aircraft-associated GSE emanate from a point located at the representative gate for each terminal at which the aircraft is assigned (see Section V.1.1.1, Aircraft). EDMS assumes an APU is located with its assigned aircraft.

On-Airport Vehicular Traffic

The On-Airport roadways are modeled as line sources in EDMS. Roadway locations will be determined from site drawings. In recognizing that the Central Terminal Area (CTA) has a second level roadway, all emissions from both levels will be modeled as emanating from the lower level. This assumption puts the CTA emission sources at approximately the same elevation as the receptors, providing a conservative (high) estimate of impacts in the CTA. Total emissions will be calculated as discussed in Section IV.3.3.

Parking lots are modeled as area sources in EDMS. The approximate parking lot dimensions and locations will be determined from site drawings. Emissions will be estimated as discussed in Section IV.3.4.

Training Fires and Other Stationary Sources

Training fires and other stationary sources are modeled as point sources in EDMS. In addition to training fires, these sources will include flight kitchens, aircraft maintenance operations (coating and degreasing), airport utility boilers and turbines.

V.1.1.2 ISCST3 Modeling Input and Assumptions

Aircraft

Aircraft are modeled as multiple volume sources (for PM₁₀) or point sources (for toxic air pollutants and supplemental one-hour NO₂ for comparison to state requirements), distributed in equal emission increments for each of the five engine modes (Taxi/Idle In, Taxi/Idle Out, Approach, Climbout, Takeoff) and each of three aircraft engine sizes. The three aircraft sizes are defined as Small, Medium and Large. The aircraft size cutoff points are based on both airframe and engine size, as shown in Table VII. When volume sources are used to model aircraft, the initial volume size will be based on the initial dispersion coefficients presented in the EDMS Reference Manual Supplement (U.S. FAA, 1998b). When point sources are used to model aircraft, buoyant plume rise of turbofan and turboprop engine exhaust will be taken into account. Plume rise is proportional to the heat released in the exhaust; therefore, grouping similar engine sizes more accurately estimates plume rise from various aircraft located around the airport than averaging all aircraft. Additionally, these grouped engine sizes and types (turbofan vs. turboprop)

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have different emission properties (lb emissions/lb fuel) which are more accurately modeled in the different size groups than averaged over all aircraft.

Table VII
Assigned Aircraft Size

Size	Aircraft	Engine Model No.	No. of Engines	Heat Rate ¹ per engine (MMBtu/hr)
Small	ATR42	PW121	2	12.86
	ATR72-200	PW124-B	2	14.25
	BAE145-300	ALF502R-5	4	34.00
	BH-1900	PT6A-65B	2	7.40
	Canadair RJ50	CF34-3A1	2	38.64
	Canair RJ70	CF34-3A1	2	38.64
	DASH-7	PT6A-50	4	7.84
	EMB110K01	PT6A-27	2	5.08
	EMB-120	PW118	2	11.29
	FOKKER 50	PW125-B	2	14.54
	GenAvJet	JT15D-1	2	14.05
	GenAvProp	PT6A-67B	1	8.34
	Jetstream 31	TPE31-3	2	5.49
	Saab 2000	AE2100A	2	21.64
	SF-340A	CT7-5	2	9.59
	SHORT 380	PT6A 65AR	2	8.41
	Swearingen Metro 2	TPE331-3	2	5.49
	A319	CFM56-5A1	2	99.78
Medium	A320	CFM56-5B4	2	110.70
	B727-200	JT8D-15	3	111.04
	B737-200	JT8D-5A	2	98.74
	B737-300/400/500	CFM56-3C	2	82.79
	B737 Cargo	JT8D-17A	2	111.36
	B757-200	PW2037	2	146.02
	DC9-50	JT8D-17	2	118.20
	F-28-400D	RR SNEY-MK555	2	69.78
	FOKKER 70	TAY620-15	2	72.15
	FOKKER 100-100	TAY 650-15	2	82.98
	MD-80	JT8D-217A	2	125.32
	MD-80-87	JT8D-217	2	125.32
	MD-90-10	V2525-D5	2	99.97
	MD-90-95	BR700-710A1-10	2	67.12
	A300B	CF6-50C	2	225.96
	A300-C4-200 Cargo	CF6-50C2	2	236.11
	A310 200	CF6-80C2A2	2	200.98
	A330	CF6-80E1A1	2	256.52
Large	A340-200	CFM56-5C2	4	124.18
	B747-200	JT9D-7R4G2	4	230.61
	B747-400/ComboX	PW4056	4	222.35
	B767	JT9D-7R4D	2	195.10
	B777	PW4084	2	323.84
	DC8-70	CFM56-2C5	4	93.51
	DC10-30	CF6-50C2	3	236.11
	IL-96	PS-90A	4	165.10
	L1011-500	RB211-524B4	3	209.81
	MD-11	PW4460	3	251.30

¹ Total Sensible Heat Exhaust Rate based on fuel flow at 100 percent of rated thrust, reduced by 35 percent to account for work produced in the engines.

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The number of volume or point sources to be used for each engine mode and each aircraft size is as follows:

	Idle			
Taxi	Queue	Approach	Climbout	Takeoff
60	1 to 25	5	5	15

The volume source height for all on-ground aircraft emissions is assumed to be one-half the initial volume vertical dimension. The point source stack height for all on-ground aircraft emissions is assumed to be 2 meters. The source height (volume or point) for the in-air portion of the takeoff and the approach and climbout emissions are determined using the beginning and end heights for each mode, the assumed velocity for each mode and the FAA specified/calculated time in mode.

For point sources, the plume rise will be calculated assuming that 65% of the fuel heat input is emitted in the exhaust. Aircraft manufacturers indicate that the engines use approximately 30% of the fuel heat input as thrust (CDM 1998); and we have assumed an additional 5% radiant and conductive heat loss inside and from the surface of the engine nacelle, respectively.

The plume rise for each aircraft size was calculated using the average heat exhausted from single engines on those aircraft. Based on a report prepared for the FAA (Yamartino et al. 1980), adjacent jet engines should not be combined for the determination of plume rise. Since jet engines have a horizontal exhaust orientation, the plume rise calculation was based on a heat balance to determine the heat flux and equivalent vertical exit velocity that would result. In order to determine the equivalent velocity, the diameter of the point sources used was based on an estimate of the wing span of the three general aircraft types: 60 meters, 40 meters and 15 meters for Large, Medium and Small aircraft, respectively. The temperature of the jet exhaust upon release was estimated to be 550°F (561°K) based on the average of exhaust temperatures observed by Music et. al (1977). The fuel use data was taken from the EDMS model, FAEED database (FAA 1995), and engine manufacturer's data (when EDMS and FAEED data was unavailable). It should be noted that revising the diameter and temperature assumptions have little effect on the modeled results as long as the heat input (i.e., thermal buoyancy flux) remains constant. The calculations used to determine the heat induced equivalent vertical exit velocity are as follows:

$$Q = E \times H \times 0.65/1,000,000$$

where: Q =exhaust heat rate, MMBtu/hr
 E =engine mode fuel consumption rate, lb/hr
 H =fuel heating value, Btu/lb (Jet A ~ 18,400 Btu/lb)
 0.65=heat input fraction in exhaust

$$F_b = 2.6 \times Q \text{ (Beychock 1994, Briggs 1975)}$$

where: F_b =thermal buoyancy flux, m^4/s^3
 Q =sensible heat emission rate, MMBtu/hr
 2.6=factor to convert Q (in MMBtu/hr) to F_b (m^4/s^3) for ambient air at 68°F.

$$V = F_b / [g \times r^2 \times (T_s - T_a) / T_a] \text{ (Beychock 1994, U.S. EPA 1995b)}$$

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where: V =equivalent vertical exit velocity, m/s
 F_b =thermal buoyancy flux, m^4/s^3
 g =gravitational constant, 9.807 m/s²
 r =source radius
 T_s =source temperature, 561 °K
 T_a =ambient temperature, 293 °K

The average equivalent vertical exit velocity for each aircraft size and each operation mode is calculated by determining the total buoyant flux for all engines divided by the total number of engine operations for each aircraft size. Therefore, the number of engines on each aircraft, while not combined to determine a total plume rise, are used to determine the average engine plume rise for each aircraft size category. The exhaust heat rate, buoyant flux, and equivalent vertical exit velocity for each aircraft/engine size group and each operational mode are presented in Table VIII. With the data in Table VIII, plume rise can be calculated using the standard plume rise formulas presented in the ISC3 User's Guide (U.S. EPA 1995b).

The location of each plume rise point during takeoff and climbout is shifted approximately 30 m down-axis from each jet engine exhaust point to account for the horizontal displacement of the plume caused by the horizontal jet plume momentum. The distance is based on a study by Brendmoen and Netzer (1979) that indicated plume rise did not begin until the plume was at least 30 jet diameters downstream of the exhaust. The diameter of a typical engine is assumed to be approximately 1 m.

The emissions used for each aircraft point source are based on the emissions calculated by the EDMS emission module, except PM₁₀. The annual emissions are sorted by aircraft type (i.e. Large, Medium, Small) and by engine mode, divided by the number of point sources used for each engine mode and converted from tons/year into annual average emissions in grams/second. The annual average emissions are then converted into maximum hourly emissions using temporal files calculated from the SIMMOD model data. Temporal files for takeoff, climbout, and approach are based on the actual time of departure/arrival data as appropriate for each aircraft type. The taxi temporal file is a combination of the departure and arrival temporal files. The queue temporal files are calculated, for each queue position, using the hourly number of each aircraft type that passes through each queue and the average hourly depth of queue that was determined through analysis of the SIMMOD model results. Monthly and daily temporal files are not used in the ISC airport modeling.

Table VIII

Plume Rise Parameters for Aircraft/Engine Size Categories			
Plume Rise Parameter	Aircraft/Engine Size Category for ISC3 Modeling		
	Small	Medium	Large
Exhaust Heat Rate (MMBtu/hr)¹			
Taxi/Idle	1.91 – 3.17	11.7 – 12.3	19.6 – 20.1
Approach	4.12 – 5.83	30.8 – 32.8	62.5 – 64.9
Climbout	8.00 – 11.3	88.1 – 97.6	173 – 184
Takeoff	9.04 – 13.0	107 – 118	213 – 228
Buoyant Flux Parameter (m^4/s^3)¹			
Taxi/Idle	4.97 – 8.24	30.3 – 31.9	51.0 – 52.3
Approach	10.7 – 15.2	80.1 – 85.2	163 – 189
Climbout	20.8 – 29.4	229 – 254	450 – 479
Takeoff	23.5 – 33.9	279 – 307	555 – 593
Equivalent Vertical Exit Velocity (m/s)¹			
Taxi/Idle	0.019 – 0.031	0.016 – 0.017	0.012
Approach	0.041 – 0.057	0.043 – 0.045	0.039 – 0.040
Climbout	0.08 – 0.11	0.12 – 0.14	0.11
Takeoff	0.09 – 0.13	0.15 – 0.16	0.13 – 0.14
Exit Temperature (°K)	561	561	561
Stack Diameter (m)	15	40	80

¹ Plume rise parameters given as ranges. Actual value depends on alternative and year being analyzed.

Engine Testing

Engine testing, like the other aircraft operations, are modeled as point sources. For all alternatives, engine testing is assumed to be performed with engine exhaust pointed towards blast gates. For the three build alternatives (A, B and C), ground run-up enclosures (GRE) are also constructed for engine maintenance and testing. The vertical exit velocity, for all alternatives, off of the blast gates has been conservatively estimated at 0.5 meters per second. The stack diameter is assumed to be 10 meters after deflection off of the blast gate. The "stack" temperature is assumed to be the same as other aircraft engine sources (561°K). The release height for dispersion is assumed to be the height of the blast gate (4 meters) for the No Action/No Project Alternative and the height of the GRE (12 meters) for the build alternatives.

GSE/APU

GSE emissions actually occur over a broad area of the airport. The emissions calculated for many of the units occur as the unit travels from a support facility to the gate being serviced. However, for simplification and conservatism, the emissions are grouped into area sources around separate gate areas. The GSE and APUs are assumed to operate near or on the aircraft while it is parked at a gate. The width of the GSE/APU source areas is 30 meters width, starting 5 meters from the edge of the terminal/structure and extending back towards the tail of the aircraft. The length of the source area is defined as the length of each specific gate area. Specific maximum hourly emissions and temporal curves are used for each of these gate areas through analysis of the SIMMOD arrival and departure data.

Stationary Sources

The stationary source emissions are forecast based on each airport configuration being analyzed and the source types found during the airport tenant surveys conducted in 1997. Conservatively, and for simplification of dispersion modeling, emissions are combined into a single source for each specific operation type (i.e. maintenance, flight kitchen, etc.) Typical stack dimensions and heights are used for the specific source types and are related to the assumed building height at each stationary source location.

On-Airport Vehicle Traffic

On-airport vehicle emissions from the CTA, western terminal and cargo area roadways are modeled as volume sources, as specified by the ISC3 User's Guide (U.S. EPA 1995) as acceptable for modeling line sources. The initial lateral dimension of the volume source is mixing zone of each roadway (width of the lanes plus 3 meter mixing zones on either side) divided by 2.15 as specified in the ISC3 users guide (U.S. EPA 1995). The initial vertical dimension is determined using the CALINE (Benson 1979) mixing height equation with an average wind speed of 3.3 meters per second (Gale Research 1985) as follows:

$$\sigma_{z1} = 1.8 + 0.11 \times TR$$

where: σ_{z1} = initial vertical dimension, m

TR = mixing height residence time, sec

and: $TR = W^2/U$

where: W = highway half-width (assumed to be 3 lanes or ~ 10 meters)

U = windspeed, m/s (average windspeed assumed to be 3.3 m/s)

Therefore: $\sigma_{z1} = 1.8 + 0.11 \times (10/3.3) = 2.1 \text{ m}$

The traffic maximum hourly emissions are based on the maximum traffic volume projections for each alternative. The emissions are calculated based on the defined fleet mix using EMFAC2000 (CARB 1999), and the estimated idle emissions are included in the emission estimates of the terminal areas. PM₁₀ emissions from road dust are added to the tailpipe PM₁₀ emission estimate. The emissions calculated for each defined roadway segment are divided evenly between the number of volume sources

that comprise that segment, and temporal files that have been calculated for the east and west terminal traffic are applied to each of the volume sources.

The emissions from parking structures are modeled as volume sources using the initial lateral and vertical dimension corrections provided by the ISC3 User's Guide (U.S. EPA 1995b). Each parking structure/area is broken up into squares or rectangles that define the specific area to be modeled by each volume source. Some of the parking areas are nearly square and can be modeled using one volume source, while complex shaped parking garages/areas are divided into several equivalent volume sources. The initial lateral dimension of each volume source is the side of the square area divided by 4.3; and the initial vertical dimension for multistory parking structures is the height of the parking garage divided by 2.15, as recommended by the ISC3 users guide (U.S. EPA 1995). The initial vertical dimension for ground level parking areas is the same as that used for the roadways (i.e. 2.1 meters).

The maximum hourly emissions for each parking area are calculated based on the estimated maximum parking projections and the emissions are calculated based on the project defined fleet mix and project defined average vehicle speed using EMFAC2000 (CARB 1999). The idle emissions for each parking area are included in the emission estimates. The emissions calculated for each parking structure/area are divided evenly between the number of volume sources that comprise that parking structure/area, and temporal files that have been calculated for the east and west terminal parking structures/areas are applied to each of the volume sources.

Temporal Files

Hourly temporal files will be input into the ISC3 model runs for all sources (except the CTA CUP and new terminal utility plant which are assumed to operate at maximum capacity 24 hours a day) as the best approximation for modeling the emissions which will occur at the airport. Most airport operations/emissions peak around noon or the early afternoon with other sub-peaks occurring during the morning, afternoon and evening hours. Between midnight and six a.m. there are very few aircraft operations and low overall emissions for associated activities (i.e. GSE, traffic, parking). Temporal files for aircraft and GSE activities are calculated using the SIMMOD model data for each project alternative/horizon year. The traffic consultants provided temporal files for roadways and parking for the west side and east side of the airport. Temporal files will be used to match emissions with the meteorological conditions that occur during each hour of the day.

V.1.2 Off-Airport Source Modeling

The off-airport emission sources will be motor vehicles. The modeling conducted for off-airport dispersion will be the local CO intersection analysis. The analysis will be conducted following the "Transportation Project-Level Carbon Monoxide Protocol, Revised December 1997" (CalTrans 1997) developed for the California Department of Transportation Environmental Program. If detailed analysis is required according to the protocol, the CAL3QHCR model will be used to model CO concentrations at street intersections due to vehicle traffic. CAL3QHCR is an EPA-recommended model for analyzing CO concentrations at intersections (40 CFR 51, Appendix W). The CAL3QHCR model uses annual meteorological data and one-week temporalized vehicle flow data, and provides 1-hr and 8-hr CO concentrations. The specific intersection and roadway links will be selected based on results of the off-airport transportation analyses being conducted by the project team.

V.1.3 Construction Source Modeling

Construction sources typically include construction equipment and motor vehicle engines as well as fugitive dust. The ISCST3 model will be used to estimate dispersion from construction emission sources. As previously indicated, the ISCST3 model is capable of analyzing various source types (U.S. EPA 1995) and is an EPA-preferred model (40 CFR 51, Appendix W). The FAA has indicated that ISCST3 is acceptable for modeling construction sources at the airport (U.S. FAA 1997c). Construction activities typically occur over a sizeable construction site; therefore, area sources will be used to model dispersion from construction activities.

V.2 Meteorological Data

One 12-month period of hourly meteorological data from LAX will be used for final dispersion modeling. The SCAQMD has indicated that upper air data (mixing heights) recently collected at LAX should be used in the dispersion models (SCAQMD 1998c). Therefore, the meteorological data file will consist of hourly surface and upper air data from the LAX meteorological observation stations for the 12-month period

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beginning March 1, 1996 and ending February 28, 1997 (SCAQMD 1998d). The surface data set consists of hourly values of wind speed, wind direction, surface air temperature, and atmospheric stability. The upper air data consists of hourly mixing heights. This data set represents the most recent set of complete (surface and upper air) data collected at LAX.

V.3 Urban/Rural Land Use Determination

Appendix W of 40 CFR Part 51, Section 8.2.8 provides guidance on the selection of urban or rural dispersion coefficients to be used in dispersion modeling. The land use character of an area is determined based on a categorical classification scheme proposed by Auer (1978). Descriptions of each land use classification are presented in Table IX. If land use types I1, I2, C1, R2, and R3 account for 50% or more of the area circumscribed by a 3 km radius circle about the source, then urban dispersion coefficients (Briggs-McElroy-Pooler curves) should be used. Otherwise, rural dispersion coefficients (Pasquill-Gifford curves) should be used. Inspection of a 3 km area surrounding LAX indicates that the local land use is predominantly compact residential/commercial. Therefore, urban dispersion coefficients will be used in the air dispersion modeling analysis.

V.4 Receptors

Pollutant concentrations produced from airport sources will be predicted at sufficient publicly accessible receptor locations to identify the maximum ambient air quality impacts from the airport sources. Up to 300 receptors will be used in each initial EDMS dispersion modeling scenario and approximately 1000 receptors will be used in each ISCST3 modeling scenario. Receptors will be located along the property line defined for each Alternative, and spaced a maximum of 300 meters from the next property line receptor. An overlaying receptor grid (with receptors spaced no further than 500 meters apart in EDMS and 250 meters apart in ISCST3) will also be included in each modeling scenario. The grid will be contoured approximately on the Theme Building and extend 4.5 km to both the east and west and 5 km to both the north and south. Grid receptors falling within the property line but not in areas accessible to the public will be removed from the analyses. The height of all receptors will be 1.8 m (EDMS default), the approximate breathing height of persons standing on the ground. The receptor locations will be submitted to the SCAQMD, U.S. FAA and U.S. EPA prior to completing the air quality impact analysis.

Receptors will also be placed at locations sensitive to the public interest. These locations include schools, hospitals, nursing homes, and day-care facilities. Pollutant concentrations will be predicted at all sensitive locations within a radius of at least 3 km from the LAX Theme Building.

A discrete receptor will also be placed at the SCAQMD Hawthorne Monitoring Station, for comparison to existing ambient air pollutant concentrations. Discrete receptors will also be placed at the Tlor 1 roadway intersections modeled with CAL3QHCR and at the project air quality monitoring station east of Runway 25R.

Since the area around the airport is without significant topographical features (e.g., hills higher than airport-related plumes, or large pits such as surface mines or quarries), receptor terrain elevations will not be considered.

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Table IX

Auer Land Use Classification Scheme

Type	Use and Structures	Description	Vegetation
I1	Heavy Industrial Major chemical, steel, and fabrication industries; general 3-5 story buildings, flat roofs		Grass and tree growth extremely rare; < 5% vegetation
I2	Light-Moderate Industrial Rail yards, truck depots, warehouses, industrial parks, minor fabrications; generally 1-3 story buildings, flat roofs		Very limited grass, trees almost total absent; < 5% vegetation
C1	Commercial Office and apartment buildings, hotels; >10 story heights, flat roofs		Limited grass and trees; <15% vegetation
R1	Common Residential Single family dwelling with normal easements; generally one story, pitched roof structures; frequent driveways		Abundant grass lawns and light moderately wooded; >70% vegetation
R2	Compact Residential Single, some multiple, family dwelling with close spacing; generally < 2 story, pitched roof structures; garages via alley, no driveways		Limited lawn sizes and shade trees; <30% vegetation
R3	Compact Residential Old multi-family dwellings with close (<2 m) lateral separation; generally 2 story, flat roof structures; garages (via alley) and asphalt, no driveways		Limited lawn sizes, old established shade trees; <35% vegetation
R4	Estate Residential Expansive family dwelling on multi-acre tracts		Abundant grass lawns and lightly wooded; >80% vegetation
A1	Metropolitan Natural Major municipal, state, or federal parks, golf courses, cemeteries, campuses; occasional single story structures		Nearly total grass and lightly wooded; >95% vegetation
A2	Agricultural Rural		Local crops (e.g., corn, soybean); >85% vegetation
A3	Undeveloped Uncultivated, wasteland		Mostly wild grasses and weeds, lightly wooded; >90% vegetation
A4	Undeveloped Rural		Heavily wooded; >95% vegetation
A5	Water Surfaces Rivers, lakes		

Source: Auer 1978.

V.5 Building Downwash and Cavity Effects

Aircraft operations occurring on the runways and taxiways are expected to be the main contributor to NO_x and CO emissions. These sources are far enough from airport structures to avoid being influenced by building downwash. Downwash occurs when the exhaust plume from an emission source is trapped in the recirculation (eddy) zone on the leeward side of a building or structure. Since the impacts from other emission sources are expected to be located well within the airport boundaries, any aerodynamic effects on stack emissions due to nearby structures would be insignificant at publicly accessible receptor locations. Therefore, analyses of building downwash and cavity impacts will not be performed. Note that EDMS does not include algorithms to address building downwash.

V.6 Integrating Results

Since various dispersion models (EDMS, ISC3 and CAL3QHCR) will be used for differing sources (on-airport, off-airport and construction), results from parallel dispersion modeling of various sources must be integrated to obtain cumulative impacts in the vicinity of the project. The maximum predicted screening concentration from each roadway segment will be added to the maximum of the sum of the predicted concentrations of all other sources to obtain a conservative estimate of total concentrations.

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EDMS raw results will be post processed to handle calm (wind speed less than 1 m/s) meteorological periods and generate block average from running average concentrations using the U.S. EPA model CALMPRO (U.S. EPA 1984). The final CALMPRO results will be used to demonstrate compliance with air quality standards and regulations. The ISCST3 model already includes the CALMPRO algorithms and U.S. EPA calculation methods for multiple-hour averaging.

The estimate of annual NO₂ concentrations will incorporate the Tier 2 Ambient Ratio Method (ARM) recommended by U.S. EPA (40 CFR 51, Appendix W) for correcting total NO_x to NO₂ values. The annual average NO₂ to NO_x ratio near LAX is approximately 0.42, based on SCAQMD analysis of three recent years (1994-1996) of data (Chico et al. 1998). A review of the available, local emissions and concentration data will be conducted with the SCAQMD to determine if a Tier 2 ARM analysis can be applied to the 1-hour NO₂ impact assessment.

If (after addition of background pollutant concentrations) the NAAQS or CAAQS are shown to be exceeded using this conservative procedure, and it is determined that the roadways are a significant contributor, further modeling of the roadway sources will be performed using meteorological data consistent with the hour of predicted maximum concentration from the other sources. The new roadway concentration will then be added to the cumulative impact of all other sources and the new sum will again be compared to NAAQS and CAAQS.

V.7 Mitigation Measures

In the event that reductions in estimated emission impacts are necessary for project alternatives, applicable mitigation measures will be identified, and mitigated emission rates and concentrations will be calculated.

VI DESCRIPTION OF FINAL REPORT CONTENTS

The final Technical Appendix and Supplementary Reference Volume to the EIS/EIR will contain detailed emission source descriptions of the No Action/No Project and all project alternative scenarios. Predicted concentrations from each modeled alternative and horizon year will be provided for comparison to California and National Ambient Air Quality Standards.

Attachments to the EIS/EIR Technical Appendices will be provided to show detailed information regarding all emission calculations. Detailed aircraft data, including operational data, engine assignment data, engine emission factors, and GSE/APU assignments will be presented. A detailed stationary source inventory will be provided, including information utilized in the emissions calculations and dispersion calculations. Information concerning roadway vehicle assumptions will also be provided.

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Attachment C

Air Quality Baseline Inventory

LAX Master Plan EIS/EIR

Air Quality Baseline Inventory

March 6, 1998

Prepared for:
Los Angeles World Airports

Prepared by:
Camp Dresser & McKee Inc./Planning Consultants Research

Draft - Version 1

AIR QUALITY BASELINE INVENTORY

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Attachments

- I CD-ROM: "LAX Master Plan EIS/EIR Baseline Emission Inventory"
- II Tenant Survey Forms

AIR QUALITY BASELINE INVENTORY

1. Background

This Technical Memorandum has been developed in support of the preparation of the Environmental Impact Statement (EIS)/Environmental Impact Report (EIR) for the Los Angeles International Airport (LAX) Master Plan Project. This technical memorandum documents the inventory of emission sources for existing conditions in 1996, and describes the methodology and models used to develop the emission inventory for existing conditions. A baseline conditions technical memorandum for 1994 was prepared by Camp Dresser & McKee Inc. (CDM)/Planning Consultants Research (PCR) for the year 1994 in 1995. This technical memorandum supersedes and replaces the 1995 document.

The complete baseline inventory is contained in a series of Excel ® workbooks found in the attached CD-ROM (Attachment I).

AIR QUALITY BASELINE INVENTORY

2. Inventory of Existing Facilities and Emissions

This section describes the inventory of facilities and emissions existing as of 1996 on airport at LAX.

2.1 SOURCES OF DATA

To develop the facilities and emissions inventories, the CDM/PCR team reviewed available data for LAX and collected additional data through tenant surveys. The primary references for the data used to prepare this Technical Memorandum are presented in Section 2.1.1. A discussion of the airport tenant survey is presented in Section 2.1.2.

2.1.1 PRIMARY REFERENCES

Three primary references were used to develop the inventories included with this Technical Memorandum. These are listed below.

- Information pertaining to the number and type of aircraft operations for 1996 at LAX was supplied by Landrum & Brown (Landrum & Brown 1998). These data were also used with the corresponding default settings for ground support equipment (GSE) and auxiliary power units (APUs) in the Federal Aviation Administration (FAA) Emission and Dispersion Modeling System (EDMS, Version 3.02) to estimate the number and type of GSE and APUs used during 1996 at LAX.
- Information pertaining to the number and type of on-road mobile vehicle operations and on-airport parking lot/garage operations for 1996 at LAX was obtained from "On-Airport Existing Transportation Conditions Technical Memorandum-January 1996" prepared by Leigh Fisher Associates (LADOA 1996).
- The number, type, throughputs, locations, and other data for stationary source facilities in 1996 at LAX was obtained from a tenant survey conducted by the CDM/PCR team between September 1997 and January 1998.

2.1.2 LAX TENANT SURVEY

The purpose of the tenant survey was to document all stationary air emission sources at LAX, with the exception of sources on the airfield and the fire training facility. The results of the survey were used to prepare inventories of LAX facilities and associated emissions. The survey was used to collect data on physical source parameters, types and amounts of throughputs for the most recent complete year (1996), emission control techniques in use, plans for future changes at the facility, and other pertinent information.

Data were collected by a number of means, including completing standardized questionnaires, conducting personal interviews, and performing on-site record reviews. Questionnaire forms were developed based on the types of data needed for the following categories of sources: fuel combustion; surface coating; fuel storage; miscellaneous sources; and insignificant sources. Examples of the questionnaire forms used are located in Attachment II.

Tenants were identified using the most recent tenant directory for LAX. The CDM/PCR team obtained permission from the Los Angeles World Airports (LAWA) to contact its tenants and conduct this survey. The team then made initial contacts with tenants by telephone to schedule site visits and begin the data collection effort.

The site visits enabled the team members to gather data first hand by visual inspection, verbal discussion, and review of on-site records, where permitted. The interviewers took no physical measurements of equipment or emissions, but relied on information provided by the tenant contacts. Visual inspection of equipment was only used to confirm the information provided. In cases where the tenant contact allowed the interviewer to review on-site records, the following types of records were sought: air quality permits; annual emission statements; material safety data sheets; activity or usage logs; and any other data pertinent to developing emission inventories. In cases where the on-site contact at the tenant's office did not have access to the data requested, the request was forwarded to the responsible person in the tenant's organization. Follow-up data collection was then conducted by telephone or written correspondence.

2.2 EXISTING FACILITIES

This baseline analysis evaluated both stationary emission sources (such as boilers, emergency generators) and mobile emission sources (such as aircraft, on-road vehicles) associated with airport operations. The following discussion identifies the categories and types of sources inventoried for this Technical Memorandum. The actual listing of specific facilities is included in Attachment I (CD-ROM). The summary of facilities is organized on this list alphabetically by owner/tenant name.

2.2.1 FUEL COMBUSTION SOURCES

Fuel combustion sources represent the largest collection of emission sources in this inventory. The following discussion will address direct sources, those located within the property boundaries of LAX; and indirect sources, those located outside the property boundaries. Fuel combustion sources generate both criteria pollutants (such as oxides of nitrogen, carbon monoxide, particulate matter) as well as toxic air pollutants (such as metals, polynuclear aromatic hydrocarbons (PAHs)).

Direct sources consist of mobile sources and stationary sources. Mobile sources include aircraft engines, on-board auxiliary power units (APU), associated ground service equipment (GSE), and ground access vehicles (GAV). Total aircraft operations for 1996 by aircraft type and most common engine configuration were provided by Landrum & Brown (Landrum & Brown 1998). The CDM/PCR team used the EDMS model to identify typical APU and GSE associated with each aircraft/engine combination listed in the inventory.

Direct GAV consist of the various types of vehicles, such as private automobiles, light-duty trucks, heavy-duty trucks, courtesy vans, shuttle buses, and city buses that may be found on the roadways and in the parking lots and garages at LAX. The inventory of GAV was derived from work performed by Leigh Fisher Associates for the Master Plan (LADOA 1996).

Direct stationary fuel combustion sources include external combustion equipment, internal combustion equipment, and open burning. External combustion sources consist primarily of fired heaters and boilers as well as cooking facilities (such as in-flight catering kitchens). The external combustion equipment is generally located in the LAX terminals and maintenance buildings. Internal combustion equipment consist primarily of gasoline, Jet A and/or diesel fueled internal combustion engine drivers for emergency generators, ground power units, air start units, fire pumps, as well as combustion turbines for air start units and power generators. The internal combustion engines are located throughout the airport. Open burning is periodically conducted at the fire training facility, located in the southwestern corner of LAX property.

Indirect sources consist of mobile sources and stationary sources. These mobile sources include primarily regional traffic associated with GAV travelling to or from LAX. The stationary sources include utilities providing electricity to facilities at LAX. Since the electric power production can occur almost anywhere in North America and be transmitted to the South Coast Air Basin, power plant emissions were not included in the LAX local emission inventory.

2.2.2 SOLVENT USAGE SOURCES

Solvent usage at LAX generally consists of activities involved with surface coating (such as spray painting) and degreasing. These activities result in the release of volatile organic compounds (VOCs) and certain toxic air pollutants. The VOCs are released when the coatings are applied and the solvents and thinners evaporate. VOCs may also be released from the clean up of coating equipment. Surface coating activities accounted for in this inventory are primarily associated with aircraft maintenance work at LAX. The inventory does not account for any architectural coating applications at LAX.

Degreasing activities are also primarily associated with maintenance work at LAX. Degreasing fluids may evaporate during use or storage, and spent degreasing fluids are generally collected and disposed of at a properly licensed treatment, storage and disposal (TSD) facility. Since several tenants at LAX were using trichloroethylene (TCE) as a component in degreasing fluids, TCE is included in the 1996 emission inventory. However, these tenants have indicated that use of this particular chemical will cease in the future.

2.2.3 ORGANIC LIQUID STORAGE AND TRANSFER SOURCES

Large quantities of organic liquids—primarily fuels—are stored and handled at LAX. Emissions associated with tank filling and emptying (working losses), with changes in ambient temperature/pressure (breathing losses) at each storage tank, and with equipment fueling (fugitive losses) contribute volatile organic

compounds and volatile toxic air pollutants to the air.

By volume, the main organic liquid handled at LAX is Jet A fuel. Storage facilities consist of very large above ground tanks and numerous smaller above ground and underground tanks. These tanks are filled either by underground pipeline or by tanker truck. Fueling of aircraft from these tanks is either by transfer through underground pipeline to the pit hydrant system or by tanker truck. Jet A is often used at LAX as a replacement for diesel to fuel GSE. Fueling of GSE is generally by tanker truck.

Gasoline is also stored and handled at LAX. Storage facilities consist of numerous smaller above ground and underground tanks. These tanks are typically filled by tanker truck. Fueling of on- and off-road vehicles, including GSE, by gasoline is generally accomplished by permanent fuel dispensing stations.

Aviation gasoline is also stored and handled at LAX. Storage facilities consist of a single above ground tank. This tank is filled by tanker truck. Aviation gasoline is used by piston driven general aviation aircraft at LAX. Fueling of piston driven aircraft is generally by tanker truck.

2.2.4 MISCELLANEOUS SOURCES

The primary miscellaneous sources of emissions accounted for in this inventory include re-entrainment of particulate matter (fugitive dust), including metals and PAHs, from roadways by GAV and from runways and taxiways by aircraft. Fugitive dust is considered a secondary emission source since this dust has settled onto LAX surfaces from other sources (such as fuel combustion sources, wind-blown dust) and is being resuspended in the air by the mechanical action of the vehicle tires moving across the surface.

2.3 EXISTING EMISSIONS

The pollutants of concern at LAX include criteria pollutants and toxic air pollutants. Criteria pollutants are designated by the U. S. Environmental Protection Agency (U.S. EPA) and include: particulate matter with an aerodynamic diameter less than 10 micrometers (PM_{10}), particulate matter with an aerodynamic diameter less than 2.5 micrometers ($PM_{2.5}$), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), lead, and ozone. Because ozone is a secondary pollutant and is generally not emitted directly into the air, it is not included in this emissions inventory. Because few emission factors exist for $PM_{2.5}$ and this pollutant is partially a secondary pollutant, it is not included in this inventory. Toxic air pollutants identified for this emissions inventory are based on lists of pollutants in: (1) California AB 1807; (2) California AB 2568; (3) SCAQMD Rule 1401; (4) SCAQMD Rule 1402; and (5) federal Clean Air Act Section 112. These pollutants include a variety of volatile and semi-volatile organic compounds, inorganic compounds, and metals. Only toxic air pollutants with verified emission factors for the source types found at LAX are included in this emissions inventory.

2.3.1 CRITERIA POLLUTANTS

A variety of reference materials was used to calculate criteria pollutant emissions from the various project sources. These references include, but are not limited to:

- FAA Aircraft Engine Emissions Database (FAEED), Version 2.1 (U.S. FAA 1995)
- Air Quality Procedures for Civilian Airports and Air Force Bases (U.S. FAA/USAF 1997a)
- Emissions and Dispersion Modeling System (EDMS) Version 3.02 (U.S. FAA/USAF 1997b)
- Procedures for Emission Inventory Preparation, Volume IV: Mobile Sources (U.S. EPA 1992a)
- Compilation of Air Pollutant Emission Factors (AP-42) (U.S. EPA 1997a)
- Mobile Vehicle Emission Inventory model (MVEI7G) (CARB 1996a-f)
- Air Pollution Mitigation Measures for Airports and Associated Activity (CARB 1994)
- CEQA Air Quality Handbook (SCAQMD 1993)
- SCAQMD Annual Emission Reports provided by several LAX tenants.

The methodology used to estimate criteria pollutant emissions is presented in the "LAX Master Plan EIS/EIR Air Quality Modeling Protocol for Criteria Pollutants" (LAWA 1998a). This methodology was used when tenants provided only operational data without actual or estimated emissions values.

2.3.2 TOXIC AIR POLLUTANTS

A variety of reference materials, primarily from California and U.S. regulatory agencies, were used to calculate toxic air pollutant emissions from the various project sources. Most of the organic toxic air pollutant

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emission estimates are based on the volatile organic compound (VOC) emissions. In addition, certain heavy metal, inorganic, and semi-volatile organic compound (SVOC) toxic emission estimates are based on particulate matter emissions. Therefore, references for VOC and particulate matter as well as toxic air pollutant emission factors were consulted. These references include, but are not limited to:

- ♦ California Air Toxics Emission Factors (CATEF) Database (CARB)
- ♦ Factor Information Retrieval (FIRE) System Database (U.S. EPA 1993a)
- ♦ VOC/PM Speciation Data System (SPECIATE) Database (U.S. EPA 1993b)
- ♦ Crosswalk/Air Toxic Emission Factor (XATEF) Database (U.S. EPA 1992b)
- ♦ U.S. EPA Memorandum, Re: Source Identification and Base Year 1990 Emission Inventory Guidance for Mobile Source HAPs on the OAQPS List of 40 Priority HAPs (U.S. EPA 1997c)
- ♦ Motor Vehicle-Related Air Toxics Study, U.S. EPA (U.S. EPA 1993c)
- ♦ FAA Aircraft Engine Emissions Database (FAEED), Ver 2.1 (U.S. FAA 1995, ICAO 1995)
- ♦ Air Quality Procedures for Civilian Airports and Air Force Bases (U.S. FAA/USAF 1997a)
- ♦ Emissions and Dispersion Modeling System (EDMS), Version 3.02 (U.S. FAA/USAF 1997b)
- ♦ Compilation of Air Pollutant Emission Factors (AP-42) (U.S. EPA 1997a)
- ♦ EMFAC7G motor vehicle emission factor model (CARB 1996b)
- ♦ Air Pollution Mitigation Measures for Airports and Associated Activity (CARB 1994)
- ♦ CEQA Air Quality Handbook (SCAQMD 1993)
- ♦ SCAQMD Annual Emission Reports provided by several LAX tenants.

The methodology used to estimate criteria pollutant emissions is presented in the "LAX Master Plan EIS/EIR Air Quality Modeling Protocol for Toxic Air Pollutants" (LAWA 1998b).

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3. References

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Attachment I

CD-ROM: "LAX Master Plan EIS/EIR Baseline Emission Inventory"

1996 Air Pollutant Emissions, lbs/year (revised 6/1/00)

Source Category	CO	THC	VOC	NOx	SO2	PM10
Aircraft:						
Comm. Jet (TF)						101,226
Taxi/Idle	8,798,738	1,660,896	1,818,183	1,283,266	174,308	
Takeoff	57,604	19,318	21,147	2,598,990	45,468	
Climbout	82,856	27,632	30,249	2,704,714	80,090	
Approach	253,630	40,882	44,754	791,334	44,816	
Eng. Testing	107,023	45,670	50,001	236,823	5	
AT/GA Turbine (TP)						
Aircraft	498,886	322,480	342,828	64,808	6,916	
AT/GA Piston (P)			0			
Aircraft Total, lbs/yr	9,798,749	2,118,864	2,307,162	7,679,935	331,603	101,226
Aircraft Total, tpy	4,869	1,058	1,154	3,840	166	51
GSE						
Diesel	8,068,661	285,159	285,159	164,458	7,244	1,470
Gasoline	972,669	71,025	71,025	491,111	8,931	23,846
LPG	2,382,726	39,379	39,379	118,136		
APU	155,105	7,731	7,731	67,949		
GSE/APU Total, lbs/yr	11,559,161	404,294	404,294	841,852	16,175	25,316
GSE/APU Total, tpy	5,780	202	202	421	8	13
Stationary Total lbs/yr	478,417	238,703	236,703	959,672	14,254	107,258
Stationary Total, tpy	239	118	118	480	7	54
Motor Vehicle, On Airport						
Diesel	87,607	31,714	31,714	336,609	892	33,234
Gasoline	11,254,318	1,158,081	1,158,081	532,294	2,854	11,754
MV, On Airport Total, lbs/yr	11,342,016	1,189,795	1,189,795	868,904	3,846	44,988
MV, On Airport Total, tpy	5,671	596	596	434	2	22
Motor Vehicle, Off Airport						
Running Exhaust	6,255,048	437,822	396,470	1,410,747	54,641	64,466
Start Exhaust	988,924	53,738	48,682	44,768		
Evaporation		1,643,167	1,487,971			
MV, Off Airport Total, lbs/yr	7,253,973	2,134,727	1,933,104	1,455,515	54,641	64,466
MV, Off Airport Total, tpy	3,627	1,067	967	728	27	32
Fugitive Dust						
Runways						1,240
Roadways, On-Airport						37,674
Roadways, Off-Airport						
Fugitive Dust, Total lbs/yr						38,914
Fugitive Dust, Total tpy						19
Total Operating, lbs/yr	40,432,314	8,082,402	6,071,058	11,805,678	420,517	382,167
Total Operating, tpy	20,216	3,041	3,036	5,903	210	191

*The original baseline numbers are taken from the Air Quality Baseline Inventory prepared on March 6, 1988.

**PM10 aircraft numbers were recalculated using the 1996 OPS data and particulate emissions from aircraft engines.

*The GSE and APU numbers were recalculated using the 2005 GSE aircraft assignments and the fuel mix in the Calstar April 1999 Baseline numbers.

*The On Airport Traffic numbers were revised, incorporating the EMFAC 2000 model output, improved calculation methods and updated data.

*The fugitive dust emissions were updated using spreadsheet calculations for roadway and runway fugitive dust.

1996 Air Pollutant Emissions, lbs/year																						
Source Category	CO	THC	VOC	NOx	SO ₂	PM ₁₀	Acetaldehyde	Acrolein	Benzene	1,3-Butadiene	Formaldehyde	Hexane	Propylene	Propylene oxide	Styrene	Toluene	Xylene, m- or p-	Xylene, o-	Xylene (total)	Acenaphthene	Acenaphthylene	Anthracene
Aircraft:																						
Comm. Jet (TF)						414,188	1.02E+05	4.97E+04	4.26E+04	3.95E+04	3.29E+05	0.00E+00	1.12E+05	0.00E+00	8.64E+03	1.13E+04	6.30E+03	4.13E+03	1.04E+04			
APU	543,324	26,914	26,394	202,680	0		2.01E+02	3.06E+02	7.92E+02	4.22E+02	7.52E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.71E-02
Taxi/Idle	8,798,738	1,660,896	1,818,183	1,283,266	174,308															0.00E+00	0.00E+00	7.27E-01
Takeoff	57,604	19,318	21,147	2,598,990	45,468															0.00E+00	0.00E+00	3.09E-02
Climbout	82,858	27,632	30,249	2,704,714	60,090															0.00E+00	0.00E+00	4.42E-02
Approach	253,630	40,882	44,754	791,334	44,816															0.00E+00	0.00E+00	4.89E-02
Eng. Testing	107,023	45,676	50,001	236,823	5															0.00E+00	0.00E+00	5.52E-02
AT/GA Turbine (TP)						88,479																
APU	6,082	594	583	29,968	0		4.43E+00	6.76E+00	1.75E+01	9.32E+00	1.66E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.18E-04
Aircraft	498,896	322,480	342,828	64,808	6,916		1.68E+04	8.02E+03	6.96E+03	6.11E+03	5.50E+04	0.00E+00	0.00E+00	0.00E+00	1.44E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.83E-01
AT/GA Piston (P)			0				0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Aircraft Total, lbs/yr	10,348,155	2,144,392	2,334,139	7,912,583	331,603	502,667	1.19E+05	5.80E+04	5.03E+04	4.60E+04	3.85E+05	0.00E+00	1.12E+05	0.00E+00	1.01E+04	1.13E+04	6.30E+03	4.13E+03	1.04E+04	0.00E+00	0.00E+00	1.13E+00
Aircraft Total, tpy	5,174	1,072	1,167	3,956	166	251	5.95E+01	2.90E+01	2.52E+01	2.30E+01	1.93E+02	0.00E+00	5.59E+01	0.00E+00	5.04E+00	5.65E+00	3.15E+00	2.06E+00	5.21E+00	0.00E+00	0.00E+00	5.64E-04
GSE																						
Diesel	297,470	94,766	92,935	686,586	22,124	32,256	1.45E+01	4.46E+00	8.05E+02	1.49E+03	2.11E+02	0.00E+00	1.42E+03	0.00E+00	0.00E+00	2.55E+02	0.00E+00	0.00E+00	8.74E+01	2.80E+00	4.25E+00	9.30E-01
Gasoline	8,411,268	148,866	134,806	117,660	3,006	4,982	2.97E+02	9.44E+01	6.71E+03	1.08E+03	1.38E+03	0.00E+00	0.00E+00	0.00E+00	4.04E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.59E-02
LPG																						
CNG/LNG																						
GSE Total, lbs/yr	8,708,738	243,632	2.28E+05	804,246	25,130	37,238	3.11E+02	9.88E+01	7.52E+03	2.57E+03	1.59E+03	0.00E+00	1.42E+03	0.00E+00	4.04E+01	2.55E+02	0.00E+00	0.00E+00	8.74E+01	2.80E+00	4.25E+00	9.56E-01
GSE Total, tpy	4,354	122	114	402	13	19	1.56E-01	4.94E-02	3.76E+00	1.28E+00	7.93E-01	0.00E+00	7.11E-01	0.00E+00	2.02E-02	1.28E-01	0.00E+00	0.00E+00	4.37E-02	1.40E-03	2.12E-03	4.78E-04
Stationary Total lbs/yr	478,417	236,703	236,703	817,056	14,254	107,258	1.06E+02	2.76E+01	7.00E+02	3.70E+01	4.45E+02	2.12E+02	1.59E+03	3.92E+01	1.67E+01	8.77E+02			7.42E+02	1.43E+00	1.40E+01	1.15E+00
Stationary Total, tpy	239	118	118	409	7	54	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
Motor Vehicle, On Airport																						
Diesel					612																	
Running Exhaust	4,170	2,778	2,724	19,086		652	2.07E+01	3.16E+01	8.17E+01	4.36E+01	7.76E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.83E-03
Start Exhaust	1,714	196	193	164			1.46E+00	2.23E+00	5.78E+00	3.08E+00	5.49E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.71E-04
Gasoline					730								2.27E+03									
Running Exhaust	920,692	103,596	93,812	83,654		1,853	5.18E+02	6.57E+01	4.25E+03	5.18E+02	1.14E+03	0.00E+00	2.27E+03	0.00E+00	3.85E+02	1.08E+04	0.00E+00	0.00E+00	6.07E+03	0.00E+00	0.00E+00	3.04E-03
Start Exhaust	498,483	77,806	70,458	24,964			3.89E+02	4.93E+01	3.19E+03	3.89E+02	8.56E+02	0.00E+00	1.70E+03	0.00E+00	2.89E+02	8.09E+03	0.00E+00	0.00E+00	4.56E+03	0.00E+00	0.00E+00	2.28E-03
Evaporation		76,521	69,293				0.00E+00	0.00E+00	5.34E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.57E+02	0.00E+00	0.00E+00	1.04E+02	0.00E+00	0.00E+00	0.00E+00
MV, On Airport Total, lb/yr	1,425,060	260,898	236,480	127,889	1,342	2,506	9.29E+02	1.49E+02	8.06E+03	9.54E+02	2.08E+03	0.00E+00	6.24E+03	0.00E+00	6.74E+02	1.93E+04	0.00E+00	0.00E+00	1.07E+04	0.00E+00	0.00E+00	9.42E-03
MV, On Airport Total, tpy	713	130	118	64	1	1	4.65E-01	7.44E-02	4.03E+00	4.77E-01	1.04E+00	0.00E+00	3.12E+00	0.00E+00	3.37E-01	9.66E+00	0.00E+00	0.00E+00	5.37E+00	0.00E+00	0.00E+00	4.71E-06
Motor Vehicle, Off Airport																						
Running Exhaust	6,255,048	437,822	396,470	1,410,747			2.19E+03	2.78E+02	1.80E+04	2.19E+03	4.82E+03	0.00E+00	9.59E+03	0.00E+00	1.63E+03	4.55E+04	0.00E+00	0.00E+00	2.57E+04	0.00E+00	0.00E+00	1.28E-02
Start Exhaust	998,924	53,738	48,662	44,768			2.69E+02	3.41E+01	2.20E+03	2.69E+02	5.91E+02	0.00E+00	1.18E+03	0.00E+00	2.00E+02	5.59E+03	0.00E+00	0.00E+00	3.15E+03	0.00E+00	0.00E+00	1.58E-03
Evaporation		1,643,167	1,487,971				0.00E+00	0.00E+00	1.15E+04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.82E+03	0.00E+00	0.00E+00	2.23E+03	0.00E+00	0.00E+00	0.00E+00
MV, Off Airport Total, lb/yr	7,253,973	2,134,727	1,933,104	1,455,515	54,641	64,466	2.46E+03	3.12E+02	3.16E+04	2.46E+03	5.41E+03	0.00E+00	1.08E+04	0.00E+00	1.83E+03	6.09E+04	0.00E+00	0.00E+00	3.10E+04	0.00E+00	0.00E+00	1.44E-02
MV, Off Airport Total, tpy	3,627	1,067	967	728	27	32	1.23E+00	1.56E-01	1.58E+01	1.23E+00	2.70E+00	0.00E+00	5.38E+00	0.00E+00	9.13E-01	3.05E+01	0.00E+00	0.00E+00	1.55E+01	0.00E+00	0.00E+00	7.21E-06
Fugitive Dust																						
Runways						45,907																
Roadways, On-Airport						215,107																
Roadways, Off-Airport																						
Fugitive Dust, Total lbs/yr						261,013																
Fugitive Dust, Total tpy						131																
Total Operating, lbs/yr	28,214,342	5,020,351	4,968,167	11,117,269	426,969	975,148	1.23E+05	5.86E+04	9.82E+04	5.20E+04	3.95E+05	2.12E+02	1.32E+05	3.92E+01	1.26E+04	9.27E+04	6.30E+03	4.13E+03	5.30E+04	4.23E+00	1.82E+01	3.26E+00
Total Operating, tpy	14,107	2,510	2,484	5,559	213	488	6.14E+01	2.93E+01	4.91E+01	2.60E+01	1.97E+02	1.06E-01	6.59E+01	1.96E-02	6.32E+00	4.63E+01	3.15E+00	2.06E+00	2.65E+01	2.11E-03	9.11E-03	1.63E-03

1996 Air Pollutant Emission																						
Source Category	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	2,3,7,8-TCDF Equivalents	Dioxin (tetrachloro total)	Dioxin (pentachloro total)	Dioxin (hexachloro total)	Dioxin (heptachloro total)	Dioxin (octachloro)	Furan (tetrachloro total)	Furan (pentachloro total)	Furan (hexachloro total)
Aircraft:																						
Comm. Jet (TF)																						
APU	8.35E-02	3.01E-02	6.72E-02	3.71E-02	6.27E-02	2.30E-01	0.00E+00	3.01E-01	0.00E+00	0.00E+00	0.00E+00	2.83E-01	5.24E-01		7.92E-05	1.51E-04	1.91E-04	3.56E-04	2.27E-03	7.07E-04	9.89E-04	5.10E-04
Taxi/Idle	9.61E-02	5.10E-02	0.00E+00	8.49E-03	0.00E+00	1.02E-01	0.00E+00	1.50E+00	0.00E+00	0.00E+00	7.84E+02	6.62E+00	1.84E+00		2.06E-05	3.95E-05	4.97E-05	3.27E-05	5.89E-04	1.84E-04	2.58E-04	1.33E-04
Takeoff	2.21E-02	1.56E-02	0.00E+00	3.54E-03	0.00E+00	4.26E-03	0.00E+00	9.61E-02	0.00E+00	0.00E+00	1.00E+00	6.52E-01	7.69E-02		2.77E-05	5.29E-05	6.55E-05	1.24E-04	7.62E-04	2.47E-04	3.46E-04	1.28E-04
Climbout	3.16E-02	2.26E-02	0.00E+00	5.07E-03	0.00E+00	6.10E-03	0.00E+00	1.37E-01	0.00E+00	0.00E+00	1.43E+00	9.33E-01	1.10E-01		2.17E-05	4.10E-05	5.16E-05	9.64E-05	5.17E-04	1.92E-04	2.68E-04	1.38E-04
Approach	1.81E-01	1.14E-01	0.00E+00	1.59E-02	0.00E+00	1.92E-02	0.00E+00	3.69E-01	0.00E+00	0.00E+00	3.57E+00	1.59E+00	3.03E-01		4.94E-05	6.44E-05	1.19E-05	2.32E-05	1.41E-04	4.41E-05	6.17E-04	3.18E-05
Eng. Testing	7.72E-02	5.09E-02	0.00E+00	8.70E-03	0.00E+00	1.11E-02	0.00E+00	2.27E-01	0.00E+00	0.00E+00	7.58E+00	1.26E+00	1.88E-01									
AT/GA Turbine (TP)																						
APU	1.84E-03	6.65E-04	1.48E-03	8.18E-04	1.38E-03	5.07E-03	0.00E+00	6.65E-03	0.00E+00	0.00E+00	0.00E+00	6.24E-03	1.16E-02									
Aircraft	1.75E-01	1.11E-01	0.00E+00	1.70E-02	0.00E+00	3.50E-02	0.00E+00	6.14E-01	0.00E+00	0.00E+00	1.28E+02	2.90E+00	5.98E-01									
AT/GA Piston (P)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00									
Aircraft Total, lbs/yr	6.68E-01	3.96E-01	6.87E-02	9.66E-02	6.41E-02	4.12E-01	0.00E+00	3.25E+00	0.00E+00	0.00E+00	9.26E+02	1.42E+01	3.65E+00	6.89E-04	1.54E-04	2.94E-04	3.70E-04	6.91E-04	4.40E-03	1.37E-03	1.92E-03	9.92E-04
Aircraft Total, tpy	3.34E-04	1.98E-04	3.44E-05	4.83E-05	3.20E-05	2.06E-04	0.00E+00	1.63E-03	0.00E+00	0.00E+00	4.63E-01	7.12E-03	1.83E-03	3.45E-07	7.70E-08	1.47E-07	1.85E-07	3.46E-07	2.20E-06	6.87E-07	9.61E-07	4.96E-07
GSE																						
Diesel	4.01E-01	3.30E-01	4.66E-01	3.77E-01	3.27E-01	5.40E-01	3.43E-01	1.37E+00	4.02E+00	3.52E-01	6.65E+01	1.47E+01	1.10E+00									
Gasoline	3.67E-01	2.16E-01	1.88E-01	7.21E-01	2.03E-01	2.76E-01	4.10E-02	2.40E-01	0.00E+00	3.24E-02	0.00E+00	8.63E-02	1.53E-01									
LPG																						
CNG/LNG																						
GSE Total, lbs/yr	7.68E-01	5.46E-01	6.54E-01	1.10E+00	5.30E-01	8.17E-01	3.84E-01	1.61E+00	4.02E+00	3.85E-01	6.65E+01	1.48E+01	1.25E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
GSE Total, tpy	3.84E-04	2.73E-04	3.27E-04	5.49E-04	2.65E-04	4.08E-04	1.92E-04	8.05E-04	2.01E-03	1.92E-04	3.33E-02	7.42E-03	6.26E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Stationary Total lbs/yr	1.34E+00	3.55E-01	5.21E-01	3.68E-01	2.39E-01	9.07E-01	1.26E-01	1.65E+00	2.66E+00	1.29E-01	4.95E+01	9.26E+00	1.80E+00	6.70E-07								
Stationary Total, tpy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Motor Vehicle, On Airport																						
Diesel																						
Running Exhaust	8.62E-03	3.11E-03	6.94E-03	3.83E-03	6.47E-03	2.37E-02	0.00E+00	3.11E-02	0.00E+00	0.00E+00	0.00E+00	2.92E-02	5.41E-02		2.67E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.57E-08	0.00E+00	0.00E+00
Start Exhaust	6.09E-04	2.20E-04	4.90E-04	2.71E-04	4.57E-04	1.68E-03	0.00E+00	2.20E-03	0.00E+00	0.00E+00	0.00E+00	2.06E-03	3.82E-03									
Gasoline																						
Running Exhaust	4.31E-02	2.53E-02	2.20E-02	8.46E-02	2.38E-02	3.24E-02	4.81E-03	2.81E-02	0.00E+00	3.80E-03	2.07E+02	1.01E-02	1.80E-02		1.15E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.85E-05	0.00E+00	0.00E+00
Start Exhaust	3.23E-02	1.90E-02	1.86E-02	6.35E-02	1.79E-02	2.44E-02	3.61E-03	2.11E-02	0.00E+00	2.85E-03	1.56E+02	7.61E-03	1.35E-02									
Evaporation	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00									
MV, On Airport Total, lb/yr	8.46E-02	4.77E-02	4.80E-02	1.52E-01	4.86E-02	8.22E-02	8.43E-03	8.25E-02	0.00E+00	6.65E-03	3.63E+02	4.90E-02	8.94E-02	3.11E-07	1.18E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.92E-08	0.00E+00	0.00E+00
MV, On Airport Total, tpy	4.23E-05	2.38E-05	2.30E-05	7.61E-05	2.43E-05	4.11E-05	4.21E-06	4.13E-05	0.00E+00	3.33E-06	1.81E-01	2.45E-05	4.47E-05	1.55E-10	5.92E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.62E-10	0.00E+00	0.00E+00
Motor Vehicle, Off Airport																						
Running Exhaust	1.82E-01	1.07E-01	9.31E-02	3.58E-01	1.01E-01	1.37E-01	2.03E-02	1.19E-01	0.00E+00	1.61E-02	8.76E+02	4.28E-02	7.60E-02		9.68E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.67E-08	0.00E+00	0.00E+00
Start Exhaust	2.23E-02	1.31E-02	1.14E-02	4.39E-02	1.24E-02	1.68E-02	2.50E-03	1.46E-02	0.00E+00	1.97E-03	1.07E+02	5.26E-03	9.33E-03									
Evaporation	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00									
MV, Off Airport Total, lb/yr	2.04E-01	1.20E-01	1.05E-01	4.01E-01	1.13E-01	1.54E-01	2.28E-02	1.33E-01	0.00E+00	1.80E-02	9.83E+02	4.81E-02	8.53E-02	2.54E-06	9.68E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.57E-05	0.00E+00	0.00E+00
MV, Off Airport Total, tpy	1.02E-04	6.01E-05	5.23E-05	2.01E-04	5.65E-05	7.69E-05	1.14E-05	6.67E-05	0.00E+00	9.01E-06	4.92E-01	2.40E-05	4.27E-05	1.27E-09	4.84E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.87E-09	0.00E+00	0.00E+00
Fugitive Dust																						
Runways																						
Roadways, On-Airport																						
Roadways, Off-Airport																						
Fugitive Dust, Total lbs/yr														0.00E+00								
Fugitive Dust, Total tpy																						

1996 Air Pollutant Emission																						
Source Category	Furan (heptachloro total)	Furan (octachloro)	Antimony	Arsenic	Beryllium	Cadmium	Chromium Hexavalent	Chromium (Total)	Cobalt	Copper	Lead	Manganese	Mercury	Nickel	Phosphorus	Selenium	Zinc	Ammonia	Bromine	Hydrogen chloride	Benzaldehyde	N-Butanol
Aircraft																						
Comm. Jet (TF)			0.00E+00	2.20E+03	0.00E+00	2.07E+02	0.00E+00	2.20E+03	0.00E+00	0.00E+00	2.28E+03	0.00E+00	0.00E+00	2.07E+02	0.00E+00	2.07E+02	2.28E+03	0.00E+00	0.00E+00	0.00E+00		
APU																						
Taxi/Idle	3.64E-04	1.62E-04																				
Takeoff	6.22E-04	4.75E-05																				
Climbout	1.24E-04	6.37E-05																				
Approach	0.59E-03	4.54E-05																				
Eng. Testing	2.20E-05	1.14E-05																				
ATGA Turbine (TP)			0.00E+00	4.69E+02	0.00E+00	4.42E+01	0.00E+00	4.69E+02	0.00E+00	0.00E+00	4.87E+02	0.00E+00	0.00E+00	4.42E+01	0.00E+00	4.42E+01	4.87E+02	0.00E+00	0.00E+00	0.00E+00		
APU																						
Aircraft																						
AT/GA Piston (P)			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Aircraft Total, lbs/yr	6.87E-04	3.54E-04	0.00E+00	2.66E+03	0.00E+00	2.51E+02	0.00E+00	2.66E+03	0.00E+00	0.00E+00	2.78E+03	0.00E+00	0.00E+00	2.51E+02	0.00E+00	2.51E+02	2.78E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Aircraft Total, tpy	3.44E-07	1.77E-07	0.00E+00	1.33E+00	0.00E+00	1.26E-01	0.00E+00	1.33E+00	0.00E+00	0.00E+00	1.38E+00	0.00E+00	0.00E+00	1.26E-01	0.00E+00	1.26E-01	1.38E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
GSE																						
Diesel			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.26E+00	0.00E+00	1.61E+00	0.00E+00	2.28E+00	6.45E-01	9.68E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Gasoline			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.89E-01	0.00E+00	7.97E-01	0.00E+00	5.98E-01	4.98E-02	3.49E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
LPG																						
CNG/LNG																						
GSE Total, lbs/yr	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.56E+00	0.00E+00	2.41E+00	0.00E+00	2.86E+00	6.95E-01	1.32E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
GSE Total, tpy	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.28E-03	0.00E+00	1.20E-03	0.00E+00	1.43E-03	3.47E-04	6.58E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Stationary Total lbs/yr				3.60E-02	9.68E-03	1.02E+01	1.92E-03	5.32E+01		1.78E-01	1.08E-01	1.84E+00	4.83E-04	8.70E+00		1.50E-03					1.31E+01	5.83E+01
Stationary Total, tpy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Motor Vehicle, On Airport																						
Diesel																						
Running Exhaust	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.57E-02	0.00E+00	3.26E-02	0.00E+00	4.57E-02	1.30E-02	1.95E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Start Exhaust																						
Gasoline																						
Running Exhaust	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.11E-01	0.00E+00	2.07E-01	0.00E+00	2.22E-01	1.85E-02	1.30E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Start Exhaust																						
Evaporation																						
MV, On Airport Total, lb/yr	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.57E-01	0.00E+00	3.29E-01	0.00E+00	2.68E-01	3.16E-02	1.49E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MV, On Airport Total, tpy	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.84E-05	0.00E+00	1.65E-04	0.00E+00	1.34E-04	1.58E-05	7.48E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Motor Vehicle, Off Airport																						
Running Exhaust	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.87E+00	0.00E+00	1.03E+01	0.00E+00	7.74E+00	6.45E-01	4.51E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Start Exhaust																						
Evaporation																						
MV, Off Airport Total, lb/yr	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.87E+00	0.00E+00	1.03E+01	0.00E+00	7.74E+00	6.45E-01	4.51E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MV, Off Airport Total, tpy	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.93E-03	0.00E+00	5.16E-03	0.00E+00	3.87E-03	3.22E-04	2.26E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Fugitive Dust																						
Runways			0.00E+00	4.59E-01	0.00E+00	1.38E+00	0.00E+00	1.01E+01	0.00E+00	1.65E+01	0.01E+02	4.68E+01	0.00E+00	9.18E+00	2.62E+01	0.00E+00	2.66E+02	0.00E+00	4.59E-01	0.00E+00	0.00E+00	0.00E+00
Roadways, On-Airport			0.00E+00	2.40E-00	0.00E+00	6.45E+00	0.00E+00	4.73E+01	0.00E+00	7.74E+01	3.24E+03	2.19E+02	0.00E+00	4.38E+01	1.23E+02	0.00E+00	1.25E+03	0.00E+00	2.15E+00	0.00E+00	0.00E+00	0.00E+00
Roadways, Off-Airport			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Fugitive Dust, Total lbs/yr			0.00E+00	2.61E+00	0.00E+00	7.83E+00	0.00E+00	5.74E+01	0.00E+00	9.40E+01	3.93E+03	2.66E+02	0.00E+00	5.22E+01	1.49E+02	0.00E+00	1.51E+03	0.00E+00	2.61E+00	0.00E+00	0.00E+00	0.00E+00
Fugitive Dust, Total tpy			0.00E+00	1.31E-03	0.00E+00	3.92E-03	0.00E+00	2.87E-02	0.00E+00	4.70E-02	1.96E+00	1.33E-01	0.00E+00	2.61E-02	7.44E-02	0.00E+00	7.56E-01	0.00E+00	1.31E-03	0.00E+00	0.00E+00	0.00E+00
Total Operating, lbs/yr	6.87E-04	3.54E-04	0.00E+00	2.67E+03	9.68E-03	2.69E+02	1.92E-03	2.78E+03	0.00E+00	1.07E+02	6.69E+03	2.79E+02	1.37E+00	3.18E+02	1.49E+02	2.51E+02	4.28E+03	0.00E+00	2.61E+00	0.00E+00	1.31E+01	5.83E+01
Total Operating, tpy	3.44E-07	1.77E-07	0.00E+00	1.33E+00	4.84E-06	1.35E-01	9.62E-07	1.39E+00	0.00E+00	5.36E-02	3.35E+00	1.39E-01	6.86E-04	1.59E-01	7.44E-02	1.26E-01	2.14E+00	0.00E+00	1.31E-03	0.00E+00	6.55E-03	2.92E-02

1996 Air Pollutant Emission											
Source Category	Secondary Butanol	Ethyl Alcohol	Ethylbenzene	Ethylene Glycol Ethers	Hydrogen fluoride	Methanol	Methyl ethyl ketone	Methylene Chloride	Perchloroethylene	Trichloroethane, 1,1,1	Trichloroethylene
Aircraft:											
Comm. Jet (TF)											
APU											
Taxi/Idle											
Takeoff											
Climbout											
Approach											
Eng. Testing											
AT/GA Turbine (TP)											
APU											
Aircraft											
AT/GA Piston (P)											
Aircraft Total, lbs/yr	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Aircraft Total, tpy	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
GSE											
Diesel											
Gasoline											
LPG											
CNG/LNG											
GSE Total, lbs/yr	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
GSE Total, tpy	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Stationary Total lbs/yr	1.92E+00	1.36E+03	1.52E+02	2.82E+02	3.92E+01	1.14E+04	3.07E+02	9.31E+02	1.77E+02	4.07E+02	9.79E+03
Stationary Total, tpy	0	1	0	0	0	6	0	0	0	0	5
Motor Vehicle, On Airport											
Diesel											
Running Exhaust											
Start Exhaust											
Gasoline											
Running Exhaust											
Start Exhaust											
Evaporation											
MV, On Airport Total, lb/yr	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MV, On Airport Total, tpy	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Motor Vehicle, Off Airport											
Running Exhaust											
Start Exhaust											
Evaporation											
MV, Off Airport Total, lb/yr	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MV, Off Airport Total, tpy	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Fugitive Dust											
Runways											
Roadways, On-Airport											
Roadways, Off-Airport											
Fugitive Dust, Total lbs/yr											
Fugitive Dust, Total tpy											
Total Operating, lbs/yr	1.92E+00	1.36E+03	1.52E+02	2.82E+02	3.92E+01	1.14E+04	3.07E+02	9.31E+02	1.77E+02	4.07E+02	9.79E+03
Total Operating, tpy	9.60E-04	6.79E-01	7.61E-02	1.41E-01	1.96E-02	5.70E+00	1.53E-01	4.65E-01	8.87E-02	2.04E-01	4.89E+00

SUMMARY

LAX Emissions Inventory Database - Stationary Sources

Criteria Pollutants (except Lead)

Source Type	Ref.	Notes	Source Name	Classification	Fuel Type (pri/sec)	Type	Actual Annual Thruput	Thruput Units	HP	BTU/hr	Emission Estimation Technique	VOC	PM10	CO	NOx	SO2
Coat	32.74	K.bb.	Continental Airlines	Surface Coating		Air Dried Enamel	440	Gallon				14.00	--	--	--	--
Coat	32.74	K.bb.	Continental Airlines	Surface Coating		Water Based	12	Gallon				1176.78	--	--	--	--
Coat	75		Delta Airlines	Surface Coating		Paint Primer	303	Gallon				26.77	--	--	--	--
Coat	76		Delta Airlines	Surface Coating		White Paint	303	Gallon				847.79	--	--	--	--
Coat		kk.	Delta Airlines	Surface Coating			250	Gallons				140.00	--	--	--	--
Coat		kk.	Delta Airlines	Surface Coating			250	Gallons				140.00	--	--	--	--
Coat		kk.	Delta Airlines	Surface Coating			250	Gallons				140.00	--	--	--	--
Coat		kk.	Delta Airlines	Surface Coating			250	Gallons				140.00	--	--	--	--
Coat		kk.	Delta Airlines	Surface Coating			250	Gallons				2800.00	--	--	--	--
Coat		kk.	Delta Airlines	Surface Coating			250	Gallons				700.00	--	--	--	--
Coat	58		Garrett Aviation	Surface Coating, Automotive				Gallons				--	--	--	--	--
Coat	58		Garrett Aviation	Surface Coating, Bench				Gallons				--	--	--	--	--
Coat	58		Garrett Aviation	Surface Coating, Bench				Gallons				--	--	--	--	--
Coat	29	www.	LAWA	Surface Coating		Safety-Kleen #105	128	Gallons				--	--	--	--	--
Coat	29	www.	LAWA	Surface Coating		Water-Based Green	200	Gallons				--	--	--	--	--
Coat	29	www.	LAWA	Surface Coating		Water-Based Red	330	Gallons				--	--	--	--	--
Coat	29	www.	LAWA	Surface Coating		Water-Based Black	625	Gallons				--	--	--	--	--
Coat	29	www.	LAWA	Surface Coating		Water-Based Yellow	2,300	Gallons				--	--	--	--	--
Coat	29	www.	LAWA	Surface Coating		Water-Based White	6,840	Gallons				--	--	--	--	--
Coat	29	www.	LAWA	Surface Coating		permitted	Emission Total					864.40	--	--	--	--
Coat	29	www.	LAWA	Surface Coating		non-permitted	Emission Total					17144.24	--	--	--	--
Coat	77		Northwest Airlines	Surface Coating		Etch-A, #195	0.5	Gallon				3.10	--	--	--	--
Coat	77		Northwest Airlines	Surface Coating		Gray Primer, #1283	8	Gallon				12.00	--	--	--	--
Coat	77		Northwest Airlines	Surface Coating		Urethane Gray, #6438A	15	Gallon				21.00	--	--	--	--
Coat	77		Northwest Airlines	Surface Coating		Aqualine Gray, #738A0	26	Gallon				72.80	--	--	--	--
Coat	77		Northwest Airlines	Surface Coating		817 Paint	35	Gallon				98.00	--	--	--	--
Coat	64		Ogden Ramp Services	Surface Coating		Air Dried Enamel	52	Gallon				145.60	--	--	--	--
Coat	64		Ogden Ramp Services	Surface Coating		Water Based En.	52	Gallon				26.00	--	--	--	--
Coat	33		TWA Maintenance	Surface Coating		Misc. Parts	1.8	Gallons				5.10	--	--	--	--
Coat	33		TWA Maintenance	Surface Coating		Automotive	46.0	Gallons				128.72	--	--	--	--
Coat	55		U.S. Coast Guard	Surface Coating			12	Gallons			MB	42.00	--	--	--	--
Coat	35		United Airlines	Surface Coating		Dupont Surface Clean	3.50	Gallon				17.50	--	--	--	--
Coat	35		United Airlines	Surface Coating		Ellie 655 Rust	5.75	Gallon				18.98	--	--	--	--
Coat	35		United Airlines	Surface Coating		Dupont Vars Prime	11.25	Gallon				70.88	--	--	--	--
Coat	35		United Airlines	Surface Coating		Dupont Tufcote	17.55	Gallon				63.18	--	--	--	--
Coat	35		United Airlines	Surface Coating		Dupont Pre-Coat	19.75	Gallon				67.15	--	--	--	--
Coat	35		United Airlines	Surface Coating		Pacific Coating Clean	20.60	Gallon				195.70	--	--	--	--
Coat	35		United Airlines	Surface Coating		Dupont Velvaseal	26.50	Gallon				53.00	--	--	--	--
Coat	35		United Airlines	Surface Coating		Ellis Engard 280	55.00	Gallon				187.00	--	--	--	--
Coat	35		United Airlines	Surface Coating		Pacific Coating 2020	99.25	Gallon				842.88	--	--	--	--
Coat	35		United Airlines	Surface Coating		Dupont Centari 5000	112.50	Gallon				315.00	--	--	--	--
Cook	5,6,18	d.e.	American Golf	Charbroiling		Underfire Meat	2,000	Lbs				7.88	85.30	--	--	--
Cook	5,18	d.f.	Burger King	Charbroiling		Chicken	375,000	Lbs			SCAQMD	136.50	786.00	--	--	--
Cook	5,18	d.f.	Burger King	Charbroiling		Chandrienne meat	135,000	Lbs			SCAQMD	306.45	1001.70	--	--	--
Cook	5,12,13,18	d.k.	Caterall	Charbroiling		Chicken	100,000	Lbs				182.00	1048.00	--	--	--

LAX Emissions Inventory Database

96stnry.xls

Polycyclic Aromatic Hydrocarbons (PAH)

Source Name	Classification
1. [REDACTED]	[REDACTED]
2. [REDACTED]	[REDACTED]
3. [REDACTED]	[REDACTED]
4. [REDACTED]	[REDACTED]
5. [REDACTED]	[REDACTED]
6. [REDACTED]	[REDACTED]
7. [REDACTED]	[REDACTED]
8. [REDACTED]	[REDACTED]
9. [REDACTED]	[REDACTED]
10. [REDACTED]	[REDACTED]
11. [REDACTED]	[REDACTED]
12. [REDACTED]	[REDACTED]
13. [REDACTED]	[REDACTED]
14. [REDACTED]	[REDACTED]
15. [REDACTED]	[REDACTED]
16. [REDACTED]	[REDACTED]
17. [REDACTED]	[REDACTED]
18. [REDACTED]	[REDACTED]
19. [REDACTED]	[REDACTED]
20. [REDACTED]	[REDACTED]
21. [REDACTED]	[REDACTED]
22. [REDACTED]	[REDACTED]
23. [REDACTED]	[REDACTED]
24. [REDACTED]	[REDACTED]
25. [REDACTED]	[REDACTED]
26. [REDACTED]	[REDACTED]
27. [REDACTED]	[REDACTED]
28. [REDACTED]	[REDACTED]
29. [REDACTED]	[REDACTED]
30. [REDACTED]	[REDACTED]
31. [REDACTED]	[REDACTED]
32. [REDACTED]	[REDACTED]
33. [REDACTED]	[REDACTED]
34. [REDACTED]	[REDACTED]
35. [REDACTED]	[REDACTED]
36. [REDACTED]	[REDACTED]
37. [REDACTED]	[REDACTED]
38. [REDACTED]	[REDACTED]
39. [REDACTED]	[REDACTED]
40. [REDACTED]	[REDACTED]
41. [REDACTED]	[REDACTED]
42. [REDACTED]	[REDACTED]
43. [REDACTED]	[REDACTED]
44. [REDACTED]	[REDACTED]
45. [REDACTED]	[REDACTED]
46. [REDACTED]	[REDACTED]
47. [REDACTED]	[REDACTED]
48. [REDACTED]	[REDACTED]
49. [REDACTED]	[REDACTED]
50. [REDACTED]	[REDACTED]
51. [REDACTED]	[REDACTED]
52. [REDACTED]	[REDACTED]
53. [REDACTED]	[REDACTED]
54. [REDACTED]	[REDACTED]
55. [REDACTED]	[REDACTED]
56. [REDACTED]	[REDACTED]
57. [REDACTED]	[REDACTED]
58. [REDACTED]	[REDACTED]
59. [REDACTED]	[REDACTED]
60. [REDACTED]	[REDACTED]
61. [REDACTED]	[REDACTED]
62. [REDACTED]	[REDACTED]
63. [REDACTED]	[REDACTED]
64. [REDACTED]	[REDACTED]
65. [REDACTED]	[REDACTED]
66. [REDACTED]	[REDACTED]
67. [REDACTED]	[REDACTED]
68. [REDACTED]	[REDACTED]
69. [REDACTED]	[REDACTED]
70. [REDACTED]	[REDACTED]
71. [REDACTED]	[REDACTED]
72. [REDACTED]	[REDACTED]
73. [REDACTED]	[REDACTED]
74. [REDACTED]	[REDACTED]
75. [REDACTED]	[REDACTED]
76. [REDACTED]	[REDACTED]
77. [REDACTED]	[REDACTED]
78. [REDACTED]	[REDACTED]
79. [REDACTED]	[REDACTED]
80. [REDACTED]	[REDACTED]
81. [REDACTED]	[REDACTED]
82. [REDACTED]	[REDACTED]
83. [REDACTED]	[REDACTED]
84. [REDACTED]	[REDACTED]
85. [REDACTED]	[REDACTED]
86. [REDACTED]	[REDACTED]
87. [REDACTED]	[REDACTED]
88. [REDACTED]	[REDACTED]
89. [REDACTED]	[REDACTED]
90. [REDACTED]	[REDACTED]
91. [REDACTED]	[REDACTED]
92. [REDACTED]	[REDACTED]
93. [REDACTED]	[REDACTED]
94. [REDACTED]	[REDACTED]
95. [REDACTED]	[REDACTED]
96. [REDACTED]	[REDACTED]
97. [REDACTED]	[REDACTED]
98. [REDACTED]	[REDACTED]
99. [REDACTED]	[REDACTED]
100. [REDACTED]	[REDACTED]

[illegible]

96story.xls

LAX Emissions Inventory Database

[illegible]

LAX Emissions Inventory Database - Stationary Sources

Criteria Pollutants (except Lead)

Source	Type	Ref.	Notes	Source Name	Classification	Fuel Type (pri/see c)	Type	Actual Annual Thruput	Thruput Units	HP	BTU/hr	Emission Estimation Technique	VOC	PM10	CO	NOx	SO2
Cook		5,9	d.i.	Chelsea Catering	Charbroiling		Chicken	45,625	Lbs				83.04	478.15	--	--	--
Cook		5,14,18	d.i.	Dobbs Int'l	Charbroiling		Chicken		Lbs				182.00	1048.00	--	--	--
Cook		5,15,16,18	d.m.	LSG Sky Chefs	Charbroiling		Chicken		Lbs				182.00	1048.00	--	--	--
Cook		5,18	d.f.	Misc. CTA Restaurants	Charbroiling		Fish		Lbs			SCAQMD	3.80	33.00	--	--	--
Cook		5,18	d.f.	Misc. CTA Restaurants	Charbroiling		Underfire meat		Lbs			SCAQMD	118.20	979.50	--	--	--
Cook		5,18	d.f.	Misc. CTA Restaurants	Charbroiling		Chicken		Lbs			SCAQMD	182.00	1048.00	--	--	--
Cook		5,18	d.f.	Misc. CTA Restaurants	Charbroiling		Chaindriven meat		Lbs			SCAQMD	306.45	1001.70	--	--	--
Cook		5,18	d.f.	Misc. CTA Restaurants	Charbroiling		Griddle meat		Lbs			SCAQMD	14.00	1016.00	--	--	--
Cook		5,18	d.f.	Misc. CTA Restaurants	Charbroiling		Chicken		Lbs				45.50	262.00	--	--	--
Cook		5,18	d.f.	Misc. CTA Restaurants	Charbroiling		Chicken		Lbs				145.80	838.40	--	--	--
Cook		5,18	d.f.	Misc. CTA Restaurants	Charbroiling		Chicken		Lbs			SCAQMD	18.20	104.80	--	--	--
Cook		5,11,18	d.j.	Ogden Aviation Services	Charbroiling		Chicken		Lbs				--	1140.11	--	--	--
Cook		5,7,18	d.g.	The Proud Bird Rest.	Charbroiling		Chicken		Lbs				--	4685.40	--	--	--
CT		18,20	q.	Delta Airlines	Cooling Tower		Terminal 5		Gallons				--	1073.96	--	--	--
CT		18,20	q.	Delta Airlines	Cooling Tower		Main Bldg		Gallons			0.000005 D	--	10934.56	--	--	--
CT		21	r.	LAWA	Cooling Tower			25,754,400,000	Gallons				--	6990.48	--	--	--
CT		18,20	q.	LSG Sky Chefs	Cooling Towers (2)			367,920,000	Gallon				--	8208.00	--	--	--
CT		18,20	q.	TWA Maintenance	Cooling Tower				Gallon				--	8208.00	--	--	--
CT		18,20	q.	U.S. Post Office	Cooling Tower				Gallon				--	8208.00	--	--	--
CT		18,20	q.	U.S. Post Office	Cooling Tower				Gallon				--	8208.00	--	--	--
Degr.		23,24,26	l	Continental Airlines	Degreasing Operations		Ardrox 2204 (8)	100	Gallon				135.58	--	--	--	--
Degr.		23,25,26	u.	Continental Airlines	Degreasing Operations		PD680 Solvent	100	Gallon				656.52	--	--	--	--
Degr.		26	v.	Continental Airlines	Degreasing Operations		TCE Solvent	800	Gallon				9781.15	--	--	--	--
Degr.		22	s.	Continental Airlines	Degreasing Operations				Gallons				733.59	--	--	--	--
Degr.		22	s.	Continental Airlines	Degreasing Operations				Gallons				733.59	--	--	--	--
Ext. Comb.		28,30,36	x.z.oo.	American Airlines	Ext. Comb., Heaters/Furnaces (5)	NG		3.73	MMcf		13.35MM		10.38	44.39	78.33	373.00	2.24
Ext. Comb.		6,28,30	x.z.nn.	American Golf	Ext. Comb., Cooking Facilities	NG		0.12	MMcf				0.33	1.43	2.52	12.00	0.07
Ext. Comb.		28,30	x.z.kk.	LSG Sky Chefs	Ext. Comb., Boilers & Cooking	NG		22.16	MMcf				18.70	71.40	126.00	600.00	3.60
Ext. Comb.		13,28,30	x.z.hh.	Caterair	Ext. Comb., Boilers & Cooking	NG		22.16	MMcf				61.68	263.84	465.26	2215.50	13.29
Ext. Comb.		28,30	x.z.kk.	Chelsea Catering	Ext. Comb., Boilers & Cooking	NG		22.16	MMcf				5.57	23.80	42.00	200.00	1.20
Ext. Comb.		10,28,30	x.z.ii.	Chelsea Catering	Ext. Comb., Boilers & Cooking	NG		29.26	MMcf				81.47	348.22	614.51	2926.26	17.56
Ext. Comb.		1,30,32	a.z.bb.	Continental Airlines	Ext. Comb., Boiler	NG		144.54	MMcf		16,500,000		1011.78	1084.05	5058.90	18790.20	119.97
Ext. Comb.		28,30	x.z.kk.	Continental Airlines	Ext. Comb., Boiler	NG		27.84	MMcf				27.84	119.00	210.00	1000.00	6.00
Ext. Comb.		27,28,30	w.x.z.	Delta Airlines	Ext. Comb., Boiler	NG		2.35	MMcf		5.2 MM		6.53	27.93	49.29	234.70	1.41
Ext. Comb.		27,28,30	w.x.z.	Delta Airlines	Ext. Comb., Boiler	NG		3.41	MMcf		5.2 MM		9.50	40.59	71.84	341.12	2.05
Ext. Comb.		14,28,30	x.z.gg.	Dobbs Int'l	Ext. Comb., Boilers & Cooking	NG		11.77	MMcf				32.78	140.12	247.26	1177.44	7.05
Ext. Comb.		28,30,31	x.z.ea.	FAA Control Tower	Ext. Comb., Boiler	NG		13.14	MMcf	1,500 cth			36.58	156.37	275.94	1314.00	7.88
Ext. Comb.		28,30,31	x.z.ea.	FAA Control Tower	Ext. Comb., Boiler	NG		13.14	MMcf	1,500 cth			36.58	156.37	275.94	1314.00	7.88
Ext. Comb.		1,21,30	a.z.pp.	LAWA	Ext. Comb., Natural Gas Emission	NG	non-permitted	14.69	MMcf				102.83	110.18	514.15	Reclaim NOx	12.19
Ext. Comb.		1,21,30	a.z.pp.	LAWA	Ext. Comb., Natural Gas Emission	NG	permitted	18.22	MMcf				113.54	121.65	567.70	Reclaim NOx	13.46
Ext. Comb.		16,28,30	x.z.ii.	LSG Sky Chefs	Ext. Comb., Boilers (3)	NG		22.67	MMcf		37,659,000		63.67	272.14	480.25	2286.93	13.72
Ext. Comb.		16,28,30	x.z.ii.	LSG Sky Chefs	Ext. Comb., Cooking Facilities	NG		2.54	MMcf				7.07	30.24	53.36	254.10	1.52
Ext. Comb.		28,30	x.z.kk.	Misc. CTA Restaurants	Ext. Comb., Cooking, Natural Gas	NG		7.82	MMcf				127.27	544.00	960.00	4571.43	27.43
Ext. Comb.		8,28,30	x.z.ff.	Nikko Inflight Catering	Ext. Comb., Boilers & Cooking	NG		7.82	MMcf				21.77	93.04	164.18	781.83	4.69
Ext. Comb.		11,28,30	x.z.ee.	Ogden Aviation Services	Ext. Comb., Boiler (5) & Heaters (4)	NG		21.64	MMcf		19,820,000		60.24	257.51	454.43	2163.93	12.98
Ext. Comb.		7,28,30	x.z.mm.	The Proud Bird Rest.	Ext. Comb., Cooking & Fireplaces	NG		3	MMcf				8.37	35.77	63.12	300.57	1.80
Ext. Comb.		28,30,33	x.z.oo.	TWA Cargo	Ext. Comb., Boiler & Water Heater	NG		0.78	MMcf				2.19	9.36	16.51	78.84	0.47
Ext. Comb.		28,30,33	x.z.oo.	TWA Maintenance	Ext. Comb., Boilers (6)	NG		11	MMcf		51.035MM		30.21	129.12	227.85	1085.00	6.51

SUMMARY

LAX Emissions Inventory Database

Volatile Organic Compounds (VOC)

Semi-Volatile Organic Compounds (SVOC)

Source Name	Classification	Acetaldehyde	Acrolein	Benzene	Butadiene, 1,3-	Formaldehyde	Hexane	Propylene	Propylene oxide	Styrene	Toluene	Xylene, m- or p-	Xylene, o-	Xylene (total)	Benzaldehyde	Benzo(e)pyrene	Chloronaphthalene, 2-	Diesel Particulate	Ethylbenzene	Methylnaphthalene, 2-	Perylene
Chelsea Catering	Charbroiling																				
Dobbs Int'l	Charbroiling																				
LSG Sky Chefs	Charbroiling																				
Misc. CTA Restaurants	Charbroiling																				
Misc. CTA Restaurants	Charbroiling																				
Misc. CTA Restaurants	Charbroiling																				
Misc. CTA Restaurants	Charbroiling																				
Misc. CTA Restaurants	Charbroiling																				
Nikko Inflight Catering	Charbroiling																				
Ogden Aviation Services	Charbroiling																				
The Proud Bird Rest.	Charbroiling																				
Delta Airlines	Cooling Tower																				
Delta Airlines	Cooling Tower																				
LAWA	Cooling Tower																				
LSG Sky Chefs	Cooling Towers (2)																				
TWA Maintenance	Cooling Tower																				
U.S. Post Office	Cooling Tower																				
U.S. Post Office	Cooling Tower																				
Continental Airlines	Degreasing Operations													1.36E+02							
Continental Airlines	Degreasing Operations			1.31E-01										1.18E+01							
Continental Airlines	Degreasing Operations																				
Continental Airlines	Degreasing Operations																				
Continental Airlines	Degreasing Operations																				
American Airlines	Ext. Comb., Heaters/Furnaces (5)	2.51E-02	1.86E-02	1.42E-02		6.23E-01		1.73E+00			1.20E-01			6.98E-02	6.12E-02					6.39E-03	
American Golf	Ext. Comb., Cooking Facilities	8.08E-04	5.41E-04	4.58E-04		2.00E-02		5.55E-02			3.87E-03			2.24E-03	1.97E-03					2.70E-04	
Continental Airlines	Ext. Comb., Boilers & Cooking	4.04E-02	2.71E-02	2.29E-02		1.00E+00		2.78E+00			1.94E-01			1.12E-01	9.84E-02					1.35E-02	
Caterair	Ext. Comb., Boilers & Cooking	1.49E-01	9.98E-02	8.46E-02		3.70E+00		1.03E+01			7.16E-01			4.14E-01	3.63E-01					4.98E-02	
Continental Airlines	Ext. Comb., Boilers & Cooking	1.35E-02	9.02E-03	7.64E-03		3.34E-01		9.26E-01			6.48E-02			3.74E-02	3.28E-02					4.50E-03	
Chelsea Catering	Ext. Comb., Boilers & Cooking	1.97E-01	1.32E-01	1.12E-01		4.89E+00		1.35E+01			9.45E-01			5.47E-01	4.80E-01					6.58E-02	
Continental Airlines	Ext. Comb., Boiler	9.74E-01	6.52E-01	5.52E-01		2.41E+01		6.69E+01			4.67E+00			2.70E+00	2.37E+00					3.25E-01	
Continental Airlines	Ext. Comb., Boiler	6.74E-02	4.51E-02	3.82E-02		1.67E+00		4.63E+00			3.23E-01			1.87E-01	1.64E-01					2.25E-02	
Delta Airlines	Ext. Comb., Boiler	1.58E-02	1.06E-02	8.98E-03		3.92E-01		1.09E+00			7.58E-02			4.39E-02	3.85E-02					5.28E-03	
Delta Airlines	Ext. Comb., Boiler	2.30E-02	1.54E-02	1.30E-02		5.69E-01		1.58E+00			1.10E-01			6.36E-02	5.59E-02					7.68E-03	
Dobbs Int'l	Ext. Comb., Boilers & Cooking	7.94E-02	5.31E-02	4.49E-02		1.97E+00		5.45E+00			3.80E-01			2.20E-01	1.93E-01					2.65E-02	
FAA Control Tower	Ext. Comb., Boiler	8.86E-02	5.93E-02	5.02E-02		2.19E+00		6.08E+00			4.24E-01			2.46E-01	2.15E-01					2.96E-02	
FAA Control Tower	Ext. Comb., Boiler	8.86E-02	5.93E-02	5.02E-02		2.19E+00		6.08E+00			4.24E-01			2.46E-01	2.15E-01					2.96E-02	
LAWA	Ext. Comb., Natural Gas Emission	9.90E-02	6.63E-02	5.61E-02		2.45E+00		6.80E+00			4.74E-01			2.78E-01	2.41E-01					3.31E-02	
LAWA	Ext. Comb., Natural Gas Emission	1.09E-01	7.32E-02	6.19E-02		2.71E+00		7.51E+00			5.24E-01			3.03E-01	2.66E-01					3.85E-02	
LSG Sky Chefs	Ext. Comb., Boilers (3)	1.54E-01	1.03E-01	8.73E-02		3.82E+00		1.06E+01			7.39E-01			4.28E-01	3.75E-01					5.15E-02	
LSG Sky Chefs	Ext. Comb., Cooking Facilities	1.71E-02	1.15E-02	8.70E-03		4.24E-01		1.18E+00			8.21E-02			4.75E-02	4.17E-02					5.72E-03	
Misc. CTA Restaurants	Ext. Comb., Cooking, Natural Gas	3.08E-01	2.06E-01	1.75E-01		7.83E+00		2.12E+01			1.48E+00			8.55E-01	7.50E-01					1.03E-01	
Nikko Inflight Catering	Ext. Comb., Boilers & Cooking	5.27E-02	3.53E-02	2.98E-02		1.31E+00		3.62E+00			2.53E-01			1.46E-01	1.28E-01					1.78E-02	
Ogden Aviation Services	Ext. Comb., Boiler (5) & Heaters (4)	1.46E-01	9.76E-02	8.26E-02		3.61E+00		1.00E+01			6.99E-01			4.05E-01	3.55E-01					4.87E-02	
The Proud Bird Rest.	Ext. Comb., Cooking & Fireplaces	2.03E-02	1.36E-02	1.15E-02		5.02E-01		1.39E+00			9.71E-02			5.82E-02	4.93E-02					6.76E-03	
TWA Cargo	Ext. Comb., Boiler & Water Heater	5.30E-03	3.55E-03	3.00E-03		1.31E-01		3.64E-01			2.54E-02			1.47E-02	1.29E-02					1.77E-03	
TWA Maintenance	Ext. Comb., Boilers (5)	7.31E-02	4.89E-02	4.14E-02		1.81E+00		5.02E+00			3.50E-01			2.03E-01	1.78E-01					2.44E-02	

SUMMARY

LAX Emissions Inventory Database

		Polycyclic Aromatic Hydrocarbons (PAH)														Dioxins/Furans											
Source Name	Classification	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	Dioxin (tetrachloro total)	Dioxin (pentachloro total)	Dioxin (hexachloro total)	Dioxin (heptachloro total)	Dioxin (octachloro)	Furan (tetrachloro total)	Furan (pentachloro total)	Furan (hexachloro total)	Furan (heptachloro total)	Furan (octachloro)
Chelsea Catering	Charbroiling																										
Dobbs Int'l	Charbroiling																										
LSG Sky Chefs	Charbroiling																										
Misc. CTA Restaurants	Charbroiling																										
Misc. CTA Restaurants	Charbroiling																										
Misc. CTA Restaurants	Charbroiling																										
Misc. CTA Restaurants	Charbroiling																										
Misc. CTA Restaurants	Charbroiling																										
Nikko Inflight Catering	Charbroiling																										
Ogden Aviation Services	Charbroiling																										
The Proud Bird Rest.	Charbroiling																										
Delta Airlines	Cooling Tower																										
Delta Airlines	Cooling Tower																										
LAWA	Cooling Tower																										
LSG Sky Chefs	Cooling Towers (2)																										
TWA Maintenance	Cooling Tower																										
U.S. Post Office	Cooling Tower																										
U.S. Post Office	Cooling Tower																										
Continental Airlines	Degreasing Operations																										
Continental Airlines	Degreasing Operations																										
Continental Airlines	Degreasing Operations																										
American Airlines	Ext. Comb., Heaters/Furnaces (5)	5.18E-06	4.51E-05	6.01E-08	5.28E-08	4.25E-06	4.25E-06	4.66E-06	4.25E-06	5.18E-06	4.25E-06	4.44E-05	1.71E-05	4.25E-06	8.84E-04	1.26E-04	2.09E-05										
American Golf	Ext. Comb., Cooking Facilities	1.67E-07	1.45E-06	1.93E-07	1.69E-07	1.37E-07	1.37E-07	1.50E-07	1.37E-07	1.67E-07	1.37E-07	1.43E-06	5.51E-07	1.37E-07	2.84E-05	4.04E-08	6.72E-07										
Caterair	Ext. Comb., Boilers & Cooking	8.34E-06	7.26E-05	9.66E-05	8.46E-06	8.84E-06	8.84E-06	7.50E-06	8.84E-06	8.34E-06	8.84E-06	7.14E-05	2.75E-05	6.84E-06	1.42E-03	2.02E-04	3.36E-05										
Chelsea Catering	Ext. Comb., Boilers & Cooking	3.08E-05	2.58E-04	3.57E-05	3.12E-05	2.53E-05	2.53E-05	2.77E-05	2.53E-05	3.08E-05	2.53E-05	2.64E-04	1.02E-04	2.53E-05	5.25E-03	7.47E-04	1.24E-04										
Continental Airlines	Ext. Comb., Boiler	2.78E-06	2.42E-05	3.22E-06	2.82E-06	2.78E-06	2.28E-06	2.50E-06	2.28E-06	2.78E-06	2.28E-06	2.38E-05	9.18E-06	2.28E-06	4.74E-04	6.74E-05	1.12E-05										
Delta Airlines	Ext. Comb., Boiler	4.07E-05	3.54E-04	4.71E-05	4.13E-05	3.34E-05	3.34E-05	3.88E-05	3.34E-05	4.07E-05	3.34E-05	3.48E-04	1.34E-04	3.34E-05	6.94E-03	9.86E-04	1.64E-04										
Delta Airlines	Ext. Comb., Boiler	2.01E-04	1.75E-03	2.33E-04	2.04E-04	1.65E-04	1.65E-04	1.81E-04	1.65E-04	2.01E-04	1.65E-04	1.72E-03	6.63E-04	1.65E-04	3.43E-02	4.87E-03	8.08E-04										
Dobbs Int'l	Ext. Comb., Boilers & Cooking	1.39E-05	1.21E-04	1.81E-05	1.41E-05	1.14E-05	1.14E-05	1.25E-05	1.14E-05	1.39E-05	1.14E-05	1.19E-04	4.59E-05	1.14E-05	2.97E-03	3.37E-04	5.60E-05										
FAA Control Tower	Ext. Comb., Boiler	3.26E-06	2.84E-05	3.78E-06	3.31E-06	2.68E-06	2.68E-06	2.93E-06	2.68E-06	3.26E-06	2.68E-06	2.79E-05	1.08E-05	2.68E-06	5.56E-04	7.91E-05	1.31E-05										
FAA Control Tower	Ext. Comb., Boiler	4.74E-06	4.13E-05	5.49E-06	4.81E-06	3.89E-06	3.89E-06	4.26E-06	3.89E-06	4.74E-06	3.89E-06	4.08E-05	1.57E-05	3.89E-06	8.08E-04	1.15E-04	1.81E-05										
LAWA	Ext. Comb., Natural Gas Emission	1.84E-05	1.42E-04	1.90E-05	1.68E-05	1.34E-05	1.34E-05	1.47E-05	1.34E-05	1.64E-05	1.34E-05	1.40E-04	5.40E-05	1.34E-05	2.79E-03	3.97E-04	6.59E-05										
LAWA	Ext. Comb., Natural Gas Emission	1.83E-05	1.69E-04	2.12E-05	1.85E-05	1.50E-05	1.50E-05	1.64E-05	1.50E-05	1.83E-05	1.50E-05	1.58E-04	6.03E-05	1.50E-05	3.11E-03	4.43E-04	7.36E-05										
LSG Sky Chefs	Ext. Comb., Boilers (3)	1.83E-05	1.58E-04	2.12E-05	1.85E-05	1.50E-05	1.50E-05	1.64E-05	1.50E-05	1.83E-05	1.50E-05	1.58E-04	6.03E-05	1.50E-05	3.11E-03	4.43E-04	7.36E-05										
LSG Sky Chefs	Ext. Comb., Cooking Facilities	2.04E-05	1.78E-04	2.37E-05	2.07E-05	1.67E-05	1.67E-05	1.84E-05	1.67E-05	2.04E-05	1.67E-05	1.75E-04	6.74E-05	1.67E-05	3.48E-03	4.95E-04	8.23E-05										
Misc. CTA Restaurants	Ext. Comb., Cooking, Natural Gas	2.25E-05	1.98E-04	2.81E-05	2.28E-05	1.85E-05	1.85E-05	2.03E-05	1.85E-05	2.25E-05	1.85E-05	1.93E-04	7.44E-05	1.85E-05	3.84E-03	5.47E-04	9.08E-05										
Nikko Inflight Catering	Ext. Comb., Boilers & Cooking	3.19E-05	2.77E-04	3.68E-05	3.22E-05	2.61E-05	2.61E-05	2.86E-05	2.61E-05	3.18E-05	2.61E-05	2.72E-04	1.05E-04	2.61E-05	5.42E-03	7.71E-04	1.28E-04										
Ogden Aviation Services	Ext. Comb., Boiler (5) & Heaters (4)	3.53E-06	3.07E-05	4.09E-06	3.58E-06	2.90E-06	2.90E-06	3.18E-06	2.90E-06	3.53E-06	2.90E-06	3.02E-05	1.17E-05	2.90E-06	6.02E-04	8.58E-05	1.42E-05										
The Proud Bird Rest.	Ext. Comb., Cooking & Fireplaces	6.35E-05	5.53E-04	7.36E-05	6.45E-05	5.21E-05	5.21E-05	5.71E-05	5.21E-05	6.35E-05	5.21E-05	5.44E-04	2.10E-04	5.21E-05	1.08E-02	1.54E-03	2.58E-04										
TWA Cargo	Ext. Comb., Boiler & Water Heater	1.09E-05	9.46E-05	1.28E-05	1.10E-05	8.91E-06	8.91E-06	9.77E-06	8.91E-06	1.09E-05	8.91E-06	9.30E-05	3.59E-05	8.91E-06	1.85E-03	2.63E-04	4.38E-05										
TWA Maintenance	Ext. Comb., Boilers (6)	3.01E-05	2.62E-04	3.48E-05	3.05E-05	2.47E-05	2.47E-05	2.70E-05	2.47E-05	3.01E-05	2.47E-05	2.56E-04	9.93E-05	2.47E-05	5.13E-03	7.29E-04	1.21E-04										

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LAX Emissions Inventory Databa

Source Name		Classification	Ethyl Alcohol	Glycol Ethers	Inorganic Arsenic	Methanol	Methylene Chloride (lbs)	N-Butanol	Perchloroethylene	Secondary Butanol	TCDD	Trichloroethane, 1,1,1	Trichloroethylene	REFERENCES
Chelsea Catering		Charbroiling												
Dobbs Int'l		Charbroiling												
LSG Sky Chefs		Charbroiling												
Misc. CTA Restaurants		Charbroiling												
Misc. CTA Restaurants		Charbroiling												
Misc. CTA Restaurants		Charbroiling												
Misc. CTA Restaurants		Charbroiling												
Misc. CTA Restaurants		Charbroiling												
Nikko Inflight Catering		Charbroiling												
Ogden Aviation Services		Charbroiling												
The Proud Bird Rest.		Charbroiling												
Delta Airlines		Cooling Tower												
Delta Airlines		Cooling Tower												
LAWA		Cooling Tower												
LSG Sky Chefs		Cooling Towers (2)												
TWA Maintenance		Cooling Tower												
U.S. Post Office		Cooling Tower												
U.S. Post Office		Cooling Tower												
Continental Airlines		Degreasing Operations					9.31E+02							
Continental Airlines		Degreasing Operations											9.78E+03	
Continental Airlines		Degreasing Operations											7.34E+02	
Continental Airlines		Degreasing Operations											7.34E+02	
American Airlines		Ext. Comb., Heaters/Furnaces (5)												CATEF
American Golf		Ext. Comb., Cooking Facilities												CATEF
Caterair		Ext. Comb., Boilers & Cooking												CATEF
Chelsea Catering		Ext. Comb., Boilers & Cooking												CATEF
Continental Airlines		Ext. Comb., Boiler												CATEF
Delta Airlines		Ext. Comb., Boiler												CATEF
Delta Airlines		Ext. Comb., Boiler												CATEF
Dobbs Int'l		Ext. Comb., Boilers & Cooking												CATEF
FAA Control Tower		Ext. Comb., Boiler												CATEF
FAA Control Tower		Ext. Comb., Boiler												CATEF
LAWA		Ext. Comb., Natural Gas Emission												CATEF
LAWA		Ext. Comb., Natural Gas Emission												CATEF
LSG Sky Chefs		Ext. Comb., Boilers (3)												CATEF
LSG Sky Chefs		Ext. Comb., Cooking Facilities												CATEF
Misc. CTA Restaurants		Ext. Comb., Cooking, Natural Gas												CATEF
Nikko Inflight Catering		Ext. Comb., Boilers & Cooking												CATEF
Ogden Aviation Services		Ext. Comb., Boiler (5) & Heaters (4)												CATEF
The Proud Bird Rest.		Ext. Comb., Cooking & Fireplaces												CATEF
TWA Cargo		Ext. Comb., Boiler & Water Heater												CATEF
TWA Maintenance		Ext. Comb., Boilers (6)												CATEF

SUMMARY

LAX Emissions Inventory Database - Stationary Sources

Criteria Pollutants (except Lead)

Source Type	Ref.	Notes	Source Name	Classification	Fuel Type (pri/se)	Type	Actual Annual Thruput	Thruput Units	HP	BTU/hr	Emission Estimation Technique	VOC	PM10	CO	NOx	SO2
Ext.Comb.	28,30,34	x.z.dd	U.S. Post Office	Ext. Comb., Boiler (2)	NG		2.21	MMcf		2.5MM (2)		6.15	25.30	40.41	221.00	1.33
Ext.Comb.	1,30,35	a.z.ii	United Airlines	Ext. Comb., Boilers & Heaters, Mis	NG		1.03	MMcf				7.21	7.73	36.06	133.90	0.65
Ext.Comb.	18,19	a.p.	Misc. CTA Restaurants	Cooking, Wood	WOOD	Masonry type	60	Tons				2628.00	336.00	6940.00	168.00	24.00
Ext.Comb.	21,29	y.	LAWA	Ext. & Int. Comb., Reclaim NOx											73744.00	
Fug.Dust	17	n.	Greene's Ready Mix	Aggregate Handling System		Pneumatic	141,557	CuYds					3.29			
Fug.Dust	17	n.	Greene's Ready Mix	Concrete Batch Plant		Wet Process	84,000	CuYds					30.66			
Fug.VOC	1,68	a.zzz	American Airlines	Tank, Fuel Storage & Disp, Gas	G	Fugitive	110,000	Gallon				3.41				
Fug.VOC	1,68	a.zzz	American Golf	Tank, Gasoline	G	Fugitive	4,800	Gallon				0.15				
Fug.VOC	1,68	a.zzz	Avis Rent-A-Car	Tank, Unleaded gas (2)	G	Fugitive	584,000	Gallon				18.10				
Fug.VOC	1,68	a.zzz	Continental Airlines	Tank, Unleaded gasoline	G	Fugitive	600,000	Gallon				18.60				
Fug.VOC	1,68	a.zzz	Garrett Aviation	Tank, Aviat. Gas	G	Fugitive	18,285	Gallon				0.57				
Fug.VOC	1,68	a.zzz	Garrett Aviation	Tank, Gasoline	G	Fugitive	19,376	Gallon				0.57				
Fug.VOC	1,68	a.zzz	Hudson General	Tank, Gasoline	G	Fugitive	192,000	Gallon				5.95				
Fug.VOC	1,68	a.zzz	LAWA	Tank, Gasoline	G	Fugitive	274,260	Gallons				8.50				
Fug.VOC	37,38,68	qq.r.r.zzz	LAX Fuels	Fug. VOC, Pump, VP>1	G		1	pump				432.00				
Fug.VOC	37,38,68	qq.r.r.zzz	LAX Fuels	Fug. VOC, Pumps (39), Non-406	G		39	pumps				3471.00				
Fug.VOC	39,68	kk.k.zzz	Mercury	Fug. VOC, GSE/Misc. Eq. Fueling	G	From Tank Trucks	1,200,000	Gallons				1260.00				
Fug.VOC	1,4,68	a.es.zzz	Mercury	Tank, Gasoline	G	Fugitive	750,000	Gallons				23.25				
Fug.VOC	1,68	a.zzz	National Car Rental	Tank, Gasoline (6)	G	Fugitive	1,120,679	Gallons				34.74				
Fug.VOC	1,68	a.zzz	TWA Maintenance	Tank, Fuel	G	Fugitive	64,000	Gallon				1.98				
Fug.VOC	1,68	a.zzz	United Airlines	Tank, Gasoline, Hangar	G	Fugitive	72,970	Gallons				2.26				
Fug.VOC	1,68	a.zzz	United Airlines	Tank, Gasoline, Satellite	G	Fugitive	37,088	Gallons				1.15				
Fug.VOC	3	q.	LAX Fuels	Tank, Jet A, #1819	Jet A	Fugitive	966,696	BBL				158.00				
Fug.VOC	3	q.	LAX Fuels	Tank, Jet A, #1820	Jet A	Fugitive	966,696	BBL				158.00				
Fug.VOC	3	q.	LAX Fuels	Tank, Jet A, #2021	Jet A	Fugitive	1,074,107	BBL				173.00				
Fug.VOC	3	q.	LAX Fuels	Tank, Jet A, #2022	Jet A	Fugitive	1,074,107	BBL				173.00				
Fug.VOC	3	q.	LAX Fuels	Tank, Jet A, #2818	Jet A	Fugitive	1,507,108	BBL				245.00				
Fug.VOC	3	q.	LAX Fuels	Tank, Jet A, #401	Jet A	Fugitive	2,151,570	BBL				264.00				
Fug.VOC	3	q.	LAX Fuels	Tank, Jet A, #402	Jet A	Fugitive	2,151,570	BBL				264.00				
Fug.VOC	3	q.	LAX Fuels	Tank, Jet A, #403	Jet A	Fugitive	2,151,570	BBL				264.00				
Fug.VOC	3	q.	LAX Fuels	Tank, Jet A, #404	Jet A	Fugitive	2,151,570	BBL				264.00				
Fug.VOC	3	q.	LAX Fuels	Tank, Jet A, #6011	Jet A	Fugitive	3,229,033	BBL				384.00				
Fug.VOC	3	q.	LAX Fuels	Tank, Jet A, #6013	Jet A	Fugitive	3,229,033	BBL				384.00				
Fug.VOC	3	q.	LAX Fuels	Tank, Jet A, #6014	Jet A	Fugitive	3,229,033	BBL				384.00				
Fug.VOC	3	q.	LAX Fuels	Tank, Jet A, #6015	Jet A	Fugitive	3,229,033	BBL				384.00				
Fug.VOC	3	q.	LAX Fuels	Tank, Jet A, #6016	Jet A	Fugitive	3,225,675	BBL				383.00				
Fug.VOC	3	q.	LAX Fuels	Tank, Jet A, #609	Jet A	Fugitive	3,229,033	BBL				384.00				
Fug.VOC	1,2,3	a.b	LAX Fuels, Jet A Hydrants	Fug. VOC, Aircraft Fueling	Jet A	From Hydrants	30,633,832	B9LS				26038.76				
Fug.VOC	1,3,4	a.c	LAX Fuels/Mercury	Fug. VOC, Aircraft/GSE Fueling	Jet A	From Tank Trucks	5,095,299	B9LS				4331.00				
Fug.VOC	1,3,4	a.c	LAX Fuels/Mercury	Fug. Truck (Loading Tank Trks)	Jet A	Fugitive	5,095,299	BBL				7184.37				
Fug.VOC	1,69	q.	Mercury	Tank, Jet A (B), Incoming	Jet A	Fugitive	90,860,000	Gallons				3109.43				
Fug.VOC	1,69	q.	Mercury	Tank, Jet A (B), Outgoing	Jet A	Fugitive	90,860,000	Gallons				3109.43				
Fug.VOC	1,69	q.	U.S. Coast Guard	Tank, Jet A	Jet A	Fugitive	116,480	Gallons				3.99				
Fug.VOC	26,32		Continental Airlines	Tank, Degreaser (TCE)			1,600	Gallon				0.05				
ICE	40,43,46	ww.zz.bbb	Airport Term. Services	IC Engine, ASU	D		548	Hour	350			481.76	421.58	1280.06	5940.36	77.51
ICE	40,43,46	ww.zz.bbb	Airport Term. Services	IC Engine, GPU	D		24	Hour	280			15.69	13.73	41.68	193.44	2.52

SUMMARY

LAX Emissions Inventory Databa

		Volatile Organic Compounds (VOC)										Semi-Volatile Organic Compounds (SVOC)									
Source Name	Classification	Acetaldehyde	Acrolein	Benzene	Butadiene, 1,3-	Formaldehyde	Hexane	Propylene	Propylene oxide	Styrene	Toluene	Xylene, m- or p-	Xylene, o-	Xylene (total)	Benzaldehyde	Benzo(e)pyrene	Chloronaphthalene, 2-	Diesel Particulate	Ethylbenzene	Methylnaphthalene, 2-	Perylene
U.S. Post Office	Ext. Comb., Boiler (2)	1.49E-02	9.97E-03	8.44E-03		3.89E-01		1.02E+00			7.14E-02			4.13E-02	3.62E-02				4.97E-03		
United Airlines	Ext. Comb., Boilers & Heaters, Misc	6.94E-03	4.65E-03	3.93E-03		1.72E-01		4.77E-01			3.33E-02		12.12	1.93E-02	1.69E-02	0.72			2.32E-03		
Misc. CTA Restaurants	Cooking, Wood			116.28				74.64			43.80										
LAWA	Ext. & Int. Comb., Reclaim NOx																				
Greene's Ready Mix	Aggregate Handling System																				
Greene's Ready Mix	Concrete Batch Plant																				
American Airlines	Tank, Fuel Storage & Disp. Gas			2.63E-02							2.25E-02			5.12E-03					1.84E-03		
American Golf	Tank, Gasoline			1.15E-03							9.82E-04			2.23E-04					8.04E-05		
Avis Rent-A-Car	Tank, Unleaded gas (2)			1.39E-01							1.19E-01			2.72E-02					9.78E-03		
Continental Airlines	Tank, Unleaded gasoline			1.43E-01							1.23E-01			2.79E-02					1.00E-02		
Garrett Aviation	Tank, Aviat. Gas			4.35E-03							3.74E-03			6.50E-04					3.06E-04		
Garrett Aviation	Tank, Gasoline			4.35E-03							3.76E-03			6.54E-04					3.08E-04		
Hudson General	Tank, Gasoline			4.58E-02							3.93E-02			8.93E-03					3.21E-03		
LAWA	Tank, Gasoline			6.55E-02							5.61E-02			1.28E-02					4.59E-03		
LAX Fuels	Fug. VOC, Pump, VP>1			3.33E+00							2.85E+00			6.48E-01					2.33E-01		
LAX Fuels	Fug. VOC, Pumps (39), Non-486			2.67E+01							2.29E+01			5.21E+00					1.87E+00		
Mercury	Fug. VOC, GSE/Misc. Eq. Fueling			9.70E+00							8.32E+00			1.89E+00					6.80E-01		
Mercury	Tank, Gasoline			1.79E-01							1.53E-01			3.49E-02					1.26E-02		
National Car Rental	Tank, Gasoline (6)			2.68E-01							2.29E-01			5.21E-02					1.88E-02		
TWA Maintenance	Tank, Fuel			1.53E-02							1.31E-02			2.66E-03					1.07E-03		
United Airlines	Tank, Gasoline, Hangar			1.74E-02							1.49E-02			3.39E-03					1.22E-03		
United Airlines	Tank, Gasoline, Satellite			8.88E-03							7.58E-03			1.73E-03					6.21E-04		
LAX Fuels	Tank, Jet A, #1816																				
LAX Fuels	Tank, Jet A, #1820																				
LAX Fuels	Tank, Jet A, #2021																				
LAX Fuels	Tank, Jet A, #2022																				
LAX Fuels	Tank, Jet A, #2818																				
LAX Fuels	Tank, Jet A, #401																				
LAX Fuels	Tank, Jet A, #402																				
LAX Fuels	Tank, Jet A, #403																				
LAX Fuels	Tank, Jet A, #404																				
LAX Fuels	Tank, Jet A, #6011																				
LAX Fuels	Tank, Jet A, #6013																				
LAX Fuels	Tank, Jet A, #6014																				
LAX Fuels	Tank, Jet A, #6015																				
LAX Fuels	Tank, Jet A, #6016																				
LAX Fuels	Tank, Jet A, #609																				
LAX Fuels, Jet A Hydrants	Fug. VOC, Aircraft Fueling																				
LAX Fuels/Mercury	Fug. VOC, Aircraft/GSE Fueling																				
LAX Fuels/Mercury	Tank, Truck (Loading Tank Trks)																				
Mercury	Tank, Jet A (8), Incoming																				
Mercury	Tank, Jet A (8), Outgoing																				
U.S. Coast Guard	Tank, Jet A																				
Continental Airlines	Tank, Degreaser (TCE)																				
Airport Term. Services	IC Engine, ASU	3.32E-02	1.03E-02	1.85E+00		4.84E-01		3.27E+00			5.88E-01			2.01E-01							
Airport Term. Services	IC Engine, GPU	1.08E-03	3.34E-04	6.02E-02		1.58E-02		1.06E-01			1.91E-02			6.54E-03							

SUMMARY

AX Emissions Inventory Databa

Dioxins/Furans

Polycyclic Aromatic Hydrocarbons (PAH)

		Polycyclic Aromatic Hydrocarbons (PAH)																									
Source Name	Classification	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	Dioxin (tetrachloro total)	Dioxin (pentachloro total)	Dioxin (hexachloro total)	Dioxin (heptachloro total)	Dioxin (octachloro)	Furan (tetrachloro total)	Furan (pentachloro total)	Furan (hexachloro total)	Furan (heptachloro total)	Furan (octachloro)
Post Office	Ext. Comb., Boiler (2)	3.07E-06	2.67E-05	3.56E-06	3.12E-06	2.52E-06	2.52E-06	2.76E-06	2.52E-06	3.07E-06	2.52E-06	2.63E-06	1.01E-05	2.52E-06	5.24E-04	7.46E-05	1.24E-05										
ited Airlines	Ext. Comb., Boilers & Heaters, Mix	1.43E-06	1.25E-05	1.66E-06	1.45E-06	1.17E-06	1.17E-06	1.29E-06	1.17E-06	1.43E-06	1.17E-06	1.23E-05	4.73E-06	1.17E-06	2.44E-04	3.47E-05	5.77E-06										
ic. CTA Restaurants	Cooking, Wood	0.60	12.72	0.84	1.20	-	0.36	0.24	0.12	0.72	0.24	1.20	1.44	1.20	17.28	4.88	1.44										
WA	Ext. & Int. Comb., Reclaim NOx																										
ene's Ready Mix	Aggregate Handling System																										
ene's Ready Mix	Concrete Batch Plant																										
erican Airlines	Tank, Fuel Storage & Disp. Gas																										
erican Goff	Tank, Gasoline																										
is Rent-A-Car	Tank, Unleaded gas (2)																										
intinental Airlines	Tank, Unleaded gasoline																										
irrett Aviation	Tank, Aviat. Gas																										
irrett Aviation	Tank, Gasoline																										
idson General	Tank, Gasoline																										
WA	Tank, Gasoline																										
IX Fuels	Fug. VOC, Pump, VP>1																										
IX Fuels	Fug. VOC, Pumps (38), Non-466																										
rcury	Fug. VOC, GSE/Misc. Eq. Fueling																										
rcury	Tank, Gasoline																										
ditional Car Rental	Tank, Gasoline (8)																										
VA Maintenance	Tank, Fuel																										
ited Airlines	Tank, Gasoline, Hangar																										
ited Airlines	Tank, Gasoline, Satellite																										
IX Fuels	Tank, Jet A, #1819																										
IX Fuels	Tank, Jet A, #1820																										
IX Fuels	Tank, Jet A, #2021																										
IX Fuels	Tank, Jet A, #2022																										
IX Fuels	Tank, Jet A, #2818																										
IX Fuels	Tank, Jet A, #401																										
IX Fuels	Tank, Jet A, #402																										
IX Fuels	Tank, Jet A, #403																										
IX Fuels	Tank, Jet A, #404																										
IX Fuels	Tank, Jet A, #6011																										
IX Fuels	Tank, Jet A, #6013																										
IX Fuels	Tank, Jet A, #6014																										
IX Fuels	Tank, Jet A, #6015																										
IX Fuels	Tank, Jet A, #6016																										
IX Fuels	Tank, Jet A, #609																										
IX Fuels, Jet A Hydrants	Fug. VOC, Aircraft Fueling																										
IX Fuels/Mercury	Fug. VOC, Aircraft/GSE Fueling																										
IX Fuels/Mercury	Tank, Truck (Loading Tank Trks)																										
rcury	Tank, Jet A (8), Incoming																										
rcury	Tank, Jet A (8), Outgoing																										
.S. Coast Guard	Tank, Jet A																										
ontinental Airlines	Tank, Degreaser (TCE)																										
Import Term. Services	IC Engine, ASU	6.43E-03	9.75E-03	2.14E-03	8.21E-04	7.57E-04	1.07E-03	8.67E-04	7.50E-04	1.24E-03	7.87E-04	3.15E-03	9.24E-03	8.09E-04	1.51E-01	3.39E-02	2.52E-03										
Import Term. Services	IC Engine, GPU	2.09E-04	3.17E-04	6.96E-05	3.00E-05	2.47E-05	3.48E-05	2.82E-05	2.44E-05	4.04E-05	2.55E-05	1.02E-04	3.01E-04	2.63E-05	4.91E-03	1.10E-03	8.22E-05										

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LAX Emissions Inventory Database

		Metals																				Inorganics									
Source Name	Classification	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium (hex)	Chromium (total)	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Phosphorus	Potassium	Selenium	Silicon	Sodium	Tin	Vanadium	Zinc	Ammonia	Bromine	Hydrogen chloride
U.S. Post Office	Ext. Comb., Boiler (2)																														
United Airlines	Ext. Comb., Boilers & Heaters, Misc.																														
Misc. CTA Restaurants	Cooking, Wood																														
LAWA	Ext. & Int. Comb., Reclaim NOx																														
Greene's Ready Mix	Aggregate Handling System																														
Greene's Ready Mix	Concrete Batch Plant																														
American Airlines	Tank, Fuel Storage & Disp. Gas																														
American Golf	Tank, Gasoline																														
Avis Rent-A-Car	Tank, Unleaded gas (2)																														
Continental Airlines	Tank, Unleaded gasoline																														
Serrett Aviation	Tank, Aviat. Gas																														
Serrett Aviation	Tank, Gasoline																														
Hudson General	Tank, Gasoline																														
JAWA	Tank, Gasoline																														
LAX Fuels	Fug. VOC, Pump, VP>1																														
LAX Fuels	Fug. VOC, Pumps (39), Non-466																														
Mercury	Fug. VOC, GSE/Misc. Eq. Fueling																														
Mercury	Tank, Gasoline																														
National Car Rental	Tank, Gasoline (6)																														
FWA Maintenance	Tank, Fuel																														
United Airlines	Tank, Gasoline, Hangar																														
United Airlines	Tank, Gasoline, Satellite																														
LAX Fuels	Tank, Jet A, #1819																														
LAX Fuels	Tank, Jet A, #1820																														
LAX Fuels	Tank, Jet A, #2021																														
LAX Fuels	Tank, Jet A, #2022																														
LAX Fuels	Tank, Jet A, #2818																														
LAX Fuels	Tank, Jet A, #401																														
LAX Fuels	Tank, Jet A, #402																														
LAX Fuels	Tank, Jet A, #403																														
LAX Fuels	Tank, Jet A, #404																														
LAX Fuels	Tank, Jet A, #6011																														
LAX Fuels	Tank, Jet A, #6013																														
LAX Fuels	Tank, Jet A, #6014																														
LAX Fuels	Tank, Jet A, #6015																														
LAX Fuels	Tank, Jet A, #6016																														
LAX Fuels	Tank, Jet A, #609																														
LAX Fuels, Jet A Hydrants	Fug. VOC, Aircraft Fueling																														
LAX Fuels/Mercury	Fug. VOC, Aircraft/GSE Fueling																														
LAX Fuels/Mercury	Tank, Truck (Loading Tank Trks)																														
Mercury	Tank, Jet A (8), Incoming																														
Mercury	Tank, Jet A (8), Outgoing																														
U.S. Coast Guard	Tank, Jet A																														
Continental Airlines	Tank, Degreaser (TGE)																														
Airport Term. Services	IC Engine, ASU																														
Airport Term. Services	IC Engine, GPU																														

LAX Emissions Inventory Database

Source Name		Classification	Ethyl Alcohol	Glycol Ethers	Inorganic Arsenic	Methanol	Methylene Chloride (lbs)	N-Butanol	Perchloroethylene	Secondary Butanol	TCDD	Trichloroethane, 1,1,1	Trichloroethylene	REFERENCES
U.S. Post Office	Ext. Comb., Boiler (2)													CATEF
United Airlines	Ext. Comb., Boilers & Heaters, Misc													CATEF
Misc. CTA Restaurants	Cooking, Wood													AP42
LAWA	Ext. & Int. Comb., Reclaim NOx													
Greene's Ready Mix	Aggregate Handling System													
Greene's Ready Mix	Concrete Batch Plant													SPECIATE
American Airlines	Tank, Fuel Storage & Disp, Gas													SPECIATE
American Golf	Tank, Gasoline													SPECIATE
Avis Rent-A-Car	Tank, Unleaded gas (2)													SPECIATE
Continental Airlines	Tank, Unleaded gasoline													SPECIATE
Garrett Aviation	Tank, Avial, Gas													SPECIATE
Garrett Aviation	Tank, Gasoline													SPECIATE
Hudson General	Tank, Gasoline													SPECIATE
LAWA	Tank, Gasoline													SPECIATE
LAX Fuels	Fug. VOC, Pump, VP>1													SPECIATE
LAX Fuels	Fug. VOC, Pumps (39), Non-466													SPECIATE
Mercury	Fug. VOC, GSE/Misc. Eq. Fueling													SPECIATE
Mercury	Tank, Gasoline													SPECIATE
National Car Rental	Tank, Gasoline (6)													SPECIATE
TWA Maintenance	Tank, Fuel													SPECIATE
United Airlines	Tank, Gasoline, Hangar													SPECIATE
United Airlines	Tank, Gasoline, Satellite													SPECIATE
LAX Fuels	Tank, Jet A, #1819													
LAX Fuels	Tank, Jet A, #1820													
LAX Fuels	Tank, Jet A, #2021													
LAX Fuels	Tank, Jet A, #2022													
LAX Fuels	Tank, Jet A, #2818													
LAX Fuels	Tank, Jet A, #401													
LAX Fuels	Tank, Jet A, #402													
LAX Fuels	Tank, Jet A, #403													
LAX Fuels	Tank, Jet A, #404													
LAX Fuels	Tank, Jet A, #6011													
LAX Fuels	Tank, Jet A, #6013													
LAX Fuels	Tank, Jet A, #6014													
LAX Fuels	Tank, Jet A, #6015													
LAX Fuels	Tank, Jet A, #6016													
LAX Fuels	Tank, Jet A, #609													
LAX Fuels, Jet A Hydrants	Fug. VOC, Aircraft Fueling													
LAX Fuels/Mercury	Fug. VOC, Aircraft/GSE Fueling													
LAX Fuels/Mercury	Tank, Truck (Loading Tank Trucks)													
Mercury	Tank, Jet A (8), Incoming													
Mercury	Tank, Jet A (8), Outgoing													
U.S. Coast Guard	Tank, Jet A													
Continental Airlines	Tank, Degreaser (TCE)												0.00E+00	
Airport Term. Services	IC Engine, ASU													CATEF
Airport Term. Services	IC Engine, GPU													CATEF

SUMMARY

LAX Emissions Inventory Database - Stationary Sources

Criteria Pollutants (except Lead)

Source Type	Ref.	Notes	Source Name	Classification	Fuel Type (pri/so)	Type	Actual Annual Thruput	Thruput Units	HP	BTU/hr	Emission Estimation Technique	VOC	PM10	CO	NOx	SO2
ICE	40,43,57	ww,zz,mmm	Alaska Airlines	IC Engine, GPU	D		728	Hour	120.8			220.73	193.15	586.48	2721.70	35.51
ICE	40,43,47	ww,zz,ccc	America West	IC Engine, ASU	D		1	Hour	150			0.38	0.33	1.00	4.85	0.06
ICE	40,43,47	ww,zz,ccc	America West	IC Engine, GPU	D		1	Hour	200			0.50	0.44	1.34	6.20	0.06
ICE	36,40,43	oo,ww,zz	American Airlines	IC Engine, Fire Pump	D		28	Hour	435			28.43	24.88	75.55	350.61	4.57
ICE	36,40,43	oo,ww,zz	American Airlines	IC Engine, Fire Pump	D		26	Hour	435			28.43	24.88	75.55	350.61	4.57
ICE	36,40,43	oo,ww,zz	American Airlines	IC Engine, Fire Pump	D		26	Hour	435			28.43	24.88	75.55	350.61	4.57
ICE	36,40,43	oo,ww,zz	American Airlines	IC Engine, Fire Pump	D		26	Hour	435			28.43	24.88	75.55	350.61	4.57
ICE	36,40,43	oo,ww,zz	American Airlines	IC Engine, Fire Pump	D		26	Hour	435			28.43	24.88	75.55	350.61	4.57
ICE	36,40,43	oo,ww,zz	American Airlines	IC Engine, Fire Pump	D		26	Hour	435			28.43	24.88	75.55	350.61	4.57
ICE	36,40,43	oo,ww,zz	American Airlines	IC Engine, Fire Pump	D		26	Hour	435			28.43	24.88	75.55	350.61	4.57
ICE	36,40,43	oo,ww,zz	American Airlines	IC Engine, Fire Pump	D		26	Hour	435			28.43	24.88	75.55	350.61	4.57
ICE	36,40,43	oo,ww,zz	American Airlines	IC Engine, Fire Pump 6th Flr	D		26	Hour	220			14.38	12.58	38.21	177.32	2.31
ICE	36,40,43	oo,ww,zz	American Airlines	IC Engine, GPU	D		988	Hour	252			625.70	547.53	1662.49	7715.13	100.67
ICE	36,40,43	oo,ww,zz	American Airlines	IC Engine, GPU	D		988	Hour	180			446.93	391.09	1187.49	5510.81	71.91
ICE	36,40,43	oo,ww,zz	American Airlines	IC Engine, GPU	D		988	Hour	180			446.93	391.09	1187.49	5510.81	71.91
ICE	36,40,43	oo,ww,zz	American Airlines	IC Engine, GPU	D		988	Hour	114			283.05	247.60	752.08	3490.18	45.54
ICE	36,40,43	oo,ww,zz	American Airlines	IC Engine, GPU	D		988	Hour	105		18.47	260.71	228.14	692.70	3214.64	41.96
ICE	40,43,62	ww,zz,rrr	American Eagle	IC Engine, GPU /ASU (9)	D		27923	Hour	74			5177.60	4530.73	13756.95	63842.14	833.04
ICE	40,43,48	ww,zz,ddd	American Intl. Cargo	IC Engine, ASU	D		5	Hour	545			6.85	6.00	18.20	84.48	1.10
ICE	40,43,48	ww,zz,ddd	American Intl. Cargo	IC Engine, ASU	D		5	Hour	545			6.85	6.00	18.20	84.48	1.10
ICE	40,43	kk,ww,zz	Atlas Air Group	IC Engine, GPU	D		4	Hour	2000			32.68	28.60	86.84	403.00	5.28
ICE	40,43,49	ww,zz,eee	Centinela Hospital	IC Engine, Emergency	D	Diesel	26	Hour	170			20.11	17.60	53.44	248.00	3.24
ICE	40,43,56	ww,zz,ill	Continental Airlines	IC Engine, ASU	D		49	Hour	585			11.11	9.72	29.53	137.02	1.79
ICE	32,40,43	bb,ww,zz	Continental Airlines	IC Engine, Generator (5)	D	Fire Water Pumps	130	Hour	635			207.54	181.61	551.43	2559.05	33.39
ICE	40,43	kk,ww,zz	Continental Airlines	IC Engine, ASU	D		200	Hour	70			80.34	52.80	160.32	744.00	9.71
ICE	32,40,43	bb,ww,zz	Continental Airlines	IC Engine, GPU (7)	D		3,276	Hour	70			578.53	504.50	1531.88	7108.82	92.78
ICE	27,40,43	w,ww,zz	Delta Airlines	IC Engine, ASU	D		5	Hour	35			0.46	0.40	1.22	5.64	0.07
ICE	27,40,43	w,ww,zz	Delta Airlines	IC Engine, ASU	D		5	Hour	35			0.46	0.40	1.22	5.64	0.07
ICE	27,40,43	w,ww,zz	Delta Airlines	IC Engine, ASU	D		5	Hour	20			0.26	0.23	0.69	3.22	0.04
ICE	27,40,43	w,ww,zz	Delta Airlines	IC Engine, ASU	D		5	Hour	20			0.26	0.23	0.69	3.22	0.04
ICE	27,40,43	w,ww,zz	Delta Airlines	IC Engine, Fire Pump, Emerg.	D		0.40	Hour	525			0.53	0.46	1.40	6.51	0.08
ICE	27,40,43	w,ww,zz	Delta Airlines	IC Engine, Fire Pump, Emerg.	D		0.47	Hour	525			0.62	0.54	1.55	7.65	0.10
ICE	27,40,43	w,ww,zz	Delta Airlines	IC Engine, Fire Pump, Emerg.	D		0.49	Hour	525			0.65	0.57	1.72	7.97	0.10
ICE	27,40,43	w,ww,zz	Delta Airlines	IC Engine, Fire Pump, Emerg.	D		0.53	Hour	525			0.70	0.61	1.86	8.63	0.11
ICE	27,40,43	w,ww,zz	Delta Airlines	IC Engine, Foam Pump, Emerg.	D		0.11	Hour	135			0.04	0.03	0.10	0.46	0.01
ICE	27,40,43	w,ww,zz	Delta Airlines	IC Engine, Generator	D		5	Hour	310			3.90	3.41	10.35	48.05	0.63
ICE	27,40,43	w,ww,zz	Delta Airlines	IC Engine, Generator Truck, Emer	D		125	Hour	310			97.42	85.25	258.85	1201.25	15.67
ICE	27,40,43	w,ww,zz	Delta Airlines	IC Engine, Generator Truck, Emer	D		125	Hour	310			97.42	85.25	258.85	1201.25	15.67
ICE	27,40,43	w,ww,zz	Delta Airlines	IC Engine, Generator Truck, Emer	D		125	Hour	310			97.42	85.25	258.85	1201.25	15.67
ICE	27,40,43	w,ww,zz	Delta Airlines	IC Engine, Generator, Emerg.	D		9	Hour	368			8.02	7.02	21.31	98.91	1.29
ICE	27,40,43	w,ww,zz	Delta Airlines	IC Engine, Generator, Emerg.	D		9	Hour	368			8.02	7.02	21.31	98.91	1.29
ICE	40,43,50	ww,zz,fff	DHL	IC Engine, ASU	D		121.2	Hour	166			50.58	44.26	134.40	623.70	8.14
ICE	40,43,50	ww,zz,fff	DHL	IC Engine, GPU	D		260	Hour	66			43.14	37.75	114.63	531.96	6.94
ICE	40,43,50	ww,zz,fff	DHL	IC Engine, GPU	D		1,903	Hour	160			765.57	669.93	2034.14	9439.87	123.18
ICE	40,43,50	ww,zz,fff	DHL	IC Engine, GPU	D		2,631	Hour	160			1058.42	926.18	2812.23	13050.75	170.29
ICE	40,43,50	ww,zz,fff	DHL	IC Engine, Lighting	D		70	Hour	14.7			2.59	2.26	6.87	31.80	0.42

LAX Emissions Inventory Database

95sthrv.xls

LAX Emissions Inventory Databa

SUMMARY

		Polycyclic Aromatic Hydrocarbons (PAH)																Dioxin/Furans									
		Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	Dioxin (tetrachloro total)	Dioxin (pentachloro total)	Dioxin (hexachloro total)	Dioxin (heptachloro total)	Dioxin (octachloro total)	Furan (tetrachloro total)	Furan (pentachloro total)	Furan (hexachloro total)	Furan (heptachloro total)	Furan (octachloro total)
Source Name	Classification																										
Alaska Airlines	IC Engine, GPU	2.95E-03	4.47E-03	9.79E-04	4.22E-04	3.47E-04	4.91E-04	3.97E-04	3.44E-04	5.86E-04	3.61E-04	1.44E-03	4.23E-03	3.71E-04	8.91E-02	1.55E-02	1.16E-03										
America West	IC Engine, ASU	5.03E-06	7.63E-06	1.67E-06	7.21E-07	5.93E-07	8.39E-07	8.78E-07	5.87E-07	9.71E-07	5.16E-07	2.46E-06	7.23E-06	6.33E-07	1.58E-04	3.54E-05	2.64E-06										
America West	IC Engine, GPU	6.71E-06	1.02E-06	2.23E-06	9.82E-07	7.91E-07	1.12E-06	9.05E-07	7.83E-07	1.30E-06	8.22E-07	3.29E-06	9.65E-06	8.45E-07	1.58E-04	3.54E-05	2.64E-06										
American Airlines	IC Engine, Fire Pump	3.79E-04	5.75E-04	1.26E-04	5.44E-05	4.47E-05	6.32E-05	5.11E-05	4.43E-05	7.32E-05	4.65E-05	1.88E-04	5.45E-04	4.78E-05	8.91E-03	2.00E-03	1.49E-04										
American Airlines	IC Engine, Fire Pump	3.79E-04	5.75E-04	1.26E-04	5.44E-05	4.47E-05	6.32E-05	5.11E-05	4.43E-05	7.32E-05	4.65E-05	1.88E-04	5.45E-04	4.78E-05	8.91E-03	2.00E-03	1.49E-04										
American Airlines	IC Engine, Fire Pump	3.79E-04	5.75E-04	1.26E-04	5.44E-05	4.47E-05	6.32E-05	5.11E-05	4.43E-05	7.32E-05	4.65E-05	1.88E-04	5.45E-04	4.78E-05	8.91E-03	2.00E-03	1.49E-04										
American Airlines	IC Engine, Fire Pump	3.79E-04	5.75E-04	1.26E-04	5.44E-05	4.47E-05	6.32E-05	5.11E-05	4.43E-05	7.32E-05	4.65E-05	1.88E-04	5.45E-04	4.78E-05	8.91E-03	2.00E-03	1.49E-04										
American Airlines	IC Engine, Fire Pump	3.79E-04	5.75E-04	1.26E-04	5.44E-05	4.47E-05	6.32E-05	5.11E-05	4.43E-05	7.32E-05	4.65E-05	1.88E-04	5.45E-04	4.78E-05	8.91E-03	2.00E-03	1.49E-04										
American Airlines	IC Engine, Fire Pump	3.79E-04	5.75E-04	1.26E-04	5.44E-05	4.47E-05	6.32E-05	5.11E-05	4.43E-05	7.32E-05	4.65E-05	1.88E-04	5.45E-04	4.78E-05	8.91E-03	2.00E-03	1.49E-04										
American Airlines	IC Engine, Fire Pump	3.79E-04	5.75E-04	1.26E-04	5.44E-05	4.47E-05	6.32E-05	5.11E-05	4.43E-05	7.32E-05	4.65E-05	1.88E-04	5.45E-04	4.78E-05	8.91E-03	2.00E-03	1.49E-04										
American Airlines	IC Engine, Fire Pump 6th Flr.	1.92E-04	2.91E-04	6.39E-05	2.75E-05	2.26E-05	3.20E-05	2.59E-05	2.24E-05	3.70E-05	2.35E-05	9.40E-05	2.78E-04	2.42E-05	4.50E-03	1.01E-03	7.54E-05										
American Airlines	IC Engine, GPU	8.35E-03	1.27E-02	2.77E-03	1.20E-03	9.84E-04	1.39E-03	1.13E-03	9.74E-04	1.61E-03	1.02E-03	4.09E-03	1.20E-02	1.05E-03	1.96E-01	4.40E-02	3.28E-03										
American Airlines	IC Engine, GPU	5.96E-03	9.04E-03	1.98E-03	8.55E-04	7.03E-04	9.94E-04	8.04E-04	6.96E-04	1.15E-03	7.30E-04	2.92E-03	8.57E-03	7.51E-04	1.40E-01	3.14E-02	2.34E-03										
American Airlines	IC Engine, GPU	5.96E-03	9.04E-03	1.98E-03	8.55E-04	7.03E-04	9.94E-04	8.04E-04	6.96E-04	1.15E-03	7.30E-04	2.92E-03	8.57E-03	7.51E-04	1.40E-01	3.14E-02	2.34E-03										
American Airlines	IC Engine, GPU	3.78E-03	5.73E-03	1.28E-03	5.41E-04	4.45E-04	6.29E-04	5.09E-04	4.41E-04	7.29E-04	4.62E-04	1.85E-03	5.43E-03	4.75E-04	8.87E-02	1.99E-02	1.48E-03										
American Airlines	IC Engine, GPU	3.48E-03	5.29E-03	1.18E-03	4.99E-04	4.10E-04	5.80E-04	4.69E-04	4.06E-04	6.71E-04	4.26E-04	1.70E-03	5.00E-03	4.38E-04	8.17E-02	1.83E-02	1.37E-03										
American Eagle	IC Engine, GPU/ASU (9)	8.91E-02	1.05E-01	2.30E-02	9.90E-03	6.14E-03	1.15E-02	9.31E-03	8.08E-03	1.33E-02	8.46E-03	3.38E-02	9.93E-02	6.70E-03	1.62E+00	3.64E-01	2.71E-02										
American Intl. Cargo	IC Engine, ASU	9.14E-05	1.39E-04	3.04E-05	1.31E-06	1.08E-05	1.52E-05	1.23E-05	1.07E-05	1.76E-05	1.12E-05	4.48E-05	1.31E-04	1.15E-05	2.15E-03	4.82E-04	3.59E-05										
American Intl. Cargo	IC Engine, ASU	9.14E-05	1.39E-04	3.04E-05	1.31E-06	1.08E-05	1.52E-05	1.23E-05	1.07E-05	1.76E-05	1.12E-05	4.48E-05	1.31E-04	1.15E-05	2.15E-03	4.82E-04	3.59E-05										
Delta Air Lines	IC Engine, GPU	4.36E-04	6.61E-04	1.45E-04	6.25E-05	5.14E-05	7.27E-05	5.88E-05	5.09E-05	8.42E-05	5.34E-05	2.14E-04	6.27E-04	5.49E-05	1.02E-02	2.30E-03	1.71E-04										
Delta Air Lines	IC Engine, GPU	2.68E-04	4.07E-04	8.92E-05	3.85E-05	3.16E-05	4.47E-05	3.62E-05	3.13E-05	5.18E-05	3.29E-05	1.31E-04	3.86E-04	3.38E-05	6.30E-03	1.41E-03	1.05E-04										
Delta Air Lines	IC Engine, GPU	1.48E-04	2.25E-04	4.93E-05	2.12E-05	1.75E-05	2.47E-05	2.00E-05	1.73E-05	2.86E-05	1.82E-05	7.26E-05	2.19E-04	1.87E-05	3.48E-03	7.81E-04	5.82E-05										
Delta Air Lines	IC Engine, GPU	9.62E-04	1.46E-03	3.20E-04	1.38E-04	1.13E-04	1.60E-04	1.30E-04	1.12E-04	1.86E-04	1.18E-04	4.71E-04	1.38E-03	1.21E-04	2.26E-02	5.07E-03	3.78E-04										
Delta Air Lines	IC Engine, GPU (5)	2.77E-03	4.20E-03	9.20E-04	3.97E-04	3.26E-04	4.61E-04	3.73E-04	3.23E-04	5.35E-04	3.39E-04	1.36E-03	3.99E-03	3.49E-04	6.50E-02	1.48E-02	1.09E-03										
Delta Air Lines	IC Engine, GPU (7)	7.69E-03	1.17E-02	2.56E-03	1.10E-03	9.08E-04	1.28E-03	1.04E-03	8.98E-04	1.48E-03	9.42E-04	3.77E-03	1.11E-02	9.68E-04	1.81E-01	4.05E-02	3.02E-03										
Delta Air Lines	IC Engine, ASU	6.11E-08	9.26E-06	2.03E-06	8.75E-07	7.19E-07	1.02E-06	8.23E-07	7.13E-07	1.18E-06	7.46E-07	2.99E-06	8.78E-06	7.68E-07	1.43E-04	3.22E-05	2.40E-06										
Delta Air Lines	IC Engine, ASU	6.11E-08	9.26E-06	2.03E-06	8.75E-07	7.19E-07	1.02E-06	8.23E-07	7.13E-07	1.18E-06	7.46E-07	2.99E-06	8.78E-06	7.68E-07	1.43E-04	3.22E-05	2.40E-06										
Delta Air Lines	IC Engine, ASU	3.49E-08	5.29E-06	1.16E-06	5.00E-07	4.11E-07	5.81E-07	4.70E-07	4.07E-07	6.73E-07	4.27E-07	1.71E-06	5.02E-06	4.39E-07	8.19E-05	1.64E-05	1.37E-06										
Delta Air Lines	IC Engine, ASU	3.49E-08	5.29E-06	1.16E-06	5.00E-07	4.11E-07	5.81E-07	4.70E-07	4.07E-07	6.73E-07	4.27E-07	1.71E-06	5.02E-06	4.39E-07	8.19E-05	1.64E-05	1.37E-06										
Delta Air Lines	IC Engine, Fire Pump, Emerg.	7.05E-06	1.07E-05	2.34E-06	1.01E-06	8.30E-07	1.17E-06	9.50E-07	8.22E-07	1.38E-06	8.63E-07	3.45E-06	1.01E-05	8.87E-07	1.65E-04	3.71E-05	2.77E-06										
Delta Air Lines	IC Engine, Fire Pump, Emerg.	8.28E-06	1.26E-05	2.75E-06	1.19E-06	9.75E-07	1.38E-06	1.12E-06	9.66E-07	1.80E-06	1.01E-06	4.05E-06	1.19E-05	1.04E-06	1.94E-04	4.36E-05	3.25E-06										
Delta Air Lines	IC Engine, Fire Pump, Emerg.	8.63E-06	1.31E-05	2.87E-06	1.24E-06	1.02E-06	1.44E-06	1.16E-06	1.01E-06	1.67E-06	1.06E-06	4.23E-06	1.24E-05	1.09E-06	2.03E-04	4.55E-05	3.39E-06										
Delta Air Lines	IC Engine, Fire Pump, Emerg.	9.34E-06	1.42E-05	3.10E-06	1.34E-06	1.10E-06	1.58E-06	1.26E-06	1.09E-06	1.80E-06	1.14E-06	4.57E-06	1.34E-05	1.17E-06	2.19E-04	4.92E-05	3.67E-06										
Delta Air Lines	IC Engine, Foam Pump, Emerg.	5.02E-07	7.61E-07	1.87E-07	7.19E-08	6.91E-08	8.35E-08	6.77E-08	5.86E-08	9.69E-08	6.14E-08	2.48E-07	7.21E-07	6.32E-08	1.18E-05	2.84E-06	1.97E-07										
Delta Air Lines	IC Engine, Generator	5.20E-05	7.89E-05	1.73E-05	7.45E-06	6.13E-06	8.69E-06	7.01E-06	6.07E-06	1.00E-05	6.37E-06	2.55E-05	7.47E-06	6.64E-06	1.22E-03	2.74E-04	2.04E-05										
Delta Air Lines	IC Engine, Generator Truck, Emer	1.30E-03																									

AX Emissions Inventory Databa

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LAX Emissions Inventory Database

		Misc.											
Source Name	Classification	Ethyl Alcohol	Glycol Ethers	Inorganic Arsenic	Methanol	Methylene Chloride (lbs)	N-Butanol	Perchloroethylene	Secondary Butanol	TCDD	Trichloroethane, 1,1,1	Trichloroethylene	REFERENCES
Alaska Airlines	IC Engine, GPU												CATEF
America West	IC Engine, ASU												CATEF
America West	IC Engine, GPU												CATEF
American Airlines	IC Engine, Fire Pump												CATEF
American Airlines	IC Engine, Fire Pump												CATEF
American Airlines	IC Engine, Fire Pump												CATEF
American Airlines	IC Engine, Fire Pump												CATEF
American Airlines	IC Engine, Fire Pump												CATEF
American Airlines	IC Engine, Fire Pump												CATEF
American Airlines	IC Engine, Fire Pump												CATEF
American Airlines	IC Engine, Fire Pump												CATEF
American Airlines	IC Engine, Fire Pump 5th Flr.												CATEF
American Airlines	IC Engine, GPU												CATEF
American Airlines	IC Engine, GPU												CATEF
American Airlines	IC Engine, GPU												CATEF
American Airlines	IC Engine, GPU												CATEF
American Airlines	IC Engine, GPU												CATEF
American Eagle	IC Engine, GPU /ASU (9)												CATEF
American Intl. Cargo	IC Engine, ASU												CATEF
American Intl. Cargo	IC Engine, ASU												CATEF
Atlas Air Group	IC Engine, GPU												CATEF
Centinela Hospital	IC Engine, Emergency												CATEF
Continental Airlines	IC Engine, ASU												CATEF
Continental Airlines	IC Engine, Generator (5)												CATEF
Continental Airlines	IC Engines, GPU (7)												CATEF
Delta Airlines	IC Engine, ASU												CATEF
Delta Airlines	IC Engine, ASU												CATEF
Delta Airlines	IC Engine, ASU												CATEF
Delta Airlines	IC Engine, ASU												CATEF
Delta Airlines	IC Engine, Fire Pump, Emerg.												CATEF
Delta Airlines	IC Engine, Fire Pump, Emerg.												CATEF
Delta Airlines	IC Engine, Fire Pump, Emerg.												CATEF
Delta Airlines	IC Engine, Fire Pump, Emerg.												CATEF
Delta Airlines	IC Engine, Foam Pump, Emerg.												CATEF
Delta Airlines	IC Engine, Generator												CATEF
Delta Airlines	IC Engine, Generator Truck, Emer												CATEF
Delta Airlines	IC Engine, Generator Truck, Emer												CATEF
Delta Airlines	IC Engine, Generator Truck, Emer												CATEF
Delta Airlines	IC Engine, Generator, Emerg.												CATEF
Delta Airlines	IC Engine, Generator, Emerg.												CATEF
DHL	IC Engine, ASU												CATEF
DHL	IC Engine, GPU												CATEF
DHL	IC Engine, GPU												CATEF
DHL	IC Engine, GPU												CATEF
DHL	IC Engine, Lighting												CATEF

SUMMARY

LAX Emissions Inventory Database - Stationary Sources

Criteria Pollutants (except Lead)

Source Type	Ref.	Notes	Source Name	Classification	Fuel Type (pri/se)	Type	Actual Annual Thruput	Thruput Units	HP	BTU/hr	Emission Estimation Technique	VOC	PM10	CO	NOx	SO2
ICE	40,43,50	ww,zz,ff.	DHL	IC Engine, Lighting	D		72	Hour	14.7			2.66	2.33	7.07	32.81	0.43
ICE	40,43,51	ww,zz,ggg	DYNAIR	IC Engine, ASU	D		730	Hour	425			780.00	682.55	2072.47	9617.76	125.50
ICE	40,43,51	ww,zz,ggg	DYNAIR	IC Engine, ASU	D		730	Hour	425			780.00	682.55	2072.47	9617.75	125.50
ICE	40,43,51	ww,zz,ggg	DYNAIR	IC Engine, GPU	D		1825	Hour	92			422.12	369.38	1121.57	5204.90	67.92
ICE	40,43,51	ww,zz,ggg	DYNAIR	IC Engine, GPU	D		3650	Hour	92			844.23	738.78	2243.14	10409.80	135.83
ICE	40,43,51	ww,zz,ggg	DYNAIR	IC Engine, GPU	D		3650	Hour	107			981.88	859.21	2608.87	12107.05	157.98
ICE	40,43,51	ww,zz,ggg	DYNAIR	IC Engine, GPU	D		3850	Hour	200			1835.29	1606.00	4876.40	22630.00	285.29
ICE	40,43,51	ww,zz,ggg	DYNAIR	IC Engine, GPU	D		5475	Hour	148			2037.18	1782.66	5412.80	25119.30	327.77
ICE	40,43,51	ww,zz,ggg	DYNAIR	IC Engine, GPU	D		5475	Hour	123			1693.05	1481.54	4498.48	20876.18	272.40
ICE	40,43,51	ww,zz,ggg	DYNAIR	IC Engine, GPU	D		5475	Hour	148			2037.18	1782.66	5412.80	25119.30	327.77
ICE	40,43,51	ww,zz,ggg	DYNAIR	IC Engine, GPU	D		7300	Hour	107			1953.76	1716.42	5217.75	24214.10	315.95
ICE	40,43	kk,ww,zz	IC Engine, ASU	D			208	Hour	500			261.47	228.80	694.72	3224.00	42.07
ICE	40,43	kk,ww,zz	IC Engine, GPU	D			28	Hour	150			9.80	8.58	26.05	120.90	1.58
ICE	31,40,43	aa,ww,zz	FAA Misc. Facilities	IC Engine, Generator (10)	D		20.00	Hour	1,425			71.65	62.70	180.38	883.50	11.53
ICE	22,40,43	ww,yy,zz	FedEx Cargo	IC Engine,	D		280	Hour	151			98.70	86.37	262.26	1217.06	15.88
ICE	22,40,43	ww,yy,zz	FedEx Cargo	IC Engine,	D		260	Hour	151			98.70	86.37	262.26	1217.06	15.88
ICE	22,40,43	ww,yy,zz	FedEx Cargo	IC Engine,	D		260	Hour	131			85.63	74.93	227.62	1055.86	13.78
ICE	22,40,43	ww,yy,zz	FedEx Cargo	IC Engine,	D		260	Hour	106			69.29	60.63	184.10	854.36	11.15
ICE	22,40,43	ww,yy,zz	FedEx Cargo	IC Engine,	D		260	Hour	95			62.10	54.34	165.00	765.70	9.99
ICE	22,40,43	ww,yy,zz	FedEx Cargo	IC Engine,	D		260	Hour	364			237.93	208.21	632.20	2933.84	38.28
ICE	22,40,43	ww,yy,zz	FedEx Cargo	IC Engine,	D		260	Hour	151			98.70	86.37	262.26	1217.06	15.88
ICE	22,40,43	ww,yy,zz	FedEx Cargo	IC Engine,	D		260	Hour	151			98.70	86.37	262.26	1217.06	15.88
ICE	22,40,43	s,ww,zz	FedEx Maintenance	IC Engine, GPU	D		1	Hour	175			0.44	0.39	1.17	5.43	0.07
ICE	22,40,43	s,ww,zz	FedEx Maintenance	IC Engine, GPU	D		260	Hour	131			85.63	74.93	227.52	1055.86	13.78
ICE	22,40,43	s,ww,zz	FedEx Maintenance	IC Engine, GPU	D		364	Hour	151			138.18	120.92	367.16	1703.88	22.23
ICE	22,40,43	s,ww,zz	FedEx Maintenance	IC Engine, GPU	D		364	Hour	151			138.18	120.92	367.16	1703.88	22.23
ICE	22,40,43	s,ww,zz	FedEx Maintenance	IC Engine, Port Decker	D		2	Hour	9			0.05	0.04	0.12	0.56	0.01
ICE	22,40,43	s,ww,zz	FedEx Maintenance	IC Engine, Rug Trk	D		230	Hour	9			5.20	4.55	13.83	64.17	0.84
ICE	22,40,43	s,ww,zz	FedEx Maintenance	IC Engine, Rug Trk	D		394	Hour	9			8.91	7.80	23.89	109.93	1.43
ICE	40,43,58	ww,zz,nnn	Garrett Aviation	IC Engine, GPU	D		2,112	Hour	122			647.79	568.88	1721.20	7987.58	104.23
ICE	40,43,45	ww,zz,aaa	Hudson General	IC Engine, Air Compressor	D		104	Hour	75			19.61	17.16	52.10	241.80	3.16
ICE	40,43,45	ww,zz,aaa	Hudson General	IC Engine, ASU	D		52	Hour	378			49.42	43.24	131.30	609.34	7.95
ICE	40,43,45	ww,zz,aaa	Hudson General	IC Engine, GPU	D		312	Hour	200			158.88	137.28	416.83	1934.40	25.24
ICE	40,43,45	ww,zz,aaa	Hudson General	IC Engine, GPU	D		312	Hour	200			158.88	137.28	416.83	1934.40	25.24
ICE	40,43,45	ww,zz,aaa	Hudson General	IC Engine, GPU	D		312	Hour	200			158.88	137.28	416.83	1934.40	25.24
ICE	40,43,45	ww,zz,aaa	Hudson General	IC Engine, GPU	D		312	Hour	200			158.88	137.28	416.83	1934.40	25.24
ICE	40,43,59	ww,zz,ooo	Japan Air Cargo (JAL)	IC Engine, GPU	D		1,300	Hour	129			421.51	358.94	1120.24	5198.70	67.83
ICE	1,21,43	a,pp,ww	LAWA	IC Engine	D	permitted	6650	Gallons				249.38	222.78	678.30	Reclaim NOx	47.22
ICE	1,21,43	a,pp,ww	LAWA	IC Engines	D	non-permitted	5370	Gallons				201.38	179.90	547.74	2518.53	38.13
ICE	1,38,43	a,qc,ww	LAX Fuels	IC Engine, Emergency (4)	D		8,710	Gallons				326.63	291.79	888.42	4084.98	61.84
ICE	8,40,43	ff,ww,zz	Nikko Inflight Catering	IC Engine, Emergency	D		26	Hour	250			16.34	14.30	43.42	201.50	2.63
ICE	40,43	kk,ww,zz	Northwest Airlines	IC Engines, 15 total	D	GPUs, ASUs, AC	222,000	Hour	222,000			5531.02	4840.00	14696.00	86200.00	889.90
ICE	11,40,43	ee,ww,zz	Ogden Aviation Services	IC Engine, Air Compressor	D		208	Hour	3			1.57	1.37	4.17	19.34	1.26
ICE	40,43,64	ww,zz,fff	Ogden Ramp Services	IC Engine, GPUs (5)	D		200	Hour	126			62.85	55.00	167.00	775.00	10.11
ICE	40,43,52	ww,zz,hhh	Ontario Aircraft Serv.	IC Engine, ASU	D		158	Hour	388			144.33	126.30	383.49	1779.65	23.22
ICE	40,43,52	ww,zz,hhh	Ontario Aircraft Serv.	IC Engine, GPU's (4)	D		6138	Hour	145			2236.85	1957.38	5643.33	27581.32	359.89

SUMMARY

LAX Emissions Inventory Database

		Volatile Organic Compounds (VOC)										Semi-Volatile Organic Compounds (SVOC)									
Source Name	Classification	Acetaldehyde	Acrolein	Benzene	Butadiene, 1,3-	Formaldehyde	Hexane	Propylene	Propylene oxide	Styrene	Toluene	Xylene, m- or p-	Xylene, o-	Xylene (total)	Benzaldehyde	Benzo(e)pyrene	Chloronaphthalene, 2-	Diesel Particulate	Ethylbenzene	Methylnaphthalene, 2-	Perylene
DHL	IC Engine, Lighting	1.84E-04	5.66E-05	1.02E-02		2.68E-03		1.80E-02			3.24E-03			1.11E-03							
DYNAIR	IC Engine, ASU	5.38E-02	1.66E-02	2.99E+00		7.84E-01		5.29E+00			9.49E-01			3.25E-01							
DYNAIR	IC Engine, ASU	5.38E-02	1.66E-02	2.99E+00		7.84E-01		5.29E+00			9.49E-01			3.25E-01							
DYNAIR	IC Engine, GPU	2.91E-02	8.98E-03	1.82E+00		4.24E-01		2.88E+00			5.14E-01			1.76E-01							
DYNAIR	IC Engine, GPU	5.83E-02	1.80E-02	3.24E+00		8.49E-01		5.73E+00			1.03E+00			3.52E-01							
DYNAIR	IC Engine, GPU	6.78E-02	2.09E-02	3.77E+00		9.87E-01		6.66E+00			1.20E+00			4.09E-01							
DYNAIR	IC Engine, GPU	1.27E-01	3.91E-02	7.04E+00		1.85E+00		1.24E+01			2.23E+00			7.65E-01							
DYNAIR	IC Engine, GPU	1.41E-01	4.34E-02	7.82E+00		2.05E+00		1.38E+01			2.48E+00			8.49E-01							
DYNAIR	IC Engine, GPU	1.17E-01	3.60E-02	6.50E+00		1.70E+00		1.15E+01			2.06E+00			7.05E-01							
DYNAIR	IC Engine, GPU	1.41E-01	4.34E-02	7.82E+00		2.05E+00		1.38E+01			2.48E+00			8.49E-01							
DYNAIR	IC Engine, GPU	1.36E-01	4.18E-02	7.54E+00		1.97E+00		1.33E+01			2.39E+00			8.18E-01							
DYNAIR	IC Engine, GPU	1.80E-02	5.66E-03	1.00E+00		2.63E-01		1.77E+00			3.18E-01			1.08E-01							
DYNAIR	IC Engine, ASU	6.77E-04	2.09E-04	3.76E-02		9.88E-03		6.65E-02			1.19E-02			4.09E-03							
DYNAIR	IC Engine, GPU	4.94E-03	1.52E-03	2.75E-01		7.20E-02		4.66E-01			8.72E-02			2.99E-02							
FAA Misc. Facilities	IC Engine, Generator (10)	6.81E-03	2.10E-03	3.76E-01		9.92E-02		6.69E-01			1.20E-01			4.11E-02							
FedEx Cargo	IC Engine	6.81E-03	2.10E-03	3.76E-01		9.92E-02		6.69E-01			1.20E-01			4.11E-02							
FedEx Cargo	IC Engine	5.91E-03	1.82E-03	3.29E-01		8.61E-02		5.61E-01			1.04E-01			3.57E-02							
FedEx Cargo	IC Engine	4.78E-03	1.47E-03	2.66E-01		6.97E-02		4.70E-01			8.43E-02			2.89E-02							
FedEx Cargo	IC Engine	4.29E-03	1.32E-03	2.38E-01		6.24E-02		4.21E-01			7.56E-02			2.59E-02							
FedEx Cargo	IC Engine	1.84E-02	5.08E-03	9.13E-01		2.39E-01		1.61E+00			2.80E-01			9.91E-02							
FedEx Cargo	IC Engine	6.81E-03	2.10E-03	3.76E-01		9.92E-02		6.69E-01			1.20E-01			4.11E-02							
FedEx Cargo	IC Engine	6.81E-03	2.10E-03	3.76E-01		9.92E-02		6.69E-01			1.20E-01			4.11E-02							
FedEx Cargo	IC Engine	3.04E-05	9.36E-06	1.89E-03		4.42E-04		2.98E-03			5.36E-04			1.83E-04							
FedEx Maintenance	IC Engine, GPU	5.91E-03	1.82E-03	3.29E-01		8.61E-02		5.61E-01			1.04E-01			3.57E-02							
FedEx Maintenance	IC Engine, GPU	9.54E-03	2.94E-03	5.30E-01		1.39E-01		9.37E-01			1.68E-01			5.76E-02							
FedEx Maintenance	IC Engine, GPU	9.54E-03	2.94E-03	5.30E-01		1.39E-01		9.37E-01			1.68E-01			5.76E-02							
FedEx Maintenance	IC Engine, Port Deicer	3.12E-06	9.83E-07	1.74E-04		4.55E-05		3.07E-04			5.51E-05			1.89E-05							
FedEx Maintenance	IC Engine, Rug Trk	3.59E-04	1.11E-04	2.00E-02		5.23E-03		3.53E-02			6.33E-03			2.17E-03							
FedEx Maintenance	IC Engine, Rug Trk	6.15E-04	1.90E-04	3.42E-02		8.96E-03		6.05E-02			1.09E-02			3.71E-03							
Garrett Aviation	IC Engine, GPU	4.47E-02	1.38E-02	2.48E+00		6.51E-01		4.39E+00			7.88E-01			2.70E-01							
Hudson General	IC Engine, Air Compressor	1.35E-03	4.17E-04	7.53E-02		1.97E-02		1.33E-01			2.39E-02			8.17E-03							
Hudson General	IC Engine, ASU	3.41E-03	1.05E-03	1.90E-01		4.97E-02		3.35E-01			6.01E-02			2.06E-02							
Hudson General	IC Engine, GPU	1.08E-02	3.34E-03	6.02E-01		1.58E-01		1.06E+00			1.91E-01			6.54E-02							
Hudson General	IC Engine, GPU	1.08E-02	3.34E-03	6.02E-01		1.58E-01		1.06E+00			1.91E-01			6.54E-02							
Hudson General	IC Engine, GPU	1.08E-02	3.34E-03	6.02E-01		1.58E-01		1.06E+00			1.91E-01			6.54E-02							
Hudson General	IC Engine, GPU	1.08E-02	3.34E-03	6.02E-01		1.58E-01		1.06E+00			1.91E-01			6.54E-02							
Japan Air Cargo (JAL)	IC Engine, GPU	2.91E-02	8.97E-03	1.82E+00		4.24E-01		2.88E+00			5.13E-01			1.76E-01							
LAWA	IC Engine	2.31E-02	7.12E-03	1.28E+00		3.36E-01		2.27E+00			4.07E-01			1.39E-01							
LAWA	IC Engines	1.86E-02	5.75E-03	1.04E+00		2.71E-01		1.83E+00			3.29E-01			1.13E-01							
LAX Fuels	IC Engine, Emergency (4)	3.02E-02	9.32E-03	1.68E+00		4.40E-01		2.97E+00			5.33E-01			1.82E-01							
Nikko Inflight Catering	IC Engine, Emergency	1.13E-03	3.48E-04	6.27E-02		1.64E-02		1.11E-01			1.99E-02			8.81E-03							
Northwest Airlines	IC Engines, 15 total	3.82E-01	1.18E-01	2.12E+01		5.56E+00		3.75E+01			6.73E+00			2.30E+00							
Ogden Aviation Services	IC Engine, Air Compressor	1.08E-04	3.34E-05	6.02E-03		1.58E-03		1.06E-02			1.91E-03			6.54E-04							
Ogden Ramp Services	IC Engine, GPUs (6)	4.34E-03	1.34E-03	2.41E-01		8.32E-02		4.26E-01			7.65E-02			2.62E-02							
Ontario Aircraft Serv.	IC Engine, ASU	9.96E-03	3.07E-03	5.54E-01		1.45E-01		9.79E-01			1.78E-01			6.01E-02							
Ontario Aircraft Serv.	IC Engine, GPUs (4)	1.54E-01	4.76E-02	6.59E+00		2.25E+00		1.52E+01			2.72E+00			9.32E-01							

3. 研究設計

LAX Emissions Inventory Database

[illegible]

LAX Emissions Inventory Database - Stationary Sources

Criteria Pollutants (except Lead)

Source										Emission Estimation						
Type	Ref.	Notes	Source Name	Classification	Fuel Type (pri/se)	Type	Actual Annual Thruput	Thruput Units	HP	BTU/hr	Technique	VOC	PM10	CO	NOx	SO2
ICE	40,43	ww,zz	Qantas Cargo	IC Engine, Emerg. Generator	D		6	Hour	500			7.54	6.60	20.04	93.00	1.21
ICE	40,43,63	ww,zz,sss	Sky West	IC Engine, GPUs (2)	D		130	Hour	102			33.34	29.17	88.58	411.08	5.38
ICE	40,43,63	ww,zz,sss	Sky West	IC Engine, GPUs (2)	D		130	Hour	204			66.67	58.34	177.15	822.12	10.73
ICE	40,43	kk,ww,zz		IC Engine, ASU	D		52	Hour				32.68	28.60	86.84	403.00	5.26
ICE	40,43	kk,ww,zz		IC Engine, GPU	D		52	Hour				15.69	13.73	41.68	193.44	2.52
ICE	40,43,53	ww,zz,il	Southwest Air Cargo	IC Engine, ASU	D		312	Hour	460			352.98	308.88	937.87	4352.40	58.79
ICE	40,43,60	ww,zz,ppp	Trans States Air	IC Engine, GPU (4)	D		14600	Hour	102			3744.00	3276.24	9947.86	46165.20	602.38
ICE	33,40,43	cc,ww,zz	TWA Maintenance	IC Engine, ASU	D		81	Hour	280			42.94	37.58	114.09	529.48	6.91
ICE	33,40,43	cc,ww,zz	TWA Maintenance	IC Engine, ASU	D		100	Hour	280			70.39	61.60	187.04	868.00	11.33
ICE	33,40,43	cc,ww,zz	TWA Maintenance	IC Engine, ASU	D		113	Hour	280			79.55	69.61	211.36	980.84	12.80
ICE	33,40,43	cc,ww,zz	TWA Maintenance	IC Engine, GPU	D		1.5	Hour	143			0.54	0.47	1.43	5.65	0.09
ICE	33,40,43	cc,ww,zz	TWA Maintenance	IC Engine, GPU	D		14	Hour	143			5.03	4.40	13.37	62.06	0.81
ICE	33,40,43	cc,ww,zz	TWA Maintenance	IC Engine, GPU	D		842	Hour	143			230.81	201.97	613.26	2645.99	37.14
ICE	33,40,43	cc,ww,zz	TWA Maintenance	IC Engine, GPU	D		1,002	Hour	210			529.02	482.82	1405.61	6523.02	85.11
ICE	33,40,43	cc,ww,zz	TWA Maintenance	IC Engine, GPU	D		1,192.5	Hour	210			829.59	550.94	1672.84	7763.18	101.30
ICE	33,40,43	cc,ww,zz	TWA Maintenance	IC Engine, GPU	D		1,558.5	Hour	210			822.83	720.03	2186.26	10145.84	132.39
ICE	40,43,55	ww,zz,kkk	U.S. Coast Guard	IC Engine, Emerg. Gen.	D		4	Hour	240			2.41	2.11	6.41	29.76	0.39
ICE	40,43,55	ww,zz,kkk	U.S. Coast Guard	IC Engine, GPU	D		30	Hour	102			7.69	6.73	20.44	94.86	1.24
ICE	34,40,43	dd,ww,zz	U.S. Post Office	IC Engine, Generator	D		360	Hour	40			36.20	31.68	96.19	446.40	5.62
ICE	34,40,43	dd,ww,zz	U.S. Post Office	IC Engine, Generators (2)	D		360	Hour	20			18.10	15.84	48.10	223.20	2.81
ICE	1,35,43	a,jj,ww	United Airlines	IC Engine, (13)	D		291,130	Gallons				10917.38	9752.86	29695.26	136539.97	2067.02
ICE	40,43,61	ww,zz,qqq	United Express	IC Engine, GPU (4)	D		600	Hour	85			98.05	85.80	260.52	1209.00	15.78
ICE	40,43,54	ww,zz,jj	UPS	IC Engine, ASU	D		73	Hour	200			36.71	32.12	97.53	452.60	5.91
ICE	40,43,54	ww,zz,jj	UPS	IC Engine, Aux. Lights	D		548	Hour	70			96.35	84.32	266.01	1188.08	15.50
ICE	40,43,54	ww,zz,jj	UPS	IC Engine, GPU	D		913	Hour	250			573.53	501.88	1523.88	7071.88	92.29
ICE	1,40,41,43	uu,vv,ww	US Airways	IC Engine	D	permitted	0	Hour	114	12.9 gal/hr		0.00	0.00	0.00	0.00	0.00
ICE	1,40,41,43	uu,vv,ww	US Airways	IC Engine	D	permitted	5	Hour	145	12.9 gal/hr		1.75	1.53	4.85	29.04	0.28
ICE	1,40,41,43	uu,vv,ww	US Airways	IC Engine	D	permitted	27	Hour	151	12.9 gal/hr		10.17	8.90	27.03	162.14	1.64
ICE	1,40,41,43	uu,vv,ww	US Airways	IC Engine	D	permitted	69	Hour	150	12.9 gal/hr		25.83	22.61	68.64	414.43	4.16
ICE	1,40,41,43	uu,vv,ww	US Airways	IC Engine	D	permitted	112	Hour	150	12.9 gal/hr		42.27	36.99	112.32	678.22	6.80
ICE	1,40,41,43	uu,vv,ww	US Airways	IC Engine	D	permitted	126	Hour	151	12.9 gal/hr		47.80	41.82	126.99	761.71	7.69
ICE	1,40,41,43	uu,vv,ww	US Airways	IC Engine	D	permitted	133	Hour	145	12.9 gal/hr		48.56	42.49	129.02	805.87	7.81
ICE	1,40,41,43	uu,vv,ww	US Airways	IC Engine	D	permitted	138	Hour	284	12.9 gal/hr		98.48	86.16	261.61	834.31	15.84
ICE	1,40,41,43	uu,vv,ww	US Airways	IC Engine	D	permitted	169	Hour	145	12.9 gal/hr		88.79	60.20	182.77	1141.65	11.07
ICE	40,67	xxx,yyy	Airborne Express	IC Engine, Aux. Conv. Belt Eng. (3)	G		26	Hour	16.75			9.40	0.31	191.18	4.79	0.26
ICE	40,67	xxx,yyy	Airborne Express	IC Engine, Aux. Conv. Belt Eng. (6)	G		26	Hour	16.75			9.40	0.31	191.18	4.79	0.26
ICE	40,67	xxx,yyy	Airport Term. Services	IC Engine, Air Compressor	G		365	Hour	3			23.64	0.79	480.71	12.05	0.65
ICE	40,48,67	ddd,xxx,yyy	American Intl. Cargo	IC Engine, (Combined) (4)	G		312	Hour	26			175.15	5.85	3561.17	89.23	4.79
ICE	40,67	xxx,yyy	Certified Aviation	IC Engine, Air Compressor	G		3	Hour	10			0.65	0.02	13.17	0.33	0.02
ICE	40,67	xxx,yyy	FedEx Maintenance	IC Engine, Air Compressor	G		184	Hour	9			35.75	1.19	726.98	18.22	0.98
ICE	40,67	xxx,yyy	FedEx Maintenance	IC Engine, Port Lights	G		28	Hour	9			5.44	0.18	110.63	2.77	0.15
ICE	40,67	xxx,yyy	FedEx Maintenance	IC Engine, Port Lights	G		38	Hour	9			7.38	0.25	150.14	3.76	0.20
ICE	40,67	xxx,yyy	FedEx Maintenance	IC Engine, Strut Svc Std	G		46	Hour	9			8.94	0.30	181.75	4.55	0.24
ICE	40,67	xxx,yyy	FedEx Maintenance	IC Engine, Wash Cart	G		4	Hour	9			0.78	0.03	15.80	0.40	0.02
ICE	40,67	xxx,yyy	Garrett Aviation	IC Engine, GPU	G		61	Hour	129			169.90	5.67	3454.49	85.56	4.65
ICE	40,67	xxx,yyy	Garrett Aviation	IC Engine, GPU	G		495	Hour	109			1164.94	38.90	23686.25	593.51	31.88

SUMMARY

LAX Emissions Inventory Database

		Volatile Organic Compounds (VOC)										Semi-Volatile Organic Compounds (SVOC)									
Source Name	Classification	Acetaldehyde	Acrolein	Benzene	Butadiene, 1,3-	Formaldehyde	Hexane	Propylene	Propylene oxide	Styrene	Toluene	Xylene, m- or p-	Xylene, o-	Xylene (total)	Benzaldehyde	Benzo(e)pyrene	Chloronaphthalene, 2-	Diesel Particulate	Ethylbenzene	Methylnaphthalene, 2-	Perylene
Qantas Cargo	IC Engine, Emerg. Generator	5.21E-04	1.61E-04	2.90E-02		7.58E-03		5.12E-02			9.18E-03			3.14E-03							
Sky West	IC Engine, GPUs (2)	2.30E-03	7.09E-04	1.28E-01		3.35E-02		2.26E-01			4.06E-02			1.39E-02							
Sky West	IC Engine, GPUs (2)	4.60E-03	1.42E-03	2.66E-01		6.70E-02		4.52E-01			8.12E-02			2.78E-02							
	IC Engine, ASU	2.26E-03	6.96E-04	1.25E-01		3.29E-02		2.22E-01			3.98E-02			1.36E-02							
	IC Engine, GPU	1.08E-03	3.34E-04	6.02E-02		1.58E-02		1.06E-01			1.91E-02			6.54E-03							
Southwest Air Cargo	IC Engine, ASU	2.44E-02	7.51E-03	1.35E+00		3.55E-01		2.39E+00			4.30E-01			1.47E-01							
Trans States Air	IC Engine, GPU (4)	2.58E-01	7.97E-02	1.44E+01		3.76E+00		2.54E+01			4.58E+00			1.58E+00							
TWA Maintenance	IC Engine, ASU	2.96E-03	9.14E-04	1.65E-01		4.32E-02		2.91E-01			5.23E-02			1.79E-02							
TWA Maintenance	IC Engine, ASU	4.86E-03	1.50E-03	2.70E-01		7.08E-02		4.77E-01			8.57E-02			2.93E-02							
TWA Maintenance	IC Engine, ASU	5.49E-03	1.89E-03	3.05E-01		8.00E-02		5.38E-01			9.68E-02			3.31E-02							
TWA Maintenance	IC Engine, GPU	3.72E-05	1.15E-05	2.07E-03		5.42E-04		3.66E-03			6.56E-04			2.25E-04							
TWA Maintenance	IC Engine, GPU	3.47E-04	1.07E-04	1.93E-02		5.06E-03		3.41E-02			6.13E-03			2.10E-03							
TWA Maintenance	IC Engine, GPU	1.59E-02	4.81E-03	8.86E-01		2.32E-01		1.57E+00			2.81E-01			9.62E-02							
TWA Maintenance	IC Engine, GPU	3.65E-02	1.13E-02	2.03E+00		5.32E-01		3.59E+00			6.44E-01			2.20E-01							
TWA Maintenance	IC Engine, GPU	4.34E-02	1.34E-02	2.42E+00		6.33E-01		4.27E+00			7.65E-01			2.82E-01							
TWA Maintenance	IC Engine, GPU	5.68E-02	1.75E-02	3.16E+00		8.27E-01		5.58E+00			1.00E+00			3.43E-01							
U.S. Coast Guard	IC Engine, Emerg. Gen.	1.67E-04	5.14E-05	9.26E-03		2.43E-03		1.64E-02			2.84E-03			1.01E-03							
U.S. Coast Guard	IC Engine, GPU	5.31E-04	1.64E-04	2.95E-02		7.73E-03		5.22E-02			9.36E-03			3.21E-03							
U.S. Post Office	IC Engine, Generator	2.50E-03	7.70E-04	1.39E-01		3.64E-02		2.46E-01			4.41E-02			1.51E-02							
U.S. Post Office	IC Engine, Generators (2)	1.25E-03	3.85E-04	6.95E-02		1.82E-02		1.23E-01			2.20E-02			7.54E-03							
United Airlines	IC Engine, (13)	1.01E+00	3.12E-01	5.62E+01		1.47E+01		9.93E+01			1.78E+01			6.10E+00							
United Express	IC Engine, GPU (4)	6.77E-03	2.09E-03	3.76E-01		9.86E-02		6.65E-01			1.19E-01			4.09E-02							
UPS	IC Engine, ASU	2.53E-03	7.81E-04	1.41E-01		3.69E-02		2.49E-01			4.47E-02			1.53E-02							
UPS	IC Engine, Aux. Lights	6.65E-03	2.05E-03	3.70E-01		9.89E-02		6.53E-01			1.17E-01			4.01E-02							
UPS	IC Engine, GPU	3.86E-02	1.22E-02	2.20E+00		5.77E-01		3.89E+00			6.98E-01			2.39E-01							
US Airways	IC Engine	0.00E+00	0.00E+00	0.00E+00		0.00E+00		0.00E+00			0.00E+00			0.00E+00							
US Airways	IC Engine	1.21E-04	3.72E-05	6.72E-03		1.78E-03		1.18E-02			2.13E-03			7.29E-04							
US Airways	IC Engine	7.02E-04	2.17E-04	3.91E-02		1.02E-02		6.90E-02			1.24E-02			4.24E-03							
US Airways	IC Engine	1.78E-03	5.50E-04	9.92E-02		2.80E-02		1.75E-01			3.14E-02			1.08E-02							
US Airways	IC Engine	2.92E-03	9.00E-04	1.62E-01		4.25E-02		2.87E-01			5.15E-02			1.76E-02							
US Airways	IC Engine	3.30E-03	1.02E-03	1.83E-01		4.81E-02		3.24E-01			5.82E-02			1.99E-02							
US Airways	IC Engine	3.35E-03	1.03E-03	1.86E-01		4.88E-02		3.25E-01			5.91E-02			2.02E-02							
US Airways	IC Engine	6.79E-03	2.10E-03	3.78E-01		9.90E-02		6.68E-01			1.20E-01			4.10E-02							
US Airways	IC Engine	4.75E-03	1.45E-03	2.64E-01		6.92E-02		4.67E-01			8.37E-02			2.87E-02							
Airborne Express	IC Engine, Aux. Conv. Belt Eng. (3)	4.70E-02	5.64E-03	3.86E-01	4.70E-02	1.03E-01		2.06E-01		3.20E-02	9.78E-01			5.51E-01	1.22E-02				1.38E-01		
Airborne Express	IC Engine, Aux. Conv. Belt Eng. (6)	4.70E-02	5.64E-03	3.86E-01	4.70E-02	1.03E-01		2.06E-01		3.20E-02	9.78E-01			5.51E-01	1.22E-02				1.38E-01		
Airport Term. Services	IC Engine, Air Compressor	1.18E-01	1.42E-02	9.69E-01	1.18E-01	2.60E-01		5.18E-01		8.04E-02	2.48E+00			1.39E+00	3.07E-02				3.48E-01		
American Intl. Cargo	IC Engine, (Combined) (4)	8.76E-01	1.05E-01	7.18E+00	8.76E-01	1.93E+00		3.64E+00		5.65E-01	1.82E+01			1.03E+01	2.28E-01				2.57E+00		
Certified Aviation	IC Engine, Air Compressor	3.24E-03	3.89E-04	2.66E-02	3.24E-03	7.13E-03		1.42E-02		2.20E-03	6.74E-02			3.80E-02	8.42E-04				9.52E-03		
FedEx Maintenance	IC Engine, Air Compressor	1.79E-01	2.15E-02	1.47E+00	1.79E-01	3.93E-01		7.83E-01		1.22E-01	3.72E+00			2.10E+00	4.65E-02				5.26E-01		
FedEx Maintenance	IC Engine, Port Lights	2.72E-02	3.26E-03	2.23E-01	2.72E-02	5.99E-02		1.19E-01		1.85E-02	5.66E-01			3.19E-01	7.07E-03				8.00E-02		
FedEx Maintenance	IC Engine, Port Lights	3.89E-02	4.43E-03	3.03E-01	3.89E-02	8.12E-02		1.52E-01		2.51E-02	7.68E-01			4.33E-01	9.60E-03				1.09E-01		
FedEx Maintenance	IC Engine, Strut Svc Std	4.47E-02	5.36E-03	3.68E-01	4.47E-02	9.83E-02		1.98E-01		3.04E-02	9.30E-01			5.24E-01	1.16E-02				1.31E-01		
FedEx Maintenance	IC Engine, Wash Cart	3.89E-03	4.66E-04	3.19E-02	3.89E-03	8.55E-03		1.70E-02		2.64E-03	8.08E-02			4.55E-02	1.01E-03				1.14E-02		
Garrett Aviation	IC Engine, GPU	8.49E-01	1.02E-01	6.97E+00	8.49E-01	1.87E+00		3.72E+00		5.78E-01	1.77E+01			9.96E+00	2.21E-01				2.50E+00		
Garrett Aviation	IC Engine, GPU	5.82E+00	6.89E-01	4.78E+01	5.82E+00	1.28E+01		2.55E+01		3.96E+00	1.21E+02			6.83E+01	1.51E+00				1.71E+01		

SUMMARY

LAX Emissions Inventory Database

Polycyclic Aromatic Hydrocarbons (PAH)

Dioxins/Furans

Source Name	Classification	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	Dioxin (tetrachloro total)	Dioxin (pentachloro total)	Dioxin (hexachloro total)	Dioxin (heptachloro total)	Dioxin (octachloro)	Furan (tetrachloro total)	Furan (pentachloro total)	Furan (hexachloro total)	Furan (heptachloro total)	Furan (octachloro)
Qantas Cargo	IC Engine, Emerg. Generator	1.01E-04	1.53E-04	3.35E-05	1.44E-05	1.19E-05	1.68E-05	1.36E-05	1.17E-05	1.94E-05	1.23E-05	4.93E-05	1.46E-04	1.27E-05	2.36E-03	6.30E-04	3.95E-05										
Sky West	IC Engine, GPUs (2)	4.45E-04	6.75E-04	1.48E-04	6.37E-05	6.24E-05	7.41E-05	6.00E-05	5.19E-05	8.59E-05	5.45E-05	2.18E-04	8.39E-04	5.60E-05	1.04E-02	2.34E-03	1.75E-04										
Sky West	IC Engine, GPUs (2)	8.90E-04	1.35E-03	2.98E-04	1.27E-04	1.05E-04	1.48E-04	1.20E-04	1.04E-04	1.72E-04	1.09E-04	4.36E-04	1.28E-03	1.12E-04	2.09E-02	4.89E-03	3.49E-04										
	IC Engine, ASU	4.38E-04	6.61E-04	1.45E-04	8.25E-05	5.14E-05	7.27E-05	5.88E-05	5.09E-05	8.42E-05	5.34E-05	2.14E-04	8.27E-04	5.49E-05	1.02E-02	2.30E-03	1.71E-04										
	IC Engine, GPU	2.09E-04	3.17E-04	6.96E-05	3.00E-05	2.47E-05	3.49E-05	2.82E-05	2.44E-05	4.04E-05	2.58E-05	1.02E-04	3.01E-04	2.63E-05	4.91E-03	1.10E-03	8.22E-05										
Southwest Air Cargo	IC Engine, ASU	4.71E-03	7.14E-03	1.57E-03	6.75E-04	5.55E-04	7.85E-04	6.35E-04	5.50E-04	9.09E-04	5.77E-04	2.31E-03	6.77E-03	5.93E-04	1.11E-01	2.48E-02	1.85E-03										
Trans States Air	IC Engine, GPU (4)	5.00E-02	7.58E-02	1.68E-02	7.16E-03	5.89E-03	8.32E-03	6.73E-03	5.83E-03	9.84E-03	6.12E-03	2.45E-02	7.18E-02	8.29E-03	1.17E+00	2.63E-01	1.86E-02										
TWA Maintenance	IC Engine, ASU	5.73E-04	8.69E-04	1.90E-04	8.21E-05	6.75E-05	9.55E-05	7.72E-05	6.69E-05	1.11E-04	7.02E-05	2.81E-04	8.24E-04	7.21E-05	1.35E-02	3.02E-03	2.25E-04										
TWA Maintenance	IC Engine, ASU	9.38E-04	1.42E-03	3.12E-04	1.35E-04	1.11E-04	1.57E-04	1.27E-04	1.10E-04	1.81E-04	1.15E-04	4.60E-04	1.35E-03	1.18E-04	2.21E-02	4.95E-03	3.69E-04										
TWA Maintenance	IC Engine, ASU	1.08E-03	1.81E-03	3.53E-04	1.52E-04	1.25E-04	1.77E-04	1.43E-04	1.24E-04	2.05E-04	1.30E-04	5.20E-04	1.53E-03	1.34E-04	2.49E-02	5.59E-03	4.17E-04										
TWA Maintenance	IC Engine, GPU	7.20E-06	1.09E-05	2.39E-06	1.03E-06	8.48E-07	1.20E-06	9.70E-07	8.40E-07	1.39E-06	8.81E-07	3.52E-06	1.03E-05	9.06E-07	1.69E-04	3.79E-05	2.83E-06										
TWA Maintenance	IC Engine, GPU	8.72E-05	1.02E-04	2.23E-05	9.82E-06	7.91E-06	1.12E-05	9.05E-06	7.84E-06	1.30E-05	8.22E-06	3.29E-05	9.65E-05	8.45E-06	1.58E-03	3.54E-04	2.64E-05										
TWA Maintenance	IC Engine, GPU	3.08E-03	4.67E-03	1.02E-03	4.41E-04	3.63E-04	5.13E-04	4.15E-04	3.59E-04	5.94E-04	3.77E-04	1.51E-03	4.43E-03	3.68E-04	7.23E-02	1.62E-02	1.21E-03										
TWA Maintenance	IC Engine, GPU	7.08E-03	1.07E-02	2.35E-03	1.01E-03	8.32E-04	1.18E-03	9.52E-04	8.24E-04	1.38E-03	8.84E-04	3.46E-03	1.01E-02	8.88E-04	1.66E-01	3.72E-02	2.77E-03										
TWA Maintenance	IC Engine, GPU	8.40E-03	1.27E-02	2.79E-03	1.20E-03	9.90E-04	1.40E-03	1.13E-03	9.80E-04	1.82E-03	1.03E-03	4.11E-03	1.21E-02	1.06E-03	1.97E-01	4.43E-02	3.30E-03										
TWA Maintenance	IC Engine, GPU	1.10E-02	1.87E-02	3.65E-03	1.57E-03	1.29E-03	1.83E-03	1.48E-03	1.29E-03	2.12E-03	1.34E-03	5.38E-03	1.58E-02	1.38E-03	2.58E-01	5.78E-02	4.31E-03										
U.S. Coast Guard	IC Engine, Emerg. Gen.	3.22E-05	4.88E-05	1.07E-05	4.82E-06	3.79E-06	5.37E-06	4.34E-06	3.76E-06	6.22E-06	3.94E-06	1.58E-05	4.63E-05	4.05E-05	7.56E-04	1.70E-04	1.26E-05										
U.S. Coast Guard	IC Engine, GPU	1.03E-04	1.58E-04	3.41E-05	1.47E-05	1.21E-05	1.71E-05	1.38E-05	1.20E-05	1.98E-05	1.26E-05	5.03E-05	1.48E-04	1.29E-05	2.41E-03	5.41E-04	4.03E-05										
U.S. Post Office	IC Engine, Generator	4.83E-04	7.33E-04	1.81E-04	8.92E-05	5.89E-05	8.05E-05	6.51E-05	5.64E-05	9.32E-05	5.91E-05	2.37E-04	6.94E-04	6.08E-05	1.13E-02	2.55E-03	1.90E-04										
U.S. Post Office	IC Engine, Generators (2)	2.42E-04	3.68E-04	8.03E-05	3.48E-05	2.85E-05	4.02E-05	3.26E-05	2.82E-05	4.68E-05	2.96E-05	1.18E-04	3.47E-04	3.04E-05	5.67E-03	1.27E-03	9.49E-05										
United Airlines	IC Engine, (13)	1.95E-01	2.96E-01	6.49E-02	2.80E-02	2.30E-02	3.25E-02	2.63E-02	2.28E-02	3.77E-02	2.39E-02	9.56E-02	2.81E-01	2.48E-02	4.59E+00	1.03E+00	7.87E-02										
United Express	IC Engine, GPU (4)	1.31E-03	1.98E-03	4.35E-04	1.87E-04	1.54E-04	2.18E-04	1.76E-04	1.53E-04	2.53E-04	1.60E-04	6.41E-04	1.88E-03	1.65E-04	3.07E-02	6.89E-03	5.14E-04										
UPS	IC Engine, ASU	4.90E-04	7.43E-04	1.83E-04	7.02E-05	5.77E-05	8.16E-05	6.80E-05	5.72E-05	9.45E-05	6.00E-05	2.40E-04	7.04E-04	6.16E-05	1.15E-02	2.58E-03	1.92E-04										
UPS	IC Engine, Aux. Lights	1.29E-03	1.95E-03	4.27E-04	1.84E-04	1.57E-04	2.14E-04	1.73E-04	1.50E-04	2.48E-04	1.57E-04	6.29E-04	1.85E-03	1.62E-04	3.02E-02	6.77E-03	5.05E-04										
UPS	IC Engine, GPU	7.65E-03	1.16E-02	2.54E-03	1.10E-03	9.02E-04	1.28E-03	1.03E-03	8.93E-04	1.48E-03	9.37E-04	3.75E-03	1.10E-02	9.63E-04	1.80E-01	4.03E-02	3.01E-03										
US Airways	IC Engine	#####	#####	#####	#####	0.00E+00	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####									
US Airways	IC Engine	2.34E-05	3.54E-05	7.76E-06	3.35E-06	2.75E-06	3.89E-06	3.15E-06	2.72E-06	4.51E-06	2.86E-06	1.14E-05	3.36E-05	2.94E-06	5.48E-04	1.23E-04	8.17E-06										
US Airways	IC Engine	1.36E-04	2.06E-04	4.51E-05	1.95E-05	1.60E-05	2.28E-05	1.83E-05	1.58E-05	2.62E-05	1.66E-05	6.65E-05	1.95E-04	1.71E-05	3.19E-03	7.15E-04	5.33E-05										
US Airways	IC Engine	3.45E-04	5.23E-04	1.15E-04	4.94E-05	4.08E-05	5.74E-05	4.65E-05	4.02E-05	6.65E-05	4.22E-05	1.69E-04	4.98E-04	4.34E-05	8.09E-03	1.82E-03	1.35E-04										
US Airways	IC Engine	5.54E-04	8.55E-04	1.87E-04	8.08E-05	8.85E-05	9.40E-05	7.60E-05	6.58E-05	1.09E-04	6.91E-05	2.76E-04	8.11E-04	7.10E-05	1.32E-02	2.97E-03	2.22E-04										
US Airways	IC Engine	6.38E-04	9.67E-04	2.12E-04	9.14E-05	7.51E-05	1.06E-04	8.80E-05	7.44E-05	1.23E-04	7.81E-05	3.12E-04	9.17E-04	8.03E-05	1.50E-02	3.36E-03	2.50E-04										
US Airways	IC Engine	6.48E-04	9.83E-04	2.15E-04	9.29E-05	7.63E-05	1.08E-04	8.73E-05	7.56E-05	1.25E-04	7.93E-05	3.17E-04	9.31E-04	8.18E-05	1.52E-02	3.41E-03	2.54E-04										
US Airways	IC Engine	1.31E-03	1.99E-03	4.37E-04	1.88E-04	1.55E-04	2.19E-04	1.77E-04	1.53E-04	2.54E-04	1.61E-04	6.43E-04	1.89E-03	1.65E-04	3.08E-02	6.92E-03	5.16E-04										
US Airways	IC Engine	9.18E-04	1.39E-03	3.05E-04	1.32E-04	1.08E-04	1.53E-04	1.24E-04	1.07E-04	1.77E-04	1.12E-04	4.49E-04	1.32E-03	1.16E-04	2.15E-02	4.84E-03	3.60E-04										
Airborne Express	IC Engine, Aux. Conv. Belt Eng. (3)														1.88E-02												
Airborne Express	IC Engine, Aux. Conv. Belt Eng. (6)														1.88E-02												
Airport Term. Services	IC Engine, Air Compressor														4.73E-02												
American Int'l. Cargo	IC Engine, (Combined) (4)														3.50E-01												
Certified Aviation	IC Engine, Air Compressor														1.30E-03												
FedEx Maintenance	IC Engine, Air Compressor														7.15E-02												
FedEx Maintenance	IC Engine, Port Lights														1.09E-02												
FedEx Maintenance	IC Engine, Port Lights														1.48E-02												
FedEx Maintenance	IC Engine, Strut Svc Std														1.79E-02												
FedEx Maintenance	IC Engine, Wash Cart														1.55E-03												
Garrett Aviation	IC Engine, GPU														3.40E-01												
Gerrett Aviation	IC Engine, GPU														2.33E+00												

LAX Emissions Inventory Database

[illegible]

LAX Emissions Inventory Database

		Misc.											
Source Name	Classification	Ethyl Alcohol	Glycol Ethers	Inorganic Arsenic	Methanol	Methylene Chloride (lbs)	N-Butanol	Perchloroethylene	Secondary Butanol	TCDD	Trichloroethane, 1,1,1	Trichloroethylene	REFERENCES
Qantas Cargo	IC Engine, Emerg. Generator												CATEF
Sky West	IC Engine, GPUs (2)												CATEF
Sky West	IC Engine, GPUs (2)												CATEF
	IC Engine, ASU												CATEF
	IC Engine, GPU												CATEF
Southwest Air Cargo	IC Engine, ASU												CATEF
Trans States Air	IC Engine, GPU (4)												CATEF
TWA Maintenance	IC Engine, ASU												CATEF
TWA Maintenance	IC Engine, ASU												CATEF
TWA Maintenance	IC Engine, ASU												CATEF
TWA Maintenance	IC Engine, GPU												CATEF
TWA Maintenance	IC Engine, GPU												CATEF
TWA Maintenance	IC Engine, GPU												CATEF
TWA Maintenance	IC Engine, GPU												CATEF
TWA Maintenance	IC Engine, GPU												CATEF
TWA Maintenance	IC Engine, GPU												CATEF
U.S. Coast Guard	IC Engine, Emerg. Gen.												CATEF
U.S. Coast Guard	IC Engine, GPU												CATEF
U.S. Post Office	IC Engine, Generator												CATEF
U.S. Post Office	IC Engine, Generators (2)												CATEF
United Airlines	IC Engine, (13)												CATEF
United Express	IC Engine, GPU (4)												CATEF
UPS	IC Engine, ASU												CATEF
UPS	IC Engine, Aux. Lights												CATEF
UPS	IC Engine, GPU												CATEF
US Airways	IC Engine												CATEF
US Airways	IC Engine												CATEF
US Airways	IC Engine												CATEF
US Airways	IC Engine												CATEF
US Airways	IC Engine												CATEF
US Airways	IC Engine												CATEF
US Airways	IC Engine												CATEF
US Airways	IC Engine												CATEF
US Airways	IC Engine												CATEF
Airborne Express	IC Engine, Aux. Conv. Belt Eng. (3)												SPECIATE
Airborne Express	IC Engine, Aux. Conv. Belt Eng. (6)												SPECIATE
Airport Term. Services	IC Engine, Air Compressor												SPECIATE
American Intl. Cargo	IC Engine, (Combined) (4)												SPECIATE
Certified Aviation	IC Engine, Air Compressor												SPECIATE
FedEx Maintenance	IC Engine, Air Compressor												SPECIATE
FedEx Maintenance	IC Engine, Port Lights												SPECIATE
FedEx Maintenance	IC Engine, Port Lights												SPECIATE
FedEx Maintenance	IC Engine, Strut Svc Std												SPECIATE
FedEx Maintenance	IC Engine, Wash Cart												SPECIATE
Garrett Aviation	IC Engine, GPU												SPECIATE
Garrett Aviation	IC Engine, GPU												SPECIATE

SUMMARY

LAX Emissions Inventory Database - Stationary Sources

Criteria Pollutants (except Lead)

Source Type	Ref.	Notes	Source Name	Classification	Fuel Type (pri/se)	Type	Actual Annual Thruput	Thruput Units	HP	BTU/hr	Emission Estimation Technique	VOC	PM10	CO	NOx	SO2
ICE	40,67	xxx,yyy	Garrett Aviation	IC Engine, GPU	G		536	Hour	109			1261.43	42.12	25640.14	642.66	34.53
ICE	40,67	xxx,yyy	Japan Air Cargo (JAL)	IC Engine, Lighting	G		1,040	Hour	12			269.46	9.00	5478.72	137.28	7.36
ICE	40,67	xxx,yyy	Japan Air Cargo (JAL)	IC Engine, Ughling	G		1,040	Hour	18			404.18	13.50	8216.08	205.92	11.06
ICE	1,67	a,yyy	LAWA	IC Engines	G	non-permitted	3080	Gallons				634.48	20.02	12135.20	Reclaim NOx	16.32
ICE	40,67	xxx,yyy	TWA Maintenance	IC Engine, Misc. Small	G		52	Hour	131			147.08	4.91	2990.47	74.93	4.03
ICE	40,67	xxx,yyy	UPS	IC Engine, CSP	G		1,095	Hour	24			567.41	18.95	11536.92	289.08	15.53
ICE	40,43	ww,zz	American Airlines	IC Engine, ASU	Jet A		102	Hour	545	4,290,000		139.87	122.40	371.64	1724.69	22.50
ICE	40,43	ww,zz	American Airlines	IC Engine, ASU	Jet A		102	Hour	545	4,290,000		139.87	122.40	371.64	1724.69	22.50
ICE	40,43	ww,zz	American Airlines	IC Engine, ASU	Jet A		102	Hour	545	4,290,000		139.87	122.40	371.64	1724.69	22.50
ICE	40,43	ww,zz	American Airlines	IC Engine, ASU	Jet A		102	Hour	545	4,290,000		139.87	122.40	371.64	1724.69	22.50
ICE	40,43,48	es,ww	American Intl. Cargo	IC Engine, GPU	Jet A		3,744	Hour	105			8487.85	485.34	19249.09	14820.33	1646.70
ICE	40,43,48	es,ww	American Intl. Cargo	IC Engine, GPU	Jet A		3,744	Hour	149			12044.67	366.96	21707.18	16713.91	2176.87
ICE	43,70	a,ww	FAA Misc. Facilities	IC Engine, Generator			20.00	Hour				4.07	3.56	10.82	50.22	0.86
ICE	1,70	a,a	LAWA	IC Engines	LPG	non-permitted	360	Gallons				29.88	1.80	46.44	Reclaim NOx	0.13
ICE	1,21,44	a,pp,xx	LAWA	IC Engine	NG	permitted	0.09	MMcf				25.20		38.70	Reclaim NOx	0.05
ICE	28,71,72	x,y	Ridgewood Energy	IC Engine, Cogent@LSG	NG	ICE Wheel rec.	33.70	MMcf	860	2.5 MM		5935.07	1458.84	13454.04	5234.15	20.22
Turbine	22,65,66	s,uuu,vvv	FedEx Cargo	Turbine Engine, ASU	D		15600	Gallons				758.98	106.88	5443.85	453.01	55.38
Turbine	22,65,66	s,uuu,vvv	FedEx Cargo	Turbine Engine, ASU	D		15600	Gallons				758.98	106.88	5443.85	453.01	55.38
Turbine	22,65,66	s,uuu,vvv	FedEx Maintenance	Turbine Engine, ASU	D		15600	Gallons				758.98	106.88	5443.85	453.01	55.38
Turbine	22,65,66	s,uuu,vvv	FedEx Maintenance	Turbine Engine, ASU	D		15600	Gallons				758.98	106.88	5443.85	453.01	55.38
Turbine	21,29,66	pp,vvv,www	LAWA	Turbines	D	permitted	250	Gallons				1.40	1.25	3.85	-	7.80
Turbine	26,73,76	www	LAWA	Turbines, CUP	NG	permitted	820.42	MMcf				34457.64	328.17	100665.53	-	492.25
Coat	41		US Airways	Surface Coating												
Fug.VOC	41		US Airways	Tank, Waste Oil		Fugitive		Gallons								
											lb/yr	223,811	109,171	446,303	851,811	14,415

LAX Emissions Inventory Database

		Volatile Organic Compounds (VOC)										Semi-Volatile Organic Compounds (SVOC)									
Source Name	Classification	Acetaldehyde	Acrolein	Benzene	Butadiene, 1,3-	Formaldehyde	Hexane	Propylene	Propylene oxide	Styrene	Toluene	Xylene, m- or p-	Xylene, o-	Xylene (total)	Benzaldehyde	Benzo(e)pyrene	Chloronaphthalene, 2-	Diesel Particulate	Ethylbenzene	Methylnaphthalene, 2-	Perylene
Garrett Aviation	IC Engine, GPU	6.31E+00	7.57E-01	5.17E+01	6.31E+00	1.39E+01		2.76E+01		4.29E+00	1.31E+02			7.39E+01	1.64E+00				1.85E+01		
Japan Air Cargo (JAL)	IC Engine, Lighting	1.35E+00	1.62E-01	1.10E+01	1.35E+00	2.98E+00		5.80E+00		9.16E-01	2.80E+01			1.58E+01	3.50E-01				3.86E+00		
Japan Air Cargo (JAL)	IC Engine, Lighting	2.02E+00	2.43E-01	1.98E+01	2.02E+00	4.45E+00		8.65E+00		1.37E+00	4.20E+01			2.37E+01	5.25E-01				5.94E+00		
LAWA	IC Engines	3.17E+00	3.81E-01	2.80E+01	3.17E+00	8.98E+00		1.39E+01		2.18E+00	6.60E+01			3.72E+01	8.25E-01				9.33E+00		
TWA Maintenance	IC Engine, Misc. Small	7.35E-01	8.82E-02	6.03E+00	7.35E-01	1.62E+00		3.22E+00		5.00E-01	1.53E+01			6.52E+00	1.91E-01				2.16E+00		
UPS	IC Engine, CSP	2.84E+00	3.40E-01	2.33E+01	2.84E+00	6.24E+00		1.24E+01		1.93E+00	5.90E+01			3.33E+01	7.38E-01				8.34E+00		
American Airlines	IC Engine, ASU	9.65E-03	2.98E-03	5.37E-01		1.41E-01		9.49E-01			1.70E-01			5.83E-02							
American Airlines	IC Engine, ASU	9.65E-03	2.98E-03	5.37E-01		1.41E-01		9.49E-01			1.70E-01			5.83E-02							
American Airlines	IC Engine, ASU	9.65E-03	2.98E-03	5.37E-01		1.41E-01		9.49E-01			1.70E-01			5.83E-02							
American Airlines	IC Engine, ASU	9.65E-03	2.98E-03	5.37E-01		1.41E-01		9.49E-01			1.70E-01			5.83E-02							
American Airlines	IC Engine, ASU	9.65E-03	2.98E-03	5.37E-01		1.41E-01		9.49E-01			1.70E-01			5.83E-02							
American Intl. Cargo	IC Engine, GPU	6.82E-02	2.10E-02	3.79E+00		9.94E-01		6.70E+00			1.20E+00			4.12E-01							
American Intl. Cargo	IC Engine, GPU	9.88E-02	2.98E-02	5.38E+00		1.41E+00		9.51E+00			1.71E+00			5.84E-01							
FAA Misc. Facilities	IC Engine, Generator			1.63E-01		3.26E-01					9.15E-02										
LAWA	IC Engines			1.20E+00		2.39E+00					5.88E-01										
LAWA	IC Engine	2.79E-01	1.25E-01	1.32E-01	9.36E-03	1.74E+00		1.63E+00			5.02E-02			1.81E-02							
Ridgewood Energy	IC Engine, Cogen(@LSG)	1.78E+01	1.89E+00	7.35E+00	1.24E+01	1.59E+02		1.81E+02			8.05E+00			2.18E+01					2.40E+00		
FedEx Cargo	Turbine Engine, ASU			1.76E-01		7.99E-01															
FedEx Cargo	Turbine Engine, ASU			1.76E-01		7.99E-01															
FedEx Maintenance	Turbine Engine, ASU			1.76E-01		7.99E-01															
FedEx Maintenance	Turbine Engine, ASU			1.76E-01		7.99E-01															
LAWA	Turbines			2.83E-03		1.28E-02															
LAWA	Turbines, CUP	5.63E+01	1.94E+01	1.12E+01	1.04E-01	8.02E+01	2.12E+02	8.33E+02	3.92E+01		5.82E+01	4.01E+01	1.97E+01	2.14E+01		4.46E-04	2.23E-04		1.47E+01	4.34E-03	5.74E-04
US Airways	Surface Coating																				
US Airways	Tank, Waste Oil																				
		106.0	27.7	621.0	37.0	442.2	212.5	1,613.2	39.2	16.6	748.7			627.7	13.1	0.7			97.1		

LAX Emissions Inventory Database

		Polycyclic Aromatic Hydrocarbons (PAH)														Dioxins/Furans											
Source Name	Classification	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	Dioxin (tetrachloro total)	Dioxin (pentachloro total)	Dioxin (hexachloro total)	Dioxin (heptachloro total)	Dioxin (octachloro)	Furan (tetrachloro total)	Furan (pentachloro total)	Furan (hexachloro total)	Furan (heptachloro total)	Furan (octachloro)
Garrett Aviation	IC Engine, GPU														2.52E+00												
Japan Air Cargo (JAL)	IC Engine, Lighting														5.39E-01												
Japan Air Cargo (JAL)	IC Engine, Lighting														8.08E-01												
LAWA	IC Engines														1.27E+00												
TWA Maintenance	IC Engine, Misc. Small														2.94E-01												
UPS	IC Engine, CSP														1.13E+00												
American Airlines	IC Engine, ASU	1.87E-03	2.83E-03	6.20E-04	2.87E-04	2.20E-04	3.11E-04	2.52E-04	2.18E-04	3.60E-04	2.29E-04	9.14E-04	2.68E-03	2.35E-04	4.38E-02	9.83E-03	7.33E-04										
American Airlines	IC Engine, ASU	1.87E-03	2.83E-03	6.20E-04	2.87E-04	2.20E-04	3.11E-04	2.52E-04	2.18E-04	3.60E-04	2.29E-04	9.14E-04	2.68E-03	2.35E-04	4.38E-02	9.83E-03	7.33E-04										
American Airlines	IC Engine, ASU	1.87E-03	2.83E-03	6.20E-04	2.87E-04	2.20E-04	3.11E-04	2.52E-04	2.18E-04	3.60E-04	2.29E-04	9.14E-04	2.68E-03	2.35E-04	4.38E-02	9.83E-03	7.33E-04										
American Airlines	IC Engine, ASU	1.87E-03	2.83E-03	6.20E-04	2.87E-04	2.20E-04	3.11E-04	2.52E-04	2.18E-04	3.60E-04	2.29E-04	9.14E-04	2.68E-03	2.35E-04	4.38E-02	9.83E-03	7.33E-04										
American Airlines	IC Engine, ASU	1.87E-03	2.83E-03	6.20E-04	2.87E-04	2.20E-04	3.11E-04	2.52E-04	2.18E-04	3.60E-04	2.29E-04	9.14E-04	2.68E-03	2.35E-04	4.38E-02	9.83E-03	7.33E-04										
American Intl. Cargo	IC Engine, GPU	1.32E-02	2.00E-02	4.38E-03	1.89E-03	1.55E-03	2.20E-03	1.78E-03	1.54E-03	2.55E-03	1.61E-03	6.46E-03	1.90E-02	1.66E-03	3.10E-01	8.65E-02	5.18E-03										
American Intl. Cargo	IC Engine, GPU	1.87E-02	2.84E-02	6.22E-03	2.66E-03	2.20E-03	3.12E-03	2.52E-03	2.18E-03	3.61E-03	2.29E-03	9.16E-03	2.68E-02	2.36E-03	4.39E-01	9.86E-02	7.35E-03										
FAA Misc. Facilities	IC Engine, Generator																										
LAWA	IC Engines																										
LAWA	IC Engine	1.20E-04	9.94E-04	9.43E-05	1.87E-05	6.77E-06	2.54E-05	1.34E-05	2.85E-05	1.83E-05	1.05E-05	5.60E-05	3.32E-04	1.30E-05	8.93E-03	3.58E-04	8.61E-05										
Ridgewood Energy	IC Engine, Cogen(@LSG)	5.09E-03	1.77E-02	4.01E-03	1.96E-03	9.10E-05	1.38E-03	2.54E-04	2.64E-04	4.82E-04	9.10E-05	9.81E-03	1.47E-02	2.42E-04	8.46E-01	6.23E-02	6.30E-03										
FedEx Cargo	Turbine Engine, ASU	1.02E-03	8.45E-04	1.01E-03	8.25E-04	8.33E-04	1.48E-03	7.87E-04	1.39E-03	9.94E-04	7.87E-04	1.25E-03	1.30E-03	7.87E-04	1.04E-01	4.29E-03	1.04E-03										
FedEx Cargo	Turbine Engine, ASU	1.02E-03	8.45E-04	1.01E-03	8.25E-04	8.33E-04	1.48E-03	7.87E-04	1.39E-03	9.94E-04	7.87E-04	1.25E-03	1.30E-03	7.87E-04	1.04E-01	4.29E-03	1.04E-03										
FedEx Maintenance	Turbine Engine, ASU	1.02E-03	8.45E-04	1.01E-03	8.25E-04	8.33E-04	1.48E-03	7.87E-04	1.39E-03	9.94E-04	7.87E-04	1.25E-03	1.30E-03	7.87E-04	1.04E-01	4.29E-03	1.04E-03										
FedEx Maintenance	Turbine Engine, ASU	1.02E-03	8.45E-04	1.01E-03	8.25E-04	8.33E-04	1.48E-03	7.87E-04	1.39E-03	9.94E-04	7.87E-04	1.25E-03	1.30E-03	7.87E-04	1.04E-01	4.29E-03	1.04E-03										
LAWA	Turbines	1.64E-05	1.35E-05	1.63E-05	1.32E-05	1.34E-05	2.38E-05	1.26E-05	2.22E-05	1.59E-05	1.26E-05	2.01E-05	2.08E-05	1.28E-05	1.66E-03	6.87E-05	1.66E-05										
LAWA	Turbines, CUP	1.56E-02	1.21E-02	2.77E-02	1.85E-02	1.14E-02	9.27E-03	1.12E-02	9.02E-03	2.07E-02	1.93E-02	3.54E-02	4.78E-02	1.93E-02	1.38E+00	2.57E-01	2.27E-02										
US Airways	Surface Coating																										
US Airways	Tank, Waste Oil																										
		1.5	14.0	1.2	1.3	0.1	0.5	0.4	0.2	0.9	0.4	1.7	2.7	1.3	49.5	9.4	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.000	0.000	0.000

LAX Emissions Inventory Databa

		Metals																				Inorganics									
Source Name	Classification	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium (hex)	Chromium (total)	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Phosphorus	Potassium	Selenium	Silicon	Sodium	Tin	Vanadium	Zinc	Ammonia	Bromine	Hydrogen chloride
Garrett Aviation	IC Engine, GPU																														
Japan Air Cargo (JAL)	IC Engine, Lighting																														
Japan Air Cargo (JAL)	IC Engine, Lighting																														
LAWA	IC Engines																														
TWA Maintenance	IC Engine, Misc. Small																														
UPS	IC Engine, CSP																														
American Airlines	IC Engine, ASU																														
American Airlines	IC Engine, ASU																														
American Airlines	IC Engine, ASU																														
American Airlines	IC Engine, ASU																														
American Intl. Cargo	IC Engine, GPU																														
American Intl. Cargo	IC Engine, GPU																														
FAA Misc. Facilities	IC Engine, Generator																														
LAWA	IC Engines																														
LAWA	IC Engine																														
Ridgewood Energy	IC Engine, Cogen@LSG)																														
FedEx Cargo	Turbine Engine, ASU			3.15E-03		6.47E-04		5.07E-03		1.68E-04	6.61E-03		1.56E-02		9.48E-03		1.61E-01	4.23E-05		7.61E-01			1.31E-04								
FedEx Cargo	Turbine Engine, ASU			3.15E-03		6.47E-04		5.07E-03		1.68E-04	6.61E-03		1.56E-02		9.48E-03		1.61E-01	4.23E-05		7.61E-01			1.31E-04								
FedEx Maintenance	Turbine Engine, ASU			3.15E-03		6.47E-04		5.07E-03		1.68E-04	6.61E-03		1.56E-02		9.48E-03		1.61E-01	4.23E-05		7.61E-01			1.31E-04								
FedEx Maintenance	Turbine Engine, ASU			3.15E-03		6.47E-04		5.07E-03		1.68E-04	6.61E-03		1.56E-02		9.48E-03		1.61E-01	4.23E-05		7.61E-01			1.31E-04								
LAWA	Turbines			6.06E-05		1.36E-05		6.13E-05		2.70E-06	1.06E-04		2.50E-04		1.52E-04		2.58E-03	6.78E-07		1.22E-02			2.10E-06								
LAWA	Turbines, CUP																														
US Airways	Surface Coating																														
US Airways	Tank, Waste Oil																														
		0.000	0.000	0.013	0.000	0.003	0.0	0.020	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.6	0.0	0.0	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SUMMARY													
LAX Emissions Inventory Databa													
		Misc.											

SUMMARY

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47. CDM/PCR Telephone Call Report from H. Che (PCR) to J. Norries (America West), December 12, 1997.
48. American International Airways, Inc. Letter from K. Welsch (AIA) to G. Jones (SCAQMD), May 29, 1997. Re: Notice Comply No. A 16902.
49. CDM/PCR Telephone Call Report from H. Che (PCR) to Shawn Idmeh (Atlas Air Group), January 7, 1998.
50. DHL Airways Inc. Fax from A. Cone (DHL) to W. Walters (PCR), October 16, 1997.
51. CDM/PCR Field notes, interview with Dynair Corp. (R. Sarno), October 16, 1997.
52. Ontario Aircraft Service Fax from G. George (Ontario) to H. Che, December 23, 1997.
53. CDM/PCR Field notes, interview with Southwest Air Cargo (D. Baily), October 17, 1997.
54. CDM/PCR Field notes, interview with UPS (D. Cooke/R. Marquez), October 1997.
55. CDM/PCR Field notes, interview with U.S. Coast Guard (K. Stratton/K. Krumdieck), October 1997.
56. CDM/PCR Telephone Call Report from H. Che (PCR) to K. Riley (Cintinela Hospital), December 16, 1997.
57. CDM/PCR Field notes, interview with Alaska Airlines (J. Alwazzi), October 1997.
58. CDM/PCR Field notes, interview with Garrett Aviation (Stu Welsh), October 1997.
59. CDM/PCR Field notes, interview with Japan Air Cargo (H. Nakamura), October 1997.
60. CDM/PCR Telephone Call Report from H. Che (PCR) to Chris (Trans States), January 12, 1998.
61. CDM/PCR Telephone Call Report from H. Che (PCR) to J. Adams (United Express), December 16, 1997.
62. American Eagle Fax from K. English (Am. Eagle) to H. Che (PCR), December 18, 1997.
63. CDM/PCR Telephone Call Report from H. Che (PCR) to Craig (Sky West), December 15, 1997.
64. CDM/PCR Field notes, interview with Ogden Ramp Services (S. Kovacs), October 1997.
65. AlliedSignal Aerospace Fax from H. Jessup (AlliedSignal) to J. Sepich (FedEx), August 2, 1996. Re: 85-90 Ground Cart Emissions.
66. California Air Toxic Emission Factors (CATEF) database, average of No. 2 distillate turbines, no controls, 1997.
67. U.S. EPA SPECIATE Database, VOC Profile No. 1313.
68. U.S. EPA SPECIATE Database, VOC Profile No. 1014.
69. U.S. EPA, AP-42, Sect. 7.1, 10/96.
70. U.S. EPA SPECIATE Database, VOC Profile No. 0003.
71. Ridgewood Power Management Corp. Fax from C. Dodson (Ridgewood) to H. Che (PCR), November 13, 1997.
72. California Air Toxic Emission Factors (CATEF) database, nat. gas recip. ICE >650 hp, no controls, 1997.
73. California Air Toxic Emission Factors (CATEF) database, industrial nat. gas turbines, no controls, 1997.
74. Spraylat Corp., MSDS for Hydratone water based paints (Safety Yellow and Arctic White), January 3, 1997.
75. Spraylat Corp., MSDS for Hydratone water based paint (Grey Primer), January 5, 1990.
76. Spraylat Corp., MSDS for Hydratone water based paint (New Delta White), January 8, 1992.
77. CDM/PCR Field notes, interview with Northwest Airlines (M. Krach/M. Ryan), October 1997; Fax from M. Ryan (NW) to W. Walters (PCR), January 5, 1998.
78. Cal EPA, "Supplemental Guidance for Human Health Multimedia Risk Assessments of Hazardous Waste Sites and Permitted Facilities," July 1992.

SUMMARY

Notes:

- a. Criteria pollutant emission factors from SCAQMD (Ref. 1).
- b. Jet A loaded onto planes from hydrants determined by subtracting LAXFUEL truck loading throughput (Ref. 3) from total Fuel Farm throughput (Ref. 2).
- c. Jet A loaded onto planes from tank trucks determined by adding LAXFUEL truck loading (Ref. 3) to Mercury Air Group throughput (Ref. 4).
- d. Criteria pollutant emission factors from Ref. 5.
- e. Annual meat quantity based on CDM/PCR estimate from natural gas usage (Ref. 6), and LAX restaurant tenant surveys (Ref. 18).
- f. Annual meat quantity based on CDM/PCR estimate from LAX restaurant tenant surveys (Ref. 18).
- g. Annual meat quantity based on CDM/PCR estimate from natural gas usage (Ref. 7), and LAX restaurant tenant surveys (Ref. 18).
- h. Annual meat quantity based on CDM/PCR estimate from natural gas usage (Ref. 8), and LAX restaurant tenant surveys (Ref. 18).
- i. Annual meat quantity based on CDM/PCR interview with Chelsea Catering (Ref. 9).
- j. Annual meat quantity based on CDM/PCR interview with Ogden Aviation Services (Ref. 11) and LAX restaurant tenant surveys (Ref. 18).
- k. Annual meat quantity based on CDM/PCR estimate from natural gas usage (Ref. 13), and LAX restaurant tenant surveys (Ref. 18).
- l. Annual meat quantity based on CDM/PCR interview with Dobbs International (Ref. 14) and LAX restaurant tenant surveys (Ref. 18).
- m. Annual meat quantity based on CDM/PCR estimate from natural gas usage (Ref. 16), and LAX restaurant tenant surveys (Ref. 18).
- n. PM10 emissions based on ratio of actual/permitted capacity multiplied by permitted PM10 emission rate (Ref. 17).
- o. Criteria and toxic pollutant emission factors from Ref. 19 for conventional firing, unless values for masonry firing were available.
- p. Wood use based on LAX restaurant tenant surveys.
- q. PM10 emissions based on tenant survey (Ref. 18) and AP-42 (Ref. 20).
- r. PM10 emissions based on 0.0005 % mist loss and 1000 ppm TDS in cooling tower water (Ref. 21).
- s. Annual usage based on data provided by Federal Express (Ref. 22).
- t. Criteria and toxic pollutant emissions based on information from Continental (Refs. 23,24,26).
- u. Criteria and toxic pollutant emissions based on information from Continental (Refs. 23,25,26).
- v. TCE emissions based on data provided by Continental (Ref. 26).
- w. Annual usage based on interview with Delta Airlines (Ref. 27).
- x. Criteria pollutant emissions factors from AP-42 (Ref. 28).
- y. NOx emissions based on 1995-96 Annual Emissions Report (Ref. 29).
- z. Toxic pollutant emission factors from CATEF (Ref. 30).
- aa. Annual usage based on interview with FAA (Ref. 31).
- ab. Annual usage based on data provided by Continental (Ref. 32).
- ac. Annual usage based on data provided by TWA (Ref. 33).
- ad. Annual usage based on data provided by the Postal Service (Ref. 34).
- ae. Annual usage based on data provided by Ogden Aviation Services (Ref. 11).
- af. Annual usage based on data provided by Nikko Inflight Catering (Ref. 8).
- ag. Annual usage based on data provided by Dobbs International (Ref. 14).
- ah. Annual usage based on data provided by Caterair (Ref. 13).
- ai. Annual usage based on data provided by Chelsea Catering (Ref. 10).
- aj. Annual usage based on data provided by United Airlines (Ref. 35).
- ak. Annual usage estimated by CDM/PCR.
- al. Annual usage based on data provided by LSG SkyChefs (Ref. 16).
- am. Annual usage based on data provided by the Proud Bird (Ref. 7).
- an. Annual usage based on data provided by American Golf (Ref. 6).
- ao. Annual usage based on data provided by American Airlines (Ref. 36).
- ap. Annual usage based on data provided by LAWA (Ref. 21).
- aq. Annual usage based on data provided by LAXFUEL (Ref. 38).
- ar. Criteria pollutant emission factors from SCAQMD Form T1 (Ref. 37).
- as. Annual usage based on data provided by Mercury Air Group (Ref. 4).
- at. Criteria pollutant emission factors from AP-42 (Ref. 39) for refueling operations only.
- au. Annual usage based on data provided by USAir (Ref. 41).
- av. NOx emission factor from SCAQMD (Ref. 1), SO2 emission factor assumes 0.05 wt% sulfur, and remaining criteria pollutant emission factors from AP-42 (Ref. 40).
- aw. Toxic pollutant emission factors from CATEF (Ref. 43).
- ax. Toxic pollutant emission factors from CATEF (Ref. 44).
- ay. Annual usage based on data provided by Federal Express (Ref. 22).
- az. SO2 emission factor assumes 0.05 wt% sulfur, and remaining criteria pollutant emission factors from AP-42 (Ref. 40).
- aaa. Annual usage based on data provided by Hudson General (Ref. 45).
- bbb. Annual usage based on data provided by Airport Terminal Services (Ref. 46).
- ccc. Annual usage based on data provided by America West (Ref. 47).
- ddd. Annual usage based on data provided by American International (Ref. 48).
- eee. Annual usage based on data provided by Atlas Air Group (Ref. 49).
- fff. Annual usage based on data provided by DHL (Ref. 50).
- ggg. Annual usage based on data provided by Dynair (Ref. 51).
- hhh. Annual usage based on data provided by Ontario Aircraft (Ref. 52).
- iii. Annual usage based on data provided by SW Air Cargo (Ref. 53).
- jjj. Annual usage based on data provided by UPS (Ref. 54).
- kkk. Annual usage based on data provided by U.S. Coast Guard (Ref. 55).
- lll. Annual usage based on data provided by Cantinela Hospital (Ref. 56).
- mmm. Annual usage based on data provided by Alaska Airlines (Ref. 57).
- nnn. Annual usage based on data provided by Garrett Aviation (Ref. 58).
- ooo. Annual usage based on data provided by Japan Air (Ref. 59).
- ppp. Annual usage based on data provided by Trans States (Ref. 60).
- qqq. Annual usage based on data provided by United Express (Ref. 61).
- rrr. Annual usage based on data provided by American Eagle (Ref. 62).
- sss. Annual usage based on data provided by Sky West (Ref. 63).
- ttt. Annual usage based on data provided by Ogden Ramp Services (Ref. 64).
- uuu. SO2 emission factor assumes 0.05 wt% sulfur, and remaining criteria pollutant emission factors from engine manufacturer estimates (Ref. 65) assuming 7.1 lb/gal for diesel.
- vvv. Toxic pollutant emission factors from CATEF (Ref. 66).
- www. Criteria pollutant emission factor from 1995-96 Annual Emission Report (Ref. 29).
- xxx. Criteria pollutant emission factors from AP-42 (Ref. 40).
- yyy. Toxic pollutant emission factors from SPECIATE (Ref. 67).
- zzz. Toxic pollutant emission factors from SPECIATE (Ref. 68).
- aa. VOC emission factors from AP-42 (Ref. 40), remaining criteria pollutants from American International (Ref. 48).
- ab. VOC emission factor from SCAQMD (Ref. 1) for diesel fueling, corrected to Jet A using ratio of vapor pressures (Ref. 68).
- ac. VOC emission factor from SCAQMD (Ref. 3).
- ad. Toxic pollutant emission factors from SPECIATE (Ref. 70).
- ae. SO2 emission factor from AP-42 (Ref. 28) and remaining criteria pollutant emission factors from engine source test data (Ref. 71).
- af. Toxic pollutant emission factors from CATEF (Ref. 72).
- ag. Toxic pollutant emission factors from CATEF (Ref. 73).
- ah. Criteria and toxic pollutant emission factors from MSDS (Ref. 74).

			Criteria Pollutants (except Lead)					
Emission Factor Identification	References	Units	VOC	PM10	CO	NOx	SO2	CO2
Uncontrolled EFs								
Bulk Loading, Jet A, Aircraft	Ref. 1	lb/1000bbl	8.50E-01	---	---	---	---	---
Bulk Loading, Jet A, Tank Trucks	Ref. 1	lb/1000bbl	1.41E+00	---	---	---	---	---
Boiler, NG, Comm.	Ref. 2 ^{b,c}	lb/MMcf	2.78E+00	1.19E+01	2.10E+01	1.00E+02	6.00E-01	1.20E+05
Boiler, NG, Comm.	Ref. 1	lb/MMcf	7.00E+00	7.50E+00	3.50E+01	1.30E+02	8.30E-01	---
Boiler, NG	Ref. 4	lb/MMcf	---	---	---	---	---	---
Heater, NG	Ref. 5	lb/MMcf	---	---	---	---	---	---
Steam Generator, NG	Ref. 8	lb/MMcf	---	---	---	---	---	---
Boiler/Heater, LPG	Ref. 1	lb/1000gal	2.60E-01	2.80E-01	3.20E+00	1.28E+01	4.60E+00	---
Boiler/Heater, Diesel	Ref. 1 ^a	lb/1000gal	2.00E-01	2.00E+00	5.00E+00	2.00E+01	7.10E+00	---
Charbroiling								
Concrete Batch, Aggreg. Load.	Ref. 43	kg/Mg	---	1.40E-02	---	---	---	---
Concrete Batch, Concrete Load.	Ref. 43	kg/Mg	---	1.30E-01	---	---	---	---
Concrete Batch, Wind Erosion	Ref. 43	kg/hectare/day	---	3.90E+00	---	---	---	---
Concrete Batch, Truck Mix	Ref. 43	kg/Mg	---	5.00E-02	---	---	---	---
Cooking								
Cooling Tower	Ref. 6	lb/1000gal	---	1.90E-02	---	---	---	---
Degreaser	Ref. 7	lb/nonexempl	1.00E+00	---	---	---	---	---
Pump, Fuel - Fugitive, Gasoline	Ref. 1	lb/1000gal	9.80E+00	---	---	---	---	---
Pump, Fuel - Fugitive, Diesel	Ref. 1	lb/1000gal	2.80E-02	---	---	---	---	---
IC Engine, Diesel-Ind.	Ref. 9A	lb/1000gal	---	---	---	---	---	---
IC Engine, Diesel-Ind.	Ref. 9B	lb/1000gal	---	---	---	---	---	---
IC Engine, Diesel-Ind.	Ref. 42 ^{1k}	lb/MMBtu	8.19E-02	5.73E-02	8.50E-01	3.20E+00	1.01E	---
IC Engine, Diesel-Ind.	Ref. 42 ^{1k}	lb/hp-hr	6.42E-04	---	5.50E-03	2.40E-02	8.09E-03	---
IC Engine, Diesel-Ind./Com.	Ref. 41 ^a	lb/MMBtu	3.60E-01	3.10E-01	9.50E-01	4.41E+00	2.90E-01	1.64E+02
IC Engine, Diesel-Ind./Com.	Ref. 41 ^a	lb/hp-hr	2.51E-03	2.20E-03	6.68E-03	3.10E-02	2.05E-03	1.15E+00
IC Engine, Diesel-Com.	Ref. 10	lb/1000gal	---	---	---	---	---	---
IC Engine, D-Elec. Gen.	Ref. 11 ^d	lb/1000gal	---	---	---	---	---	---
IC Engine, Diesel, On-Road	Ref. 44,47	lb toxic/lb VOC	---	---	---	---	---	---
IC Engine, Diesel, On-Road	Ref. 44,47	lb toxic/lb PM	---	---	---	---	---	---
IC Engine, Diesel, Nonroad	R. 44,45,47	lb toxic/lb VOC	---	---	---	---	---	---
IC Engine, Diesel, Nonroad	R. 44,45,47	lb toxic/lb PM	---	---	---	---	---	---
IC Engine, Diesel	Ref. 1	lb/1000gal	3.75E+01	3.35E+01	1.02E+02	4.69E+02	7.10E+00	---
IC Engine, Gasoline, Ind./Com.	Ref. 41 ^a	lb/MMBtu	2.88E+00	1.00E-01	6.27E+01	1.63E+00	8.40E-02	1.54E+02
IC Engine, Gasoline, Ind./Com.	Ref. 41 ^a	lb/hp-hr	2.05E-02	7.21E-04	4.39E-01	1.10E-02	5.91E-04	1.08E+00
IC Engine, Gasoline, Ind./Com.	41, total VOC	lb/hp-hr	2.16E-02	---	---	---	---	---
IC Engine, Gaso., Nonroad, 4S	Ref. 44, 47	lb toxic/lb VOC	---	---	---	---	---	---
IC Engine, Gaso., Nonroad, 4S	Ref. 44, 47	lb toxic/lb PM	---	---	---	---	---	---
IC Engine, Gaso., Nonroad, 2S	Ref. 44, 47	lb toxic/lb VOC	---	---	---	---	---	---
IC Engine, Gaso., Nonroad, 2S	Ref. 44, 47	lb toxic/lb PM	---	---	---	---	---	---
IC Engine, On-Road, 1995 Yr	Ref. 44,46 ¹	g/mile	---	---	---	---	---	---
IC Engine, On-Road, 2000 Yr	Ref. 44,46 ¹	g/mile	---	---	---	---	---	---
IC Engine, On-Road, 2010 Yr	Ref. 44,46 ¹	g/mile	---	---	---	---	---	---
IC Engine, Gaso., On-Road	Ref. 44,47	lb toxic/lb VOC	---	---	---	---	---	---
IC Engine, Gaso., On-Road	Ref. 44,47	lb toxic/lb PM	---	---	---	---	---	---
IC Engine, Gasoline	Ref. 1	lb/1000gal	2.06E+02	6.50E+00	3.94E+03	1.02E+02	5.30E+00	---
IC Engine, Av.Gas., Air Taxi&GA	Ref. 44,48	lb toxic/lb VOC	---	---	---	---	---	---
IC Engine, NG-Ind., Lean	Ref. 40 ¹	lb/MMBtu	1.80E-01	---	4.20E-01	3.20E+00	---	1.09E+02
IC Engine, NG-Ind., Lean	Ref. 40 ¹	lb/hp-hr	1.59E-03	---	3.53E-03	2.60E-02	---	7.70E-01
IC Engine, NG-Ind., Rich	Ref. 40 ¹	lb/MMBtu	3.00E-02	---	1.60E+00	2.30E+00	---	1.09E+02
IC Engine, NG-Ind., Rich	Ref. 40 ¹	lb/hp-hr	3.09E-04	---	1.90E-02	2.20E-02	---	7.70E-01
IC Engine, NG-Ind., Lean	Ref. 12A	lb/MMcf	---	---	---	---	---	---
IC Engine, NG-Ind., Lean	Ref. 12B	lb/MMcf	---	---	---	---	---	---
IC Engine, Nat. Gas, Rich	Ref. 13	lb/MMcf	---	---	---	---	---	---
IC Engine, Nat. Gas	Ref. 1	lb/MMcf	2.80E+02	---	4.30E+02	3.40E+03	6.00E-01	---
IC Engine, Jet A	Ref. 50	lb/hp-hr	---	6.61E-04	3.89E-02	3.00E-02	3.90E-03	---
IC Engine, Jet A	Ref. 52	lb/hp-hr	---	1.23E-03	4.90E-02	3.77E-02	4.19E-03	---
IC Engine, LPG	Ref. 1	lb/1000gal	8.30E+01	5.00E+00	1.29E+02	1.39E+02	3.50E-01	---
Coating, Powder (75%Cr2C3)	Ref. 18	lb/lbs powder	---	---	---	---	---	---
Coating, Powder (87%Al2O3)	Ref. 19	lb/lbs powder	---	---	---	---	---	---
Coating, Powder (80%Ni)	Ref. 20	lb/lbs powder	---	---	---	---	---	---
Coating, Powder (100%Cr ox)	Ref. 21	lb/lbs powder	---	---	---	---	---	---
Turbine, Jet A, Com. Aircraft	44,48,49 ^m	lb toxic/lb VOC	---	---	---	---	---	---
Turbine, JP 4, Military	44,48,49 ^m	lb toxic/lb VOC	---	---	---	---	---	---
Turbine, Jet A, Air Taxi & GA	44,48,49 ^m	lb toxic/lb VOC	---	---	---	---	---	---
Turbine, Jet A, Aircraft, taxi/Idle	Ref. 44,49	lb toxic/lb VOC	---	---	---	---	---	---
Turbine, Jet A, Aircraft, takeoff	Ref. 44,49	lb toxic/lb VOC	---	---	---	---	---	---

			Volatile Organic Compounds (VOC)						
Emission Factor Identification	References	Units	Acetaldehyde	Acrolein	Benzene	Butadiene, 1,3-	Formaldehyde	Hexane	Propylene
Uncontrolled EFs									
Bulk Loading, Jet A, Aircraft	Ref. 1	lb/1000bbl	---	---	---	---	---	---	---
Bulk Loading, Jet A, Tank Trucks	Ref. 1	lb/1000bbl	---	---	---	---	---	---	---
Boiler, NG, Comm.	Ref. 2 ^{2a}	lb/MMcf	---	---	---	---	1.55E-01	---	---
Boiler, NG, Comm.	Ref. 1	lb/MMcf	---	---	---	---	---	---	---
Boiler, NG	Ref. 4	lb/MMcf	8.87E-03	---	4.31E-03	---	2.21E-01	---	---
Heater, NG	Ref. 5	lb/MMcf	4.61E-03	4.51E-03	2.34E-03	---	4.75E-03	---	4.63E-01
Steam Generator, NG	Ref. 8	lb/MMcf	---	---	3.88E-03	---	8.72E-03	---	---
Boiler/Heater, LPG	Ref. 1	lb/1000gal	---	---	---	---	---	---	---
Boiler/Heater, Diesel	Ref. 1 ^a	lb/1000gal	---	---	---	---	---	---	---
Charbroiling									
Concrete Batch, Aggreg. Load.	Ref. 43	kg/Mg	---	---	---	---	---	---	---
Concrete Batch, Concrete Load.	Ref. 43	kg/Mg	---	---	---	---	---	---	---
Concrete Batch, Wind Erosion	Ref. 43	kg/hectare/day	---	---	---	---	---	---	---
Concrete Batch, Truck Mix	Ref. 43	kg/Mg	---	---	---	---	---	---	---
Cooking									
Cooling Tower	Ref. 8	lb/1000gal	---	---	---	---	---	---	---
Degreaser	Ref. 7	lb/lb nonecompl	---	---	---	---	---	---	---
Pump, Fuel - Fugitive, Gasoline	Ref. 1	lb/1000gal	---	---	---	---	---	---	---
Pump, Fuel - Fugitive, Diesel	Ref. 1	lb/1000gal	---	---	---	---	---	---	---
IC Engine, Diesel-Ind.	Ref. 9A	lb/1000gal	3.47E-03	1.07E-03	1.01E-01	---	1.32E-02	---	3.85E-01
IC Engine, Diesel-Ind.	Ref. 9B	lb/1000gal	1.07E-01	1.30E-02	1.22E-01	5.41E-03	1.16E-01	---	3.85E-01
IC Engine, Diesel-Ind.	Ref. 42 ^{4k}	lb/MMBtu	2.52E-05	7.88E-06	7.76E-04	---	7.89E-05	---	2.79E-03
IC Engine, Diesel-Ind.	Ref. 42 ^{4k}	lb/hp-hr	---	---	---	---	---	---	---
IC Engine, Diesel-Ind./Com.	Ref. 41 ^a	lb/MMBtu	7.67E-04	9.25E-05	9.33E-04	3.91E-05	1.18E-03	---	2.58E-03
IC Engine, Diesel-Ind./Com.	Ref. 41 ^a	lb/hp-hr	---	---	---	---	---	---	---
IC Engine, Diesel-Com.	Ref. 10	lb/1000gal	---	---	2.85E-01	---	8.79E-02	1.39E-03	2.97E-01
IC Engine, D-Elec. Gen.	Ref. 11 ^d	lb/1000gal	---	---	3.25E-02	---	6.82E-02	---	---
IC Engine, Diesel, On-Road	Ref. 44,47	lb toxic/lb VOC	---	1.16E-02	---	---	---	---	---
IC Engine, Diesel, On-Road	Ref. 44,47	lb toxic/lb PM	---	---	---	---	---	---	---
IC Engine, Diesel, Nonroad	R. 44,45,47	lb toxic/lb VOC	7.60E-03	1.15E-02	3.00E-02	1.60E-02	2.85E-02	---	---
IC Engine, Diesel, Nonroad	R. 44,45,47	lb toxic/lb PM	---	---	---	---	---	---	---
IC Engine, Diesel	Ref. 1	lb/1000gal	---	---	---	---	---	---	---
IC Engine, Gasoline, Ind./Com.	Ref. 41 ^a	lb/MMBtu	---	---	---	---	---	---	---
IC Engine, Gasoline, Ind./Com.	Ref. 41 ^a	lb/hp-hr	---	---	---	---	---	---	---
IC Engine, Gasoline, Ind./Com.	41, total VOC	lb/hp-hr	---	---	---	---	---	---	---
IC Engine, Gasol., Nonroad, 4S	Ref. 44, 47	lb toxic/lb VOC	2.20E-03	7.00E-04	4.98E-02	8.00E-03	1.02E-02	---	---
IC Engine, Gasol., Nonroad, 4S	Ref. 44, 47	lb toxic/lb PM	---	---	---	---	---	---	---
IC Engine, Gasol., Nonroad, 2S	Ref. 44, 47	lb toxic/lb VOC	8.00E-04	3.00E-04	1.20E-02	1.50E-03	3.50E-03	---	---
IC Engine, Gasol., Nonroad, 2S	Ref. 44, 47	lb toxic/lb PM	---	---	---	---	---	---	---
IC Engine, On-Road, 1995 Yr	Ref. 44,46 ¹	g/mile	7.10E-03	---	4.13E-02	9.30E-03	2.51E-02	---	---
IC Engine, On-Road, 2000 Yr	Ref. 44,46 ¹	g/mile	5.20E-03	---	3.05E-02	6.90E-03	1.68E-02	---	---
IC Engine, On-Road, 2010 Yr	Ref. 44,46 ¹	g/mile	4.10E-03	---	2.28E-02	6.20E-03	1.38E-02	---	---
IC Engine, Gasol., On-Road	Ref. 44,47	lb toxic/lb VOC	---	7.00E-04	---	---	---	---	---
IC Engine, Gasol., On-Road	Ref. 44,47	lb toxic/lb PM	---	---	---	---	---	---	---
IC Engine, Gasoline	Ref. 1	lb/1000gal	---	---	---	---	---	---	---
IC Engine, Av.Gas., Air Taxi&GA	Ref. 44,48	lb toxic/lb VOC	6.70E-03	6.00E-04	4.60E-02	1.11E-02	3.05E-02	---	---
IC Engine, NG-Ind., Lean	Ref. 40 ¹	lb/MMBtu	---	---	---	---	---	---	---
IC Engine, NG-Ind., Lean	Ref. 40 ¹	lb/hp-hr	---	---	---	---	---	---	---
IC Engine, NG-Ind., Rich	Ref. 40 ¹	lb/MMBtu	---	---	---	---	---	---	---
IC Engine, NG-Ind., Rich	Ref. 40 ¹	lb/hp-hr	---	---	---	---	---	---	---
IC Engine, NG-Ind., Lean	Ref. 12A	lb/MMcf	3.99E+00	1.63E+00	1.21E+00	---	2.87E+01	---	1.87E+01
IC Engine, NG-Ind., Lean	Ref. 12B	lb/MMcf	5.29E-01	5.90E-02	2.18E-01	3.67E-01	4.71E+00	---	5.38E+00
IC Engine, Nat. Gas, Rich	Ref. 13	lb/MMcf	8.83E-01	7.94E-01	1.91E+00	1.04E-01	2.80E+00	---	1.60E+01
IC Engine, Nat. Gas	Ref. 1	lb/MMcf	---	---	---	---	---	---	---
IC Engine, Jet A	Ref. 50	lb/hp-hr	---	---	---	---	---	---	---
IC Engine, Jet A	Ref. 52	lb/hp-hr	---	---	---	---	---	---	---
IC Engine, LPG	Ref. 1	lb/1000gal	---	---	---	---	---	---	---
Coating, Powder (75%Cr3C2)	Ref. 18	lb/lbs powder	---	---	---	---	---	---	---
Coating, Powder (87%Al2O3)	Ref. 19	lb/lbs powder	---	---	---	---	---	---	---
Coating, Powder (80%Ni)	Ref. 20	lb/lbs powder	---	---	---	---	---	---	---
Coating, Powder (100%Cr ox)	Ref. 21	lb/lbs powder	---	---	---	---	---	---	---
Turbine, Jet A, Com. Aircraft	44,48,49 ^m	lb toxic/lb VOC	5.19E-02	2.53E-02	2.17E-02	2.01E-02	1.68E-01	---	---
Turbine, JP 4, Military	44,48,49 ^m	lb toxic/lb VOC	---	---	2.25E-02	2.11E-02	1.73E-01	---	---
Turbine, Jet A, Air Taxi & GA	44,48,49 ⁿ	lb toxic/lb VOC	4.90E-02	2.34E-02	1.92E-02	1.69E-02	1.52E-01	---	---
Turbine, Jet A, Aircraft, taxi/idle	Ref. 44,49	lb toxic/lb VOC	---	---	---	---	---	---	---
Turbine, Jet A, Aircraft, takeoff	Ref. 44,49	lb toxic/lb VOC	---	---	---	---	---	---	---

Volatile Organic Compounds (VOC) continued

Emission Factor Identification	References	Units	Propylene oxide	Styrene	Toluene	Xylene, m- or p-	Xylene, o-	Xylene (total)
Uncontrolled EFs								
Bulk Loading, Jet A, Aircraft	Ref. 1	lb/1000bbl	---	---	---	---	---	---
Bulk Loading, Jet A, Tank Trucks	Ref. 1	lb/1000bbl	---	---	---	---	---	---
Boiler, NG, Comm.	Ref. 2 ^{bc}	lb/MMcf	---	---	2.20E-03	---	---	---
Boiler, NG, Comm.	Ref. 1	lb/MMcf	---	---	---	---	---	---
Boiler, NG	Ref. 4	lb/MMcf	---	---	---	---	---	---
Heater, NG	Ref. 5	lb/MMcf	---	---	3.23E-02	---	---	1.97E-02
Steam Generator, NG	Ref. 8	lb/MMcf	---	---	1.20E-02	---	---	2.77E-02
Boiler/Heater, LPG	Ref. 1	lb/1000gal	---	---	---	---	---	---
Boiler/Heater, Diesel	Ref. 1 ^a	lb/1000gal	---	---	---	---	---	---
Charbroiling								
Concrete Batch, Aggreg. Load.	Ref. 43	kg/Mg	---	---	---	---	---	---
Concrete Batch, Concrete Load.	Ref. 43	kg/Mg	---	---	---	---	---	---
Concrete Batch, Wind Erosion	Ref. 43	kg/hectare/day	---	---	---	---	---	---
Concrete Batch, Truck Mix	Ref. 43	kg/Mg	---	---	---	---	---	---
Cooking								
Cooling Tower	Ref. 6	lb/1000gal	---	---	---	---	---	---
Degreaser	Ref. 7	lb/lb nonexempt	---	---	---	---	---	---
Pump, Fuel - Fugitive, Gasoline	Ref. 1	lb/1000gal	---	---	---	---	---	---
Pump, Fuel - Fugitive, Diesel	Ref. 1	lb/1000gal	---	---	---	---	---	---
IC Engine, Diesel-Ind.	Ref. 9A	lb/1000gal	---	---	3.74E-02	---	---	2.68E-02
IC Engine, Diesel-Ind.	Ref. 9B	lb/1000gal	---	---	5.50E-02	2.16E-02	2.09E-02	3.59E-02
IC Engine, Diesel-Ind.	Ref. 42 ^{1a}	lb/MMBtu	---	---	2.81E-04	---	---	1.93E-04
IC Engine, Diesel-Ind.	Ref. 42 ^{1a}	lb/hp-hr	---	---	---	---	---	---
IC Engine, Diesel-Ind./Com.	Ref. 41 ^a	lb/MMBtu	---	---	4.09E-04	---	---	2.85E-04
IC Engine, Diesel-Ind./Com.	Ref. 41 ^a	lb/hp-hr	---	---	---	---	---	---
IC Engine, Diesel-Com.	Ref. 10	lb/1000gal	---	---	8.50E-02	---	---	1.51E-02
IC Engine, D-Elec. Gen.	Ref. 11 ^d	lb/1000gal	---	---	---	---	---	---
IC Engine, Diesel, On-Road	Ref. 44,47	lb toxic/lb VOC	---	---	---	---	---	---
IC Engine, Diesel, On-Road	Ref. 44,47	lb toxic/lb PM	---	---	---	---	---	---
IC Engine, Diesel, Nonroad	R. 44,45,47	lb toxic/lb VOC	---	---	---	---	---	---
IC Engine, Diesel, Nonroad	R. 44,45,47	lb toxic/lb PM	---	---	---	---	---	---
IC Engine, Diesel	Ref. 1	lb/1000gal	---	---	---	---	---	---
IC Engine, Gasoline, Ind./Com.	Ref. 41 ^a	lb/MMBtu	---	---	---	---	---	---
IC Engine, Gasoline, Ind./Com.	Ref. 41 ^a	lb/hp-hr	---	---	---	---	---	---
IC Engine, Gasoline, Ind./Com.	41, total VOC	lb/hp-hr	---	---	---	---	---	---
IC Engine, Gaso., Nonroad, 4S	Ref. 44, 47	lb toxic/lb VOC	---	3.00E-04	---	---	---	---
IC Engine, Gaso., Nonroad, 4S	Ref. 44, 47	lb toxic/lb PM	---	---	---	---	---	---
IC Engine, Gaso., Nonroad, 2S	Ref. 44, 47	lb toxic/lb VOC	---	---	---	---	---	---
IC Engine, Gaso., Nonroad, 2S	Ref. 44, 47	lb toxic/lb PM	---	---	---	---	---	---
IC Engine, On-Road, 1995 Yr	Ref. 44,46 ¹	g/mile	---	---	---	---	---	---
IC Engine, On-Road, 2000 Yr	Ref. 44,46 ¹	g/mile	---	---	---	---	---	---
IC Engine, On-Road, 2010 Yr	Ref. 44,46 ¹	g/mile	---	---	---	---	---	---
IC Engine, Gaso., On-Road	Ref. 44,47	lb toxic/lb VOC	---	4.10E-03	---	---	---	---
IC Engine, Gaso., On-Road	Ref. 44,47	lb toxic/lb PM	---	---	---	---	---	---
IC Engine, Gasoline	Ref. 1	lb/1000gal	---	---	---	---	---	---
IC Engine, Av.Gaso., Air Taxi&GA	Ref. 44,48	lb toxic/lb VOC	---	3.70E-03	---	---	---	---
IC Engine, NG-Ind., Lean	Ref. 40 ¹	lb/MMBtu	---	---	---	---	---	---
IC Engine, NG-Ind., Lean	Ref. 40 ¹	lb/hp-hr	---	---	---	---	---	---
IC Engine, NG-Ind., Rich	Ref. 40 ¹	lb/MMBtu	---	---	---	---	---	---
IC Engine, NG-Ind., Rich	Ref. 40 ¹	lb/hp-hr	---	---	---	---	---	---
IC Engine, NG-Ind., Lean	Ref. 12A	lb/MMcf	---	---	4.12E-01	8.63E-02	4.94E-02	---
IC Engine, NG-Ind., Lean	Ref. 12B	lb/MMcf	---	---	2.39E-01	---	---	6.46E-01
IC Engine, Nat. Gas, Rich	Ref. 13	lb/MMcf	---	---	1.07E+00	4.41E-01	2.17E-01	6.02E-02
IC Engine, Nat. Gas	Ref. 1	lb/MMcf	---	---	---	---	---	---
IC Engine, Jet A	Ref. 50	lb/hp-hr	---	---	---	---	---	---
IC Engine, Jet A	Ref. 52	lb/hp-hr	---	---	---	---	---	---
IC Engine, LPG	Ref. 1	lb/1000gal	---	---	---	---	---	---
Coating, Powder (75%Cr3C2)	Ref. 18	lb/lbs powder	---	---	---	---	---	---
Coating, Powder (87%Al2O3)	Ref. 19	lb/lbs powder	---	---	---	---	---	---
Coating, Powder (80%Ni)	Ref. 20	lb/lbs powder	---	---	---	---	---	---
Coating, Powder (100%Cr ox)	Ref. 21	lb/lbs powder	---	---	---	---	---	---
Turbine, Jet A, Com. Aircraft	44,48,49 ^m	lb toxic/lb VOC	---	4.40E-03	---	---	---	---
Turbine, JP 4, Military	44,48,49 ^m	lb toxic/lb VOC	---	---	---	---	---	---
Turbine, Jet A, Air Taxi & GA	44,48,49 ^m	lb toxic/lb VOC	---	4.20E-03	---	---	---	---
Turbine, Jet A, Aircraft, taxi/Idle	Ref. 44,49	lb toxic/lb VOC	---	---	---	---	---	---
Turbine, Jet A, Aircraft, takeoff	Ref. 44,49	lb toxic/lb VOC	---	---	---	---	---	---

Semi-Volatile Organic Compounds (SVOC)

Emission Factor Identification	References	Units	Benzaldehyde	Benzo(a)pyrene	Chloronaphthalene, 2-	Diesel Particulate	Ethylbenzene	Methylnaphthalene, 2-	Perylene
Uncontrolled EFs									
Bulk Loading, Jet A, Aircraft	Ref. 1	lb/1000bbl	---	---	---	---	---	---	---
Bulk Loading, Jet A, Tank Trucks	Ref. 1	lb/1000bbl	---	---	---	---	---	---	---
Boiler, NG, Comm.	Ref. 2 ^{b,c}	lb/MMcf	---	---	---	---	---	9.02E-06	---
Boiler, NG, Comm.	Ref. 1	lb/MMcf	---	---	---	---	---	---	---
Boiler, NG	Ref. 4	lb/MMcf	1.64E-02	---	---	---	---	---	---
Heater, NG	Ref. 5	lb/MMcf	---	---	---	---	2.25E-03	---	---
Steam Generator, NG	Ref. 8	lb/MMcf	---	---	---	---	---	---	---
Boiler/Heater, LPG	Ref. 1	lb/1000gal	---	---	---	---	---	---	---
Boiler/Heater, Diesel	Ref. 1 ^a	lb/1000gal	---	---	---	---	---	---	---
Charbroiling									
Concrete Batch, Aggreg. Load.	Ref. 43	kg/Mg	---	---	---	---	---	---	---
Concrete Batch, Concrete Load.	Ref. 43	kg/Mg	---	---	---	---	---	---	---
Concrete Batch, Wind Erosion	Ref. 43	kg/hectare/day	---	---	---	---	---	---	---
Concrete Batch, Truck Mix	Ref. 43	kg/Mg	---	---	---	---	---	---	---
Cooking									
Cooling Tower	Ref. 6	lb/1000gal	---	---	---	---	---	---	---
Degreaser	Ref. 7	lb/lb nonexempt	---	---	---	---	---	---	---
Pump, Fuel - Fugitive, Gasoline	Ref. 1	lb/1000gal	---	---	---	---	---	---	---
Pump, Fuel - Fugitive, Diesel	Ref. 1	lb/1000gal	---	---	---	---	---	---	---
IC Engine, Diesel-Ind.	Ref. 9A	lb/1000gal	---	---	---	---	---	---	---
IC Engine, Diesel-Ind.	Ref. 9B	lb/1000gal	1.26E-02	---	---	---	---	---	---
IC Engine, Diesel-Ind.	Ref. 42 ^{1A}	lb/MMBtu	---	---	---	---	---	---	---
IC Engine, Diesel-Ind.	Ref. 42 ^{1A}	lb/hp-hr	---	---	---	---	---	---	---
IC Engine, Diesel-Ind./Com.	Ref. 41 ^a	lb/MMBtu	---	---	---	---	---	---	---
IC Engine, Diesel-Ind./Com.	Ref. 41 ^a	lb/hp-hr	---	---	---	---	---	---	---
IC Engine, Diesel-Com.	Ref. 10	lb/1000gal	---	---	---	---	6.76E-03	---	---
IC Engine, D-Elec. Gen.	Ref. 11 ^d	lb/1000gal	---	---	---	---	---	---	---
IC Engine, Diesel, On-Road	Ref. 44,47	lb toxic/lb VOC	---	---	---	---	---	---	---
IC Engine, Diesel, On-Road	Ref. 44,47	lb toxic/lb PM	---	---	---	---	---	---	---
IC Engine, Diesel, Nonroad	R. 44,45,47	lb toxic/lb VOC	---	---	---	---	---	---	---
IC Engine, Diesel, Nonroad	R. 44,45,47	lb toxic/lb PM	---	---	---	---	---	---	---
IC Engine, Diesel	Ref. 1	lb/1000gal	---	---	---	---	---	---	---
IC Engine, Gasoline, Ind./Com.	Ref. 41 ^a	lb/MMBtu	---	---	---	---	---	---	---
IC Engine, Gasoline, Ind./Com.	Ref. 41 ^a	lb/hp-hr	---	---	---	---	---	---	---
IC Engine, Gasoline, Ind./Com.	41, total VOC	lb/hp-hr	---	---	---	---	---	---	---
IC Engine, Gaso., Nonroad, 4S	Ref. 44, 47	lb toxic/lb VOC	---	---	---	---	---	---	---
IC Engine, Gaso., Nonroad, 4S	Ref. 44, 47	lb toxic/lb PM	---	---	---	---	---	---	---
IC Engine, Gaso., Nonroad, 2S	Ref. 44, 47	lb toxic/lb VOC	---	---	---	---	---	---	---
IC Engine, Gaso., Nonroad, 2S	Ref. 44, 47	lb toxic/lb PM	---	---	---	---	---	---	---
IC Engine, On-Road, 1995 Yr	Ref. 44,46 ¹	g/mile	---	---	---	3.56E-02	---	---	---
IC Engine, On-Road, 2000 Yr	Ref. 44,46 ¹	g/mile	---	---	---	1.88E-02	---	---	---
IC Engine, On-Road, 2010 Yr	Ref. 44,46 ¹	g/mile	---	---	---	1.05E-02	---	---	---
IC Engine, Gaso., On-Road	Ref. 44,47	lb toxic/lb VOC	---	---	---	---	---	---	---
IC Engine, Gaso., On-Road	Ref. 44,47	lb toxic/lb PM	---	---	---	---	---	---	---
IC Engine, Gasoline	Ref. 1	lb/1000gal	---	---	---	---	---	---	---
IC Engine, Av.Gas., Air Taxi&GA	Ref. 44,48	lb toxic/lb VOC	---	---	---	---	---	---	---
IC Engine, NG-Ind., Lean	Ref. 40 ¹	lb/MMBtu	---	---	---	---	---	---	---
IC Engine, NG-Ind., Lean	Ref. 40 ¹	lb/hp-hr	---	---	---	---	---	---	---
IC Engine, NG-Ind., Rich	Ref. 40 ¹	lb/MMBtu	---	---	---	---	---	---	---
IC Engine, NG-Ind., Rich	Ref. 40 ¹	lb/hp-hr	---	---	---	---	---	---	---
IC Engine, NG-Ind., Lean	Ref. 12A	lb/MMcf	---	---	---	---	---	---	---
IC Engine, NG-Ind., Lean	Ref. 12B	lb/MMcf	---	---	---	---	7.11E-02	---	---
IC Engine, Nat. Gas, Rich	Ref. 13	lb/MMcf	---	---	---	---	1.16E-02	---	---
IC Engine, Nat. Gas	Ref. 1	lb/MMcf	---	---	---	---	---	---	---
IC Engine, Jet A	Ref. 50	lb/hp-hr	---	---	---	---	---	---	---
IC Engine, Jet A	Ref. 52	lb/hp-hr	---	---	---	---	---	---	---
IC Engine, LPG	Ref. 1	lb/1000gal	---	---	---	---	---	---	---
Coating, Powder (75%Cr3C2)	Ref. 18	lb/lbs powder	---	---	---	---	---	---	---
Coating, Powder (87%Al2O3)	Ref. 19	lb/lbs powder	---	---	---	---	---	---	---
Coating, Powder (80%Ni)	Ref. 20	lb/lbs powder	---	---	---	---	---	---	---
Coating, Powder (100%Cr ox)	Ref. 21	lb/lbs powder	---	---	---	---	---	---	---
Turbine, Jet A, Com. Aircraft	44,48,49 ^m	lb toxic/lb VOC	---	---	---	---	---	---	---
Turbine, JP 4, Military	44,48,49 ^m	lb toxic/lb VOC	---	---	---	---	---	---	---
Turbine, Jet A, Air Taxi & GA	44,48,49 ^m	lb toxic/lb VOC	---	---	---	---	---	---	---
Turbine, Jet A, Aircraft, taxi/idle	Ref. 44,49	lb toxic/lb VOC	---	---	---	---	---	---	---
Turbine, Jet A, Aircraft, takeoff	Ref. 44,49	lb toxic/lb VOC	---	---	---	---	---	---	---

Polycyclic Aromatic Hydrocarbons (PAH)										
Emission Factor Identification	References	Units	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene
Uncontrolled EFs										
Bulk Loading, Jet A, Aircraft	Ref. 1	lb/1000bbl	---	---	---	---	---	---	---	---
Bulk Loading, Jet A, Tank Trucks	Ref. 1	lb/1000bbl	---	---	---	---	---	---	---	---
Boiler, NG, Comm.	Ref. 2 ^{b,c}	lb/MMcf	---	---	---	---	---	---	---	---
Boiler, NG, Comm.	Ref. 1	lb/MMcf	---	---	---	---	---	---	---	---
Boiler, NG	Ref. 4	lb/MMcf	---	---	---	---	---	---	---	---
Heater, NG	Ref. 5	lb/MMcf	1.39E-06	1.21E-05	1.61E-06	1.41E-06	1.14E-06	1.14E-06	1.25E-06	1.14E-06
Steam Generator, NG	Ref. 8	lb/MMcf	---	---	---	---	---	---	---	---
Boiler/Heater, LPG	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---
Boiler/Heater, Diesel	Ref. 1 ^a	lb/1000gal	---	---	---	---	---	---	---	---
Charbroiling										
Concrete Batch, Aggreg. Load.	Ref. 43	kg/Mg	---	---	---	---	---	---	---	---
Concrete Batch, Concrete Load.	Ref. 43	kg/Mg	---	---	---	---	---	---	---	---
Concrete Batch, Wind Erosion	Ref. 43	kg/hectare/day	---	---	---	---	---	---	---	---
Concrete Batch, Truck Mix	Ref. 43	kg/Mg	---	---	---	---	---	---	---	---
Cooking										
Cooling Tower	Ref. 6	lb/1000gal	---	---	---	---	---	---	---	---
Degreaser	Ref. 7	lb/lb nonexempt	---	---	---	---	---	---	---	---
Pump, Fuel - Fugitive, Gasoline	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---
Pump, Fuel - Fugitive, Diesel	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---
IC Engine, Diesel-Ind.	Ref. 9A	lb/1000gal	4.71E-04	1.09E-03	1.79E-04	5.03E-05	1.81E-05	7.96E-05	3.89E-05	1.56E-05
IC Engine, Diesel-Ind.	Ref. 9B	lb/1000gal	3.14E-03	4.07E-03	8.48E-04	2.34E-04	1.81E-05	8.66E-05	4.94E-05	3.28E-05
IC Engine, Diesel-Ind.	Ref. 42 ^{1a}	lb/MMBtu	4.68E-06	9.23E-06	1.23E-06	6.22E-07	2.57E-07	1.11E-06	5.56E-07	2.18E-07
IC Engine, Diesel-Ind.	Ref. 42 ^{1a}	lb/hp-hr	---	---	---	---	---	---	---	---
IC Engine, Diesel-Ind./Com.	Ref. 41 ^a	lb/MMBtu	1.42E-06	5.06E-06	1.87E-06	1.68E-06	1.88E-07	9.91E-08	4.89E-07	1.55E-07
IC Engine, Diesel-Ind./Com.	Ref. 41 ^a	lb/hp-hr	---	---	---	---	---	---	---	---
IC Engine, Diesel-Com.	Ref. 10	lb/1000gal	8.71E-04	9.45E-04	2.67E-04	1.42E-04	1.40E-04	1.44E-04	1.42E-04	1.41E-04
IC Engine, D-Elec. Gen.	Ref. 11 ^d	lb/1000gal	2.85E-06	2.85E-06	1.33E-03	1.11E-03	2.85E-06	1.43E-06	3.39E-04	1.43E-06
IC Engine, Diesel, On-Road	Ref. 44,47	lb toxic/lb VOC	---	---	1.38E-06	3.10E-06	1.12E-06	2.50E-06	1.38E-06	2.33E-06
IC Engine, Diesel, On-Road	Ref. 44,47	lb toxic/lb PM	---	---	---	---	---	---	---	---
IC Engine, Diesel, Nonroad	R. 44,45,47	lb toxic/lb VOC	---	---	1.40E-06	3.16E-06	1.14E-06	2.54E-06	1.40E-06	2.37E-06
IC Engine, Diesel, Nonroad	R. 44,45,47	lb toxic/lb PM	---	---	---	---	---	---	---	---
IC Engine, Diesel	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---
IC Engine, Gasoline, Ind./Com.	Ref. 41 ^a	lb/MMBtu	---	---	---	---	---	---	---	---
IC Engine, Gasoline, Ind./Com.	Ref. 41 ^a	lb/hp-hr	---	---	---	---	---	---	---	---
IC Engine, Gasoline, Ind./Com.	41, total VOC	lb/hp-hr	---	---	---	---	---	---	---	---
IC Engine, Gaso., Nonroad, 4S	Ref. 44, 47	lb toxic/lb VOC	---	---	1.92E-07	2.72E-06	1.60E-06	1.39E-06	5.34E-06	1.50E-06
IC Engine, Gaso., Nonroad, 4S	Ref. 44, 47	lb toxic/lb PM	---	---	---	---	---	---	---	---
IC Engine, Gaso., Nonroad, 2S	Ref. 44, 47	lb toxic/lb VOC	---	---	1.74E-07	2.47E-06	1.45E-06	1.26E-06	4.84E-06	1.36E-06
IC Engine, Gaso., Nonroad, 2S	Ref. 44, 47	lb toxic/lb PM	---	---	---	---	---	---	---	---
IC Engine, On-Road, 1995 Yr	Ref. 44,46 ¹	g/mile	---	---	---	---	---	---	---	---
IC Engine, On-Road, 2000 Yr	Ref. 44,46 ¹	g/mile	---	---	---	---	---	---	---	---
IC Engine, On-Road, 2010 Yr	Ref. 44,46 ¹	g/mile	---	---	---	---	---	---	---	---
IC Engine, Gaso., On-Road	Ref. 44,47	lb toxic/lb VOC	---	---	1.74E-07	2.47E-06	1.45E-06	1.26E-06	4.84E-06	1.36E-06
IC Engine, Gaso., On-Road	Ref. 44,47	lb toxic/lb PM	---	---	---	---	---	---	---	---
IC Engine, Gasoline	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---
IC Engine, Av. Gas., Air Taxi & GA	Ref. 44,48	lb toxic/lb VOC	---	---	1.74E-07	2.47E-06	1.45E-06	1.26E-06	4.84E-06	1.36E-06
IC Engine, NG-Ind., Lean	Ref. 40 ¹	lb/MMBtu	---	---	---	---	---	---	---	---
IC Engine, NG-Ind., Lean	Ref. 40 ¹	lb/hp-hr	---	---	---	---	---	---	---	---
IC Engine, NG-Ind., Rich	Ref. 40 ¹	lb/MMBtu	---	---	---	---	---	---	---	---
IC Engine, NG-Ind., Rich	Ref. 40 ¹	lb/hp-hr	---	---	---	---	---	---	---	---
IC Engine, NG-Ind., Lean	Ref. 12A	lb/MMcf	7.17E-04	7.59E-03	2.56E-04	7.78E-05	3.55E-05	3.27E-04	1.03E-04	5.30E-04
IC Engine, NG-Ind., Lean	Ref. 12B	lb/MMcf	1.51E-04	5.25E-04	1.19E-04	5.88E-05	2.70E-06	4.09E-05	7.54E-06	7.83E-06
IC Engine, Nat. Gas, Rich	Ref. 13	lb/MMcf	1.94E-03	1.45E-02	1.84E-03	2.94E-04	1.15E-04	2.37E-04	1.95E-04	1.03E-04
IC Engine, Nat. Gas	Ref. 1	lb/MMcf	---	---	---	---	---	---	---	---
IC Engine, Jet A	Ref. 50	lb/hp-hr	---	---	---	---	---	---	---	---
IC Engine, Jet A	Ref. 52	lb/hp-hr	---	---	---	---	---	---	---	---
IC Engine, LPG	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---
Coating, Powder (75%Cr3C2)	Ref. 18	lb/lbs powder	---	---	---	---	---	---	---	---
Coating, Powder (87%A12O3)	Ref. 19	lb/lbs powder	---	---	---	---	---	---	---	---
Coating, Powder (80%Ni)	Ref. 20	lb/lbs powder	---	---	---	---	---	---	---	---
Coating, Powder (100%Cr ox)	Ref. 21	lb/lbs powder	---	---	---	---	---	---	---	---
Turbine, Jet A, Com. Aircraft	44,48,49 ^m	lb toxic/lb VOC	---	---	5.79E-07	6.20E-07	3.95E-07	---	6.15E-08	---
Turbine, JP 4, Military	44,48,49 ^m	lb toxic/lb VOC	---	---	3.20E-06	7.89E-07	1.28E-06	---	7.74E-07	---
Turbine, Jet A, Air Taxi & GA	44,48,49 ^m	lb toxic/lb VOC	---	---	5.33E-07	5.10E-07	3.23E-07	---	4.96E-08	---
Turbine, Jet A, Aircraft, taxi/Idle	Ref. 44,49	lb toxic/lb VOC	---	---	4.00E-07	5.28E-08	2.81E-08	---	4.67E-09	---
Turbine, Jet A, Aircraft, takeoff	Ref. 44,49	lb toxic/lb VOC	---	---	1.46E-06	1.04E-06	7.47E-07	---	1.68E-07	---

Polycyclic Aromatic Hydrocarbons (PAH) continued

Emission Factor Identification	References	Units	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene
Uncontrolled EFs										
Bulk Loading, Jet A, Aircraft	Ref. 1	lb/1000bbl	---	---	---	---	---	---	---	---
Bulk Loading, Jet A, Tank Trucks	Ref. 1	lb/1000bbl	---	---	---	---	---	---	---	---
Boiler, NG, Comm.	Ref. 2 ^{ac}	lb/MMcf	---	---	3.01E-06	---	---	2.40E-04	1.00E-05	5.01E-06
Boiler, NG, Comm.	Ref. 1	lb/MMcf	---	---	---	---	---	---	---	---
Boiler, NG	Ref. 4	lb/MMcf	---	---	---	---	---	---	---	---
Heater, NG	Ref. 5	lb/MMcf	1.39E-06	1.14E-06	1.19E-05	4.59E-06	1.14E-06	2.37E-04	3.37E-05	5.60E-06
Steam Generator, NG	Ref. 8	lb/MMcf	---	---	---	---	---	---	---	---
Boiler/Heater, LPG	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---
Boiler/Heater, Diesel	Ref. 1 ^a	lb/1000gal	---	---	---	---	---	---	---	---
Charbroiling										
Concrete Batch, Aggreg. Load.	Ref. 43	kg/Mg	---	---	---	---	---	---	---	---
Concrete Batch, Concrete Load.	Ref. 43	kg/Mg	---	---	---	---	---	---	---	---
Concrete Batch, Wind Erosion	Ref. 43	kg/hectare/day	---	---	---	---	---	---	---	---
Concrete Batch, Truck Mix	Ref. 43	kg/Mg	---	---	---	---	---	---	---	---
Cooking										
Cooling Tower	Ref. 6	lb/1000gal	---	---	---	---	---	---	---	---
Degreaser	Ref. 7	lb/lb nonexempl	---	---	---	---	---	---	---	---
Pump, Fuel - Fugitive, Gasoline	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---
Pump, Fuel - Fugitive, Diesel	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---
IC Engine, Diesel-Ind.	Ref. 9A	lb/1000gal	1.06E-04	2.43E-05	3.73E-04	1.28E-03	2.89E-05	1.63E-02	3.96E-03	2.90E-04
IC Engine, Diesel-Ind.	Ref. 9B	lb/1000gal	5.30E-05	5.50E-05	1.33E-03	5.52E-03	4.63E-05	5.44E-02	9.47E-03	9.02E-04
IC Engine, Diesel-Ind.	Ref. 42 ^{1k}	lb/MMBtu	1.53E-06	3.46E-07	4.03E-06	1.28E-05	4.14E-07	1.30E-04	4.08E-05	3.71E-06
IC Engine, Diesel-Ind.	Ref. 42 ^{1k}	lb/hp-hr	---	---	---	---	---	---	---	---
IC Engine, Diesel-Ind./Com.	Ref. 41 ^a	lb/MMBtu	3.53E-07	5.83E-07	7.61E-06	2.92E-05	3.75E-07	8.48E-05	2.94E-05	4.78E-06
IC Engine, Diesel-Ind./Com.	Ref. 41 ^a	lb/hp-hr	---	---	---	---	---	---	---	---
IC Engine, Diesel-Com.	Ref. 10	lb/1000gal	1.53E-04	1.40E-04	2.84E-04	6.49E-04	1.40E-04	1.52E-02	3.11E-03	2.37E-04
IC Engine, D-Elec. Gen.	Ref. 11 ^d	lb/1000gal	4.60E-04	2.85E-04	1.30E-03	1.22E-02	2.25E-04	1.91E-02	1.45E-02	7.49E-03
IC Engine, Diesel, On-Road	Ref. 44,47	lb toxic/lb VOC	8.53E-06	---	1.12E-05	---	---	---	1.05E-05	1.95E-05
IC Engine, Diesel, On-Road	Ref. 44,47	lb toxic/lb PM	---	---	---	---	---	---	---	---
IC Engine, Diesel, Nonroad	R. 44,45,47	lb toxic/lb VOC	8.69E-06	---	1.14E-05	---	---	---	1.07E-05	1.98E-05
IC Engine, Diesel, Nonroad	R. 44,45,47	lb toxic/lb PM	---	---	---	---	---	---	---	---
IC Engine, Diesel	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---
IC Engine, Gasoline, Ind./Com.	Ref. 41 ^a	lb/MMBtu	---	---	---	---	---	---	---	---
IC Engine, Gasoline, Ind./Com.	Ref. 41 ^a	lb/hp-hr	---	---	---	---	---	---	---	---
IC Engine, Gasoline, Ind./Com.	41, total VOC	lb/hp-hr	---	---	---	---	---	---	---	---
IC Engine, Gasol., Nonroad, 4S	Ref. 44, 47	lb toxic/lb VOC	2.05E-06	3.04E-07	1.78E-06	---	2.40E-07	---	6.40E-07	1.14E-06
IC Engine, Gasol., Nonroad, 4S	Ref. 44, 47	lb toxic/lb PM	---	---	---	---	---	---	---	---
IC Engine, Gasol., Nonroad, 2S	Ref. 44, 47	lb toxic/lb VOC	1.86E-06	2.76E-07	1.61E-06	---	2.18E-07	---	5.80E-07	1.03E-06
IC Engine, Gasol., Nonroad, 2S	Ref. 44, 47	lb toxic/lb PM	---	---	---	---	---	---	---	---
IC Engine, On-Road, 1995 Yr	Ref. 44,48 ¹	g/mile	---	---	---	---	---	---	---	---
IC Engine, On-Road, 2000 Yr	Ref. 44,48 ¹	g/mile	---	---	---	---	---	---	---	---
IC Engine, On-Road, 2010 Yr	Ref. 44,48 ¹	g/mile	---	---	---	---	---	---	---	---
IC Engine, Gasol., On-Road	Ref. 44,47	lb toxic/lb VOC	1.86E-06	2.76E-07	1.61E-06	---	2.18E-07	---	5.80E-07	1.03E-06
IC Engine, Gasol., On-Road	Ref. 44,47	lb toxic/lb PM	---	---	---	---	---	---	---	---
IC Engine, Gasoline	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---
IC Engine, Av.Gas., Air Taxi&GA	Ref. 44,48	lb toxic/lb VOC	1.86E-06	2.76E-07	1.61E-06	---	2.18E-07	---	5.80E-07	1.03E-06
IC Engine, NG-Ind., Lean	Ref. 40 ¹	lb/MMBtu	---	---	---	---	---	---	---	---
IC Engine, NG-Ind., Lean	Ref. 40 ¹	lb/hp-hr	---	---	---	---	---	---	---	---
IC Engine, NG-Ind., Rich	Ref. 40 ¹	lb/MMBtu	---	---	---	---	---	---	---	---
IC Engine, NG-Ind., Rich	Ref. 40 ¹	lb/hp-hr	---	---	---	---	---	---	---	---
IC Engine, NG-Ind., Lean	Ref. 12A	lb/MMcf	9.64E-05	1.09E-05	2.50E-04	4.60E-04	1.20E-04	1.22E-01	8.93E-04	1.23E-04
IC Engine, NG-Ind., Lean	Ref. 12B	lb/MMcf	1.43E-05	2.70E-06	2.91E-04	4.36E-04	7.17E-06	2.51E-02	1.85E-03	1.87E-04
IC Engine, Nat. Gas, Rich	Ref. 13	lb/MMcf	3.10E-04	1.25E-05	9.95E-04	6.91E-03	1.69E-04	7.65E-02	7.07E-03	1.79E-03
IC Engine, Nat. Gas	Ref. 1	lb/MMcf	---	---	---	---	---	---	---	---
IC Engine, Jet A	Ref. 50	lb/hp-hr	---	---	---	---	---	---	---	---
IC Engine, Jet A	Ref. 52	lb/hp-hr	---	---	---	---	---	---	---	---
IC Engine, LPG	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---
Coating, Powder (75%Cr3C2)	Ref. 18	lb/lbs powder	---	---	---	---	---	---	---	---
Coating, Powder (87%Al2O3)	Ref. 19	lb/lbs powder	---	---	---	---	---	---	---	---
Coating, Powder (80%Ni)	Ref. 20	lb/lbs powder	---	---	---	---	---	---	---	---
Coating, Powder (100%Cr ox)	Ref. 21	lb/lbs powder	---	---	---	---	---	---	---	---
Turbine, Jet A, Com. Aircraft	44,48,48 ^m	lb toxic/lb VOC	1.14E-07	---	2.05E-06	---	---	3.55E-04	9.90E-06	1.94E-06
Turbine, JP 4, Military	44,48,49 ^m	lb toxic/lb VOC	1.52E-06	---	1.33E-05	---	---	1.27E-04	3.68E-05	1.52E-05
Turbine, Jet A, Air Taxi & GA	44,48,48 ^m	lb toxic/lb VOC	1.02E-07	---	1.79E-06	---	---	3.73E-04	8.45E-06	1.75E-06
Turbine, Jet A, Aircraft, taxi/idle	Ref. 44,49	lb toxic/lb VOC	5.61E-08	---	8.25E-07	---	---	4.31E-04	3.64E-06	1.01E-06
Turbine, Jet A, Aircraft, takeoff	Ref. 44,49	lb toxic/lb VOC	2.02E-07	---	4.55E-06	---	---	4.74E-05	3.08E-05	3.64E-06

Emission Factor Identification	References	Units	Dioxins				
			Dioxin (tetrachloro total)	Dioxin (pentachloro total)	Dioxin (hexachloro total)	Dioxin (heptachloro total)	Dioxin (octachloro)
Uncontrolled EFs							
Bulk Loading, Jet A, Aircraft	Ref. 1	lb/1000bbl	---	---	---	---	---
Bulk Loading, Jet A, Tank Trucks	Ref. 1	lb/1000bbl	---	---	---	---	---
Boiler, NG, Comm.	Ref. 2 ^{b,c}	lb/MMcf	---	---	---	---	---
Boiler, NG, Comm.	Ref. 1	lb/MMcf	---	---	---	---	---
Boiler, NG	Ref. 4	lb/MMcf	---	---	---	---	---
Heater, NG	Ref. 5	lb/MMcf	---	---	---	---	---
Steam Generator, NG	Ref. 8	lb/MMcf	---	---	---	---	---
Boiler/Heater, LPG	Ref. 1	lb/1000gal	---	---	---	---	---
Boiler/Heater, Diesel	Ref. 1 ^a	lb/1000gal	---	---	---	---	---
Charbroiling							
Concrete Batch, Aggreg. Load.	Ref. 43	kg/Mg	---	---	---	---	---
Concrete Batch, Concrete Load.	Ref. 43	kg/Mg	---	---	---	---	---
Concrete Batch, Wind Erosion	Ref. 43	kg/hectare/day	---	---	---	---	---
Concrete Batch, Truck Mix	Ref. 43	kg/Mg	---	---	---	---	---
Cooking							
Cooling Tower	Ref. 6	lb/1000gal	---	---	---	---	---
Degreaser	Ref. 7	lb/nonaenpl	---	---	---	---	---
Pump, Fuel - Fugitive, Gasoline	Ref. 1	lb/1000gal	---	---	---	---	---
Pump, Fuel - Fugitive, Diesel	Ref. 1	lb/1000gal	---	---	---	---	---
IC Engine, Diesel-Ind.	Ref. 9A	lb/1000gal	---	---	---	---	---
IC Engine, Diesel-Ind.	Ref. 9B	lb/1000gal	---	---	---	---	---
IC Engine, Diesel-Ind.	Ref. 42 ^{1k}	lb/MMBtu	---	---	---	---	---
IC Engine, Diesel-Ind.	Ref. 42 ^{1k}	lb/hp-hr	---	---	---	---	---
IC Engine, Diesel-Ind./Com.	Ref. 41 ^a	lb/MMBtu	---	---	---	---	---
IC Engine, Diesel-Ind./Com.	Ref. 41 ^a	lb/hp-hr	---	---	---	---	---
IC Engine, Diesel-Com.	Ref. 10	lb/1000gal	---	---	---	---	---
IC Engine, D-Elec. Gen.	Ref. 11 ^d	lb/1000gal	---	---	---	---	---
IC Engine, Diesel, On-Road	Ref. 44,47	lb toxic/lb VOC	---	---	---	---	---
IC Engine, Diesel, On-Road	Ref. 44,47	lb toxic/lb PM	---	---	---	---	---
IC Engine, Diesel, Nonroad	R. 44,45,47	lb toxic/lb VOC	---	---	---	---	---
IC Engine, Diesel, Nonroad	R. 44,45,47	lb toxic/lb PM	---	---	---	---	---
IC Engine, Diesel	Ref. 1	lb/1000gal	---	---	---	---	---
IC Engine, Gasoline, Ind./Com.	Ref. 41 ^a	lb/MMBtu	---	---	---	---	---
IC Engine, Gasoline, Ind./Com.	Ref. 41 ^a	lb/hp-hr	---	---	---	---	---
IC Engine, Gasoline, Ind./Com.	41, total VOC	lb/hp-hr	---	---	---	---	---
IC Engine, Gaso., Nonroad, 4S	Ref. 44, 47	lb toxic/lb VOC	---	---	---	---	---
IC Engine, Gaso., Nonroad, 4S	Ref. 44, 47	lb toxic/lb PM	---	---	---	---	---
IC Engine, Gaso., Nonroad, 2S	Ref. 44, 47	lb toxic/lb VOC	---	---	---	---	---
IC Engine, Gaso., Nonroad, 2S	Ref. 44, 47	lb toxic/lb PM	---	---	---	---	---
IC Engine, On-Road, 1995 Yr	Ref. 44,46 ¹	g/mile	---	---	---	---	---
IC Engine, On-Road, 2000 Yr	Ref. 44,46 ¹	g/mile	---	---	---	---	---
IC Engine, On-Road, 2010 Yr	Ref. 44,46 ¹	g/mile	---	---	---	---	---
IC Engine, Gaso., On-Road	Ref. 44,47	lb toxic/lb VOC	---	---	---	---	---
IC Engine, Gaso., On-Road	Ref. 44,47	lb toxic/lb PM	---	---	---	---	---
IC Engine, Gasoline	Ref. 1	lb/1000gal	---	---	---	---	---
IC Engine, Av.Gas., Air Taxi&GA	Ref. 44,48	lb toxic/lb VOC	---	---	---	---	---
IC Engine, NG-Ind., Lean	Ref. 40 ¹	lb/MMBtu	---	---	---	---	---
IC Engine, NG-Ind., Lean	Ref. 40 ¹	lb/hp-hr	---	---	---	---	---
IC Engine, NG-Ind., Rich	Ref. 40 ¹	lb/MMBtu	---	---	---	---	---
IC Engine, NG-Ind., Rich	Ref. 40 ¹	lb/hp-hr	---	---	---	---	---
IC Engine, NG-Ind., Lean	Ref. 12A	lb/MMcf	---	---	---	---	---
IC Engine, NG-Ind., Lean	Ref. 12B	lb/MMcf	---	---	---	---	---
IC Engine, Nat. Gas, Rich	Ref. 13	lb/MMcf	---	---	---	---	---
IC Engine, Nat. Gas	Ref. 1	lb/MMcf	---	---	---	---	---
IC Engine, Jet A	Ref. 50	lb/hp-hr	---	---	---	---	---
IC Engine, Jet A	Ref. 52	lb/hp-hr	---	---	---	---	---
IC Engine, LPG	Ref. 1	lb/1000gal	---	---	---	---	---
Coating, Powder (75%Cr3C2)	Ref. 18	lb/lbs powder	---	---	---	---	---
Coating, Powder (87%Al2O3)	Ref. 18	lb/lbs powder	---	---	---	---	---
Coating, Powder (80%Ni)	Ref. 20	lb/lbs powder	---	---	---	---	---
Coating, Powder (100%Cr ox)	Ref. 21	lb/lbs powder	---	---	---	---	---
Turbine, Jet A, Com. Aircraft	44,48,49 ^m	lb toxic/lb VOC	---	---	---	---	---
Turbine, JP 4, Military	44,48,49 ^m	lb toxic/lb VOC	---	---	---	---	---
Turbine, Jet A, Air Taxi & GA	44,48,49 ^m	lb toxic/lb VOC	---	---	---	---	---
Turbine, Jet A, Aircraft, taxi/idle	Ref. 44,49	lb toxic/lb VOC	---	---	---	---	---
Turbine, Jet A, Aircraft, takeoff	Ref. 44,49	lb toxic/lb VOC	---	---	---	---	---

			Furans				
			Furan (tetrachloro total)	Furan (pentachloro total)	Furan (hexachloro total)	Furan (heptachloro total)	Furan (octachloro total)
Emission Factor Identification	References	Units					
Uncontrolled EFs							
Bulk Loading, Jet A, Aircraft	Ref. 1	lb/1000bbl	---	---	---	---	---
Bulk Loading, Jet A, Tank Trucks	Ref. 1	lb/1000bbl	---	---	---	---	---
Boiler, NG, Comm.	Ref. 2 ^{bc}	lb/MMcf	---	---	---	---	---
Boiler, NG, Comm.	Ref. 1	lb/MMcf	---	---	---	---	---
Boiler, NG	Ref. 4	lb/MMcf	---	---	---	---	---
Heater, NG	Ref. 5	lb/MMcf	---	---	---	---	---
Steam Generator, NG	Ref. 8	lb/MMcf	---	---	---	---	---
Boiler/Heater, LPG	Ref. 1	lb/1000gal	---	---	---	---	---
Boiler/Heater, Diesel	Ref. 1 ^a	lb/1000gal	---	---	---	---	---
Charbroiling							
Concrete Batch, Aggreg. Load.	Ref. 43	kg/Mg	---	---	---	---	---
Concrete Batch, Concrete Load.	Ref. 43	kg/Mg	---	---	---	---	---
Concrete Batch, Wind Erosion	Ref. 43	kg/hectare/day	---	---	---	---	---
Concrete Batch, Truck Mix	Ref. 43	kg/Mg	---	---	---	---	---
Cooking							
Cooling Tower	Ref. 6	lb/1000gal	---	---	---	---	---
Degreaser	Ref. 7	lb/lb nonexempt	---	---	---	---	---
Pump, Fuel - Fugitive, Gasoline	Ref. 1	lb/1000gal	---	---	---	---	---
Pump, Fuel - Fugitive, Diesel	Ref. 1	lb/1000gal	---	---	---	---	---
IC Engine, Diesel-Ind.	Ref. 9A	lb/1000gal	---	---	---	---	---
IC Engine, Diesel-Ind.	Ref. 9B	lb/1000gal	---	---	---	---	---
IC Engine, Diesel-Ind.	Ref. 42 ^{1x}	lb/MMBtu	---	---	---	---	---
IC Engine, Diesel-Ind.	Ref. 42 ^{1x}	lb/hp-hr	---	---	---	---	---
IC Engine, Diesel-Ind./Com.	Ref. 41 ^a	lb/MMBtu	---	---	---	---	---
IC Engine, Diesel-Ind./Com.	Ref. 41 ^a	lb/hp-hr	---	---	---	---	---
IC Engine, Diesel-Com.	Ref. 10	lb/1000gal	---	---	---	---	---
IC Engine, D-Elec. Gen.	Ref. 11 ¹	lb/1000gal	---	---	---	---	---
IC Engine, Diesel, On-Road	Ref. 44,47	lb toxic/lb VOC	---	---	---	---	---
IC Engine, Diesel, On-Road	Ref. 44,47	lb toxic/lb PM	---	---	---	---	---
IC Engine, Diesel, Nonroad	R. 44,45,47	lb toxic/lb VOC	---	---	---	---	---
IC Engine, Diesel, Nonroad	R. 44,45,47	lb toxic/lb PM	---	---	---	---	---
IC Engine, Diesel	Ref. 1	lb/1000gal	---	---	---	---	---
IC Engine, Gasoline, Ind./Com.	Ref. 41 ^a	lb/MMBtu	---	---	---	---	---
IC Engine, Gasoline, Ind./Com.	Ref. 41 ^a	lb/hp-hr	---	---	---	---	---
IC Engine, Gasoline, Ind./Com.	41, total VOC	lb/hp-hr	---	---	---	---	---
IC Engine, Gaso., Nonroad, 4S	Ref. 44, 47	lb toxic/lb VOC	---	---	---	---	---
IC Engine, Gaso., Nonroad, 4S	Ref. 44, 47	lb toxic/lb PM	---	---	---	---	---
IC Engine, Gaso., Nonroad, 2S	Ref. 44, 47	lb toxic/lb VOC	---	---	---	---	---
IC Engine, Gaso., Nonroad, 2S	Ref. 44, 47	lb toxic/lb PM	---	---	---	---	---
IC Engine, On-Road, 1995 Yr	Ref. 44,46 ¹	g/mile	---	---	---	---	---
IC Engine, On-Road, 2000 Yr	Ref. 44,46 ¹	g/mile	---	---	---	---	---
IC Engine, On-Road, 2010 Yr	Ref. 44,46 ¹	g/mile	---	---	---	---	---
IC Engine, Gaso., On-Road	Ref. 44,47	lb toxic/lb VOC	---	---	---	---	---
IC Engine, Gaso., On-Road	Ref. 44,47	lb toxic/lb PM	---	---	---	---	---
IC Engine, Gasoline	Ref. 1	lb/1000gal	---	---	---	---	---
IC Engine, Av.Gas., Air Taxi&GA	Ref. 44,48	lb toxic/lb VOC	---	---	---	---	---
IC Engine, NG-Ind., Lean	Ref. 40 ¹	lb/MMBtu	---	---	---	---	---
IC Engine, NG-Ind., Lean	Ref. 40 ¹	lb/hp-hr	---	---	---	---	---
IC Engine, NG-Ind., Rich	Ref. 40 ¹	lb/MMBtu	---	---	---	---	---
IC Engine, NG-Ind., Rich	Ref. 40 ¹	lb/hp-hr	---	---	---	---	---
IC Engine, NG-Ind., Lean	Ref. 12A	lb/MMcf	---	---	---	---	---
IC Engine, NG-Ind., Lean	Ref. 12B	lb/MMcf	---	---	---	---	---
IC Engine, Nat. Gas, Rich	Ref. 13	lb/MMcf	---	---	---	---	---
IC Engine, Nat. Gas	Ref. 1	lb/MMcf	---	---	---	---	---
IC Engine, Jet A	Ref. 50	lb/hp-hr	---	---	---	---	---
IC Engine, Jet A	Ref. 52	lb/hp-hr	---	---	---	---	---
IC Engine, LPG	Ref. 1	lb/1000gal	---	---	---	---	---
Coating, Powder (75%Cr3C2)	Ref. 18	lb/lbs powder	---	---	---	---	---
Coating, Powder (87%Al2O3)	Ref. 19	lb/lbs powder	---	---	---	---	---
Coating, Powder (80%Ni)	Ref. 20	lb/lbs powder	---	---	---	---	---
Coating, Powder (100%Cr ox)	Ref. 21	lb/lbs powder	---	---	---	---	---
Turbine, Jet A, Com. Aircraft	44,48,49 ^m	lb toxic/lb VOC	---	---	---	---	---
Turbine, JP 4, Military	44,48,49 ^m	lb toxic/lb VOC	---	---	---	---	---
Turbine, Jet A, Air Taxi & GA	44,48,49 ^m	lb toxic/lb VOC	---	---	---	---	---
Turbine, Jet A, Aircraft, taxi/idle	Ref. 44,49	lb toxic/lb VOC	---	---	---	---	---
Turbine, Jet A, Aircraft, takeoff	Ref. 44,49	lb toxic/lb VOC	---	---	---	---	---

			Metals							
Emission Factor Identification	References	Units	Aluminum	Antimony	Arsenic	Bismuth	Beryllium	Boron	Cadmium	Calcium
Uncontrolled EFs										
Bulk Loading, Jet A, Aircraft	Ref. 1	lb/1000bbl	---	---	---	---	---	---	---	---
Bulk Loading, Jet A, Tank Trucks	Ref. 1	lb/1000bbl	---	---	---	---	---	---	---	---
Boiler, NG, Comm.	Ref. 2 ^{b,c}	lb/MMcf	---	---	2.30E-04	2.40E-03	---	---	---	---
Boiler, NG, Comm.	Ref. 1	lb/MMcf	---	---	---	---	---	---	---	---
Boiler, NG	Ref. 4	lb/MMcf	---	---	---	---	---	---	---	---
Heater, NG	Ref. 5	lb/MMcf	---	---	---	---	---	---	---	---
Steam Generator, NG	Ref. 8	lb/MMcf	---	---	---	---	---	---	---	---
Boiler/Heater, LPG	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---
Boiler/Heater, Diesel	Ref. 1 ^a	lb/1000gal	---	---	---	---	---	---	---	---
Charbroiling										
Concrete Batch, Aggreg. Load.	Ref. 43	kg/Mg	---	---	---	---	---	---	---	---
Concrete Batch, Concrete Load.	Ref. 43	kg/Mg	---	---	---	---	---	---	---	---
Concrete Batch, Wind Erosion	Ref. 43	kg/hectare/day	---	---	---	---	---	---	---	---
Concrete Batch, Truck Mix	Ref. 43	kg/Mg	---	---	---	---	---	---	---	---
Cooking										
Cooling Tower	Ref. 6	lb/1000gal	---	---	---	---	---	---	---	---
Degreaser	Ref. 7	lb/b nonexempl	---	---	---	---	---	---	---	---
Pump, Fuel - Fugitive, Gasoline	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---
Pump, Fuel - Fugitive, Diesel	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---
IC Engine, Diesel-Ind.	Ref. 9A	lb/1000gal	---	---	---	---	---	---	---	---
IC Engine, Diesel-Ind.	Ref. 9B	lb/1000gal	---	---	---	---	---	---	---	---
IC Engine, Diesel-Ind.	Ref. 42 ^{1,k}	lb/MMBtu	---	---	---	---	---	---	---	---
IC Engine, Diesel-Ind.	Ref. 42 ^{1,k}	lb/hp-hr	---	---	---	---	---	---	---	---
IC Engine, Diesel-Ind./Com.	Ref. 41 [*]	lb/MMBtu	---	---	---	---	---	---	---	---
IC Engine, Diesel-Ind./Com.	Ref. 41 [*]	lb/hp-hr	---	---	---	---	---	---	---	---
IC Engine, Diesel-Com.	Ref. 10	lb/1000gal	---	---	---	---	---	---	---	---
IC Engine, D-Elec. Gen.	Ref. 11 ^a	lb/1000gal	---	---	---	---	---	---	---	---
IC Engine, Diesel, On-Road	Ref. 44,47	lb toxic/lb VOC	---	---	---	---	---	---	---	---
IC Engine, Diesel, On-Road	Ref. 44,47	lb toxic/lb PM	---	---	---	---	---	---	---	---
IC Engine, Diesel, Nonroad	R. 44,45,47	lb toxic/lb VOC	---	---	---	---	---	---	---	---
IC Engine, Diesel, Nonroad	R. 44,45,47	lb toxic/lb PM	---	---	---	---	---	---	---	---
IC Engine, Diesel	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---
IC Engine, Gasoline, Ind./Com.	Ref. 41 [*]	lb/MMBtu	---	---	---	---	---	---	---	---
IC Engine, Gasoline, Ind./Com.	Ref. 41 [*]	lb/hp-hr	---	---	---	---	---	---	---	---
IC Engine, Gasoline, Ind./Com.	41, total VOC	lb/hp-hr	---	---	---	---	---	---	---	---
IC Engine, Gasol., Nonroad, 4S	Ref. 44, 47	lb toxic/lb VOC	---	---	---	---	---	---	---	---
IC Engine, Gasol., Nonroad, 4S	Ref. 44, 47	lb toxic/lb PM	---	---	---	---	---	---	---	---
IC Engine, Gasol., Nonroad, 2S	Ref. 44, 47	lb toxic/lb VOC	---	---	---	---	---	---	---	---
IC Engine, Gasol., Nonroad, 2S	Ref. 44, 47	lb toxic/lb PM	---	---	---	---	---	---	---	---
IC Engine, On-Road, 1995 Yr	Ref. 44,46 ¹	g/mile	---	---	---	---	---	---	---	---
IC Engine, On-Road, 2000 Yr	Ref. 44,46 ¹	g/mile	---	---	---	---	---	---	---	---
IC Engine, On-Road, 2010 Yr	Ref. 44,46 ¹	g/mile	---	---	---	---	---	---	---	---
IC Engine, Gasol., On-Road	Ref. 44,47	lb toxic/lb VOC	---	---	---	---	---	---	---	---
IC Engine, Gasol., On-Road	Ref. 44,47	lb toxic/lb PM	---	---	---	---	---	---	---	---
IC Engine, Gasoline	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---
IC Engine, Av.Gas., Air Taxi&GA	Ref. 44,48	lb toxic/lb VOC	---	---	---	---	---	---	---	---
IC Engine, NG-Ind., Lean	Ref. 40 ¹	lb/MMBtu	---	---	---	---	---	---	---	---
IC Engine, NG-Ind., Lean	Ref. 40 ¹	lb/hp-hr	---	---	---	---	---	---	---	---
IC Engine, NG-Ind., Rich	Ref. 40 ¹	lb/MMBtu	---	---	---	---	---	---	---	---
IC Engine, NG-Ind., Rich	Ref. 40 ¹	lb/hp-hr	---	---	---	---	---	---	---	---
IC Engine, NG-Ind., Lean	Ref. 12A	lb/MMcf	---	---	---	---	---	---	---	---
IC Engine, NG-Ind., Lean	Ref. 12B	lb/MMcf	---	---	---	---	---	---	---	---
IC Engine, Nat. Gas, Rich	Ref. 13	lb/MMcf	---	---	---	---	---	---	---	---
IC Engine, Nat. Gas	Ref. 1	lb/MMcf	---	---	---	---	---	---	---	---
IC Engine, Jet A	Ref. 50	lb/hp-hr	---	---	---	---	---	---	---	---
IC Engine, Jet A	Ref. 52	lb/hp-hr	---	---	---	---	---	---	---	---
IC Engine, LPG	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---
Coating, Powder (75%Cr3C2)	Ref. 18	lb/lbs powder	---	---	---	---	---	---	---	---
Coating, Powder (87%Al2O3)	Ref. 19	lb/lbs powder	---	---	---	---	---	---	---	---
Coating, Powder (80%Ni)	Ref. 20	lb/lbs powder	---	---	---	---	---	---	---	---
Coating, Powder (100%Cr ox)	Ref. 21	lb/lbs powder	---	---	---	---	---	---	---	---
Turbine, Jet A, Com. Aircraft	44,48,49 ^m	lb toxic/lb VOC	---	---	---	---	---	---	---	---
Turbine, JP 4, Military	44,48,49 ^m	lb toxic/lb VOC	---	---	---	---	---	---	---	---
Turbine, Jet A, Air Taxi & GA	44,48,49 ^m	lb toxic/lb VOC	---	---	---	---	---	---	---	---
Turbine, Jet A, Aircraft, taxi/idle	Ref. 44,49	lb toxic/lb VOC	---	---	---	---	---	---	---	---
Turbine, Jet A, Aircraft, takeoff	Ref. 44,49	lb toxic/lb VOC	---	---	---	---	---	---	---	---

			Metals continued							
Emission Factor Identification	References	Units	Chromium (hex)	Chromium (total)	Cobalt	Copper	Iron	Lead	Magnesium	Manganese
Uncontrolled EFs										
Bulk Loading, Jet A, Aircraft	Ref. 1	lb/1000bbl	---	---	---	---	---	---	---	---
Bulk Loading, Jet A, Tank Trucks	Ref. 1	lb/1000bbl	---	---	---	---	---	---	---	---
Boiler, NG, Comm.	Ref. 2 ^{bc}	lb/MMcf	---	1.10E-03	1.20E-04	2.41E-04	---	2.71E-04	---	3.81E-04
Boiler, NG, Comm.	Ref. 1	lb/MMcf	---	---	---	---	---	---	---	---
Boiler, NG	Ref. 4	lb/MMcf	---	---	---	---	---	---	---	---
Heater, NG	Ref. 5	lb/MMcf	---	---	---	---	---	---	---	---
Steam Generator, NG	Ref. 8	lb/MMcf	---	---	---	---	---	---	---	---
Boiler/Heater, LPG	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---
Boiler/Heater, Diesel	Ref. 1 ^a	lb/1000gal	---	---	---	---	---	---	---	---
Charbroiling										
Concrete Batch, Aggreg. Load.	Ref. 43	kg/Mg	---	---	---	---	---	---	---	---
Concrete Batch, Concrete Load.	Ref. 43	kg/Mg	---	---	---	---	---	---	---	---
Concrete Batch, Wind Erosion	Ref. 43	kg/hectare/day	---	---	---	---	---	---	---	---
Concrete Batch, Truck Mix	Ref. 43	kg/Mg	---	---	---	---	---	---	---	---
Cooking										
Cooling Tower	Ref. 8	lb/1000gal	---	---	---	---	---	---	---	---
Degreaser	Ref. 7	lb/tonnesempt	---	---	---	---	---	---	---	---
Pump, Fuel - Fugitive, Gasoline	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---
Pump, Fuel - Fugitive, Diesel	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---
IC Engine, Diesel-Ind.	Ref. 9A	lb/1000gal	---	---	---	---	---	---	---	---
IC Engine, Diesel-Ind.	Ref. 9B	lb/1000gal	---	---	---	---	---	---	---	---
IC Engine, Diesel-Ind.	Ref. 42 ^{fk}	lb/MMBtu	---	---	---	---	---	---	---	---
IC Engine, Diesel-Ind.	Ref. 42 ^{fk}	lb/hp-hr	---	---	---	---	---	---	---	---
IC Engine, Diesel-Ind./Com.	Ref. 41 ^a	lb/MMBtu	---	---	---	---	---	---	---	---
IC Engine, Diesel-Ind./Com.	Ref. 41 ^a	lb/hp-hr	---	---	---	---	---	---	---	---
IC Engine, Diesel-Com.	Ref. 10	lb/1000gal	---	---	---	---	---	---	---	---
IC Engine, D-Elec. Gen.	Ref. 11 ^d	lb/1000gal	---	---	---	---	---	---	---	---
IC Engine, Diesel, On-Road	Ref. 44,47	lb toxic/lb VOC	---	---	---	---	---	---	---	---
IC Engine, Diesel, On-Road	Ref. 44,47	lb toxic/lb PM	---	7.00E-05	---	5.00E-05	---	---	---	7.00E-05
IC Engine, Diesel, Nonroad	R. 44,45,47	lb toxic/lb VOC	---	---	---	---	---	---	---	---
IC Engine, Diesel, Nonroad	R. 44,45,47	lb toxic/lb PM	---	7.00E-05	---	5.00E-05	---	---	---	7.00E-05
IC Engine, Diesel	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---
IC Engine, Gasoline, Ind./Com.	Ref. 41 ^a	lb/MMBtu	---	---	---	---	---	---	---	---
IC Engine, Gasoline, Ind./Com.	Ref. 41 ^a	lb/hp-hr	---	---	---	---	---	---	---	---
IC Engine, Gasoline, Ind./Com.	41, total VOC	lb/hp-hr	---	---	---	---	---	---	---	---
IC Engine, Gasol., Nonroad, 4S	Ref. 44,47	lb toxic/lb VOC	---	---	---	---	---	---	---	---
IC Engine, Gasol., Nonroad, 4S	Ref. 44,47	lb toxic/lb PM	---	6.00E-05	---	1.60E-04	---	---	---	1.20E-04
IC Engine, Gasol., Nonroad, 2S	Ref. 44,47	lb toxic/lb VOC	---	---	---	---	---	---	---	---
IC Engine, Gasol., Nonroad, 2S	Ref. 44,47	lb toxic/lb PM	---	6.00E-05	---	1.60E-04	---	---	---	1.20E-04
IC Engine, On-Road, 1995 Yr	Ref. 44,48 ¹	g/mile	---	---	---	---	---	---	---	---
IC Engine, On-Road, 2000 Yr	Ref. 44,48 ¹	g/mile	---	---	---	---	---	---	---	---
IC Engine, On-Road, 2010 Yr	Ref. 44,46	g/mile	---	---	---	---	---	---	---	---
IC Engine, Gasol., On-Road	Ref. 44,47	lb toxic/lb VOC	---	---	---	---	---	---	---	---
IC Engine, Gasol., On-Road	Ref. 44,47	lb toxic/lb PM	---	6.00E-05	---	1.60E-04	---	---	---	1.20E-04
IC Engine, Gasoline	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---
IC Engine, Av.Gas., Air Taxi&GA	Ref. 44,48	lb toxic/lb VOC	---	---	---	---	---	---	---	---
IC Engine, NG-Ind., Lean	Ref. 40 ¹	lb/MMBtu	---	---	---	---	---	---	---	---
IC Engine, NG-Ind., Lean	Ref. 40 ¹	lb/hp-hr	---	---	---	---	---	---	---	---
IC Engine, NG-Ind., Rich	Ref. 40 ¹	lb/MMBtu	---	---	---	---	---	---	---	---
IC Engine, NG-Ind., Rich	Ref. 40 ¹	lb/hp-hr	---	---	---	---	---	---	---	---
IC Engine, NG-Ind., Lean	Ref. 12A	lb/MMcf	---	---	---	---	---	---	---	---
IC Engine, NG-Ind., Lean	Ref. 12B	lb/MMcf	---	---	---	---	---	---	---	---
IC Engine, Nat. Gas, Rich	Ref. 13	lb/MMcf	---	---	---	---	---	---	---	---
IC Engine, Nat. Gas	Ref. 1	lb/MMcf	---	---	---	---	---	---	---	---
IC Engine, Jet A	Ref. 50	lb/hp-hr	---	---	---	---	---	---	---	---
IC Engine, Jet A	Ref. 52	lb/hp-hr	---	---	---	---	---	---	---	---
IC Engine, LPG	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---
Coating, Powder (75%Cr3C2)	Ref. 18	lb/lbs powder	1.63E-02	3.75E-01	---	---	---	---	---	---
Coating, Powder (87%Al2O3)	Ref. 19	lb/lbs powder	---	3.48E-04	---	---	---	---	---	---
Coating, Powder (80%Ni)	Ref. 20	lb/lbs powder	2.58E-04	1.86E-03	---	---	---	---	---	---
Coating, Powder (100%Cr ox)	Ref. 21	lb/lbs powder	8.91E-03	1.42E-01	---	---	---	---	---	---
Turbine, Jet A, Com. Aircraft	44,48,49 ^m	lb toxic/lb VOC	---	---	---	---	---	---	---	---
Turbine, JP 4, Military	44,48,49 ^m	lb toxic/lb VOC	---	---	---	---	---	---	---	---
Turbine, Jet A, Air Taxi & GA	44,48,49 ^m	lb toxic/lb VOC	---	---	---	---	---	---	---	---
Turbine, Jet A, Aircraft, taxi/Idle	Ref. 44,49	lb toxic/lb VOC	---	---	---	---	---	---	---	---
Turbine, Jet A, Aircraft, takeoff	Ref. 44,49	lb toxic/lb VOC	---	---	---	---	---	---	---	---

Metals continued

Emission Factor Identification	References	Units	Mercury	Antimony	Nickel	Phosphorus	Potassium	Selenium	Silver	Sodium
Uncontrolled EFs										
Bulk Loading, Jet A, Aircraft	Ref. 1	lb/1000bbl	---	---	---	---	---	---	---	---
Bulk Loading, Jet A, Tank Trucks	Ref. 1	lb/1000bbl	---	---	---	---	---	---	---	---
Boiler, NG, Comm.	Ref. 2 ^{bo}	lb/MMcf	---	5.81E-04	3.61E-03	---	---	---	---	---
Boiler, NG, Comm.	Ref. 1	lb/MMcf	---	---	---	---	---	---	---	---
Boiler, NG	Ref. 4	lb/MMcf	---	---	---	---	---	---	---	---
Heater, NG	Ref. 5	lb/MMcf	---	---	---	---	---	---	---	---
Steam Generator, NG	Ref. 8	lb/MMcf	---	---	---	---	---	---	---	---
Boiler/Heater, LPG	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---
Boiler/Heater, Diesel	Ref. 1 ^a	lb/1000gal	---	---	---	---	---	---	---	---
Charbroiling										
Concrete Batch, Aggreg. Load.	Ref. 43	kg/Mg	---	---	---	---	---	---	---	---
Concrete Batch, Concrete Load.	Ref. 43	kg/Mg	---	---	---	---	---	---	---	---
Concrete Batch, Wind Erosion	Ref. 43	kg/hectare/day	---	---	---	---	---	---	---	---
Concrete Batch, Truck Mix	Ref. 43	kg/Mg	---	---	---	---	---	---	---	---
Cooking										
Cooling Tower	Ref. 6	lb/1000gal	---	---	---	---	---	---	---	---
Degreaser	Ref. 7	lb/lb nonexempt	---	---	---	---	---	---	---	---
Pump, Fuel - Fugitive, Gasoline	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---
Pump, Fuel - Fugitive, Diesel	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---
IC Engine, Diesel-Ind.	Ref. 9A	lb/1000gal	---	---	---	---	---	---	---	---
IC Engine, Diesel-Ind.	Ref. 9B	lb/1000gal	---	---	---	---	---	---	---	---
IC Engine, Diesel-Ind.	Ref. 42 ^{rk}	lb/MMBtu	---	---	---	---	---	---	---	---
IC Engine, Diesel-Ind.	Ref. 42 ^{rh}	lb/hp-hr	---	---	---	---	---	---	---	---
IC Engine, Diesel-Ind./Com.	Ref. 41 ^a	lb/MMBtu	---	---	---	---	---	---	---	---
IC Engine, Diesel-Ind./Com.	Ref. 41 ^a	lb/hp-hr	---	---	---	---	---	---	---	---
IC Engine, Diesel-Com.	Ref. 10	lb/1000gal	---	---	---	---	---	---	---	---
IC Engine, D-Elec. Gen.	Ref. 11 ^d	lb/1000gal	---	---	---	---	---	---	---	---
IC Engine, Diesel, On-Road	Ref. 44,47	lb toxic/lb VOC	---	---	---	---	---	---	---	---
IC Engine, Diesel, On-Road	Ref. 44,47	lb toxic/lb PM	2.00E-05	---	3.00E-05	---	---	---	---	---
IC Engine, Diesel, Nonroad	R. 44,45,47	lb toxic/lb VOC	---	---	---	---	---	---	---	---
IC Engine, Diesel, Nonroad	R. 44,45,47	lb toxic/lb PM	2.00E-05	---	3.00E-05	---	---	---	---	---
IC Engine, Diesel	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---
IC Engine, Gasoline, Ind./Com.	Ref. 41 ^a	lb/MMBtu	---	---	---	---	---	---	---	---
IC Engine, Gasoline, Ind./Com.	Ref. 41 ^a	lb/hp-hr	---	---	---	---	---	---	---	---
IC Engine, Gasoline, Ind./Com.	41, total VOC	lb/hp-hr	---	---	---	---	---	---	---	---
IC Engine, Gaso., Nonroad, 4S	Ref. 44, 47	lb toxic/lb VOC	---	---	---	---	---	---	---	---
IC Engine, Gaso., Nonroad, 4S	Ref. 44, 47	lb toxic/lb PM	1.00E-05	---	7.00E-05	---	---	---	---	---
IC Engine, Gaso., Nonroad, 2S	Ref. 44, 47	lb toxic/lb VOC	---	---	---	---	---	---	---	---
IC Engine, Gaso., Nonroad, 2S	Ref. 44, 47	lb toxic/lb PM	1.00E-05	---	7.00E-05	---	---	---	---	---
IC Engine, On-Road, 1995 Yr	Ref. 44,48 ¹	g/mile	---	---	---	---	---	---	---	---
IC Engine, On-Road, 2000 Yr	Ref. 44,48 ¹	g/mile	---	---	---	---	---	---	---	---
IC Engine, On-Road, 2010 Yr	Ref. 44,48	g/mile	---	---	---	---	---	---	---	---
IC Engine, Gaso., On-Road	Ref. 44,47	lb toxic/lb VOC	---	---	---	---	---	---	---	---
IC Engine, Gaso., On-Road	Ref. 44,47	lb toxic/lb PM	1.00E-05	---	7.00E-05	---	---	---	---	---
IC Engine, Gasoline	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---
IC Engine, Av.Gas., Air Taxi&GA	Ref. 44,48	lb toxic/lb VOC	---	---	---	---	---	---	---	---
IC Engine, NG-Ind., Lean	Ref. 40 ¹	lb/MMBtu	---	---	---	---	---	---	---	---
IC Engine, NG-Ind., Lean	Ref. 40 ¹	lb/hp-hr	---	---	---	---	---	---	---	---
IC Engine, NG-Ind., Rich	Ref. 40 ¹	lb/MMBtu	---	---	---	---	---	---	---	---
IC Engine, NG-Ind., Rich	Ref. 40 ¹	lb/hp-hr	---	---	---	---	---	---	---	---
IC Engine, NG-Ind., Lean	Ref. 12A	lb/MMcf	---	---	---	---	---	---	---	---
IC Engine, NG-Ind., Lean	Ref. 12B	lb/MMcf	---	---	---	---	---	---	---	---
IC Engine, Nat. Gas, Rich	Ref. 13	lb/MMcf	---	---	---	---	---	---	---	---
IC Engine, Nat. Gas	Ref. 1	lb/MMcf	---	---	---	---	---	---	---	---
IC Engine, Jet A	Ref. 50	lb/hp-hr	---	---	---	---	---	---	---	---
IC Engine, Jet A	Ref. 52	lb/hp-hr	---	---	---	---	---	---	---	---
IC Engine, LPG	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---
Coating, Powder (75%Cr3C2)	Ref. 18	lb/lbs powder	---	---	---	---	---	---	---	---
Coating, Powder (87%Al2O3)	Ref. 19	lb/lbs powder	---	---	---	---	---	---	---	---
Coating, Powder (80%Ni)	Ref. 20	lb/lbs powder	---	---	---	---	---	---	---	---
Coating, Powder (100%Cr ox)	Ref. 21	lb/lbs powder	---	---	---	---	---	---	---	---
Turbine, Jet A, Com. Aircraft	44,48,49 ^m	lb toxic/lb VOC	---	---	---	---	---	---	---	---
Turbine, JP 4, Military	44,48,49 ^m	lb toxic/lb VOC	---	---	---	---	---	---	---	---
Turbine, Jet A, Air Taxi & GA	44,48,49 ^m	lb toxic/lb VOC	---	---	---	---	---	---	---	---
Turbine, Jet A, Aircraft, taxi/idle	Ref. 44,49	lb toxic/lb VOC	---	---	---	---	---	---	---	---
Turbine, Jet A, Aircraft, takeoff	Ref. 44,49	lb toxic/lb VOC	---	---	---	---	---	---	---	---

Emission Factor Identification	References	Units	Metals continued			Inorganics		
			As	Cr	Pb	Co	Mn	Se
Uncontrolled EFs								
Bulk Loading, Jet A, Aircraft	Ref. 1	lb/1000bbl	---	---	---	---	---	---
Bulk Loading, Jet A, Tank Trucks	Ref. 1	lb/1000bbl	---	---	---	---	---	---
Boiler, NG, Comm.	Ref. 2 ^{b,c}	lb/MMcf	---	3.21E-03	---	---	---	---
Boiler, NG, Comm.	Ref. 1	lb/MMcf	---	---	---	---	---	---
Boiler, NG	Ref. 4	lb/MMcf	---	---	---	---	---	---
Heater, NG	Ref. 5	lb/MMcf	---	---	---	---	---	---
Steam Generator, NG	Ref. 8	lb/MMcf	---	---	---	---	---	---
Boiler/Heater, LPG	Ref. 1	lb/1000gal	---	---	---	---	---	---
Boiler/Heater, Diesel	Ref. 1 ^a	lb/1000gal	---	---	---	---	---	---
Charbroiling								
Concrete Batch, Aggreg. Load.	Ref. 43	kg/Mg	---	---	---	---	---	---
Concrete Batch, Concrete Load.	Ref. 43	kg/Mg	---	---	---	---	---	---
Concrete Batch, Wind Erosion	Ref. 43	kg/hectares/day	---	---	---	---	---	---
Concrete Batch, Truck Mix	Ref. 43	kg/Mg	---	---	---	---	---	---
Cooking								
Cooling Tower	Ref. 6	lb/1000gal	---	---	---	---	---	---
Degreaser	Ref. 7	lb/lb nonexempt	---	---	---	---	---	---
Pump, Fuel - Fugitive, Gasoline	Ref. 1	lb/1000gal	---	---	---	---	---	---
Pump, Fuel - Fugitive, Diesel	Ref. 1	lb/1000gal	---	---	---	---	---	---
IC Engine, Diesel-Ind.	Ref. 9A	lb/1000gal	---	---	---	---	---	---
IC Engine, Diesel-Ind.	Ref. 9B	lb/1000gal	---	---	---	---	---	---
IC Engine, Diesel-Ind.	Ref. 42 ^{1a}	lb/MMBtu	---	---	---	---	---	---
IC Engine, Diesel-Ind.	Ref. 42 ^{1a}	lb/hp-hr	---	---	---	---	---	---
IC Engine, Diesel-Ind./Com.	Ref. 41 ^a	lb/MMBtu	---	---	---	---	---	---
IC Engine, Diesel-Ind./Com.	Ref. 41 ^a	lb/hp-hr	---	---	---	---	---	---
IC Engine, Diesel-Com.	Ref. 10	lb/1000gal	---	---	---	---	---	---
IC Engine, D-Elec. Gen.	Ref. 11 ^a	lb/1000gal	---	---	---	---	---	---
IC Engine, Diesel, On-Road	Ref. 44,47	lb toxic/lb VOC	---	---	---	---	---	---
IC Engine, Diesel, On-Road	Ref. 44,47	lb toxic/lb PM	---	---	---	---	---	---
IC Engine, Diesel, Nonroad	R. 44,45,47	lb toxic/lb VOC	---	---	---	---	---	---
IC Engine, Diesel, Nonroad	R. 44,45,47	lb toxic/lb PM	---	---	---	---	---	---
IC Engine, Diesel	Ref. 1	lb/1000gal	---	---	---	---	---	---
IC Engine, Gasoline, Ind./Com.	Ref. 41 ^a	lb/MMBtu	---	---	---	---	---	---
IC Engine, Gasoline, Ind./Com.	Ref. 41 ^a	lb/hp-hr	---	---	---	---	---	---
IC Engine, Gasoline, Ind./Com.	41, total VOC	lb/hp-hr	---	---	---	---	---	---
IC Engine, Gaso., Nonroad, 4S	Ref. 44, 47	lb toxic/lb VOC	---	---	---	---	---	---
IC Engine, Gaso., Nonroad, 4S	Ref. 44, 47	lb toxic/lb PM	---	---	---	---	---	---
IC Engine, Gaso., Nonroad, 2S	Ref. 44, 47	lb toxic/lb VOC	---	---	---	---	---	---
IC Engine, Gaso., Nonroad, 2S	Ref. 44, 47	lb toxic/lb PM	---	---	---	---	---	---
IC Engine, On-Road, 1995 Yr	Ref. 44,46	g/mile	---	---	---	---	---	---
IC Engine, On-Road, 2000 Yr	Ref. 44,46	g/mile	---	---	---	---	---	---
IC Engine, On-Road, 2010 Yr	Ref. 44,46 ¹	g/mile	---	---	---	---	---	---
IC Engine, Gaso., On-Road	Ref. 44,47	lb toxic/lb VOC	---	---	---	---	---	---
IC Engine, Gaso., On-Road	Ref. 44,47	lb toxic/lb PM	---	---	---	---	---	---
IC Engine, Gasoline	Ref. 1	lb/1000gal	---	---	---	---	---	---
IC Engine, Av.Gas., Air Taxi&GA	Ref. 44,48	lb toxic/lb VOC	---	---	---	---	---	---
IC Engine, NG-Ind., Lean	Ref. 40 ¹	lb/MMBtu	---	---	---	---	---	---
IC Engine, NG-Ind., Lean	Ref. 40 ¹	lb/hp-hr	---	---	---	---	---	---
IC Engine, NG-Ind., Rich	Ref. 40 ¹	lb/MMBtu	---	---	---	---	---	---
IC Engine, NG-Ind., Rich	Ref. 40 ¹	lb/hp-hr	---	---	---	---	---	---
IC Engine, NG-Ind., Lean	Ref. 12A	lb/MMcf	---	---	---	---	---	---
IC Engine, NG-Ind., Lean	Ref. 12B	lb/MMcf	---	---	---	---	---	---
IC Engine, Nat. Gas, Rich	Ref. 13	lb/MMcf	---	---	---	---	---	---
IC Engine, Nat. Gas	Ref. 1	lb/MMcf	---	---	---	---	---	---
IC Engine, Jet A	Ref. 50	lb/hp-hr	---	---	---	---	---	---
IC Engine, Jet A	Ref. 52	lb/hp-hr	---	---	---	---	---	---
IC Engine, LPG								
Coating, Powder (75%Cr3C2)	Ref. 18	lb/lbs powder	---	---	---	---	---	---
Coating, Powder (87%Al2O3)	Ref. 19	lb/lbs powder	---	---	---	---	---	---
Coating, Powder (80%Ni)	Ref. 20	lb/lbs powder	---	---	---	---	---	---
Coating, Powder (100%Cr ox)	Ref. 21	lb/lbs powder	---	---	---	---	---	---
Turbine, Jet A, Com. Aircraft	44,48,49 ^m	lb toxic/lb VOC	---	---	---	---	---	---
Turbine, JP 4, Military	44,48,49 ^m	lb toxic/lb VOC	---	---	---	---	---	---
Turbine, Jet A, Air Taxi & GA	44,48,49 ^m	lb toxic/lb VOC	---	---	---	---	---	---
Turbine, Jet A, Aircraft, taxi/Idle	Ref. 44,49	lb toxic/lb VOC	---	---	---	---	---	---
Turbine, Jet A, Aircraft, takeoff	Ref. 44,49	lb toxic/lb VOC	---	---	---	---	---	---

			Criteria Pollutants (except Lead)					
Emission Factor Identification	References	Units	CO	PM10	CO	NOx	SO2	CO2
Turbine, Jet A, Aircraft, climbout	Ref. 44.49	lb toxic/lb VOC	---	---	---	---	---	---
Turbine, Jet A, Aircraft, approach	Ref. 44.49	lb toxic/lb VOC	---	---	---	---	---	---
Turbine, JP 4, Military, taxi/idle	Ref. 44.49	lb toxic/lb VOC	---	---	---	---	---	---
Turbine, JP 4, Military, takeoff	Ref. 44.49	lb toxic/lb VOC	---	---	---	---	---	---
Turbine, JP 4, Military, climbout	Ref. 44.49	lb toxic/lb VOC	---	---	---	---	---	---
Turbine, JP 4, Military, approach	Ref. 44.49	lb toxic/lb VOC	---	---	---	---	---	---
Turbine, Diesel-Elec. Gen.	Ref. 35	lb/1000gal	---	---	---	---	---	---
Turbine, Diesel-Elec. Gen.	Ref. 39 ^{a,f}	lb/MMBtu	1.70E-02	6.10E-02	4.80E-02	6.98E-01	1.01E	1.65E+02
Turbine, Diesel-Elec. Gen.	Ref. 39 ^{a,f}	lb/hp-hr	1.37E-04	4.89E-04	3.84E-04	5.60E-03	8.09E-03	1.32E+00
Turbine, Diesel-Ind. Cogen.	Ref. 36	lb/1000gal	---	---	---	---	---	---
Turbine, NG-Elec. Gen.	Ref. 39 ^{a,f}	lb/MMBtu	2.40E-02	4.19E-02	1.10E-01	4.40E-01	0.94E	1.09E+02
Turbine, NG-Elec. Gen.	Ref. 39 ^{a,f}	lb/hp-hr	1.92E-04	3.35E-04	8.60E-04	3.53E-03	7.52E-03S	8.76E-01
Turbine, NG - Ind. Cogen.	Ref. 40 ⁱ	lb/MMBtu	2.00E-03	---	1.70E-01	3.40E-01	---	1.09E+02
Turbine, NG - Ind. Cogen.	Ref. 40 ⁱ	lb/hp-hr	2.20E-05	---	1.83E-03	2.87E-03	---	8.80E-01
Turbine, NG - Ind. Cogen.	Ref. 37	lb/MMcf	---	---	---	---	---	---
Controlled EFs								
Boiler, NG, Comm., Rule 1146	Ref. 1	lb/MMcf	7.00E+00	7.50E+00	3.50E+01	4.98E+01	8.30E-01	---
Boiler, NG, Small, Rule 1146.1	Ref. 1	lb/MMcf	7.00E+00	7.50E+00	3.50E+01	3.74E+01	8.30E-01	---
Boiler, LPG, Comm., Rule 1146	Ref. 1	lb/1000gal	2.60E-01	2.80E-01	3.20E+00	4.50E+00	4.60E+00	---
Boiler, LPG, Small, Rule 1146.1	Ref. 1	lb/1000gal	2.60E-01	2.80E-01	3.20E+00	3.40E+00	4.60E+00	---
Plating, Anodizing, WS	Ref. 14	mg/amp-hr	---	---	---	---	---	---
Plating, Anodizing, DMWS/FF	Ref. 16	mg/amp-hr	---	---	---	---	---	---
Plating, Hard, WS or DM	Ref. 16	mg/amp-hr	---	---	---	---	---	---
Plating, Hard, DMWS/FF	Ref. 17	mg/amp-hr	---	---	---	---	---	---
Coating, Green PE, BF	Ref. 22	lb/gal	---	---	---	---	---	---
Coating, Green PE, PA	Ref. 23	lb/gal	---	---	---	---	---	---
Coating, Green PE, WC	Ref. 24	lb/gal	---	---	---	---	---	---
Coating, Green PE, WT	Ref. 25	lb/gal	---	---	---	---	---	---
Coating, Green primer, BF	Ref. 26	lb/gal	---	---	---	---	---	---
Coating, Green primer, PA	Ref. 27	lb/gal	---	---	---	---	---	---
Coating, Green primer, WC	Ref. 28A	lb/gal	---	---	---	---	---	---
Coating, Green primer, WC	Ref. 28B	lb/gal	---	---	---	---	---	---
Coating, Green primer, WSN	Ref. 29	lb/gal	---	---	---	---	---	---
Coating, Green primer, WT	Ref. 30	lb/gal	---	---	---	---	---	---
Coating, Powder (70%Ni), AF	Ref. 31	lb/lbs powder	---	---	---	---	---	---
Coating, Powder (48%Ni), AF	Ref. 32	lb/lbs powder	---	---	---	---	---	---
Coating, Powder (4%Ni), AF	Ref. 33	lb/lbs powder	---	---	---	---	---	---
Coating, Yellow PE, BF	Ref. 34	lb/gal	---	---	---	---	---	---
Pump, Fuel - Fugitive, Gasoline	Ref. 1	lb/1000gal	3.10E+00	---	---	---	---	---
IC Engine, Gaso., On-Road, Cat	Ref. 44.47	lb toxic/lb VOC	---	---	---	---	---	---
IC Engine, Nat. Gas, Rule 1110.2	Ref. 1	lb/MMcf	2.80E+02	---	4.30E+02	2.39E+02	6.00E-01	---
IC Engine, LPG, Rule 1110.2	Ref. 1	lb/1000gal	8.30E+01	5.00E+00	1.29E+02	1.53E+01	3.50E-01	---
IC Engine, Gasoline, Rule 1110.2	Ref. 1	lb/1000gal	2.06E+02	6.50E+00	3.94E+03	2.15E+01	5.30E+00	---
IC Engine, Diesel, Rule 1110.2	Ref. 1	lb/1000gal	3.75E+01	3.35E+01	1.02E+02	3.34E+01	7.10E+00	---
IC Engine, Diesel, Rule 1110.2 not subject to r	Ref. 1	lb/1000gal	---	---	---	4.69E+02	---	---
Turbine, NG-Ind. Cogen, SCR	Ref. 38A	lb/MMcf	---	---	---	---	---	---
Turbine, NG-Ind. Cog, CO/SCR	Ref. 38B	lb/MMcf	---	---	---	---	---	---
Turbine, Diesel-E. Gen., Wtr Inj.	Ref. 39 ^{a,g}	lb/MMBtu	4.80E-03	3.72E-02	1.92E-02	2.90E-01	---	---
Turbine, Diesel-E. Gen., Wtr Inj.	Ref. 39 ^{a,g}	lb/hp-hr	3.84E-05	2.98E-04	1.54E-04	2.31E-03	---	---
Turbine, NG-E. Gen., Water Inj.	Ref. 39 ^g	lb/MMBtu	---	---	2.80E-01	1.40E-01	---	---
Turbine, NG-E. Gen., Water Inj.	Ref. 39 ^g	lb/hp-hr	---	---	2.07E-03	1.10E-03	---	---
Turbine, NG-E. Gen., Steam Inj.	Ref. 39 ^h	lb/MMBtu	---	---	1.60E-01	1.20E-01	---	---
Turbine, NG-E. Gen., Steam Inj.	Ref. 39 ^h	lb/hp-hr	---	---	1.16E-03	9.75E-04	---	---
Turbine, NG-E. Gen., WWSR	Ref. 39 ^h	lb/MMBtu	3.20E-03	---	8.40E-03	8.80E-03	---	---
Wood Combustion	Ref. 52	lb/ton	---	5.60E+00	1.49E+02	2.80E+00	4.00E-01	3.85E+03
SPECIATE /Fuel Tanks		%VOC	3%	---	---	---	---	---
US EPA SPECIATE Database VOC Profile 1313		%VOC	---	---	---	---	---	---
US EPA SPECIATE Database VOC Profile 0003		%VOC	---	---	---	---	---	---
American Int. Airways- notice to comply		gram/hp-hr	---	0.56	23.21	17.1	1.9	---
American Int. Airways- notice to comply		gram/hp-hr	---	0.3	17.65	13.59	1.77	---
LAWA Annual Emission Report 96/97		lb/MMcf	42	0.4	122.7	---	0.6	---
Allied Signal Emission Estimates		lb/1000gal	6.85	0.97	49.15	4.09	---	---

			Volatile Organic Compounds (VOC)						
			Acetaldehyde	Acrolein	Benzene	Butadiene 1,3	Formaldehyde	Heptane	Propylene
Emission Factor Identification	References	Units							
Turbine, Jet A, Aircraft, climbout	Ref. 44,49	lb toxic/lb VOC	---	---	---	---	---	---	---
Turbine, Jet A, Aircraft, approach	Ref. 44,49	lb toxic/lb VOC	---	---	---	---	---	---	---
Turbine, JP 4, Military, taxi/idle	Ref. 44,49	lb toxic/lb VOC	---	---	---	---	---	---	---
Turbine, JP 4, Military, takeoff	Ref. 44,49	lb toxic/lb VOC	---	---	---	---	---	---	---
Turbine, JP 4, Military, climbout	Ref. 44,49	lb toxic/lb VOC	---	---	---	---	---	---	---
Turbine, JP 4, Military, approach	Ref. 44,49	lb toxic/lb VOC	---	---	---	---	---	---	---
Turbine, Diesel-Elec. Gen.	Ref. 35	lb/1000gal	---	---	---	---	3.19E-02	---	---
Turbine, Diesel-Elec. Gen.	Ref. 39 ^{5a,f}	lb/MMBtu	---	---	---	---	---	---	---
Turbine, Diesel-Elec. Gen.	Ref. 39 ^{5a,f}	lb/hp-hr	---	---	---	---	---	---	---
Turbine, Diesel-Ind. Cogen.	Ref. 36	lb/1000gal	---	---	1.13E-02	---	7.05E-02	---	---
Turbine, NG-Elec. Gen.	Ref. 39 ^{5a,f}	lb/MMBtu	---	---	---	---	---	---	---
Turbine, NG-Elec. Gen.	Ref. 39 ^{5a,f}	lb/hp-hr	---	---	---	---	---	---	---
Turbine, NG - Ind. Cogen.	Ref. 40 ¹	lb/MMBtu	---	---	---	---	---	---	---
Turbine, NG - Ind. Cogen.	Ref. 40 ¹	lb/hp-hr	---	---	---	---	---	---	---
Turbine, NG - Ind. Cogen.	Ref. 37	lb/MMcf	6.86E-02	2.37E-02	1.36E-02	1.27E-04	1.10E-01	2.59E-01	7.71E-01
Controlled EFs									
Boiler, NG, Comm., Rule 1146	Ref. 1	lb/MMcf	---	---	---	---	---	---	---
Boiler, NG, Small., Rule 1146.1	Ref. 1	lb/MMcf	---	---	---	---	---	---	---
Boiler, LPG, Comm., Rule 1146	Ref. 1	lb/1000gal	---	---	---	---	---	---	---
Boiler, LPG, Small, Rule 1146.1	Ref. 1	lb/1000gal	---	---	---	---	---	---	---
Plating, Anodizing, WS	Ref. 14	mg/amp-hr	---	---	---	---	---	---	---
Plating, Anodizing, DM/WS/FF	Ref. 15	mg/amp-hr	---	---	---	---	---	---	---
Plating, Hard, WS or DM	Ref. 16	mg/amp-hr	---	---	---	---	---	---	---
Plating, Hard, DM/WS/FF	Ref. 17	mg/amp-hr	---	---	---	---	---	---	---
Coating, Green PE, BF	Ref. 22	lb/gal	---	---	---	---	---	---	---
Coating, Green PE, PA	Ref. 23	lb/gal	---	---	---	---	---	---	---
Coating, Green PE, WC	Ref. 24	lb/gal	---	---	---	---	---	---	---
Coating, Green PE, WT	Ref. 25	lb/gal	---	---	---	---	---	---	---
Coating, Green primer, BF	Ref. 26	lb/gal	---	---	---	---	---	---	---
Coating, Green primer, PA	Ref. 27	lb/gal	---	---	---	---	---	---	---
Coating, Green primer, WC	Ref. 28A	lb/gal	---	---	---	---	---	---	---
Coating, Green primer, WC	Ref. 28B	lb/gal	---	---	---	---	---	---	---
Coating, Green primer, WSN	Ref. 29	lb/gal	---	---	---	---	---	---	---
Coating, Green primer, WT	Ref. 30	lb/gal	---	---	---	---	---	---	---
Coating, Powder (70%Ni), AF	Ref. 31	lb/lbs powder	---	---	---	---	---	---	---
Coating, Powder (49%Ni), AF	Ref. 32	lb/lbs powder	---	---	---	---	---	---	---
Coating, Powder (4%Ni), AF	Ref. 33	lb/lbs powder	---	---	---	---	---	---	---
Coating, Yellow PE, BF	Ref. 34	lb/gal	---	---	---	---	---	---	---
Pump, Fuel - Fugitive, Gasoline	Ref. 1	lb/1000gal	---	---	---	---	---	---	---
IC Engine, Gaso., On-Road, Cat	Ref. 44,47	lb toxic/lb VOC	---	---	---	---	---	---	---
IC Engine, Nat. Gas, Rule1110.2	Ref. 1	lb/MMcf	---	---	---	---	---	---	---
IC Engine, LPG, Rule 1110.2	Ref. 1	lb/1000gal	---	---	---	---	---	---	---
IC Engine, Gasoline, Rule1110.2	Ref. 1	lb/1000gal	---	---	---	---	---	---	---
IC Engine, Diesel, Rule 1110.2	Ref. 1	lb/1000gal	---	---	---	---	---	---	---
IC Engine, Diesel, Rule 1110.2 not subject to r	Ref. 1	lb/1000gal	---	---	---	---	---	---	---
Turbine, NG-Ind. Cogen, SCR	Ref. 38A	lb/MMcf	6.86E-02	2.37E-02	1.36E-02	1.27E-04	1.10E-01	2.59E-01	7.71E-01
Turbine, NG-Ind.Cog, CO/SCR	Ref. 38B	lb/MMcf	6.86E-02	2.37E-02	1.36E-02	1.27E-04	1.10E-01	2.59E-01	7.71E-01
Turbine, Diesel-E. Gen., Wtr Inj.	Ref. 39 ^{4a}	lb/MMBtu	---	---	---	---	---	---	---
Turbine, Diesel-E. Gen., Wtr Inj.	Ref. 39 ^{4a}	lb/hp-hr	---	---	---	---	---	---	---
Turbine, NG-E. Gen., Water Inj.	Ref. 39 ^g	lb/MMBtu	---	---	---	---	---	---	---
Turbine, NG-E. Gen., Water Inj.	Ref. 39 ^g	lb/hp-hr	---	---	---	---	---	---	---
Turbine, NG-E. Gen., Steam Inj.	Ref. 39 ^h	lb/MMBtu	---	---	---	---	---	---	---
Turbine, NG-E. Gen., Steam Inj.	Ref. 39 ^h	lb/hp-hr	---	---	---	---	---	---	---
Turbine, NG-E. Gen., W/SCR	Ref. 39 ^j	lb/MMBtu	---	---	---	---	2.70E-03	---	---
Wood Combustion	Ref. 52	lb/ton	---	---	1.94E+00	---	---	---	1.24E+00
SPECIATE /Fuel Tanks		%VOC	---	---	0.77%	---	---	---	---
US EPA SPECIATE Database VOC Profile 1313		%VOC	0.50%	0.06%	4.10%	0.50%	1.10%	---	2.19%
US EPA SPECIATE Database VOC Profile 0003		%VOC	---	---	4%	---	8%	---	---
American Int. Airways- notice to comply		gram/hp-hr	---	---	---	---	---	---	---
American Int. Airways- notice to comply		gram/hp-hr	---	---	---	---	---	---	---
LAWA Annual Emission Report 96/97		lb/MMcf	---	---	---	---	---	---	---
Allied Signal Emission Estimates		lb/1000gal	---	---	---	---	---	---	---

			Volatile Organic Compounds (VOC) continued					
Emission Factor Identification	References	Units	Ethylbenzene	Styrene	Toluenes	Xylenes, m- or p-	Xylenes, o-	Xylenes (total)
Turbine, Jet A, Aircraft, climbout	Ref. 44.49	lb toxic/lb VOC	---	---	---	---	---	---
Turbine, Jet A, Aircraft, approach	Ref. 44.49	lb toxic/lb VOC	---	---	---	---	---	---
Turbine, JP 4, Military, taxi/idle	Ref. 44.49	lb toxic/lb VOC	---	---	---	---	---	---
Turbine, JP 4, Military, takeoff	Ref. 44.49	lb toxic/lb VOC	---	---	---	---	---	---
Turbine, JP 4, Military, climbout	Ref. 44.49	lb toxic/lb VOC	---	---	---	---	---	---
Turbine, JP 4, Military, approach	Ref. 44.49	lb toxic/lb VOC	---	---	---	---	---	---
Turbine, Diesel-Elec. Gen.	Ref. 35	lb/1000gal	---	---	---	---	---	---
Turbine, Diesel-Elec. Gen.	Ref. 39 ^{a,g}	lb/MMBtu	---	---	---	---	---	---
Turbine, Diesel-Elec. Gen.	Ref. 39 ^{a,g}	lb/hp-hr	---	---	---	---	---	---
Turbine, Diesel-Ind. Cogen.	Ref. 36	lb/1000gal	---	---	---	---	---	---
Turbine, NG-Elec. Gen.	Ref. 39 ^{a,g}	lb/MMBtu	---	---	---	---	---	---
Turbine, NG-Elec. Gen.	Ref. 39 ^{a,g}	lb/hp-hr	---	---	---	---	---	---
Turbine, NG - Ind. Cogen.	Ref. 40 ⁱ	lb/MMBtu	---	---	---	---	---	---
Turbine, NG - Ind. Cogen.	Ref. 40 ⁱ	lb/hp-hr	---	---	---	---	---	---
Turbine, NG - Ind. Cogen.	Ref. 37	lb/MMcf	4.78E-02	---	7.10E-02	4.89E-02	2.40E-02	2.61E-02
Controlled EFs								
Boiler, NG, Comm., Rule 1146	Ref. 1	lb/MMcf	---	---	---	---	---	---
Boiler, NG, Small, Rule 1146.1	Ref. 1	lb/MMcf	---	---	---	---	---	---
Boiler, LPG, Comm., Rule 1146	Ref. 1	lb/1000gal	---	---	---	---	---	---
Boiler, LPG, Small, Rule 1146.1	Ref. 1	lb/1000gal	---	---	---	---	---	---
Plating, Anodizing, WS	Ref. 14	mg/amp-hr	---	---	---	---	---	---
Plating, Anodizing, DM/WS/FF	Ref. 15	mg/amp-hr	---	---	---	---	---	---
Plating, Hard, WS or DM	Ref. 16	mg/amp-hr	---	---	---	---	---	---
Plating, Hard, DM/WS/FF	Ref. 17	mg/amp-hr	---	---	---	---	---	---
Coating, Green PE, BF	Ref. 22	lb/gal	---	---	---	---	---	---
Coating, Green PE, PA	Ref. 23	lb/gal	---	---	---	---	---	---
Coating, Green PE, WC	Ref. 24	lb/gal	---	---	---	---	---	---
Coating, Green PE, WT	Ref. 25	lb/gal	---	---	---	---	---	---
Coating, Green primer, BF	Ref. 26	lb/gal	---	---	---	---	---	---
Coating, Green primer, PA	Ref. 27	lb/gal	---	---	---	---	---	---
Coating, Green primer, WC	Ref. 28A	lb/gal	---	---	---	---	---	---
Coating, Green primer, WC	Ref. 28B	lb/gal	---	---	---	---	---	---
Coating, Green primer, WSN	Ref. 29	lb/gal	---	---	---	---	---	---
Coating, Green primer, WT	Ref. 30	lb/gal	---	---	---	---	---	---
Coating, Powder (70%Ni), AF	Ref. 31	lb/lbs powder	---	---	---	---	---	---
Coating, Powder (49%Ni), AF	Ref. 32	lb/lbs powder	---	---	---	---	---	---
Coating, Powder (4%Ni), AF	Ref. 33	lb/lbs powder	---	---	---	---	---	---
Coating, Yellow PE, BF	Ref. 34	lb/gal	---	---	---	---	---	---
Pump, Fuel - Fugitive, Gasoline	Ref. 1	lb/1000gal	---	---	---	---	---	---
IC Engine, Gaso., On-Road, Cat	Ref. 44.47	lb toxic/lb VOC	---	---	---	---	---	---
IC Engine, Nat. Gas, Rule 1110.2	Ref. 1	lb/MMcf	---	---	---	---	---	---
IC Engine, LPG, Rule 1110.2	Ref. 1	lb/1000gal	---	---	---	---	---	---
IC Engine, Gasoline, Rule 1110.2	Ref. 1	lb/1000gal	---	---	---	---	---	---
IC Engine, Diesel, Rule 1110.2	Ref. 1	lb/1000gal	---	---	---	---	---	---
IC Engine, Diesel, Rule 1110.2 not subject to r	Ref. 1	lb/1000gal	---	---	---	---	---	---
Turbine, NG-Ind. Cogen, SCR	Ref. 38A	lb/MMcf	4.78E-02	---	7.10E-02	4.89E-02	2.40E-02	2.61E-02
Turbine, NG-Ind. Cogen, CO/SCR	Ref. 38B	lb/MMcf	4.78E-02	---	7.10E-02	4.89E-02	2.40E-02	2.61E-02
Turbine, Diesel-E. Gen., Wtr Inj.	Ref. 39 ^{a,g}	lb/MMBtu	---	---	---	---	---	---
Turbine, Diesel-E. Gen., Wtr Inj.	Ref. 39 ^{a,g}	lb/hp-hr	---	---	---	---	---	---
Turbine, NG-E. Gen., Water Inj.	Ref. 39 ^g	lb/MMBtu	---	---	---	---	---	---
Turbine, NG-E. Gen., Water Inj.	Ref. 39 ^g	lb/hp-hr	---	---	---	---	---	---
Turbine, NG-E. Gen., Steam Inj.	Ref. 39 ^h	lb/MMBtu	---	---	---	---	---	---
Turbine, NG-E. Gen., Steam Inj.	Ref. 39 ^h	lb/hp-hr	---	---	---	---	---	---
Turbine, NG-E. Gen., WWSR	Ref. 39 ^u	lb/MMBtu	---	---	---	---	---	---
Wood Combustion	Ref. 52	lb/ton	---	---	7.30E-01	---	2.02E-01	---
SPECIATE /Fuel Tanks		%VOC	---	---	0.66%	---	---	0.15%
US EPA SPECIATE Database VOC Profile 1313		%VOC	---	0.34%	10.40%	---	---	5.86%
US EPA SPECIATE Database VOC Profile 0003		%VOC	---	---	2%	---	---	---
American Int. Airways- notice to comply		gram/hp-hr	---	---	---	---	---	---
American Int. Airways- notice to comply		gram/hp-hr	---	---	---	---	---	---
LAWA Annual Emission Report 96/97		lb/MMcf	---	---	---	---	---	---
Allied Signal Emission Estimates		lb/1000gal	---	---	---	---	---	---

Semi-Volatile Organic Compounds (SVOC)

Emission Factor Identification	References	Units	Semi-Volatile Organic Compounds (SVOC)						
			Benzaldehyde	Benzofluorene	Chloronaphthalene, 2-	Diesel Particulate	Ethylbenzene	Methylnaphthalene, 2-	Perylene
Turbine, Jet A, Aircraft, climbout	Ref. 44.49	lb toxic/lb VOC	---	---	---	---	---	---	---
Turbine, Jet A, Aircraft, approach	Ref. 44.49	lb toxic/lb VOC	---	---	---	---	---	---	---
Turbine, JP 4, Military, taxi/Idle	Ref. 44.49	lb toxic/lb VOC	---	---	---	---	---	---	---
Turbine, JP 4, Military, takeoff	Ref. 44.49	lb toxic/lb VOC	---	---	---	---	---	---	---
Turbine, JP 4, Military, climbout	Ref. 44.49	lb toxic/lb VOC	---	---	---	---	---	---	---
Turbine, JP 4, Military, approach	Ref. 44.49	lb toxic/lb VOC	---	---	---	---	---	---	---
Turbine, Diesel-Elec. Gen.	Ref. 35	lb/1000gal	---	---	---	---	---	---	---
Turbine, Diesel-Elec. Gen.	Ref. 39 ^{a,f}	lb/MMBtu	---	---	---	---	---	---	---
Turbine, Diesel-Elec. Gen.	Ref. 39 ^{a,f}	lb/hp-hr	---	---	---	---	---	---	---
Turbine, Diesel-Ind. Cogen.	Ref. 36	lb/1000gal	---	---	---	---	---	---	---
Turbine, NG-Elec. Gen.	Ref. 39 ^{a,f}	lb/MMBtu	---	---	---	---	---	---	---
Turbine, NG-Elec. Gen.	Ref. 39 ^{a,f}	lb/hp-hr	---	---	---	---	---	---	---
Turbine, NG-Ind. Cogen.	Ref. 40	lb/MMBtu	---	---	---	---	---	---	---
Turbine, NG-Ind. Cogen.	Ref. 40	lb/hp-hr	---	---	---	---	---	---	---
Turbine, NG-Ind. Cogen.	Ref. 37	lb/MMcf	---	5.44E-07	2.72E-07	---	1.79E-02	5.29E-06	7.00E-07
Controlled EFs									
Boiler, NG, Comm., Rule 1146	Ref. 1	lb/MMcf	---	---	---	---	---	---	---
Boiler, NG, Small, Rule 1146.1	Ref. 1	lb/MMcf	---	---	---	---	---	---	---
Boiler, LPG, Comm., Rule 1146	Ref. 1	lb/1000gal	---	---	---	---	---	---	---
Boiler, LPG, Small, Rule 1146.1	Ref. 1	lb/1000gal	---	---	---	---	---	---	---
Plating, Anodizing, WS	Ref. 14	mg/amp-hr	---	---	---	---	---	---	---
Plating, Anodizing, DM/WS/FF	Ref. 15	mg/amp-hr	---	---	---	---	---	---	---
Plating, Hard, WS or DM	Ref. 16	mg/amp-hr	---	---	---	---	---	---	---
Plating, Hard, DM/WS/FF	Ref. 17	mg/amp-hr	---	---	---	---	---	---	---
Coating, Green PE, BF	Ref. 22	lb/gal	---	---	---	---	---	---	---
Coating, Green PE, PA	Ref. 23	lb/gal	---	---	---	---	---	---	---
Coating, Green PE, WC	Ref. 24	lb/gal	---	---	---	---	---	---	---
Coating, Green PE, WT	Ref. 25	lb/gal	---	---	---	---	---	---	---
Coating, Green primer, BF	Ref. 26	lb/gal	---	---	---	---	---	---	---
Coating, Green primer, PA	Ref. 27	lb/gal	---	---	---	---	---	---	---
Coating, Green primer, WC	Ref. 28A	lb/gal	---	---	---	---	---	---	---
Coating, Green primer, WC	Ref. 28B	lb/gal	---	---	---	---	---	---	---
Coating, Green primer, WSN	Ref. 29	lb/gal	---	---	---	---	---	---	---
Coating, Green primer, WT	Ref. 30	lb/gal	---	---	---	---	---	---	---
Coating, Powder (70%Ni), AF	Ref. 31	lb/lbs powder	---	---	---	---	---	---	---
Coating, Powder (49%Ni), AF	Ref. 32	lb/lbs powder	---	---	---	---	---	---	---
Coating, Powder (4%Ni), AF	Ref. 33	lb/lbs powder	---	---	---	---	---	---	---
Coating, Yellow PE, BF	Ref. 34	lb/gal	---	---	---	---	---	---	---
Pump, Fuel - Fugitive, Gasoline	Ref. 1	lb/1000gal	---	---	---	---	---	---	---
IC Engine, Gasol., On-Road, Cat	Ref. 44.47	lb toxic/lb VOC	---	---	---	---	---	---	---
IC Engine, Nat. Gas, Rule 1110.2	Ref. 1	lb/MMcf	---	---	---	---	---	---	---
IC Engine, LPG, Rule 1110.2	Ref. 1	lb/1000gal	---	---	---	---	---	---	---
IC Engine, Gasoline, Rule 1110.2	Ref. 1	lb/1000gal	---	---	---	---	---	---	---
IC Engine, Diesel, Rule 1110.2	Ref. 1	lb/1000gal	---	---	---	---	---	---	---
IC Engine, Diesel, Rule 1110.2 not subject to r	Ref. 1	lb/1000gal	---	---	---	---	---	---	---
Turbine, NG-Ind. Cogen, SCR	Ref. 38A	lb/MMcf	---	5.44E-07	2.72E-07	---	1.79E-02	5.29E-06	7.00E-07
Turbine, NG-Ind. Cog, CO/SCR	Ref. 38B	lb/MMcf	---	5.44E-07	2.72E-07	---	1.79E-02	5.29E-06	7.00E-07
Turbine, Diesel-E. Gen., Wtr Inj.	Ref. 39 ^{a,g}	lb/MMBtu	---	---	---	---	---	---	---
Turbine, Diesel-E. Gen., Wtr Inj.	Ref. 39 ^{a,g}	lb/hp-hr	---	---	---	---	---	---	---
Turbine, NG-E. Gen., Water Inj.	Ref. 39 ^d	lb/MMBtu	---	---	---	---	---	---	---
Turbine, NG-E. Gen., Water Inj.	Ref. 39 ^d	lb/hp-hr	---	---	---	---	---	---	---
Turbine, NG-E. Gen., Steam Inj.	Ref. 39 ^h	lb/MMBtu	---	---	---	---	---	---	---
Turbine, NG-E. Gen., Steam Inj.	Ref. 39 ^h	lb/hp-hr	---	---	---	---	---	---	---
Turbine, NG-E. Gen., W/SCR	Ref. 39 ^u	lb/MMBtu	---	---	---	---	---	---	---
Wood Combustion	Ref. 52	lb/ton	---	1.20E-02	---	---	---	---	2.00E-03
SPECIATE /Fuel Tanks		%VOC	---	---	---	---	0.05%	---	---
US EPA SPECIATE Database VOC Profile 1313		%VOC	0.13%	---	---	---	1.47%	---	---
US EPA SPECIATE Database VOC Profile 0003		%VOC	---	---	---	---	---	---	---
American Int. Airways- notice to comply		gram/hp-hr	---	---	---	---	---	---	---
American Int. Airways- notice to comply		gram/hp-hr	---	---	---	---	---	---	---
LAWA Annual Emission Report 96/97		lb/MMcf	---	---	---	---	---	---	---
Allied Signal Emission Estimates		lb/1000gal	---	---	---	---	---	---	---

Polycyclic Aromatic Hydrocarbons (PAH)										
Emission Factor Identification	References	Units	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene
Turbine, Jet A, Aircraft, climbout	Ref. 44.49	lb toxic/lb VOC	---	---	1.46E-06	1.04E-06	7.47E-07	---	1.68E-07	---
Turbine, Jet A, Aircraft, approach	Ref. 44.49	lb toxic/lb VOC	---	---	1.09E-06	4.03E-06	2.55E-06	---	3.56E-07	---
Turbine, JP 4, Military, taxi/Idle	Ref. 44.49	lb toxic/lb VOC	---	---	3.09E-06	7.24E-07	1.27E-06	---	7.58E-07	---
Turbine, JP 4, Military, takeoff	Ref. 44.49	lb toxic/lb VOC	---	---	6.54E-06	2.24E-06	2.37E-06	---	2.72E-06	---
Turbine, JP 4, Military, climbout	Ref. 44.49	lb toxic/lb VOC	---	---	6.57E-06	2.18E-06	2.54E-06	---	2.01E-06	---
Turbine, JP 4, Military, approach	Ref. 44.49	lb toxic/lb VOC	---	---	3.12E-06	9.30E-07	9.46E-07	---	4.77E-07	---
Turbine, Diesel-Elec. Gen.	Ref. 35	lb/1000gal	9.69E-05	8.61E-05	9.80E-05	8.53E-05	8.33E-05	1.32E-04	8.26E-05	1.30E-04
Turbine, Diesel-Elec. Gen.	Ref. 39 ^{ca,f}	lb/MMBtu	---	---	---	---	---	---	---	---
Turbine, Diesel-Elec. Gen.	Ref. 39 ^{ca,f}	lb/hp-hr	---	---	---	---	---	---	---	---
Turbine, Diesel-Ind. Cogen.	Ref. 36	lb/1000gal	1.82E-05	6.32E-06	1.56E-05	4.22E-06	8.61E-06	2.15E-05	2.18E-06	6.92E-06
Turbine, NG-Elec. Gen.	Ref. 39 ^{ca,f}	lb/MMBtu	---	---	---	---	---	---	---	---
Turbine, NG-Elec. Gen.	Ref. 39 ^{ca,f}	lb/hp-hr	---	---	---	---	---	---	---	---
Turbine, NG - Ind. Cogen.	Ref. 40 ⁱ	lb/MMBtu	---	---	---	---	---	---	---	---
Turbine, NG - Ind. Cogen.	Ref. 40 ⁱ	lb/hp-hr	---	---	---	---	---	---	---	---
Turbine, NG - Ind. Cogen.	Ref. 37	lb/MMcf	1.90E-05	1.47E-05	3.38E-05	2.26E-05	1.39E-05	1.13E-05	1.37E-05	1.10E-05
Controlled EFA										
Boiler, NG, Comm., Rule 1146	Ref. 1	lb/MMcf	---	---	---	---	---	---	---	---
Boiler, NG, Small, Rule 1146.1	Ref. 1	lb/MMcf	---	---	---	---	---	---	---	---
Boiler, LPG, Comm., Rule 1146	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---
Boiler, LPG, Small, Rule 1146.1	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---
Plating, Anodizing, WS	Ref. 14	mg/amp-hr	---	---	---	---	---	---	---	---
Plating, Anodizing, DM/WS/FF	Ref. 15	mg/amp-hr	---	---	---	---	---	---	---	---
Plating, Hard, WS or DM	Ref. 16	mg/amp-hr	---	---	---	---	---	---	---	---
Plating, Hard, DM/WS/FF	Ref. 17	mg/amp-hr	---	---	---	---	---	---	---	---
Coating, Green PE, BF	Ref. 22	lb/gal	---	---	---	---	---	---	---	---
Coating, Green PE, PA	Ref. 23	lb/gal	---	---	---	---	---	---	---	---
Coating, Green PE, WC	Ref. 24	lb/gal	---	---	---	---	---	---	---	---
Coating, Green PE, WT	Ref. 25	lb/gal	---	---	---	---	---	---	---	---
Coating, Green primer, BF	Ref. 26	lb/gal	---	---	---	---	---	---	---	---
Coating, Green primer, PA	Ref. 27	lb/gal	---	---	---	---	---	---	---	---
Coating, Green primer, WC	Ref. 28A	lb/gal	---	---	---	---	---	---	---	---
Coating, Green primer, WC	Ref. 28B	lb/gal	---	---	---	---	---	---	---	---
Coating, Green primer, WSN	Ref. 29	lb/gal	---	---	---	---	---	---	---	---
Coating, Green primer, WT	Ref. 30	lb/gal	---	---	---	---	---	---	---	---
Coating, Powder (70%Ni), AF	Ref. 31	lb/lbs powder	---	---	---	---	---	---	---	---
Coating, Powder (49%Ni), AF	Ref. 32	lb/lbs powder	---	---	---	---	---	---	---	---
Coating, Powder (4%Ni), AF	Ref. 33	lb/lbs powder	---	---	---	---	---	---	---	---
Coating, Yellow PE, BF	Ref. 34	lb/gal	---	---	---	---	---	---	---	---
Pump, Fuel - Fugitive, Gasoline	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---
IC Engine, Gasol., On-Road, Cat	Ref. 44.47	lb toxic/lb VOC	---	---	1.62E-08	2.70E-07	2.70E-07	4.13E-07	6.67E-07	2.84E-07
IC Engine, Nat. Gas, Rule 1110.2	Ref. 1	lb/MMcf	---	---	---	---	---	---	---	---
IC Engine, LPG, Rule 1110.2	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---
IC Engine, Gasoline, Rule 1110.2	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---
IC Engine, Diesel, Rule 1110.2	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---
IC Engine, Diesel, Rule 1110.2 not subject to r	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---
Turbine, NG-Ind. Cogen, SCR	Ref. 38A	lb/MMcf	1.90E-05	1.47E-05	3.38E-05	2.26E-05	1.39E-05	1.13E-05	1.37E-05	1.10E-05
Turbine, NG-Ind. Cogen, CO/SCR	Ref. 38B	lb/MMcf	1.90E-05	1.47E-05	3.38E-05	2.26E-05	1.39E-05	1.13E-05	1.37E-05	1.10E-05
Turbine, Diesel-E. Gen., Wtr Inj.	Ref. 39 ^{ca}	lb/MMBtu	---	---	---	---	---	---	---	---
Turbine, Diesel-E. Gen., Wtr Inj.	Ref. 39 ^{ca}	lb/hp-hr	---	---	---	---	---	---	---	---
Turbine, NG-E. Gen., Water Inj.	Ref. 39 ^a	lb/MMBtu	---	---	---	---	---	---	---	---
Turbine, NG-E. Gen., Water Inj.	Ref. 39 ^a	lb/hp-hr	---	---	---	---	---	---	---	---
Turbine, NG-E. Gen., Steam Inj.	Ref. 39 ^h	lb/MMBtu	---	---	---	---	---	---	---	---
Turbine, NG-E. Gen., Steam Inj.	Ref. 39 ^h	lb/hp-hr	---	---	---	---	---	---	---	---
Turbine, NG-E. Gen., W/SCR	Ref. 39 ^u	lb/MMBtu	---	---	---	---	---	---	---	---
Wood Combustion	Ref. 52	lb/ton	1.00E-02	2.12E-01	1.40E-02	2.00E-02	4.00E-03	6.00E-03	4.00E-03	2.00E-03
SPECIATE /Fuel Tanks		%VOC	---	---	---	---	---	---	---	---
US EPA SPECIATE Database VOC Profile 1313		%VOC	---	---	---	---	---	---	---	---
US EPA SPECIATE Database VOC Profile 0003		%VOC	---	---	---	---	---	---	---	---
American Int. Airways- notice to comply		gram/hp-hr	---	---	---	---	---	---	---	---
American Int. Airways- notice to comply		gram/hp-hr	---	---	---	---	---	---	---	---
LAWA Annual Emission Report 96/97		lb/MMcf	---	---	---	---	---	---	---	---
Allied Signal Emission Estimates		lb/1000gal	---	---	---	---	---	---	---	---

Polycyclic Aromatic Hydrocarbons (PAH) continued

Emission Factor Identification	References	Units	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene
Turbine, Jet A, Aircraft, climbout	Ref. 44,49	lb toxic/lb VOC	2.02E-07	---	4.55E-06	---	---	4.74E-05	3.08E-05	3.64E-06
Turbine, Jet A, Aircraft, approach	Ref. 44,49	lb toxic/lb VOC	4.29E-07	---	8.24E-06	---	---	7.98E-05	3.54E-05	6.76E-06
Turbine, JP 4, Military, taxi/idle	Ref. 44,49	lb toxic/lb VOC	1.29E-06	---	1.16E-05	---	---	1.18E-04	3.35E-05	1.39E-05
Turbine, JP 4, Military, takeoff	Ref. 44,49	lb toxic/lb VOC	3.25E-06	---	2.69E-05	---	---	1.71E-04	8.78E-05	2.13E-05
Turbine, JP 4, Military, climbout	Ref. 44,49	lb toxic/lb VOC	3.68E-06	---	2.61E-05	---	---	1.85E-04	1.07E-04	2.61E-05
Turbine, JP 4, Military, approach	Ref. 44,49	lb toxic/lb VOC	2.91E-06	---	2.36E-05	---	---	1.89E-04	4.64E-05	2.36E-05
Turbine, Diesel-Elec. Gen.	Ref. 35	lb/1000gal	1.03E-04	8.25E-05	1.25E-04	1.27E-04	8.26E-05	1.08E-02	4.12E-04	1.01E-04
Turbine, Diesel-Elec. Gen.	Ref. 39 ^{a,f}	lb/MMBtu	---	---	---	---	---	---	---	---
Turbine, Diesel-Elec. Gen.	Ref. 39 ^{a,f}	lb/hp-hr	---	---	---	---	---	---	---	---
Turbine, Diesel-Ind. Cogen.	Ref. 36	lb/1000gal	4.82E-06	2.30E-06	1.34E-05	1.76E-05	2.29E-06	3.87E-04	6.91E-05	1.44E-05
Turbine, NG-Elec. Gen.	Ref. 39 ^{a,f}	lb/MMBtu	---	---	---	---	---	---	---	---
Turbine, NG-Elec. Gen.	Ref. 39 ^{a,f}	lb/hp-hr	---	---	---	---	---	---	---	---
Turbine, NG - Ind. Cogen.	Ref. 40 ⁱ	lb/MMBtu	---	---	---	---	---	---	---	---
Turbine, NG - Ind. Cogen.	Ref. 40 ⁱ	lb/hp-hr	---	---	---	---	---	---	---	---
Turbine, NG - Ind. Cogen.	Ref. 37	lb/MMcf	2.52E-05	2.35E-05	4.32E-05	5.80E-05	2.35E-05	1.66E-03	3.13E-04	2.77E-05
Controlled EFs										
Boiler, NG, Comm., Rule 1146	Ref. 1	lb/MMcf	---	---	---	---	---	---	---	---
Boiler, NG, Small, Rule 1146.1	Ref. 1	lb/MMcf	---	---	---	---	---	---	---	---
Boiler, LPG, Comm., Rule 1146	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---
Boiler, LPG, Small, Rule 1146.1	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---
Plating, Anodizing, WS	Ref. 14	mg/smp-hr	---	---	---	---	---	---	---	---
Plating, Anodizing, DM/WS/FF	Ref. 15	mg/smp-hr	---	---	---	---	---	---	---	---
Plating, Hard, WS or DM	Ref. 16	mg/smp-hr	---	---	---	---	---	---	---	---
Plating, Hard, DM/WS/FF	Ref. 17	mg/smp-hr	---	---	---	---	---	---	---	---
Coating, Green PE, BF	Ref. 22	lb/gal	---	---	---	---	---	---	---	---
Coating, Green PE, PA	Ref. 23	lb/gal	---	---	---	---	---	---	---	---
Coating, Green PE, WC	Ref. 24	lb/gal	---	---	---	---	---	---	---	---
Coating, Green PE, WT	Ref. 25	lb/gal	---	---	---	---	---	---	---	---
Coating, Green primer, BF	Ref. 26	lb/gal	---	---	---	---	---	---	---	---
Coating, Green primer, PA	Ref. 27	lb/gal	---	---	---	---	---	---	---	---
Coating, Green primer, WC	Ref. 28A	lb/gal	---	---	---	---	---	---	---	---
Coating, Green primer, WC	Ref. 28B	lb/gal	---	---	---	---	---	---	---	---
Coating, Green primer, WSN	Ref. 29	lb/gal	---	---	---	---	---	---	---	---
Coating, Green primer, WT	Ref. 30	lb/gal	---	---	---	---	---	---	---	---
Coating, Powder (70%Ni), AF	Ref. 31	lb/lbs powder	---	---	---	---	---	---	---	---
Coating, Powder (49%Ni), AF	Ref. 32	lb/lbs powder	---	---	---	---	---	---	---	---
Coating, Powder (4%Ni), AF	Ref. 33	lb/lbs powder	---	---	---	---	---	---	---	---
Coating, Yellow PE, BF	Ref. 34	lb/gal	---	---	---	---	---	---	---	---
Pump, Fuel - Fugitive, Gasoline	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---
IC Engine, Gaso., On-Road, Cat	Ref. 44,47	lb toxic/lb VOC	5.40E-07	4.59E-08	2.84E-07	---	6.75E-08	---	1.24E-07	3.56E-07
IC Engine, Nat. Gas, Rule1110.2	Ref. 1	lb/MMcf	---	---	---	---	---	---	---	---
IC Engine, LPG, Rule 1110.2	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---
IC Engine, Gasoline, Rule1110.2	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---
IC Engine, Diesel, Rule 1110.2	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---
IC Engine, Diesel, Rule 1110.2 not subject to r	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---
Turbine, NG-Ind. Cogen, SCR	Ref. 38A	lb/MMcf	2.52E-05	2.35E-05	4.32E-05	5.80E-05	2.35E-05	1.66E-03	3.13E-04	2.77E-05
Turbine, NG-Ind. Cog, CO/SCR	Ref. 38B	lb/MMcf	2.52E-05	2.35E-05	4.32E-05	5.80E-05	2.35E-05	1.66E-03	3.13E-04	2.77E-05
Turbine, Diesel-E. Gen., Wtr Inj.	Ref. 39 ^{a,g}	lb/MMBtu	---	---	---	---	---	---	---	---
Turbine, Diesel-E. Gen., Wtr Inj.	Ref. 39 ^{a,g}	lb/hp-hr	---	---	---	---	---	---	---	---
Turbine, NG-E. Gen., Water Inj.	Ref. 39 ^g	lb/MMBtu	---	---	---	---	---	---	---	---
Turbine, NG-E. Gen., Water Inj.	Ref. 39 ^g	lb/hp-hr	---	---	---	---	---	---	---	---
Turbine, NG-E. Gen., Steam Inj.	Ref. 39 ^h	lb/MMBtu	---	---	---	---	---	---	---	---
Turbine, NG-E. Gen., Steam Inj.	Ref. 39 ^h	lb/hp-hr	---	---	---	---	---	---	---	---
Turbine, NG-E. Gen., W/SCR	Ref. 39 ^{i,j}	lb/MMBtu	---	---	---	---	---	---	---	---
Wood Combustion	Ref. 52	lb/ton	1.20E-02	4.00E-03	2.00E-02	2.40E-02	2.00E-02	2.88E-01	7.80E-02	2.40E-03
SPECIATE /Fuel Tanks		%VOC	---	---	---	---	---	---	---	---
US EPA SPECIATE Database VOC Profile 1313		%VOC	---	---	---	---	---	0.20%	---	---
US EPA SPECIATE Database VOC Profile 0003		%VOC	---	---	---	---	---	---	---	---
American Int. Airways- notice to comply		gram/hp-hr	---	---	---	---	---	---	---	---
American Int. Airways- notice to comply		gram/hp-hr	---	---	---	---	---	---	---	---
LAWA Annual Emission Report 96/97		lb/MMcf	---	---	---	---	---	---	---	---
Allied Signal Emission Estimates		lb/1000gal	---	---	---	---	---	---	---	---

			Dioxins				
Emission Factor Identification	References	Units	Dioxin (tetrachloro total)	Dioxin (pentachloro total)	Dioxin (hexachloro total)	Dioxin (heptachloro total)	Dioxin (octachloro)
Turbine, Jet A, Aircraft, climbout	Ref. 44,49	lb toxic/lb VOC	---	---	---	---	---
Turbine, Jet A, Aircraft, approach	Ref. 44,49	lb toxic/lb VOC	---	---	---	---	---
Turbine, JP 4, Military, taxi/idle	Ref. 44,49	lb toxic/lb VOC	---	---	---	---	---
Turbine, JP 4, Military, takeoff	Ref. 44,49	lb toxic/lb VOC	---	---	---	---	---
Turbine, JP 4, Military, climbout	Ref. 44,49	lb toxic/lb VOC	---	---	---	---	---
Turbine, JP 4, Military, approach	Ref. 44,49	lb toxic/lb VOC	---	---	---	---	---
Turbine, Diesel-Elec. Gen.	Ref. 35	lb/1000gal	---	---	---	---	---
Turbine, Diesel-Elec. Gen.	Ref. 39 ^{a,j}	lb/MMBtu	---	---	---	---	---
Turbine, Diesel-Elec. Gen.	Ref. 39 ^{a,j}	lb/hp-hr	---	---	---	---	---
Turbine, Diesel-Ind. Cogen.	Ref. 36	lb/1000gal	3.74E-09	7.15E-09	9.00E-09	1.68E-08	1.07E-07
Turbine, NG-Elec. Gen.	Ref. 39 ^{a,j}	lb/MMBtu	---	---	---	---	---
Turbine, NG-Elec. Gen.	Ref. 39 ^{a,j}	lb/hp-hr	---	---	---	---	---
Turbine, NG - Ind. Cogen.	Ref. 40	lb/MMBtu	---	---	---	---	---
Turbine, NG - Ind. Cogen.	Ref. 40	lb/hp-hr	---	---	---	---	---
Turbine, NG - Ind. Cogen.	Ref. 37	lb/MMcf	---	---	---	---	---
Controlled EFs							
Boiler, NG, Comm., Rule 1146	Ref. 1	lb/MMcf	---	---	---	---	---
Boiler, NG, Small, Rule 1146.1	Ref. 1	lb/MMcf	---	---	---	---	---
Boiler, LPG, Comm., Rule 1146	Ref. 1	lb/1000gal	---	---	---	---	---
Boiler, LPG, Small, Rule 1146.1	Ref. 1	lb/1000gal	---	---	---	---	---
Plating, Anodizing, WS	Ref. 14	mg/amp-hr	---	---	---	---	---
Plating, Anodizing, DM/WS/FF	Ref. 15	mg/amp-hr	---	---	---	---	---
Plating, Hard, WS or DM	Ref. 16	mg/amp-hr	---	---	---	---	---
Plating, Hard, DM/WS/FF	Ref. 17	mg/amp-hr	---	---	---	---	---
Coating, Green PE, BF	Ref. 22	lb/gal	---	---	---	---	---
Coating, Green PE, PA	Ref. 23	lb/gal	---	---	---	---	---
Coating, Green PE, WC	Ref. 24	lb/gal	---	---	---	---	---
Coating, Green PE, WT	Ref. 25	lb/gal	---	---	---	---	---
Coating, Green primer, BF	Ref. 26	lb/gal	---	---	---	---	---
Coating, Green primer, PA	Ref. 27	lb/gal	---	---	---	---	---
Coating, Green primer, WC	Ref. 28A	lb/gal	---	---	---	---	---
Coating, Green primer, WC	Ref. 28B	lb/gal	---	---	---	---	---
Coating, Green primer, WSN	Ref. 29	lb/gal	---	---	---	---	---
Coating, Green primer, WT	Ref. 30	lb/gal	---	---	---	---	---
Coating, Powder (70%Ni), AF	Ref. 31	lb/lbs powder	---	---	---	---	---
Coating, Powder (49%Ni), AF	Ref. 32	lb/lbs powder	---	---	---	---	---
Coating, Powder (4%Ni), AF	Ref. 33	lb/lbs powder	---	---	---	---	---
Coating, Yellow PE, BF	Ref. 34	lb/gal	---	---	---	---	---
Pump, Fuel - Fugitive, Gasoline	Ref. 1	lb/1000gal	---	---	---	---	---
IC Engine, Gaso., On-Road, Cat	Ref. 44,47	lb toxic/lb VOC	---	---	---	---	---
IC Engine, Nat. Gas, Rule 1110.2	Ref. 1	lb/MMcf	---	---	---	---	---
IC Engine, LPG, Rule 1110.2	Ref. 1	lb/1000gal	---	---	---	---	---
IC Engine, Gasoline, Rule 1110.2	Ref. 1	lb/1000gal	---	---	---	---	---
IC Engine, Diesel, Rule 1110.2	Ref. 1	lb/1000gal	---	---	---	---	---
IC Engine, Diesel, Rule 1110.2 not subject to r	Ref. 1	lb/1000gal	---	---	---	---	---
Turbine, NG-Ind. Cogen, SCR	Ref. 38A	lb/MMcf	---	---	---	---	---
Turbine, NG-Ind. Cogen, CO/SCR	Ref. 38B	lb/MMcf	---	---	---	---	---
Turbine, Diesel-E. Gen., Wtr Inj.	Ref. 39 ^{a,g}	lb/MMBtu	---	---	---	---	---
Turbine, Diesel-E. Gen., Wtr Inj.	Ref. 39 ^{a,g}	lb/hp-hr	---	---	---	---	---
Turbine, NG-E. Gen., Water Inj.	Ref. 39 ^b	lb/MMBtu	---	---	---	---	---
Turbine, NG-E. Gen., Water Inj.	Ref. 39 ^b	lb/hp-hr	---	---	---	---	---
Turbine, NG-E. Gen., Steam Inj.	Ref. 39 ^b	lb/MMBtu	---	---	---	---	---
Turbine, NG-E. Gen., Steam Inj.	Ref. 39 ^b	lb/hp-hr	---	---	---	---	---
Turbine, NG-E. Gen., W/SCR	Ref. 39 ^j	lb/MMBtu	---	---	---	---	---
Wood Combustion	Ref. 52	lb/ton	---	---	---	---	---
SPECIATE /Fuel Tanks		%VOC	---	---	---	---	---
US EPA SPECIATE Database VOC Profile 1313		%VOC	---	---	---	---	---
US EPA SPECIATE Database VOC Profile 0003		%VOC	---	---	---	---	---
American Int. Airways- notice to comply		gram/hp-hr	---	---	---	---	---
American Int. Airways- notice to comply		gram/hp-hr	---	---	---	---	---
LAWA Annual Emission Report 96/97		lb/MMcf	---	---	---	---	---
Allied Signal Emission Estimates		lb/1000gal	---	---	---	---	---

			Furans				
			Furan (tetrachloro total)	Furan (pentachloro total)	Furan (hexachloro total)	Furan (heptachloro total)	Furan (octachloro)
Emission Factor Identification	References	Units					
Turbine, Jet A, Aircraft, climbout	Ref. 44, 49	lb toxic/lb VOC	---	---	---	---	---
Turbine, Jet A, Aircraft, approach	Ref. 44, 49	lb toxic/lb VOC	---	---	---	---	---
Turbine, JP 4, Military, taxi/idle	Ref. 44, 49	lb toxic/lb VOC	---	---	---	---	---
Turbine, JP 4, Military, takeoff	Ref. 44, 49	lb toxic/lb VOC	---	---	---	---	---
Turbine, JP 4, Military, climbout	Ref. 44, 49	lb toxic/lb VOC	---	---	---	---	---
Turbine, JP 4, Military, approach	Ref. 44, 49	lb toxic/lb VOC	---	---	---	---	---
Turbine, Diesel-Elec. Gen.	Ref. 35	lb/1000gal	---	---	---	---	---
Turbine, Diesel-Elec. Gen.	Ref. 39 ^{a, f}	lb/MMBtu	---	---	---	---	---
Turbine, Diesel-Elec. Gen.	Ref. 39 ^{a, f}	lb/hp-hr	---	---	---	---	---
Turbine, Diesel-Ind. Cogen.	Ref. 36	lb/1000gal	3.34E-08	4.67E-08	2.41E-08	1.67E-08	8.61E-09
Turbine, NG-Elec. Gen.	Ref. 39 ^{a, f}	lb/MMBtu	---	---	---	---	---
Turbine, NG-Elec. Gen.	Ref. 39 ^{a, f}	lb/hp-hr	---	---	---	---	---
Turbine, NG - Ind. Cogen.	Ref. 40 ⁱ	lb/MMBtu	---	---	---	---	---
Turbine, NG - Ind. Cogen.	Ref. 40 ⁱ	lb/hp-hr	---	---	---	---	---
Turbine, NG - Ind. Cogen.	Ref. 37	lb/MMcf	---	---	---	---	---
Controlled EFs							
Boiler, NG, Comm., Rule 1146	Ref. 1	lb/MMcf	---	---	---	---	---
Boiler, NG, Small., Rule 1146.1	Ref. 1	lb/MMcf	---	---	---	---	---
Boiler, LPG, Comm., Rule 1146	Ref. 1	lb/1000gal	---	---	---	---	---
Boiler, LPG, Small., Rule 1146.1	Ref. 1	lb/1000gal	---	---	---	---	---
Plating, Anodizing, WS	Ref. 14	mg/amp-hr	---	---	---	---	---
Plating, Anodizing, DMAWS/FF	Ref. 15	mg/amp-hr	---	---	---	---	---
Plating, Hard, WS or DM	Ref. 16	mg/amp-hr	---	---	---	---	---
Plating, Hard, DMAWS/FF	Ref. 17	mg/amp-hr	---	---	---	---	---
Coating, Green PE, BF	Ref. 22	lb/gal	---	---	---	---	---
Coating, Green PE, PA	Ref. 23	lb/gal	---	---	---	---	---
Coating, Green PE, WC	Ref. 24	lb/gal	---	---	---	---	---
Coating, Green PE, WT	Ref. 25	lb/gal	---	---	---	---	---
Coating, Green primer, BF	Ref. 26	lb/gal	---	---	---	---	---
Coating, Green primer, PA	Ref. 27	lb/gal	---	---	---	---	---
Coating, Green primer, WC	Ref. 28A	lb/gal	---	---	---	---	---
Coating, Green primer, WC	Ref. 28B	lb/gal	---	---	---	---	---
Coating, Green primer, WSN	Ref. 29	lb/gal	---	---	---	---	---
Coating, Green primer, WT	Ref. 30	lb/gal	---	---	---	---	---
Coating, Powder (70%Ni), AF	Ref. 31	lb/lbs powder	---	---	---	---	---
Coating, Powder (49%Ni), AF	Ref. 32	lb/lbs powder	---	---	---	---	---
Coating, Powder (4%Ni), AF	Ref. 33	lb/lbs powder	---	---	---	---	---
Coating, Yellow PE, BF	Ref. 34	lb/gal	---	---	---	---	---
Pump, Fuel - Fugitive, Gasoline	Ref. 1	lb/1000gal	---	---	---	---	---
IC Engine, Gaso., On-Road, Cat	Ref. 44, 47	lb toxic/lb VOC	---	---	---	---	---
IC Engine, Nat. Gas, Rule 1110.2	Ref. 1	lb/MMcf	---	---	---	---	---
IC Engine, LPG, Rule 1110.2	Ref. 1	lb/1000gal	---	---	---	---	---
IC Engine, Gasoline, Rule 1110.2	Ref. 1	lb/1000gal	---	---	---	---	---
IC Engine, Diesel, Rule 1110.2	Ref. 1	lb/1000gal	---	---	---	---	---
IC Engine, Diesel, Rule 1110.2 not subject to r	Ref. 1	lb/1000gal	---	---	---	---	---
Turbine, NG-Ind. Cogen, SCR	Ref. 38A	lb/MMcf	---	---	---	---	---
Turbine, NG-Ind. Cog, CO/SCR	Ref. 38B	lb/MMcf	---	---	---	---	---
Turbine, Diesel-E. Gen., Wtr Inj.	Ref. 39 ^{a, d}	lb/MMBtu	---	---	---	---	---
Turbine, Diesel-E. Gen., Wtr Inj.	Ref. 39 ^{a, d}	lb/hp-hr	---	---	---	---	---
Turbine, NG-E. Gen., Water Inj.	Ref. 39 ^b	lb/MMBtu	---	---	---	---	---
Turbine, NG-E. Gen., Water Inj.	Ref. 39 ^b	lb/hp-hr	---	---	---	---	---
Turbine, NG-E. Gen., Steam Inj.	Ref. 39 ^b	lb/MMBtu	---	---	---	---	---
Turbine, NG-E. Gen., Steam Inj.	Ref. 39 ^b	lb/hp-hr	---	---	---	---	---
Turbine, NG-E. Gen., W/SCR	Ref. 39 ^d	lb/MMBtu	---	---	---	---	---
Wood Combustion	Ref. 52	lb/ton	---	---	---	---	---
SPECIATE /Fuel Tanks		%VOC	---	---	---	---	---
US EPA SPECIATE Database VOC Profile 1313		%VOC	---	---	---	---	---
US EPA SPECIATE Database VOC Profile 0003		%VOC	---	---	---	---	---
American Int. Airways- notice to comply		gram/hp-hr	---	---	---	---	---
American Int. Airways- notice to comply		gram/hp-hr	---	---	---	---	---
LAWA Annual Emission Report 96/97		lb/MMcf	---	---	---	---	---
Allied Signal Emission Estimates		lb/1000gal	---	---	---	---	---

Emission Factor Identification	References	Units	Metals									
			Aluminum	Antimony	Barium	Bismuth	Cadmium	Chromium	Copper	Lead	Manganese	Mercury
Turbine, Jet A, Aircraft, climbout	Ref. 44.49	lb toxic/lb VOC	---	---	---	---	---	---	---	---	---	---
Turbine, Jet A, Aircraft, approach	Ref. 44.49	lb toxic/lb VOC	---	---	---	---	---	---	---	---	---	---
Turbine, JP 4, Military, taxi/idle	Ref. 44.49	lb toxic/lb VOC	---	---	---	---	---	---	---	---	---	---
Turbine, JP 4, Military, takeoff	Ref. 44.49	lb toxic/lb VOC	---	---	---	---	---	---	---	---	---	---
Turbine, JP 4, Military, climbout	Ref. 44.49	lb toxic/lb VOC	---	---	---	---	---	---	---	---	---	---
Turbine, JP 4, Military, approach	Ref. 44.49	lb toxic/lb VOC	---	---	---	---	---	---	---	---	---	---
Turbine, Diesel-Elec. Gen.	Ref. 35	lb/1000gal	---	---	---	---	---	---	---	---	---	---
Turbine, Diesel-Elec. Gen.	Ref. 39 ^{a,f}	lb/MMBtu	1.50E-04	2.20E-05	4.90E-06	2.00E-05	3.30E-07	6.50E-05	4.20E-06	7.70E-04	---	---
Turbine, Diesel-Elec. Gen.	Ref. 39 ^{c,e,i}	lb/hp-hr	---	---	---	---	---	---	---	---	---	---
Turbine, Diesel-Ind. Cogen.	Ref. 36	lb/1000gal	---	---	2.02E-04	---	5.43E-05	---	3.25E-04	---	---	---
Turbine, NG-Elec. Gen.	Ref. 39 ^{c,e,f}	lb/MMBtu	---	---	---	---	---	---	---	---	---	---
Turbine, NG-Elec. Gen.	Ref. 39 ^{a,f}	lb/hp-hr	---	---	---	---	---	---	---	---	---	---
Turbine, NG - Ind. Cogen.	Ref. 40 ⁱ	lb/MMBtu	---	---	---	---	---	---	---	---	---	---
Turbine, NG - Ind. Cogen.	Ref. 40 ⁱ	lb/hp-hr	---	---	---	---	---	---	---	---	---	---
Turbine, NG - Ind. Cogen.	Ref. 37	lb/MMcf	---	---	---	---	---	---	---	---	---	---
Controlled EFs												
Boiler, NG, Comm., Rule 1146	Ref. 1	lb/MMcf	---	---	---	---	---	---	---	---	---	---
Boiler, NG, Small, Rule 1146.1	Ref. 1	lb/MMcf	---	---	---	---	---	---	---	---	---	---
Boiler, LPG, Comm., Rule 1146	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---	---	---
Boiler, LPG, Small, Rule 1146.1	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---	---	---
Plating, Anodizing, WS	Ref. 14	mg/amp-hr	---	---	---	---	---	---	---	---	---	---
Plating, Anodizing, DM/WS/FF	Ref. 15	mg/amp-hr	---	---	---	---	---	---	---	---	---	---
Plating, Hard, WS or DM	Ref. 16	mg/amp-hr	---	---	---	---	---	---	---	---	---	---
Plating, Hard, DM/WS/FF	Ref. 17	mg/amp-hr	---	---	---	---	---	---	---	---	---	---
Coating, Green PE, BF	Ref. 22	lb/gal	---	---	---	---	---	---	---	---	---	---
Coating, Green PE, PA	Ref. 23	lb/gal	---	---	---	---	---	---	---	---	---	---
Coating, Green PE, WC	Ref. 24	lb/gal	---	---	---	---	---	---	---	---	---	---
Coating, Green PE, WT	Ref. 25	lb/gal	---	---	---	---	---	---	---	---	---	---
Coating, Green primer, BF	Ref. 26	lb/gal	---	---	---	---	---	---	---	---	---	---
Coating, Green primer, PA	Ref. 27	lb/gal	---	---	---	---	---	---	---	---	---	---
Coating, Green primer, WC	Ref. 28A	lb/gal	---	---	---	---	---	---	---	---	---	---
Coating, Green primer, WC	Ref. 28B	lb/gal	---	---	---	---	---	---	---	---	---	---
Coating, Green primer, WSN	Ref. 29	lb/gal	---	---	---	---	---	---	---	---	---	---
Coating, Green primer, WT	Ref. 30	lb/gal	---	---	---	---	---	---	---	---	---	---
Coating, Powder (70%Ni), AF	Ref. 31	lb/lbs powder	---	---	---	---	---	---	---	---	---	---
Coating, Powder (49%Ni), AF	Ref. 32	lb/lbs powder	---	---	---	---	---	---	---	---	---	---
Coating, Powder (4%Ni), AF	Ref. 33	lb/lbs powder	---	---	---	---	---	---	---	---	---	---
Coating, Yellow PE, BF	Ref. 34	lb/gal	---	---	---	---	---	---	---	---	---	---
Pump, Fuel - Fugitive, Gasoline	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---	---	---
IC Engine, Gaso., On-Road, Cat	Ref. 44.47	lb toxic/lb VOC	---	---	---	---	---	---	---	---	---	---
IC Engine, Nat. Gas, Rule 1110.2	Ref. 1	lb/MMcf	---	---	---	---	---	---	---	---	---	---
IC Engine, LPG, Rule 1110.2	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---	---	---
IC Engine, Gasoline, Rule 1110.2	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---	---	---
IC Engine, Diesel, Rule 1110.2	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---	---	---
IC Engine, Diesel, Rule 1110.2 not subject to r	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---	---	---
Turbine, NG-Ind. Cogen, SCR	Ref. 38A	lb/MMcf	---	---	---	---	---	---	---	---	---	---
Turbine, NG-Ind. Cog, CO/SCR	Ref. 38B	lb/MMcf	---	---	---	---	---	---	---	---	---	---
Turbine, Diesel-E. Gen., Wtr Inj.	Ref. 39 ^{a,g}	lb/MMBtu	---	---	---	---	---	---	---	---	---	---
Turbine, Diesel-E. Gen., Wtr Inj.	Ref. 39 ^{a,g}	lb/hp-hr	---	---	---	---	---	---	---	---	---	---
Turbine, NG-E. Gen., Water Inj.	Ref. 39 ^h	lb/MMBtu	---	---	---	---	---	---	---	---	---	---
Turbine, NG-E. Gen., Water Inj.	Ref. 39 ^h	lb/hp-hr	---	---	---	---	---	---	---	---	---	---
Turbine, NG-E. Gen., Steam Inj.	Ref. 39 ^h	lb/MMBtu	---	---	---	---	---	---	---	---	---	---
Turbine, NG-E. Gen., Steam Inj.	Ref. 39 ^h	lb/hp-hr	---	---	---	---	---	---	---	---	---	---
Turbine, NG-E. Gen., WWSR	Ref. 39 ^h	lb/MMBtu	---	---	---	---	---	---	---	---	---	---
Wood Combustion	Ref. 52	lb/ton	---	---	---	---	---	---	---	---	2.20E-05	---
SPECIATE /Fuel Tanks		%VOC	---	---	---	---	---	---	---	---	---	---
US EPA SPECIATE Database VOC Profile 1313		%VOC	---	---	---	---	---	---	---	---	---	---
US EPA SPECIATE Database VOC Profile 0003		%VOC	---	---	---	---	---	---	---	---	---	---
American Int. Airways- notice to comply		gram/hp-hr	---	---	---	---	---	---	---	---	---	---
American Int. Airways- notice to comply		gram/hp-hr	---	---	---	---	---	---	---	---	---	---
LAWA Annual Emission Report 96/97		lb/MMcf	---	---	---	---	---	---	---	---	---	---
Allied Signal Emission Estimates		lb/1000gal	---	---	---	---	---	---	---	---	---	---

Metals continued										
Emission Factor Identification	References	Units	Chromium (hex)	Chromium (total)	Cadmium	Cobalt	Copper	Lead	Manganese	Nickel
Turbine, Jet A, Aircraft, climbout	Ref. 44,48	lb toxic/lb VOC	---	---	---	---	---	---	---	---
Turbine, Jet A, Aircraft, approach	Ref. 44,48	lb toxic/lb VOC	---	---	---	---	---	---	---	---
Turbine, JP 4, Military, taxi/idle	Ref. 44,48	lb toxic/lb VOC	---	---	---	---	---	---	---	---
Turbine, JP 4, Military, takeoff	Ref. 44,48	lb toxic/lb VOC	---	---	---	---	---	---	---	---
Turbine, JP 4, Military, climbout	Ref. 44,48	lb toxic/lb VOC	---	---	---	---	---	---	---	---
Turbine, JP 4, Military, approach	Ref. 44,48	lb toxic/lb VOC	---	---	---	---	---	---	---	---
Turbine, Diesel-Elec. Gen.	Ref. 35	lb/1000gal	---	---	---	---	---	---	---	---
Turbine, Diesel-Elec. Gen.	Ref. 38 ^{a,f}	lb/MMBtu	---	4.70E-05	9.10E-06	1.30E-03	6.00E-04	5.80E-05	2.30E-04	3.40E-04
Turbine, Diesel-Elec. Gen.	Ref. 39 ^{a,f}	lb/hp-hr	---	---	---	---	---	---	---	---
Turbine, Diesel-Ind. Cogen.	Ref. 36	lb/1000gal	1.08E-05	4.24E-04	---	9.98E-04	---	6.08E-04	---	1.03E-02
Turbine, NG-Elec. Gen.	Ref. 39 ^{a,f}	lb/MMBtu	---	---	---	---	---	---	---	---
Turbine, NG-Elec. Gen.	Ref. 39 ^{a,f}	lb/hp-hr	---	---	---	---	---	---	---	---
Turbine, NG - Ind. Cogen.	Ref. 40 ⁱ	lb/MMBtu	---	---	---	---	---	---	---	---
Turbine, NG - Ind. Cogen.	Ref. 40 ⁱ	lb/hp-hr	---	---	---	---	---	---	---	---
Turbine, NG - Ind. Cogen.	Ref. 37	lb/MMcf	---	---	---	---	---	---	---	---
Controlled EPs										
Boiler, NG, Comm., Rule 1146	Ref. 1	lb/MMcf	---	---	---	---	---	---	---	---
Boiler, NG, Small, Rule 1146.1	Ref. 1	lb/MMcf	---	---	---	---	---	---	---	---
Boiler, LPG, Comm., Rule 1146	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---
Boiler, LPG, Small, Rule 1146.1	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---
Plating, Anodizing, WS	Ref. 14	mg/amp-hr	8.72E-03	5.71E-02	---	---	---	---	---	---
Plating, Anodizing, DM/WS/FF	Ref. 15	mg/amp-hr	4.15E-02	4.14E-03	---	---	---	---	---	---
Plating, Hard, WS or DM	Ref. 16	mg/amp-hr	1.94E-02	4.24E-02	---	---	---	---	---	---
Plating, Hard, DM/WS/FF	Ref. 17	mg/amp-hr	3.96E-03	8.23E-04	---	---	---	---	---	---
Coating, Green PE, BF	Ref. 22	lb/gal	1.75E-04	3.33E-04	---	---	---	---	---	---
Coating, Green PE, PA	Ref. 23	lb/gal	3.10E-05	1.19E-04	---	---	---	---	---	---
Coating, Green PE, WC	Ref. 24	lb/gal	4.31E-06	4.15E-05	---	---	---	---	---	---
Coating, Green PE, WT	Ref. 25	lb/gal	3.99E-05	1.28E-04	---	---	---	---	---	---
Coating, Green primer, BF	Ref. 26	lb/gal	1.28E-03	1.53E-03	---	---	---	---	---	---
Coating, Green primer, PA	Ref. 27	lb/gal	2.87E-04	7.33E-04	---	---	---	---	---	---
Coating, Green primer, WC	Ref. 28A	lb/gal	1.42E-03	1.93E-03	---	---	---	---	---	---
Coating, Green primer, WC	Ref. 28B	lb/gal	2.63E-04	4.26E-04	---	---	---	---	---	---
Coating, Green primer, WSN	Ref. 29	lb/gal	8.32E-04	1.03E-03	---	---	---	---	---	---
Coating, Green primer, WT	Ref. 30	lb/gal	2.26E-04	2.60E-04	---	---	---	---	---	---
Coating, Powder (70%Ni), AF	Ref. 31	lb/lbs powder	1.81E-04	1.86E-04	---	---	---	---	---	---
Coating, Powder (49%Ni), AF	Ref. 32	lb/lbs powder	3.00E-04	4.02E-04	---	---	---	---	---	---
Coating, Powder (4%Ni), AF	Ref. 33	lb/lbs powder	---	---	---	---	---	---	---	---
Coating, Yellow PE, BF	Ref. 34	lb/gal	5.12E-03	5.98E-03	---	---	---	---	---	---
Pump, Fuel - Fugitive, Gasoline	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---
IC Engine, Gasol., On-Road, Cat	Ref. 44,47	lb toxic/lb VOC	---	---	---	---	---	---	---	---
IC Engine, Nat. Gas, Rule 1110.2	Ref. 1	lb/MMcf	---	---	---	---	---	---	---	---
IC Engine, LPG, Rule 1110.2	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---
IC Engine, Gasoline, Rule 1110.2	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---
IC Engine, Diesel, Rule 1110.2	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---
IC Engine, Diesel, Rule 1110.2 not subject to r	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---
Turbine, NG-Ind. Cogen, SCR	Ref. 38A	lb/MMcf	---	---	---	---	---	---	---	---
Turbine, NG-Ind. Cog, CO/SCR	Ref. 38B	lb/MMcf	---	---	---	---	---	---	---	---
Turbine, Diesel-E. Gen., Wtr Inj.	Ref. 39 ^{a,g}	lb/MMBtu	---	---	---	---	---	---	---	---
Turbine, Diesel-E. Gen., Wtr Inj.	Ref. 39 ^{a,g}	lb/hp-hr	---	---	---	---	---	---	---	---
Turbine, NG-E. Gen., Water Inj.	Ref. 39 ^b	lb/MMBtu	---	---	---	---	---	---	---	---
Turbine, NG-E. Gen., Water Inj.	Ref. 39 ^b	lb/hp-hr	---	---	---	---	---	---	---	---
Turbine, NG-E. Gen., Steam Inj.	Ref. 39 ^h	lb/MMBtu	---	---	---	---	---	---	---	---
Turbine, NG-E. Gen., Steam Inj.	Ref. 39 ^h	lb/hp-hr	---	---	---	---	---	---	---	---
Turbine, NG-E. Gen., W/SCR	Ref. 39 ^{i,j}	lb/MMBtu	---	---	---	---	---	---	---	---
Wood Combustion	Ref. 52	lb/ton	---	1.00E-06	---	---	---	---	---	1.70E-04
SPECIATE /Fuel Tanks		%VOC	---	---	---	---	---	---	---	---
US EPA SPECIATE Database VOC Profile 1313		%VOC	---	---	---	---	---	---	---	---
US EPA SPECIATE Database VOC Profile 0503		%VOC	---	---	---	---	---	---	---	---
American Int. Airways- notice to comply		gram/hp-hr	---	---	---	---	---	---	---	---
American Int. Airways- notice to comply		gram/hp-hr	---	---	---	---	---	---	---	---
LAWA Annual Emission Report 96/97		lb/MMcf	---	---	---	---	---	---	---	---
Alfred Signal Emission Estimates		lb/1000gal	---	---	---	---	---	---	---	---

			Metals continued									
Emission Factor Identification	References	Units	Mercury	Molybdenum	Nickel	Phosphorus	Selenium	Silver	Sulfur	Silicon	Sodium	
Turbine, Jet A, Aircraft, climbout	Ref. 44, 49	lb toxic/lb VOC	---	---	---	---	---	---	---	---	---	
Turbine, Jet A, Aircraft, approach	Ref. 44, 49	lb toxic/lb VOC	---	---	---	---	---	---	---	---	---	
Turbine, JP 4, Military, taxi/idle	Ref. 44, 49	lb toxic/lb VOC	---	---	---	---	---	---	---	---	---	
Turbine, JP 4, Military, takeoff	Ref. 44, 49	lb toxic/lb VOC	---	---	---	---	---	---	---	---	---	
Turbine, JP 4, Military, climbout	Ref. 44, 49	lb toxic/lb VOC	---	---	---	---	---	---	---	---	---	
Turbine, JP 4, Military, approach	Ref. 44, 49	lb toxic/lb VOC	---	---	---	---	---	---	---	---	---	
Turbine, Diesel-Elec. Gen.	Ref. 35	lb/1000gal	---	---	---	---	---	---	---	---	---	
Turbine, Diesel-Elec. Gen.	Ref. 39 ^{a,f}	lb/MMBtu	9.10E-07	8.40E-06	1.20E-03	3.00E-04	4.30E-04	5.30E-06	1.30E-03	1.40E-03	---	
Turbine, Diesel-Elec. Gen.	Ref. 39 ^{a,f}	lb/hp-hr	---	---	---	---	---	---	---	---	---	
Turbine, Diesel-Ind. Cogen.	Ref. 38	lb/1000gal	2.71E-06	---	4.88E-02	---	---	8.39E-06	---	---	---	
Turbine, NG-Elec. Gen.	Ref. 39 ^{a,f}	lb/MMBtu	---	---	---	---	---	---	---	---	---	
Turbine, NG-Elec. Gen.	Ref. 39 ^{a,f}	lb/hp-hr	---	---	---	---	---	---	---	---	---	
Turbine, NG - Ind. Cogen.	Ref. 40	lb/MMBtu	---	---	---	---	---	---	---	---	---	
Turbine, NG - Ind. Cogen.	Ref. 40	lb/hp-hr	---	---	---	---	---	---	---	---	---	
Turbine, NG - Ind. Cogen.	Ref. 37	lb/MMcf	---	---	---	---	---	---	---	---	---	
Controlled EFs												
Boiler, NG, Comm., Rule 1146	Ref. 1	lb/MMcf	---	---	---	---	---	---	---	---	---	
Boiler, NG, Small, Rule 1146.1	Ref. 1	lb/MMcf	---	---	---	---	---	---	---	---	---	
Boiler, LPG, Comm., Rule 1146	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---	---	
Boiler, LPG, Small, Rule 1146.1	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---	---	
Plating, Anodizing, WS	Ref. 14	mg/amp-hr	---	---	---	---	---	---	---	---	---	
Plating, Anodizing, DM/WS/FF	Ref. 15	mg/amp-hr	---	---	---	---	---	---	---	---	---	
Plating, Hard, WS or DM	Ref. 16	mg/amp-hr	---	---	---	---	---	---	---	---	---	
Plating, Hard, DM/WS/FF	Ref. 17	mg/amp-hr	---	---	---	---	---	---	---	---	---	
Coating, Green PE, BF	Ref. 22	lb/gal	---	---	---	---	---	---	---	---	---	
Coating, Green PE, PA	Ref. 23	lb/gal	---	---	---	---	---	---	---	---	---	
Coating, Green PE, WC	Ref. 24	lb/gal	---	---	---	---	---	---	---	---	---	
Coating, Green PE, WT	Ref. 25	lb/gal	---	---	---	---	---	---	---	---	---	
Coating, Green primer, BF	Ref. 26	lb/gal	---	---	---	---	---	---	---	---	---	
Coating, Green primer, PA	Ref. 27	lb/gal	---	---	---	---	---	---	---	---	---	
Coating, Green primer, WC	Ref. 28A	lb/gal	---	---	---	---	---	---	---	---	---	
Coating, Green primer, WC	Ref. 28B	lb/gal	---	---	---	---	---	---	---	---	---	
Coating, Green primer, WSN	Ref. 29	lb/gal	---	---	---	---	---	---	---	---	---	
Coating, Green primer, WT	Ref. 30	lb/gal	---	---	---	---	---	---	---	---	---	
Coating, Powder (70%Ni), AF	Ref. 31	lb/lbs powder	---	---	---	---	---	---	---	---	---	
Coating, Powder (49%Ni), AF	Ref. 32	lb/lbs powder	---	---	---	---	---	---	---	---	---	
Coating, Powder (4%Ni), AF	Ref. 33	lb/lbs powder	---	---	1.60E-03	---	---	---	---	---	---	
Coating, Yellow PE, BF	Ref. 34	lb/gal	---	---	---	---	---	---	---	---	---	
Pump, Fuel - Fugitive, Gasoline	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---	---	
IC Engine, Gasol., On-Road, Cat	Ref. 44, 47	lb toxic/lb VOC	---	---	---	---	---	---	---	---	---	
IC Engine, Nat. Gas, Rule1110.2	Ref. 1	lb/MMcf	---	---	---	---	---	---	---	---	---	
IC Engine, LPG, Rule 1110.2	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---	---	
IC Engine, Gasoline, Rule1110.2	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---	---	
IC Engine, Diesel, Rule 1110.2	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---	---	
IC Engine, Diesel, Rule 1110.2 not subject to r	Ref. 1	lb/1000gal	---	---	---	---	---	---	---	---	---	
Turbine, NG-Ind. Cogen, SCR	Ref. 38A	lb/MMcf	---	---	---	---	---	---	---	---	---	
Turbine, NG-Ind.Cog, CO/SCR	Ref. 38B	lb/MMcf	---	---	---	---	---	---	---	---	---	
Turbine, Diesel-E. Gen., Wtr Inj.	Ref. 39 ^{a,g}	lb/MMBtu	---	---	---	---	---	---	---	---	---	
Turbine, Diesel-E. Gen., Wtr Inj.	Ref. 39 ^{a,g}	lb/hp-hr	---	---	---	---	---	---	---	---	---	
Turbine, NG-E. Gen., Water Inj.	Ref. 39 ^g	lb/MMBtu	---	---	---	---	---	---	---	---	---	
Turbine, NG-E. Gen., Water Inj.	Ref. 39 ^g	lb/hp-hr	---	---	---	---	---	---	---	---	---	
Turbine, NG-E. Gen., Steam Inj.	Ref. 39 ^h	lb/MMBtu	---	---	---	---	---	---	---	---	---	
Turbine, NG-E. Gen., Steam Inj.	Ref. 39 ^h	lb/hp-hr	---	---	---	---	---	---	---	---	---	
Turbine, NG-E. Gen., WUSCR	Ref. 39 ^h	lb/MMBtu	---	---	---	---	---	---	---	---	---	
Wood Combustion	Ref. 52	lb/ton	---	---	1.40E-05	---	---	---	---	---	---	
SPECIATE /Fuel Tanks		%VOC	---	---	---	---	---	---	---	---	---	
US EPA SPECIATE Database VOC Profile 1313		%VOC	---	---	---	---	---	---	---	---	---	
US EPA SPECIATE Database VOC Profile 0003		%VOC	---	---	---	---	---	---	---	---	---	
American Int. Airways- notice to comply		gram/hp-hr	---	---	---	---	---	---	---	---	---	
American Int. Airways- notice to comply		gram/hp-hr	---	---	---	---	---	---	---	---	---	
LAWA Annual Emission Report 96/97		lb/MMcf	---	---	---	---	---	---	---	---	---	
Allied Signal Emission Estimates		lb/1000gal	---	---	---	---	---	---	---	---	---	

			Metals continued			Inorganics		
			Vanadium	Zinc	Antimony	Bromine	Fluorine	
Emission Factor Identification	References	Units						
Turbine, Jet A, Aircraft, climbout	Ref. 44.49	lb toxic/lb VOC	---	---	---	---	---	
Turbine, Jet A, Aircraft, approach	Ref. 44.49	lb toxic/lb VOC	---	---	---	---	---	
Turbine, JP 4, Military, taxi/idle	Ref. 44.49	lb toxic/lb VOC	---	---	---	---	---	
Turbine, JP 4, Military, takeoff	Ref. 44.49	lb toxic/lb VOC	---	---	---	---	---	
Turbine, JP 4, Military, climbout	Ref. 44.49	lb toxic/lb VOC	---	---	---	---	---	
Turbine, JP 4, Military, approach	Ref. 44.49	lb toxic/lb VOC	---	---	---	---	---	
Turbine, Diesel-Elec. Gen.	Ref. 35	lb/1000gal	---	---	---	---	---	
Turbine, Diesel-Elec. Gen.	Ref. 39 ^{a,f}	lb/MMBtu	8.10E-05	4.40E-06	6.80E-04	---	4.20E-06	
Turbine, Diesel-Elec. Gen.	Ref. 39 ^{a,f}	lb/hp-hr	---	---	---	---	---	
Turbine, Diesel-Ind. Cogen.	Ref. 36	lb/1000gal	---	---	5.38E-02	---	8.09E-02	
Turbine, NG-Elec. Gen.	Ref. 39 ^{a,f}	lb/MMBtu	---	---	---	---	---	
Turbine, NG-Elec. Gen.	Ref. 39 ^{a,f}	lb/hp-hr	---	---	---	---	---	
Turbine, NG - Ind. Cogen.	Ref. 40 ⁱ	lb/MMBtu	---	---	---	---	---	
Turbine, NG - Ind. Cogen.	Ref. 40 ⁱ	lb/hp-hr	---	---	---	---	---	
Turbine, NG - Ind. Cogen.	Ref. 37	lb/MMcf	---	---	---	---	---	
Controlled EFs								
Boiler, NG, Comm., Rule 1146	Ref. 1	lb/MMcf	---	---	---	---	---	
Boiler, NG, Small, Rule 1146.1	Ref. 1	lb/MMcf	---	---	---	---	---	
Boiler, LPG, Comm., Rule 1146	Ref. 1	lb/1000gal	---	---	---	---	---	
Boiler, LPG, Small, Rule 1146.1	Ref. 1	lb/1000gal	---	---	---	---	---	
Plating, Anodizing, WS	Ref. 14	mg/amp-hr	---	---	---	---	---	
Plating, Anodizing, DMWS/FF	Ref. 15	mg/amp-hr	---	---	---	---	---	
Plating, Hard, WS or DM	Ref. 16	mg/amp-hr	---	---	---	---	---	
Plating, Hard, DMWS/FF	Ref. 17	mg/amp-hr	---	---	---	---	---	
Coating, Green PE, BF	Ref. 22	lb/gal	---	---	---	---	---	
Coating, Green PE, PA	Ref. 23	lb/gal	---	---	---	---	---	
Coating, Green PE, WC	Ref. 24	lb/gal	---	---	---	---	---	
Coating, Green PE, WT	Ref. 25	lb/gal	---	---	---	---	---	
Coating, Green primer, BF	Ref. 26	lb/gal	---	---	---	---	---	
Coating, Green primer, PA	Ref. 27	lb/gal	---	---	---	---	---	
Coating, Green primer, WC	Ref. 28A	lb/gal	---	---	---	---	---	
Coating, Green primer, WC	Ref. 28B	lb/gal	---	---	---	---	---	
Coating, Green primer, WSN	Ref. 29	lb/gal	---	---	---	---	---	
Coating, Green primer, WT	Ref. 30	lb/gal	---	---	---	---	---	
Coating, Powder (70%Ni), AF	Ref. 31	lb/lbs powder	---	---	---	---	---	
Coating, Powder (49%Ni), AF	Ref. 32	lb/lbs powder	---	---	---	---	---	
Coating, Powder (4%Ni), AF	Ref. 33	lb/lbs powder	---	---	---	---	---	
Coating, Yellow PE, BF	Ref. 34	lb/gal	---	---	---	---	---	
Pump, Fuel - Fugitive, Gasoline	Ref. 1	lb/1000gal	---	---	---	---	---	
IC Engine, Gasol., On-Road, Cat	Ref. 44.47	lb toxic/lb VOC	---	---	---	---	---	
IC Engine, Nat. Gas, Rule 1110.2	Ref. 1	lb/MMcf	---	---	---	---	---	
IC Engine, LPG, Rule 1110.2	Ref. 1	lb/1000gal	---	---	---	---	---	
IC Engine, Gasoline, Rule 1110.2	Ref. 1	lb/1000gal	---	---	---	---	---	
IC Engine, Diesel, Rule 1110.2	Ref. 1	lb/1000gal	---	---	---	---	---	
IC Engine, Diesel, Rule 1110.2 not subject to r	Ref. 1	lb/1000gal	---	---	---	---	---	
Turbine, NG-Ind. Cogen, SCR	Ref. 38A	lb/MMcf	---	---	---	---	---	
Turbine, NG-Ind. Cogen, CO/SCR	Ref. 38B	lb/MMcf	---	---	---	---	---	
Turbine, Diesel-E. Gen., Wtr Inj.	Ref. 39 ^{a,g}	lb/MMBtu	---	---	---	---	---	
Turbine, Diesel-E. Gen., Wtr Inj.	Ref. 39 ^{a,g}	lb/hp-hr	---	---	---	---	---	
Turbine, NG-E. Gen., Water Inj.	Ref. 39 ^h	lb/MMBtu	---	---	---	---	---	
Turbine, NG-E. Gen., Water Inj.	Ref. 39 ^h	lb/hp-hr	---	---	---	---	---	
Turbine, NG-E. Gen., Steam Inj.	Ref. 39 ^h	lb/MMBtu	---	---	---	---	---	
Turbine, NG-E. Gen., Steam Inj.	Ref. 39 ^h	lb/hp-hr	---	---	---	---	---	
Turbine, NG-E. Gen., W/SCR	Ref. 39 ⁱ	lb/MMBtu	---	---	6.50E-03	---	---	
Wood Combustion	Ref. 52	lb/ton	---	---	---	---	---	
SPECIATE /Fuel Tanks		%VOC	---	---	---	---	---	
US EPA SPECIATE Database VOC Profile 1313		%VOC	---	---	---	---	---	
US EPA SPECIATE Database VOC Profile 0003		%VOC	---	---	---	---	---	
American Int. Airways- notice to comply		gram/hp-hr	---	---	---	---	---	
American Int. Airways- notice to comply		gram/hp-hr	---	---	---	---	---	
LAWA Annual Emission Report 96/97		lb/MMcf	---	---	---	---	---	
Allied Signal Emission Estimates		lb/1000gal	---	---	---	---	---	

- Reference 1. SCAQMD, "General Instruction Book for the 1996-97 Annual Emissions Reporting Program," 1997.
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Reference 6. U.S. EPA, AP-42, Sect. 13.4, 01/95.
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Reference 10. CATEF, Reciprocating ICE - Commercial/Institutional, Diesel, 1997.
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Reference 16. CATEF, Plating Operation (Chromic acid), Hard, Demister or Wet Scrubber, 1997.
Reference 17. CATEF, Plating Operation (Chromic acid), Hard, Demister/Wet Scrubber/Fabric Filter, 1997.
Reference 18. CATEF, Coating Operation, Powder (75%Cr₂O₃, 20%NiCr, 5%Cr), 1997.
Reference 19. CATEF, Coating Operation, Powder (87%Al₂O₃, 13%TiO₂), 1997.
Reference 20. CATEF, Coating Operation, Powder (80%Ni, 20%Cr), 1997.
Reference 21. CATEF, Coating Operation, Powder (100% chromium oxide), 1997.
Reference 22. CATEF, Coating Operation, Green PE (15% chromium), Baffle Filter, 1997.
Reference 23. CATEF, Coating Operation, Green PE (15% chromium), Paint Arrestors, 1997.
Reference 24. CATEF, Coating Operation, Green PE (15% chromium), Water Curtain, 1997.
Reference 25. CATEF, Coating Operation, Green PE (15% chromium), Water Trough, 1997.
Reference 26. CATEF, Coating Operation, Green primer (25-35% chromate), Baffle Filter, 1997.
Reference 27. CATEF, Coating Operation, Green primer (25-35% chromate), Paint Arrestors, 1997.
Reference 28A. CATEF, Coating Operation, Green primer (25-35% chromate), Water Curtain, Conventional Spray Methods, 1997.
Reference 28B. CATEF, Coating Operation, Green primer (25-35% chromate), Water Curtain, HVLP Spray Guns, 1997.
Reference 29. CATEF, Coating Operation, Green primer (25-35% chromate), Water Spray Nozzle, 1997.
Reference 30. CATEF, Coating Operation, Green primer (25-35% chromate), Water Trough, 1997.
Reference 31. CATEF, Coating Operation, Powder (70%Ni, 4%Cr), Air Filter, 1997.
Reference 32. CATEF, Coating Operation, Powder (49%Ni, 44%Cr), Air Filter, 1997.
Reference 33. CATEF, Coating Operation, Powder (4%Ni, 96%Al), Air Filter, 1997.
Reference 34. CATEF, Coating Operation, Yellow PE (30% lead chromate), Baffle Filter, 1997.
Reference 35. CATEF, Turbine, Electric Generation, No. 2 Distillate (or Diesel), 1997.
Reference 36. CATEF, Turbine, Industrial-Cogeneration, No. 2 Distillate (or Diesel), 1997.
Reference 37. CATEF, Turbine, Industrial-Cogeneration, Natural Gas, 1997.
Reference 38A. Ref. 30
Reference 38B. CATEF, Turbine, Industrial-Cogeneration, Natural Gas, CO Catalyst/Selective Catalytic Reduction, 1997.
Reference 39. U.S. EPA, AP-42, Sect. 3.1, 10/96.
Reference 40. U.S. EPA, AP-42, Sect. 3.2, 10/96.
Reference 41. U.S. EPA, AP-42, Sect. 3.3, 10/96.
Reference 42. U.S. EPA, AP-42, Sect. 3.4, 10/96.
Reference 43. U.S. EPA, AP-42, Sect. 11.12, 01/95.
Reference 44. U.S. EPA, Memo from R. Cook to A. Pope, June 11, 1997.
Reference 45. U.S. EPA, Memo from R. Cook to A. Pope, February 20, 1997.
Reference 46. U.S. EPA, Motor Vehicle-Related Air Toxics Study, April 1993.
Reference 47. U.S. EPA, Memo from P. Brodowicz to E. Ginsburg and D. Mobley, December 19, 1996.
Reference 48. U.S. EPA, Memo from R. Cook to P. Morris, February 17, 1993.
Reference 49. U.S. EPA, Memo from R. Cook to J. Touma, March 18, 1997.
Reference 50. American International Airways, SCAQMD Form 400-E-13, 05/29/97 (Hobart Bros. ICE Model No. 90G-20P-471).
Reference 51. American International Airways, SCAQMD Form 400-E-13, 05/29/97 (Hobart Bros. ICE Model No. 60G-20P-371).
Reference 52. AP42 Wood Combustion Section 1.10

- Note a. Sulfur content of diesel fuel assumed to be 0.05 wt%.
Note b. VOC EF based on THC EF=5.8 lb/MMcf and nonmethane fraction = 0.46 (Ref. 2).
Note c. PM10 EF includes condensable and filterable fractions.
Note d. Benzo(b)fluoranthene and benzo(k)fluoranthene each assumed to be 0.5 * benzo(b+k)fluoranthene value (2.85E-06 lb/1000gal).
Note e. VOC EF = TOC EF (as Methane).
Note f. S = % sulfur in fuel, for SO₂ EF calculation.
Note g. Water injection, water/fuel ratio = 0.8.
Note h. Steam injection, water/fuel ratio = 1.2.
Note i. VOC EF = Nonmethane Hydrocarbons (NMHC) EF or Nonmethane Organic Compounds (NMOC) EF.
Note j. SCR NO_x control efficiency = 0.78 (78%).
Note k. VOC EF based on TOC EF=0.09 lb/MMBtu and nonmethane fraction = 0.91 (Ref. 42).
Note l. Factors are for total VMT, including on-road gasoline and diesel engines.
Note m. PAH EFs developed from Ref. 49 Time-In-Mode values for taxi/idle, takeoff, climbout, and approach.

Emissions Summary

Parking Source Emissions Summary

SCENARIO	TOTAL ROG (tpy)	% of Existing	TOTAL CO (tpy)	% of Existing	TOTAL NOx (tpy)	% of Existing	TOTAL PM10 (tpy)	% of Existing
Existing (1996) Parking Facility Source Emissions	207.00	100%	1153.42	100%	53.14	100%	1.13	100%
Future Baseline (2006) Parking Facility Source Emissions	113.93	55%	493.45	43%	40.22	76%	0.93	79%
Alternative A (2006) Parking Facility Source Emissions	113.84	55%	481.50	42%	27.19	51%	0.86	66%
Alternative B (2006) Parking Facility Source Emissions	115.25	56%	485.50	42%	27.51	52%	0.87	57%
Alternative C (2006) Parking Facility Source Emissions	111.40	54%	470.17	41%	30.11	57%	0.72	61%
Future Baseline (2015) Parking Facility Source Emissions	65.16	31%	262.62	23%	28.07	53%	0.86	56%
Alternative A (2015) Parking Facility Source Emissions	78.78	38%	324.66	28%	18.68	35%	0.72	61%
Alternative B (2015) Parking Facility Source Emissions	81.69	39%	334.85	29%	17.29	33%	0.72	61%
Alternative C (2015) Parking Facility Source Emissions	84.48	41%	341.39	30%	18.90	32%	0.70	59%

Emissions Summary

Roadway Source Emissions Summary

SCENARIO	TOTAL ROG (tpy)	% Of Existing	TOTAL CO (tpy)	% Of Existing	TOTAL NOx (tpy)	% Of Existing	TOTAL PM10 (tpy)	% Of Existing
Existing (1996) Roadway Source Emissions	357.31	100%	4196.72	100%	475.82	100%	65.42	100%
Future Baseline (2006) Roadway Source Emissions	342.46	96%	3388.66	81%	349.12	73%	45.11	61%
Alternative A (2006) Roadway Source Emissions	187.83	53%	2030.18	48%	228.02	48%	35.95	55%
Alternative B (2006) Roadway Source Emissions	179.64	50%	1921.68	46%	225.76	47%	34.23	52%
Alternative C (2006) Roadway Source Emissions	189.42	53%	2077.30	49%	269.63	57%	41.06	63%
Future Baseline (2015) Roadway Source Emissions	180.71	51%	1629.82	39%	239.68	50%	40.91	63%
Alternative A (2015) Roadway Source Emissions	107.20	30%	1157.44	28%	166.94	35%	45.14	61%
Alternative B (2015) Roadway Source Emissions	107.77	30%	1160.85	28%	171.59	36%	46.61	64%
Alternative C (2015) Roadway Source Emissions	114.32	32%	1262.63	30%	156.89	33%	0.00	0%

Attachment II

Tenant Survey Forms

LOS ANGELES AIRPORT MASTER PLAN Emissions Inventory Data Sheet Fuel Storage Tank

Owner or Operator	
Address	
Name and Title of Contact Person	
Telephone Number	Fax Number

Tank Number: _____ of _____ x _____ y _____
 Permit Number (if applicable): _____

Tank Type: ☐ Floating Roof ☐ Fixed Roof Height _____
 Diameter _____

Tank orientation: ☐ Above ground (AST) Tank capacity: _____ gallons
☐ Under ground (UST)

Fuel type: _____ Annual fuel into tank: _____ gallons
 Vent height: _____ feet (above ground)
 Vent diameter: _____ inches (ID)
 Vent height: _____ feet

Tank Number: _____ of _____ x _____ y _____
 Permit Number (if applicable): _____

Tank Type: ☐ Floating Roof ☐ Fixed Roof Height _____
 Diameter _____

Tank orientation: ☐ Above ground (AST) Tank capacity: _____ gallons
☐ Under ground (UST)

Fuel type: _____ Annual fuel into tank: _____ gallons
 Vent height: _____ feet (above ground)
 Vent diameter: _____ inches (ID)
 Vent height: _____ feet

LOS ANGELES AIRPORT MASTER PLAN
Insignificant Emission Sources

Company Name: Address: Contact:		Building Location: x _____ y _____
Insignificant Emission Sources	Number of Sources	Notes
Natural gas or LPG-fired boilers or other indirect heat transfer units of 100,000 Btu/hr or less (combined total)		
Small (<20,000 gallons combined) diesel tanks and all waste oil tanks		
Containers used to store refined lubricating oils		
Unvented pressure vessels used exclusively to store liquified gases or assoc.		
Loading racks/pumps used for the transfer of diesel or other heavy petroleum distillates		
Equipment used exclusively for the transfer of refined lubricating oil		
Safety-Kleen or similar unheated non-conveyorized degreaser using low vapor pressure solvents		
Enclosed and filtered sand blasting		
Particulate emission sources controlled by a baghouse or bin vent filter (unless the particulate is an air toxic).		
Machine shop metal working equipment		
Brazing, soldering, or welding equipment		
Equipment used exclusively for extruding or compression molding of rubber or plastics, where no plastisizer or blowing agent is used		

x _____ y _____

LOS ANGELES AIRPORT MASTER PLAN

Miscellaneous Emission Source

Company Name:
Address:
Contact:

Description: _____

Type of emissions: _____

Emission estimation basis: _____

Emission controls description: _____

Emission controls efficiency: _____

Throughput _____ Max hourly _____ Annual _____ Units

Stack Information

Discharge Type:			
<input type="checkbox"/> Stack (pressured)	Discharge Height	<input type="text"/>	meters above ground
<input type="checkbox"/> Vent (little or no pres.)	Flow Rate	<input type="text"/>	acfm, ft ³ /min, ft ³ /sec (circle appropriate)
<input type="checkbox"/> Fugitive	Exit Diameter	<input type="text"/>	meters (inside stack diameter)
	Exit Temperature	<input type="text"/>	degrees F
Discharge Direction:			
<input type="checkbox"/> Vertical			
<input type="checkbox"/> Horizontal			
<input type="checkbox"/> other _____			

x _____ y _____

LOS ANGELES AIRPORT MASTER PLAN
Emissions Inventory Data Sheet
Stationary Fuel Combustion Sources

Owner or Operator	
Address	
Name and Title of Contact Person	
Telephone Number	Fax Number

Location No.: _____
 Source Number: _____ of _____ Permit Number: _____
 (one sheet per emission source) (If applicable)

Equipment Make and Model:	
Equipment Operating Capacity Rating:	<input type="checkbox"/> Btu/hr <input type="checkbox"/> kw/hr <input type="checkbox"/> hp
Typical Operating Schedule: hours/day _____ days/week _____ weeks/year _____	

		Quantity of Fuel Burned (Specify Units)	
Fuel Type	Prim.	Sec.	Annual
<input type="checkbox"/> Natural Gas			
<input type="checkbox"/> Propane			
<input type="checkbox"/> Fuel Oil # _____			
<input type="checkbox"/> Diesel			
<input type="checkbox"/> Other _____			

Control Equipment	
Any control equipment? <input type="checkbox"/> Yes <input type="checkbox"/> No	Type: _____
Estimated control efficiency for each of the following pollutants: _____ % CO _____ % NOx _____ % SO2 _____ % Hydrocarbons _____ % Particulate Matter	

Stack/Vent Information	
Discharge Type:	
<input type="checkbox"/> Stack (pressured)	Discharge Height _____ feet above ground
<input type="checkbox"/> Vent (little or no pres.)	Flow Rate or Velocity _____ acfm, ft/min, ft/sec (circle appropriate)
<input type="checkbox"/> Fugitive	Exit Diameter _____ inches
	Exit Temperature _____ degrees F
Discharge Direction:	
<input type="checkbox"/> Vertical <input type="checkbox"/> Horizontal <input type="checkbox"/> other _____	

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LOS ANGELES AIRPORT MASTER PLAN
Emissions Inventory Data Sheet
Surface Coating/Degreasing Operations

Owner or Operator	
Address	
Name and Title of Contact Person	
Telephone Number	Fax Number

Operation Number: _____ of _____ Permit Number (if applicable): _____
 Equipment Description: _____ Control Technology: _____
 Percent Control: _____

	% VOC	Volume of Coating Max/hr	Annual
Enamel, air dry	_____	_____	_____
Enamel, baking	_____	_____	_____
Acrylic Enamel	_____	_____	_____
Alkyd Enamel	_____	_____	_____
Primer Surface	_____	_____	_____
Primer, Epoxy	_____	_____	_____
Varnish, baking	_____	_____	_____
Lacquer, spraying	_____	_____	_____
Vinyl, roller coat	_____	_____	_____
Polyurethane	_____	_____	_____
Stain	_____	_____	_____
Sealer	_____	_____	_____
Magnet Wire Enamel	_____	_____	_____
Paper Coating	_____	_____	_____
Fabric Coating	_____	_____	_____
Thinner/Solvent	_____	_____	_____
Degreasing Solvent	_____	_____	_____

Discharge Type:	
<input type="checkbox"/> Stack (pressured)	Discharge Height _____ feet above ground
<input type="checkbox"/> Vent (little or no pres.)	Flow Rate or Velocity _____ acfm, ft/min, ft/sec (circle appropriate)
<input type="checkbox"/> Fugitive	Exit Diameter _____ inches
	Exit Temperature _____ degrees F
Discharge Direction: <input type="checkbox"/> Vertical <input type="checkbox"/> Horizontal <input type="checkbox"/> other _____	

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Attachment D

Temporal Factors for Mobile and Stationary Sources

Mixed Aircraft Arrival and Departure Temporal Factors for ISCST3 Modeling

Hour	NA/NP 2005			NA/NP 2016			Alternative A 2015			Alternative B 2015			Alternative C 2005			Alternative C 2015			
	Heavy	Med.	Small	Heavy	Med.	Small	Heavy	Med.	Small	Heavy	Med.	Small	Heavy	Med.	Small	Heavy	Med.	Small	
0	0.19	0.18	0.00	0.17	0.25	0.00	0.00	0.12	0.19	0.06	0.10	0.19	0.06	0.16	0.18	0.02	0.15	0.26	0.03
1	0.10	0.06	0.00	0.09	0.12	0.00	0.10	0.09	0.00	0.13	0.09	0.00	0.09	0.06	0.00	0.11	0.10	0.00	
2	0.27	0.11	0.02	0.26	0.07	0.02	0.25	0.15	0.02	0.22	0.13	0.02	0.25	0.15	0.00	0.28	0.10	0.03	
3	0.15	0.10	0.04	0.19	0.07	0.04	0.12	0.05	0.04	0.13	0.09	0.04	0.05	0.10	0.04	0.12	0.07	0.06	
4	0.00	0.03	0.00	0.02	0.03	0.00	0.03	0.05	0.00	0.06	0.04	0.00	0.07	0.03	0.00	0.05	0.04	0.00	
5	0.25	0.04	0.00	0.22	0.04	0.00	0.19	0.04	0.00	0.18	0.03	0.00	0.27	0.03	0.00	0.20	0.06	0.00	
6	0.23	0.19	0.34	0.22	0.19	0.38	0.22	0.15	0.39	0.24	0.19	0.41	0.22	0.17	0.43	0.23	0.21	0.44	
7	0.37	0.70	0.92	0.43	0.82	0.76	0.30	0.81	0.84	0.26	0.83	0.82	0.40	0.63	0.89	0.40	0.79	1.00	
8	0.50	0.60	0.76	0.57	0.99	0.58	0.40	0.85	0.88	0.46	0.81	0.78	0.44	0.67	0.85	0.52	0.94	0.82	
9	0.87	1.00	0.58	0.69	0.96	0.64	0.86	0.74	0.76	0.83	0.78	0.82	0.67	0.78	0.83	0.71	0.99	0.68	
10	0.85	0.89	0.88	0.85	0.85	0.98	0.90	0.79	0.92	0.92	0.78	0.92	0.62	0.94	0.94	0.86	0.83	0.79	
11	0.66	0.95	0.82	0.70	0.94	1.00	0.92	1.00	0.71	0.93	1.00	0.80	0.62	1.00	0.76	0.75	1.00	0.85	
12	0.79	0.89	0.66	1.00	0.72	0.69	0.74	0.95	0.90	0.72	0.95	0.88	0.69	0.81	0.71	0.92	0.87	0.53	
13	1.00	0.74	0.68	1.00	0.69	0.89	0.96	0.67	0.86	0.99	0.71	0.84	1.00	0.64	0.69	1.00	0.84	0.78	
14	1.30	0.67	0.82	0.93	0.76	0.96	1.00	0.64	0.92	1.00	0.68	0.94	0.91	0.64	0.76	0.86	0.89	0.97	
15	0.71	0.75	1.00	1.00	0.75	0.87	0.88	0.71	0.88	0.97	0.62	0.86	0.76	0.69	1.00	0.92	0.86	0.80	
16	0.71	0.88	0.88	0.76	0.78	0.91	0.75	0.81	1.00	0.76	0.82	1.00	0.60	0.77	0.67	0.78	0.89	0.74	
17	0.63	0.92	0.64	0.87	0.81	0.71	0.88	0.87	0.84	0.82	0.91	0.76	0.58	0.77	0.59	0.78	0.91	0.68	
18	0.46	0.84	1.00	0.72	0.87	0.93	0.48	0.85	0.90	0.50	0.80	0.98	0.51	0.85	0.92	0.72	0.84	0.91	
19	0.52	0.85	0.78	0.57	1.00	0.67	0.53	0.85	0.90	0.56	0.86	0.90	0.45	0.83	0.84	0.58	0.97	0.85	
20	0.67	0.67	0.78	0.70	0.70	0.71	0.60	0.65	0.86	0.64	0.70	0.66	0.64	0.67	0.73	0.69	0.80	0.76	
21	0.63	0.74	0.68	0.76	0.78	0.67	0.82	0.73	0.65	0.60	0.70	0.69	0.62	0.60	0.71	0.62	0.64	0.74	
22	0.48	0.74	0.80	0.69	0.58	0.62	0.53	0.73	0.59	0.53	0.75	0.51	0.44	0.77	0.57	0.60	0.60	0.56	
23	0.25	0.44	0.16	0.41	0.28	0.16	0.33	0.38	0.14	0.35	0.38	0.16	0.31	0.41	0.16	0.40	0.36	0.21	

Source: Camp Dresser & McKee, Inc., 2000

	Monthly Temporal Profiles All Scenarios											
Profile Name	Month											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
DEFAULT	1.000	1.000	1.000	1.000	1.089	1.000	1.000	1.000	1.000	1.033	1.000	1.067
P2AirMonthly	0.900	0.850	0.900	0.900	0.900	1.000	1.000	1.000	1.000	1.033	0.967	1.000
P3OffMonthly	0.900	0.900	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.900	0.900
Traffic	0.920	0.800	0.990	0.950	0.980	0.970	0.990	1.000	0.980	0.980	0.850	0.850
Winter	1.000	1.000	0.500	0.250	0.000	0.000	0.000	0.000	0.000	0.200	0.250	0.500
Training Fire	0.000	0.000	1.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000

Daily Temporal Profiles All Scenarios	Day						
Prof Names	Mon	Tue	Wed	Thur	Fri	Sat	Sun
DEFAULT	1.000	1.000	1.000	1.000	1.000	1.000	1.000
P2AirDaily	1.000	1.000	1.000	1.000	1.000	0.900	0.900
Traffic	0.900	0.800	0.822	0.686	0.935	0.900	1.000
Training Fire	0.300	0.000	0.000	0.000	1.000	0.000	0.000

Profile Name	Hour																							
	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	H15	H16	H17	H18	H19	H20	H21	H22	H23	H24
DEFAULT	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
24L-Queue	0.026	0.010	0.026	0.013	0.000	0.006	0.253	0.188	0.495	0.272	0.259	0.627	0.850	1.000	0.587	0.698	0.535	0.225	0.384	0.270	0.142	0.133	0.149	0.126
24R-Queue	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.378	0.404	0.085	0.084	0.217	0.819	1.000	0.141	0.555	0.391	0.118	0.397	0.192	0.151	0.082	0.055	0.007
25L-Queue	0.030	0.000	0.089	0.094	0.000	0.057	0.102	0.295	0.191	0.275	0.351	0.904	1.000	0.882	0.906	0.994	0.329	0.108	0.169	0.360	0.941	0.177	0.073	0.070
25R-Queue	0.078	0.052	0.061	0.015	0.001	0.000	0.008	0.209	0.509	0.716	0.38E	0.496	0.821	1.000	0.658	0.580	0.465	0.189	0.232	0.142	0.116	0.130	0.268	0.185
300-25Cong	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	1.000	0.000	0.000	0.000
310-25Cong	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
737-25Cong	0.000	0.000	0.000	1.000	0.000	0.500	1.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000
744-25Cong	0.000	0.000	0.000	0.000	0.000	1.000	0.000	1.000	0.000	1.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
747-25Cong	0.000	0.000	0.500	1.000	0.000	0.500	0.500	0.000	0.500	0.000	0.000	0.000	0.000	0.500	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
757-25Cong	0.000	0.000	0.000	1.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
767-25Cong	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
P51-25Cong	0.000	0.000	0.500	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CNA-25Cong	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.200	0.000	0.000
D10-25Cong	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.																

[illegible]

Hourly Temporal Profiles
No Action/No Project - 2005

Profile Name	Hour																							
	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	H15	H16	H17	H18	H19	H20	H21	H22	H23	H24
SF3-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.250	0.250	0.750	0.000	0.500	1.000	0.250	0.500	0.500	0.750	0.500	0.250	0.500	0.750	0.000	0.000
SWM-24Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.500	0.000	0.500	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	1.000
100-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
310-25Pass	0.000	1.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000
319-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
320-25Pass	0.000	0.500	0.750	0.000	0.000	0.000	0.000	0.750	0.500	0.500	0.250	0.250	0.250	0.250	1.000	0.500	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000
330-25Pass	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
340-25Pass	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
72S-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000
733-25Pass	0.286	0.000	0.000	0.000	0.000	0.000	0.000	0.143	0.286	0.143	0.429	0.286	1.000	0.286	0.286	0.000	0.571	0.143	0.286	0.429	0.000	0.000	0.286	0.000
734-25Pass	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	1.000
73S-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	1.000	1.000
744-25Pass	0.333	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.333	0.000	0.000	0.667	0.333	0.333	1.000	0.333	0.000	1.000	0.000	0.000	0.000	0.667	1.000	0.333
747-25Pass	0.333	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.333	0.333	0.000	0.333	0.000	1.000	0.667	0.000	0.333	0.000	0.000	0.333	0.000
74M-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000
757-25Pass	0.429	0.286	0.143	0.143	0.000	0.000	0.000	0.143	0.143	0.714	0.429	0.571	0.571	0.714	0.286	0.429	0.429	0.286	0.571	0.286	0.286	0.000	1.000	0.714
763-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	1.000	0.500	0.000	0.500	1.000	0.000	0.500	1.000	1.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000
767-25Pass	0.333	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.333	0.667	0.167	0.000	0.333	0.500	0.333	1.000	0.333	0.333	0.000	0.000	0.000	0.000	0.333	0.167
777-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.500	0.000	0.500	0.000	1.000	1.000	0.500	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.500
A33-25Pass	0.000	0.333	0.667	0.000	0.000	0.000	0.000	1.000	0.667	0.667	0.333	0.000	0.000	1.000	0.667	0.000	0.333	0.000	1.000	0.000	0.333	0.000	0.000	0.000
A77-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	1.000	1.000	1.000	0.000
A7R-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	1.000	0.000
BE1-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	1.000	0.000
C50-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	1.000	1.000	0.000
CNA-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.125	0.500	0.375	0.500	0.125	0.250	0.250	0.125	1.000	0.375	0.500	0.125	0.375	0.500	0.125	0.375	0.125
D10-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.667	0.667	1.000	0.667	0.000	0.333	0.333	0.333	0.333	0.667	0.000	0.333	0.000	0.000	0.333	0.667	0.000
DS7-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000
EM2-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.333	0.000	0.667	0.000	0.667	0.333	0.000	1.000	0.000	0.000	0.000	0.000	0.667	0.000	0.333	0.333

Hourly Temporal Profiles
No Action/No Project - 2005

Profile Name	Hour																								
	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	H15	H16	H17	H18	H19	H20	H21	H22	H23	H24	
EMB-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
F70-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	
GAJ-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.333	0.500	0.000	0.500	0.500	0.000	0.500	0.000	0.500	0.500	1.000	0.000	0.000	0.000	0.500	0.000	0.000	
J31-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.333	0.667	0.000	0.667	0.667	1.000	0.667	0.000	0.333	0.333	0.000	0.333	0.667	0.333	0.333	0.667	0.000
L10-25Pass	0.000	0.000	0.500	0.000	0.000	0.000	0.000	1.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
M11-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.500	0.000	0.250	0.250	1.000	0.750	0.750	0.500	0.500	0.500	0.250	0.250	0.000	0.000	0.250	0.000	
M90-25Pass	0.000	0.000	0.333	0.333	0.000	0.000	0.000	1.000	0.667	0.333	0.667	0.333	0.333	0.667	0.667	0.667	0.000	1.000	0.667	0.333	0.333	0.333	0.000	0.333	
M90-25Pass	0.500	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.500	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.500	
M95-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.500	0.500	0.000	0.500	0.000	0.500	0.000	0.000	0.000	0.000	
S20-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	1.000	0.000	1.000	0.000	0.000	0.000	0.000	
S36-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
SF3-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.250	0.500	0.250	0.000	0.500	0.750	0.750	0.250	1.000	0.500	0.250	0.000	0.250	0.250	0.750	0.000	
SWM-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
West Curb	0.148	0.036	0.018	0.036	0.073	0.168	0.267	0.319	0.368	0.814	1.000	0.938	0.827	0.723	0.739	0.804	0.588	0.492	0.373	0.502	0.675	0.641	0.403	0.210	
West Park	0.147	0.079	0.021	0.001	0.018	0.123	0.282	0.392	0.420	0.683	1.000	0.968	0.883	0.763	0.790	0.748	0.650	0.517	0.373	0.453	0.610	0.654	0.406	0.191	
East Curb	0.150	0.054	0.030	0.036	0.053	0.255	0.547	0.759	0.757	0.752	0.883	1.000	0.791	0.801	0.776	0.601	0.662	0.642	0.660	0.639	0.670	0.627	0.462	0.214	
East Park	0.177	0.105	0.027	0.012	0.014	0.114	0.405	0.613	0.588	0.545	0.904	1.000	0.953	0.799	0.803	0.724	0.592	0.756	0.489	0.569	0.628	0.633	0.673	0.382	
Dry Silt	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Flight Kitchen	0.000	0.000	0.000	0.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.000	
5 to 12	0.000	0.000	0.000	0.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.000	
RAMP TRAFFIC	0.360	0.270	0.150	0.200	0.360	0.580	0.730	0.800	0.820	0.880	0.840	0.850	0.980	0.980	0.980	0.780	0.750	0.670	0.630	0.640	0.630	0.630	0.610	0.470	
ENGTEST1	0.130	0.130	0.130	0.130	0.130	0.130	0.130	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.012	0.012	0.012	0.130	0.130	
Training Fire	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
CTA IN	0.144	0.140	0.110	0.049	0.061	0.175	0.387	0.596	0.823	0.936	1.000	0.937	0.928	0.830	0.841	0.768	0.823	0.719	0.688	0.774	0.571	0.683	0.364	0.000	
TBIT	0.155	0.157	0.149	0.060	0.071	0.171	0.375	0.560	0.767	0.780	0.935	1.000	0.952	0.910	0.868	0.812	0.771	0.829	0.688	0.646	0.805	0.558	0.337	0.385	
CTA OUT	0.173	0.162	0.123	0.070	0.086	0.196	0.441	0.621	0.829	0.909	0.967	1.000	0.956	0.867	0.893	0.877	0.799	0.849	0.734	0.696	0.779	0.555	0.673	0.385	
ENGTEST1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.000	0.000	0.000	0.000	0.000	
ENGTEST3	0.865	0.865	0.885	0.885	0.885	0.885	0.865	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.984	0.984	0.984	0.885	0.885	0.885	

Hourly Temporal Profiles
No Action/No Project - 2006

Profile Name	Hour																							
	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	H15	H16	H17	H18	H19	H20	H21	H22	H23	H24
ENGTEST4	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.023	0.023	0.023	0.023	0.023	0.023	0.023	0.023	0.023	0.023	0.023	0.023	0.110	0.110	0.110	1.000	1.000
ENGTEST5	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.000	0.000	0.000	1.000	1.000
ENGTEST6	0.001	0.001	0.001	0.001	0.001	0.001	0.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.006	0.006	0.006	0.001	0.001
EAST STAGING	0.073	0.008	0.000	0.008	0.000	0.002	0.158	0.211	0.377	0.360	0.919	1.000	0.907	0.721	0.704	0.652	0.502	0.769	0.534	0.729	0.818	0.968	0.814	0.352
RESTRAINTS	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.700	0.790	0.880	0.960	1.000	0.960	0.960	0.940	0.880	0.890	0.940	0.910	0.870	0.760	0.720	0.000	0.000
MAINTENANCE	0.000	0.000	0.000	0.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
EAST EMPLOYEE	0.723	0.455	0.179	0.063	0.071	0.214	0.295	0.268	0.348	0.116	0.143	0.188	0.384	0.652	0.920	1.000	0.920	0.634	0.455	0.313	0.256	0.375	0.652	0.893

Hourly Temporal Profiles
All Alternatives - 2006

Profile Name	Hour																							
	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	H15	H16	H17	H18	H19	H20	H21	H22	H23	H24
DEFAULT	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
24L-Queue	0.012	0.010	0.055	0.018	0.018	0.018	0.072	0.256	0.370	0.246	0.195	0.365	0.809	1.000	0.372	0.445	0.246	0.176	0.398	0.222	0.153	0.102	0.206	0.150
24R-Queue	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.529	0.715	0.448	0.376	0.321	0.570	0.814	0.081	1.000	0.588	0.204	0.919	0.507	0.453	0.041	0.244	0.041
25L-Queue	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.026	0.260	0.142	0.474	1.000	0.829	0.634	0.543	0.323	0.183	0.159	0.659	0.008	0.037	0.037	0.118	0.069
25R-Queue	0.089	0.046	0.030	0.049	0.000	0.024	0.080	0.335	0.445	0.838	0.357	0.633	0.596	0.694	1.000	0.635	0.626	0.269	0.377	0.238	0.242	0.145	0.306	0.227
310-24Carg	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000
737-24Carg	0.000	0.000	0.000	1.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
744-24Carg	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
747-24Carg	0.000	0.000	1.000	0.000	1.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BE1-24Carg	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000
CNA-24Carg	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
D8S-24Carg	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
M11-24Carg	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
100-24Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
310-24Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
319-24Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000
320-24Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.250	0.000	0.000
330-24Pass	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
340-24Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000
72S-24Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000
73S-24Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.143	0.571	0.714	1.000	0.571	1.000	0.714	1.000	0.714	0.714	0.714	0.286	1.000	0.714	0.143	0.429	0.571	0.286
734-24Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.500	0.500	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000
73S-24Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.667	1.000	0.667	0.000	0.000	0.333	0.333	0.000	0.333	0.333	0.667	0.000	0.333	1.000	0.333	0.000	0.000	0.000
744-24Pass	0.000	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.250	0.500	0.000	0.250	1.000	0.500	0.750	0.000	0.500	0.000	0.250	0.000	0.000	0.000	0.500	0.000
747-24Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.333	0.000	0.000	0.333	0.667	0.000	1.000	0.333	0.000	0.000	0.000	0.000	0.000	0.333
74M-24Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	1.000	1.000	0.000	0.000	1.000	0.000	0.000
757-24Pass	0.222	0.111	0.000	0.000	0.000	0.000	0.111	0.222	0.778	0.667	0.556	1.000	0.444	0.556	0.222	0.667	0.444	0.333	0.778	0.444	0.444	0.222	0.778	0.333

Hourly Temporal Profiles
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	Hour																							
Profile Name	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	H15	H16	H17	H18	H19	H20	H21	H22	H23	H24
310-2SPass	1.000	0.300	0.00C	0.00C	0.000	0.000	0.00C	1.000	0.00C	0.00H	0.000	0.300	0.000	1.000	1.000	0.00C	0.00C	0.000	0.000	1.000	0.000	0.000	0.000	0.000
318-2SPass	0.00C	0.00C	0.000	0.000	0.000	0.000	0.000	0.00C	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.00C	0.000	0.000	0.000	0.000	0.000	0.000	0.000
330-2SPass	0.250	0.250	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.500	0.250	0.250	0.000	1.000	0.000	0.000	0.00C	0.250	0.000	0.000	0.000	0.000	0.00C
330-2SPass	1.000	0.000	0.000	0.000	0.00C	0.00C	0.00C	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.00C	0.000	0.000	0.00C	0.000	0.000	0.00C
340-2SPass	0.000	0.000	3.500	0.000	0.00C	0.00C	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.500	0.000	0.500	0.000	0.000	0.00C	0.000	0.00C	1.000
72S-2SPass	0.000	0.000	0.000	0.00C	0.000	0.00C	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.500	0.000	0.000	0.000	0.500	0.000	0.00C	0.000	0.00C	0.000
73S-2SPass	0.167	0.000	0.000	0.000	0.000	0.000	0.167	0.667	0.667	0.667	0.667	0.000	0.833	0.000	0.000	0.167	0.167	0.500	1.000	0.333	0.000	0.333	0.333	0.333
734-2SPass	1.000	0.000	0.00C	0.00C	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00C	0.000	0.000	1.000	0.000
73S-2SPass	0.00C	0.300	0.000	0.00C	0.000	0.000	0.333	0.000	0.000	0.333	0.333	1.000	0.000	0.667	0.667	1.000	0.333	0.333	0.333	0.00C	1.000	0.333	0.667	0.333
744-2SPass	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.500	0.250	0.250	0.750	0.750	0.000	0.500	0.000	0.000	0.000	0.750	1.000	0.750
747-2SPass	0.500	3.00C	0.000	0.00C	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.500	0.500	0.500	0.000	0.500	0.000	0.000	0.000	0.500
74M-2SPass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00C	0.000	0.000	0.000	1.000	0.000	0.00C	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
757-2SPass	0.571	0.286	0.286	0.000	0.000	0.00C	0.000	0.286	0.571	0.143	0.714	0.286	0.714	1.000	0.429	0.571	0.429	0.429	1.000	0.429	1.000	0.000	0.714	0.714
763-2SPass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	1.000	0.500	0.500	0.500	1.000	0.500	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
767-2SPass	0.500	0.000	0.00C	0.00C	0.000	0.000	0.000	0.000	0.750	0.500	0.000	0.250	0.750	1.000	0.250	1.000	0.250	0.500	0.000	0.000	0.000	0.250	0.250	0.250
777-2SPass	0.030	0.030	0.030	0.00C	0.000	0.000	0.000	0.000	0.000	0.500	0.500	0.030	0.00C	0.500	0.500	1.000	0.500	0.500	0.000	1.000	0.000	0.500	0.00C	0.000
AB3-2SPass	0.000	0.333	0.667	0.00C	0.000	0.000	0.000	0.667	0.667	0.667	0.667	0.00C	0.000	0.333	0.333	0.00C	0.000	0.000	1.000	0.000	0.00C	0.000	0.000	0.000
AT7-2SPass	0.000	0.000	0.000	0.000	0.000	0.00C	0.00C	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00C	0.000	0.00C	1.000	0.000	0.000	1.000	0.000	0.000
ATR-2SPass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00C	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00C	0.000	0.00C	0.000	0.000	0.000	0.000	1.000	0.000
BE1-2SPass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00C	1.000	0.000	1.000	0.000	0.000	0.000	0.000	0.00C	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
C50-2SPass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00C	0.500	0.000	0.000	1.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000
CNA-2SPass	0.00C	0.000	0.00C	0.000	0.000	0.000	0.000	0.333	0.500	0.667	0.500	0.167	0.333	0.333	0.500	1.000	0.167	0.500	0.333	0.667	0.500	0.167	0.167	0.333
D10-2SPass	0.250	0.000	0.00C	0.00C	0.000	0.000	0.000	0.500	0.000	0.500	1.000	0.000	0.000	0.250	0.250	0.500	0.250	0.000	0.250	0.000	0.250	0.000	0.250	0.000
D57-2SPass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EMJ2-2SPass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.667	0.000	0.500	0.333	1.000	0.000	0.000	0.00C	0.000	0.000	0.000	0.000	0.000
EMB-2SPass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00C	1.000	0.000	0.000	0.00C	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
F70-2SPass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GAl-2SPass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.500	0.500	1.000	0.500	0.500	0.00C	0.000	0.000	0.000	0.500	1.000	0.000

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Profile Name	Hour																							
	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	H15	H16	H17	H18	H19	H20	H21	H22	H23	H24
I31-25Pass	0.000	0.300	0.000	0.000	0.000	0.000	0.333	0.333	0.333	0.000	1.000	0.333	0.667	1.000	0.000	0.333	0.333	0.000	0.333	0.333	0.667	0.667	0.000	0.333
I10-25Pass	0.000	1.000	0.000	0.000	0.000	0.000	1.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
M11-25Pass	0.000	0.000	0.000	0.000	0.300	0.000	0.000	0.333	0.333	0.000	0.333	0.333	0.657	1.000	1.000	0.000	1.000	0.667	0.000	0.333	0.000	0.000	0.333	0.000
M80-25Pass	0.167	0.000	0.167	0.167	0.300	0.000	0.000	0.167	0.833	0.167	1.000	0.333	0.500	0.333	0.333	0.333	0.333	0.333	0.667	0.167	0.167	0.167	0.167	0.167
M87-25Pass	0.300	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.300	0.000	0.000	1.000	0.000	0.000	0.000	0.300	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
M90-25Pass	0.250	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.750	0.500	0.000	0.000	1.000	0.000	0.000	0.300	0.000	0.250	0.750	0.000	0.000	0.000	0.000	0.250
M95-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.300	0.000	0.000	0.333	1.000	0.333	0.000	0.300	0.667	0.000	0.333	0.333	0.000	0.000	0.000	0.000
S20-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	1.000	0.000	0.300	1.000	0.000	1.000	0.000	1.000	0.000	0.000	0.000
S36-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
SF3-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.500	0.250	0.000	0.500	0.750	0.750	0.250	1.000	0.250	0.500	0.000	0.250	0.250	0.750	0.000
SWM-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.200	0.200	0.200	0.400	0.200	0.200	0.400	0.000	0.000	1.000	0.400	0.000	0.200	0.200	0.000
300-25Cong	0.300	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.300	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
310-25Cong	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.500	0.000	0.000
725-25Cong	0.000	0.000	1.000	1.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
737-25Cong	0.000	0.000	1.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	1.000	0.000
744-25Cong	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
747-25Cong	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
757-25Cong	0.000	0.000	0.000	0.000	0.000	0.000	0.667	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
767-25Cong	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	1.000	0.500	0.500	0.000
BE1-25Cong	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CNA-25Cong	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
D10-25Cong	0.000	0.000	0.333	0.000	0.000	0.000	1.000	0.333	0.333	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.667	0.333	0.000	0.000	0.000	0.000	0.000	0.000
D9S-25Cong	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
M11-25Cong	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
West Curb	0.148	0.046	0.018	0.039	0.073	0.168	0.287	0.318	0.368	0.614	1.000	0.336	0.827	0.723	0.733	0.604	0.568	0.492	0.373	0.502	0.675	0.641	0.403	0.210
West Park	0.147	0.079	0.021	0.001	0.018	0.123	0.282	0.392	0.420	0.663	1.000	0.988	0.883	0.763	0.790	0.746	0.660	0.517	0.378	0.453	0.610	0.654	0.406	0.191
East Curb	0.150	0.054	0.030	0.036	0.053	0.255	0.547	0.759	0.757	0.752	0.863	1.000	0.791	0.801	0.776	0.601	0.662	0.642	0.660	0.639	0.670	0.627	0.452	0.214
East Park	0.134	0.056	0.017	0.013	0.021	0.185	0.442	0.613	0.642	0.666	0.823	1.000	0.819	0.755	0.770	0.599	0.607	0.583	0.537	0.584	0.639	0.686	0.524	0.239

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Profile Name	Hour																								
	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	H15	H16	H17	H18	H19	H20	H21	H22	H23	H24	
Day Shift	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Flight Kitchen	0.000	0.000	0.000	0.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.000	
6 to 12	0.000	0.000	0.000	0.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.000	
RAMP TRAFFIC	0.390	0.270	0.150	0.200	0.360	0.590	0.730	0.830	0.820	0.880	0.840	0.860	1.000	0.960	0.980	0.790	0.750	0.670	0.630	0.640	0.630	0.630	0.610	0.470	
ENGTEST1	0.131	0.131	0.131	0.131	0.131	0.131	0.131	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.012	0.012	0.012	0.131	0.131	
Maintenance	0.000	0.000	0.000	0.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
Restaurant	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.700	0.790	0.880	0.960	1.000	0.960	0.950	0.940	0.880	0.890	0.540	0.910	0.870	0.760	0.720	0.600	0.000	
CARGO	0.382	0.270	0.150	0.200	0.360	0.590	0.730	0.800	0.820	0.880	0.840	0.860	1.000	0.980	0.980	0.790	0.750	0.670	0.630	0.640	0.630	0.630	0.610	0.470	
CTA IN	0.186	0.071	0.038	0.041	0.076	0.305	0.640	0.804	0.760	0.898	0.957	1.000	0.843	0.827	0.806	0.688	0.807	0.812	0.823	0.898	0.756	0.829	0.596	0.296	
TRIP	0.707	0.075	0.035	0.035	0.067	0.314	0.617	0.816	0.737	0.872	0.906	1.000	0.902	0.817	0.834	0.642	0.787	0.818	0.642	0.682	0.736	0.906	0.733	0.351	
CTA OUT	0.204	0.094	0.490	0.061	0.077	0.279	0.607	0.821	0.801	0.837	0.923	1.000	0.855	0.833	0.855	0.706	0.777	0.808	0.697	0.724	0.739	0.611	0.673	0.364	
WESTSIDE	0.141	0.040	0.014	0.017	0.075	0.217	0.401	0.481	0.335	0.635	0.954	1.000	0.933	0.695	0.787	0.640	0.459	0.421	0.421	0.474	0.707	0.597	0.287	0.151	
EAST PARKING	0.196	0.120	0.035	0.015	0.011	0.096	0.425	0.643	0.649	0.600	0.385	1.000	0.677	0.793	0.846	0.663	0.644	0.845	0.531	0.611	0.677	0.856	0.775	0.439	
WEST PARKING	0.097	0.052	0.013	0.000	0.000	0.150	0.249	0.464	0.348	0.391	0.815	0.857	1.000	0.669	0.704	0.632	0.351	0.468	0.343	0.427	0.488	0.735	0.355	0.180	
ENGTEST1	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.144	0.144	0.144	0.144	0.144	0.144	0.144	0.144	0.144	0.144	0.144	0.144	0.200	0.200	0.200	1.000	1.000	
ENGTEST2	0.128	0.128	0.128	0.128	0.128	0.128	0.128	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.007	0.007	0.007	0.128	0.128	
EAST STAGING	0.044	0.300	0.000	0.004	0.000	0.066	0.180	0.237	0.382	0.380	0.999	0.952	0.846	0.897	0.728	0.654	0.513	0.785	0.509	0.706	0.858	1.000	0.737	0.329	
ENGTEST3	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.005	0.005	0.005	0.001	0.001	
EAST EMPLOYEE	0.723	0.455	0.179	0.063	0.071	0.214	0.293	0.268	0.340	0.116	0.143	0.168	0.324	0.652	0.890	1.000	0.960	0.960	0.634	0.455	0.313	0.295	0.375	0.862	0.893

Hourly Temporal Profiles
No Action/No Project - 2015

Profile Name	Hour																							
	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	H15	H16	H17	H18	H19	H20	H21	H22	H23	H24
DEFAULT	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
24L-Queue	0.017	0.012	0.031	0.012	0.000	0.012	0.031	0.185	0.475	0.353	0.321	0.303	0.654	0.790	0.467	0.755	1.000	0.586	0.374	0.205	0.112	0.155	0.142	0.082
24R-Queue	0.000	0.300	0.000	0.000	0.000	0.000	0.030	0.159	0.337	0.305	0.523	0.317	0.317	0.966	0.390	1.000	0.788	0.592	0.582	0.238	0.264	0.197	0.228	0.011
25L-Queue	0.003	0.000	0.049	0.115	0.060	0.049	0.129	0.401	1.136	0.433	0.253	0.256	0.199	0.259	0.885	0.287	0.260	0.197	0.174	0.256	0.100	0.200	0.112	0.043
25R-Queue	0.076	0.036	0.021	0.012	0.000	0.300	0.003	0.119	0.380	0.418	0.350	0.564	0.566	1.000	0.940	0.805	0.202	0.110	0.170	0.063	0.051	0.086	0.398	0.037
10T-24Pass	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
310-24Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
319-24Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
390-24Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.500	0.000	0.000	0.000	1.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
350-24Pass	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
340-24Pass	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	1.000	0.000
733-24Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
734-24Pass	0.000	0.000	0.000	0.000	0.000	0.333	0.333	0.333	0.333	0.333	0.333	0.667	1.000	0.333	0.667	0.000	0.333	0.333	0.667	0.333	0.667	0.333	0.667	0.333
735-24Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.200	1.000	0.000	0.600	0.100	0.200	0.300	0.300	0.400	0.900	0.000	0.300	0.300	0.300	0.300	0.300	0.600	0.000
744-24Pass	0.143	0.000	0.714	0.000	0.300	0.000	0.000	0.000	0.143	0.288	0.143	0.429	0.429	0.571	0.429	0.714	0.000	0.429	0.000	0.000	0.143	0.571	1.000	0.286
747-24Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	1.000	0.000	0.000	0.000	1.000	0.000
748-24Pass	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	1.000	0.000	0.000	1.000	0.000	1.000	0.000	1.000	0.000	0.000	0.000	0.000
757-24Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.222	0.111	0.556	0.556	0.778	0.778	0.222	0.333	0.333	0.556	0.444	1.000	0.556	0.556	0.556	0.556	0.111	0.000
763-24Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.143	0.000	0.286	0.000	0.000	0.286	0.286	0.429	0.429	1.000	0.286	0.429	0.000	0.143	0.000	0.000	0.286	0.000
767-24Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.500	0.000	0.500	0.000	0.500	0.000	0.500	0.000	0.000
777-24Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	1.000	0.000	0.500	0.000	0.000	0.000	0.500	0.500	0.500	1.000	0.500	0.000	0.000	0.500	0.000	0.000
AB3-24Pass	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.500	0.750	0.250	0.500	0.250	1.000	0.250	0.750	0.000	0.000	0.000	0.500	0.250	0.000	0.000	0.250	0.000
AT7-24Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.500	0.000	1.000	0.000	0.000	0.000	0.000	0.000
ATR-24Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.667	0.333	0.000	0.333	0.000	0.333	0.000	0.333	0.333	0.333	0.000	0.000	0.000	0.667	0.000
BE1-24Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.333	0.333	0.000	0.667	0.333	0.000	0.333	0.000	0.333	0.333	0.333	0.000	0.000	0.000
C50-24Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.200	0.000	0.600	0.500	0.000	3.500	0.500	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
C70-24Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.900	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
D57-24Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.500	0.000	0.500	0.500	1.000	1.000	0.500	0.500	0.000	0.000	0.000	0.000	0.000

Hourly Temporal Profiles
No Action/No Project - 2015

[illegible]

Hourly Temporal Profiles
No Action/No Project - 2015

Profile Name	Hour																							
	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	H15	H16	H17	H18	H19	H20	H21	H22	H23	H24
330-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
340-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
733-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	1.000	0.500	0.000	0.000	0.000	0.500	0.500	0.000	0.000	0.500	0.000	0.000	0.000	0.000
734-25Pass	1.056	1.000	0.000	0.000	0.000	0.000	0.000	1.000	0.500	0.500	0.000	0.500	0.500	0.000	0.000	0.000	0.000	0.000	0.500	0.500	0.000	0.000	0.000	0.000
735-25Pass	0.667	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.333	0.333	0.000	0.667	1.000	0.333	0.667	0.333	0.333	0.333	0.333	0.000	0.000	0.000	0.000	0.000
744-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.500	0.000	0.000	0.000	0.000	0.500	1.000	0.000	0.000	0.000	0.500	0.500
747-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
748-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
749-25Pass	0.000	0.000	0.000	0.333	0.000	0.000	0.000	0.000	0.000	0.000	0.333	0.000	0.333	0.000	1.000	0.667	0.000	0.667	0.000	0.333	0.000	0.000	0.000	0.000
757-25Pass	0.625	0.000	0.000	0.000	0.000	0.000	0.125	0.500	1.000	0.750	0.625	0.875	0.875	0.375	0.500	0.375	0.875	0.125	0.500	0.250	0.250	0.500	0.375	0.375
763-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.333	0.000	0.167	0.500	0.333	1.000	0.333	1.000	0.000	0.167	0.300	0.167	0.167	0.333	0.667	0.500
767-25Pass	0.333	0.000	0.000	0.000	0.000	0.000	0.000	0.667	1.000	1.000	1.000	0.000	0.333	1.000	0.667	1.000	0.000	1.000	0.333	0.000	0.000	0.000	0.000	0.667
777-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500
AB3-25Pass	0.800	0.400	0.000	0.000	0.000	0.000	0.000	0.600	0.800	1.000	0.800	0.400	0.400	0.600	0.400	0.400	0.600	0.400	0.400	0.000	0.000	0.000	0.000	0.600
AT7-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.500	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000
ATR-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BE1-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
C50-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CNA-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
DS7-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EM2-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EMB-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
F50-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
F70-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GAJ-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
IS1-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
M11-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
M80-25Pass	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
M90-25Pass	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.500	0.000	0.000	0.000	0.000	0.000

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Profile Name	Hour																								
	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	H15	H16	H17	H18	H19	H20	H21	H22	H23	H24	
M95-25Pass	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.500	0.500	0.000	0.500	1.000	0.000	0.000	0.000	0.000	0.000	0.000
S23-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.500	0.000	0.500	1.000	0.000	0.500	0.500	0.500	0.500	0.500	0.000	0.000	0.000	0.000
S36-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SF3-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.500	0.500	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SWM-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.333	0.333	0.667	0.333	0.000	0.667	0.000	0.667	0.333	1.000	0.000	0.333	0.333	0.667	0.000
West Curb	0.148	0.036	0.018	0.039	0.073	0.168	0.267	0.518	0.368	0.614	1.000	0.939	0.827	0.723	0.733	0.804	0.588	0.482	0.373	0.502	0.676	0.841	0.403	0.210	0.100
West Park	0.147	0.079	0.021	0.001	0.018	0.123	0.282	0.392	0.420	0.683	1.000	0.989	0.883	0.763	0.790	0.746	0.650	0.517	0.373	0.453	0.610	0.654	0.406	0.191	0.100
East Curb	0.150	0.054	0.020	0.036	0.053	0.255	0.547	0.759	0.757	0.752	0.863	1.000	0.791	0.801	0.776	0.601	0.662	0.642	0.662	0.639	0.670	0.627	0.452	0.214	0.100
East Park	0.078	0.097	0.083	0.004	0.005	0.134	0.262	0.501	0.794	0.789	0.950	1.000	0.893	0.746	0.732	0.746	0.690	0.788	0.658	0.639	0.747	0.585	0.722	0.346	0.100
Day Shift	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Night Kitchen	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6 to 12	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
RAMP TRAFFIC	0.380	0.270	0.150	0.203	0.360	0.530	0.730	0.800	0.820	0.880	0.840	0.860	1.000	0.980	0.980	0.780	0.750	0.570	0.630	0.640	0.630	0.630	0.610	0.470	0.100
ENGTEST1	0.130	0.130	0.130	0.130	0.130	0.130	0.130	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.012	0.012	0.012	0.130	0.130	0.100
Training Fire	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CTA IN	0.144	0.140	0.110	0.049	0.061	0.175	0.387	0.598	0.823	0.802	0.956	1.000	0.937	0.828	0.850	0.841	0.763	0.823	0.719	0.698	0.774	0.571	0.683	0.364	0.100
TBIT	0.135	0.157	0.149	0.060	0.071	0.171	0.395	0.587	0.787	0.790	0.935	1.000	0.952	0.910	0.858	0.812	0.771	0.829	0.688	0.646	0.806	0.558	0.637	0.385	0.100
CTA OUT	0.175	0.162	0.123	0.070	0.086	0.196	0.441	0.621	0.829	0.809	0.967	1.000	0.958	0.867	0.893	0.877	0.799	0.849	0.734	0.696	0.779	0.555	0.672	0.385	0.100
ENGTEST1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000
ENGTEST3	0.865	0.865	0.865	0.865	0.865	0.865	0.865	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.984	0.984	0.984	0.865	0.865	0.865
ENGTEST4	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.023	0.023	0.023	0.023	0.023	0.023	0.023	0.023	0.023	0.023	0.023	0.023	0.023	0.110	0.110	0.110	1.000	1.000
ENGTEST5	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.000	0.000	0.000	1.000	1.000
ENGTEST6	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001
EAST STAGING	0.057	0.010	0.010	0.000	0.000	0.150	0.160	0.330	0.583	0.733	0.903	1.000	0.813	0.613	0.720	0.643	0.667	0.753	0.723	0.797	0.953	0.853	0.513	0.177	0.100
RESTRAINTS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.700	0.790	0.880	0.990	1.000	0.950	0.960	0.940	0.889	0.890	0.940	0.910	0.870	0.760	0.790	0.000	0.000
MAINTENANCE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EAST EMPLOYEE	0.723	0.455	0.179	0.063	0.071	0.214	0.296	0.268	0.348	0.116	0.143	0.168	0.396	0.652	0.920	1.000	0.920	0.834	0.455	0.313	0.296	0.375	0.655	0.895	0.895

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	Hourly Temporal Profiles Alternative A - 2015																							
	Hour																							
Profile Name	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	H15	H16	H17	H18	H19	H20	H21	H22	H23	H24
763-24Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.286	0.900	0.143	0.286	0.143	0.429	0.286	0.571	1.000	0.286	0.286	3.000	0.000	0.143	3.000	0.000
767-24Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.500	0.500	0.500	0.000	0.500	0.000	0.000	0.000	0.000	0.000
777-24Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.667	1.000	1.000	0.667	0.333	0.333	0.333	0.000	0.333	0.667	3.000	0.000	0.000	3.000	0.000
A83-24Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.200	0.200	1.000	0.400	0.200	0.400	0.800	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
A77-24Pass	0.000	0.000	3.000	0.000	0.000	0.000	0.000	0.000	1.000	1.000	0.000	1.000	0.000	1.000	0.000	1.000	0.000	1.000	0.000	1.000	0.000	0.000	0.000	0.000
ATR-24Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.667	0.333	0.333	0.333	0.667	0.000	0.000	1.000	0.333	0.667	0.333	0.333	0.333	0.333	0.333	0.000
BE-24Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.250	0.500	0.000	0.000	0.250	0.000	0.000	0.500	0.000	0.000	0.750	0.000	0.000
C50-24Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	1.000	0.000	1.000	0.500	0.500	0.500	0.000	0.000	0.000	1.000	0.500	0.000	0.000	0.000
C70-24Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	1.000	0.000
CNA-24Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.667	0.667	1.000	1.000	0.000	0.000	0.000	0.000	0.000	0.333	0.333	1.000	0.667	0.000	0.000	0.000
D37-24Pass	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.250	0.000	0.250	0.250	0.250	1.000	0.250	0.000	0.500	0.000	0.250	0.500	0.000
E2M-24Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	1.000	0.000	0.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000	1.000
EM5-24Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.500	0.500	0.000
J50-24Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
F70-24Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	1.000	0.000	1.000	0.000
GAI-24Pass	0.000	0.000	0.000	0.000																				

	Hour																							
Profile Name	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	H15	H16	H17	H18	H19	H20	H21	H22	H23	H24
744-25Carg	0.000	0.00E	0.300	0.000	0.000	0.000	0.000	0.500	0.000	0.500	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	3.000	0.000	0.000	0.000
747-25Carg	0.000	0.000	0.300	0.000	0.000	0.000	0.500	0.500	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	3.000	0.000	0.000	0.000
757-25Carg	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	3.000	0.000	0.000	0.000
767-25Carg	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	1.000	3.500	0.500	0.000	0.000
BEL-25Carg	0.000	0.000	0.500	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CNA-25Carg	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
D10-25Carg	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
MJ-25Carg	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
100-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
310-25Pass	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	1.000	0.500	0.000	0.000	0.000	0.500	0.000	0.000	0.000
319-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
323-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
330-25Pass	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
340-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
733-25Pass	0.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
734-25Pass	0.250	0.000	0.000	0.000	0.000																			

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Hourly Temporal Profiles
Alternative A - 2015

Profile Name	Hour																							
	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	H15	H16	H17	H18	H19	H20	H21	H22	H23	H24
WESTSIDE	0.210	0.114	0.067	0.074	0.117	0.251	0.430	0.492	0.502	0.690	1.000	0.949	0.879	0.769	0.799	0.796	0.698	0.627	0.417	0.433	0.660	0.608	0.467	0.267
WEST PARKING	0.111	0.112	0.334	0.051	0.000	0.072	0.242	1.409	0.402	0.450	0.983	1.000	0.928	0.738	0.730	0.690	0.632	0.726	0.375	0.385	0.491	0.789	0.578	0.265
EAST PARKING	0.172	0.065	0.021	0.014	0.038	0.069	0.355	0.573	0.639	0.580	0.612	1.000	0.892	0.692	0.804	0.642	0.492	0.685	0.476	0.583	0.629	0.743	0.638	0.357
EAST STAGING	0.077	0.015	0.015	0.015	0.000	0.026	0.214	0.770	0.408	0.423	0.661	1.000	0.781	0.668	0.709	0.565	0.495	0.755	0.551	0.740	0.796	0.770	0.638	0.362
WEST STAGING	0.065	0.007	0.000	0.000	0.000	0.022	0.137	0.223	0.252	0.253	1.000	1.928	0.842	0.676	0.612	0.777	0.561	0.633	0.410	0.482	0.583	0.683	0.482	0.216
EAST EMPLOYEE	0.723	0.455	0.179	0.063	0.071	0.214	0.235	0.268	0.348	0.116	0.143	0.188	0.384	0.652	0.920	1.000	0.920	0.634	0.455	0.313	0.205	0.375	0.652	0.893

Hourly Temporal Profiles
Alternative B - 2015

Profile Name	Hour																							
	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	H15	H16	H17	H18	H19	H20	H21	H22	H23	H24
DEFAULT	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
24L-Queue	0.015	0.003	0.024	0.023	0.003	0.008	0.025	0.114	0.405	0.294	0.189	0.321	0.385	0.387	0.851	1.000	0.956	0.515	0.256	0.394	0.129	0.064	0.142	0.074
24R-Queue	0.003	0.000	0.000	0.000	0.000	0.000	0.145	1.000	0.145	0.345	0.231	0.678	0.643	0.368	0.918	0.109	0.302	0.851	0.424	0.275	0.122	0.114	0.094	0.094
26C-Queue	0.078	0.029	0.044	0.052	0.009	0.004	0.043	0.286	0.488	0.575	0.525	0.808	1.000	0.724	0.546	0.962	0.567	0.518	0.784	0.414	0.429	0.205	0.433	0.201
25R-Queue	0.072	0.046	0.052	0.025	0.005	0.005	0.057	0.190	0.329	0.357	0.280	0.356	0.336	1.000	0.862	0.963	0.790	0.300	0.337	0.172	0.131	0.087	0.183	0.096
30D-24Carg	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
31D-24Carg	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
737-24Carg	0.000	0.000	0.000	1.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000
744-24Carg	0.000	0.000	0.000	0.000	0.000	0.500	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
747-24Carg	0.000	0.000	0.000	1.000	1.000	1.930	0.000	0.000	0.000	0.000	0.000	0.000	0.300	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
757-24Carg	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CNA-24Carg	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.333	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.333	0.000	0.000
01D-24Carg	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000
M11-24Carg	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000
10D-24Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
31D-24Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
31B-24Pass	0.000	0.000	0.000	0.000	0.000	0.000	1.000	1.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
32D-24Pass	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.500	0.000	0.000	0.000	0.500	0.500	0.500	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
33D-24Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	1.000	0.000	0.000	0.000	0.000	0.500	1.000
34D-24Pass	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.500	1.000	0.000	0.250	0.250	0.000	0.250	0.000	0.000	1.000	0.250
733-24Pass	0.000	1.000	0.000	0.000	0.000	0.000	0.143	0.429	1.000	0.571	0.429	0.571	0.143	0.286	0.143	0.143	0.714	1.000	0.286	0.286	0.143	0.429	0.286	0.000
734-24Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.333	0.333	0.667	0.000	0.000	1.000	0.000	0.333	0.333	0.000	0.000	0.000	0.000	0.000	0.000
735-24Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.500	0.500	0.000	0.500	0.500	0.000	0.000	1.000	1.000	0.500	0.500	0.000	0.000	0.000	0.000	0.000
744-24Pass	0.000	0.000	0.571	0.143	0.000	0.000	0.000	0.000	0.286	0.429	0.286	0.429	0.571	0.429	0.143	0.857	0.143	0.429	0.000	0.000	0.000	0.571	1.000	0.714
747-24Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000
74M-24Pass	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	1.000	0.000	0.000	1.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
74X-24Pass	0.000	0.000	0.333	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.333	0.333	0.333	1.000	0.667	0.233	0.333	0.333	0.000	0.000	0.000	0.667	0.333
757-24Pass	0.154	0.000	0.000	0.000	0.000	0.000	0.077	0.528	0.846	0.462	0.231	0.615	0.615	0.615	0.462	0.154	0.523	0.385	1.000	0.538	0.923	0.231	0.538	0.231

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Hourly Temporal Profiles
Alternative B - 2015

Profile Name	Hour																							
	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	H15	H16	H17	H18	H19	H20	H21	H22	H23	H24
EM2-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.500	0.000	0.500	0.000	0.000	0.500	0.000	0.000	0.000
EMB-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
F50-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.667	1.000	0.333	0.000	0.000	0.000	0.000	0.000	0.000
F70-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GAJ-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.500	1.000	0.000	0.000	0.000	0.000	0.000	0.000
J31-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.667	0.300	0.000	0.667	1.000	0.333	0.333	0.333	0.333	0.333	0.000	0.667	0.000	0.000	0.000	0.000
M11-25Pass	0.000	0.000	0.167	0.000	0.000	0.000	0.000	0.167	0.333	0.887	0.500	1.000	0.667	0.667	1.000	0.323	0.667	0.333	0.333	0.167	0.167	0.333	0.167	0.167
M80-25Pass	0.250	0.000	0.500	0.000	0.000	0.000	0.000	0.500	0.500	0.000	0.750	0.500	0.000	1.000	0.750	0.500	0.000	0.250	0.250	0.250	0.000	0.250	0.000	0.000
M87-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	1.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
M90-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.500	0.000	0.500	0.000	0.500	0.000	0.500	0.500	1.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000
M95-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	1.000	0.500	1.000	0.500	0.000	0.500	1.000	0.000	0.000	0.000	0.000
S20-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.500	1.000	0.500	0.000	0.500	1.000	0.000	1.000	0.500	0.000	1.000	0.500	1.000	0.000	0.500	0.000
S36-25Pass	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000
SF3-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.500	1.000	0.000	0.500	0.000	0.500	0.500	1.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000
SWM-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
West Curb	0.146	0.036	0.018	0.009	0.003	0.168	0.267	0.318	0.368	0.614	1.000	0.939	0.827	0.723	0.733	0.804	0.588	0.492	0.373	0.502	0.675	0.641	0.403	0.210
West Park	0.147	0.079	0.021	0.001	0.018	0.123	0.282	0.302	0.420	0.693	1.000	0.989	0.883	0.763	0.790	0.748	0.650	0.517	0.373	0.453	0.610	0.654	0.406	0.191
East Curb	0.150	0.054	0.030	0.006	0.053	0.255	0.547	0.759	0.757	0.752	0.863	1.000	0.791	0.821	0.776	0.601	0.662	0.642	0.600	0.639	0.670	0.627	0.452	0.214
Day Shift	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Flight Kitchen	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6 to 12	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
RAMP TRAFFIC	0.380	0.270	0.150	0.200	0.380	0.590	0.730	0.800	0.820	0.880	0.840	0.880	1.000	0.980	0.980	0.780	0.750	0.670	0.620	0.640	0.630	0.620	0.610	0.470
ENGTEST	0.132	0.130	0.130	0.130	0.130	0.130	0.130	0.130	0.130	0.130	0.130	0.130	0.130	0.130	0.130	0.130	0.130	0.130	0.130	0.130	0.130	0.130	0.130	0.130
Maintenance	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Restaurant	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.700	0.790	0.880	0.960	1.000	0.950	0.950	0.940	0.880	0.890	0.940	0.910	0.870	0.760	0.720	0.600	0.000
CTA IN	0.161	0.062	0.036	0.043	0.061	0.255	0.582	0.798	0.779	0.735	0.809	1.000	0.821	0.796	0.780	0.692	0.683	0.717	0.707	0.670	0.685	0.655	0.473	0.236
TBIT	0.201	0.089	0.043	0.048	0.052	0.191	0.539	0.741	0.772	0.696	0.682	1.000	0.388	0.760	0.774	0.652	0.635	0.651	0.747	0.729	0.703	0.752	0.607	0.364
CTA OUT	0.180	0.076	0.042	0.051	0.066	0.206	0.527	0.791	0.835	0.741	0.708	1.000	0.347	0.789	0.607	0.653	0.636	0.616	0.727	0.699	0.659	0.624	0.514	0.225
WESTSIDE	0.176	0.071	0.033	0.039	0.051	0.187	0.419	0.467	0.470	0.625	1.000	0.952	0.890	0.758	0.784	0.611	0.685	0.599	0.425	0.514	0.685	0.632	0.393	0.223

Hourly Temporal Profiles
Alternative B - 2015

Profile Name	Hour																							
	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	H15	H16	H17	H18	H19	H20	H21	H22	H23	H24
EAST PARKING	0.191	0.098	0.025	0.013	0.009	0.071	0.379	0.596	0.666	0.611	0.616	1.000	0.934	0.740	0.835	0.679	0.657	0.739	0.521	0.637	0.665	0.777	0.701	0.408
WEST PARKING	0.118	0.104	0.031	0.001	0.000	0.074	0.229	0.395	0.374	0.414	0.959	1.000	0.939	0.743	0.733	0.751	0.670	0.711	0.398	0.404	0.523	0.802	0.576	0.271
EAST STAGING	0.043	0.000	0.000	0.000	0.000	0.010	0.139	0.192	0.313	0.299	0.620	1.000	0.813	0.639	0.669	0.639	0.529	0.764	0.510	0.707	0.759	0.851	0.683	0.398
WEST STAGING	0.067	0.000	0.000	0.000	0.000	0.057	0.098	0.177	0.232	0.311	1.000	0.976	0.872	0.683	0.634	0.860	0.585	0.659	0.415	0.624	0.646	0.707	0.512	0.238
EAST EMPLOYEE	0.723	0.455	0.179	0.625	0.714	0.214	0.295	0.268	0.348	0.116	0.143	0.188	0.384	0.652	0.920	1.000	0.900	0.634	0.455	0.313	0.295	0.375	0.552	0.893

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Profile Name	Hour																							
	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	H15	H16	H17	H18	H19	H20	H21	H22	H23	H24
T57-24Pass	0.067	0.00C	0.000	0.000	0.000	0.000	0.087	0.33S	0.66T	1.00G	1.66T	0.80C	0.53Z	0.60G	0.40C	C.487	1.00D	0.50N	0.80M	0.60U	0.66V	0.66V	0.20U	0.13Z
763-24Pass	0.000	0.00C	0.000	0.36D	0.00G	0.000	0.000	0.33S	0.33Z	0.33Z	0.000	0.000	0.66V	0.33Z	1.00D	0.66V	1.00D	1.00D	0.000	0.66V	0.000	0.000	0.000	0.33Z
767-24Pass	0.60G	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.00G	0.000	1.00G	0.000	0.000	1.00G	1.00G	1.000	0.01D	0.25D	1.00G	0.000	0.000	0.000	0.000	0.000
777-24Pass	0.000	0.000	0.00S	0.00D	0.000	0.30C	0.000	0.50U	0.25D	0.00C	0.25C	0.25D	0.000	0.25D	1.00D	0.25D	0.25D	0.25D	0.25D	0.25D	0.000	0.25D	0.000	0.50U
AB3-24Pass	0.25C	0.000	0.000	0.00C	0.000	0.30C	0.000	0.50U	0.75D	0.50G	1.00C	0.50U	0.75D	0.75D	0.50U	0.000	0.000	0.30U	0.50U	0.000	0.000	0.000	0.25D	0.000
AT7-24Pass	0.00C	0.00D	0.000	0.00C	0.00C	0.30C	0.000	0.60U	0.000	0.000	0.00C	0.000	0.50U	0.000	0.000	0.000	0.000	0.30U	0.30U	0.000	1.000	0.000	0.000	0.000
ATR-24Pass	0.000	0.00C	0.000	0.000	0.000	0.00C	0.000	0.00D	0.000	0.000	0.000	0.50U	0.000	0.50U	0.000	0.50U	0.000	1.00D	0.30U	0.50U	0.000	0.000	0.000	1.000
BH1-24Pass	0.000	0.000	0.000	0.000	0.00C	0.00C	0.000	0.00D	0.000	1.00U	0.50U	0.000	0.50C	0.000	0.000	0.50U	0.50U	0.000	0.30U	0.000	1.000	0.50U	0.00C	0.000
C50-24Pass	0.000	0.000	0.000	0.00C	0.00C	0.000	0.000	0.00C	0.000	0.50U	0.50U	0.00C	0.50U	0.000	0.50U	0.000	0.000	0.30U	0.50U	0.000	1.00G	0.000	0.000	0.00C
C70-24Pass	0.00G	0.00C	0.000	0.00C	0.00C	0.000	0.000	0.000	0.000	0.000	0.000	0.00C	0.000	0.000	0.000	0.000	0.000	0.30U	0.30U	0.000	0.000	0.000	1.000	0.00C
D50-24Pass	0.000	0.000	0.000	0.00C	0.000	0.000	0.000	0.00C	0.50U	0.000	0.000	0.000	0.00C	0.000	0.50U	0.000	1.00G	0.000	0.30U	0.50U	0.000	0.000	0.000	0.00C
EAM-24Pass	0.000	0.000	0.000	0.00C	0.000	0.000	0.000	0.00C	0.000	1.00G	0.000	1.00C	0.000	1.000	0.000	0.000	1.000	1.00D	1.00D	0.000	0.000	0.00C	0.000	1.000
EM6-24Pass	0.000	0.000	0.000	0.30C	0.000	0.000	0.000	0.000	0.000	0.000	0.00U	0.00U	0.50C	0.00C	0.30U	0.000	0.50U	0.30U	0.000	0.000	0.000	0.00C	1.00C	0.00C
F50-24Pass	0.00C	0.000	0.00C	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.00G	0.000	0.30U	0.000	0.000	0.000	0.000	0.000	0.00C
F70-24Pass	0.000	0.000	0.00C	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00C	0.000	0.000	0.000	0.00C	0.00C	0.000	0.30U	0.000	1.000	0.000	0.00C	0.000
J31-24Pass	0.000	0.000	0.00C	0.000	0.000	0.000	0.000																	

Profile Name	Hour																							
	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	H15	H16	H17	H18	H19	H20	H21	H22	H23	H24
744-25Carg	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.333	0.000	3.000	1.000	0.000	0.000	0.000	3.000	0.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
747-25Carg	0.003	0.000	0.000	1.000	0.000	0.003	0.000	0.500	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	3.000	0.000	0.000	0.000	0.000	0.000
757-25Carg	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000
767-25Carg	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BE1-25Carg	0.000	0.000	0.500	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CNA-25Carg	3.000	3.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
D10-25Carg	0.000	3.000	0.000	0.000	0.000	3.000	1.000	0.500	0.000	0.000	0.000	0.000	0.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
M11-25Carg	0.000	0.000	0.000	0.000	0.000	3.000	3.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
100-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
101-25Pass	1.000	0.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
330-25Pass	0.500	0.250	1.000	0.000	0.000	0.000	0.000	0.000	0.750	0.250	0.250	0.250	0.000	0.000	0.750	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000
330-25Pass	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	1.000	0.000	0.000	1.000	1.000	0.000	0.000	0.000	0.000
340-25Pass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
733-25Pass	0.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
734-25Pass	0.500	1.000	0.000	0.000	0.000	0.000	0.500	0.500	0.500	0.500														

[illegible]

Hourly Temporal Profiles
Alternative C - 2015

Profile Name	Hour																							
	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	H15	H16	H17	H18	H19	H20	H21	H22	H23	H24
CTA IN	0.106	0.102	0.061	0.033	0.048	0.189	0.379	0.728	0.924	0.919	0.966	1.000	0.978	0.886	0.761	0.757	0.780	0.955	0.731	0.744	0.751	0.631	0.607	0.425
TBT	0.125	0.108	0.085	0.045	0.064	0.203	0.408	0.780	0.944	0.940	0.952	1.000	0.974	0.896	0.764	0.768	0.796	0.990	0.783	0.774	0.755	0.618	0.581	0.405
CTA OUT	0.125	0.111	0.056	0.032	0.044	0.258	0.367	0.565	0.826	0.964	0.985	0.994	1.000	0.835	0.754	0.663	0.809	0.968	0.768	0.772	0.670	0.608	0.730	0.394
WESTSIDE	0.131	0.165	0.161	0.045	0.064	0.083	0.215	0.345	0.689	0.635	0.785	1.000	0.981	0.807	0.910	0.920	0.743	0.590	0.613	0.420	0.627	0.453	0.795	0.327
EAST PARKING	0.081	0.083	0.040	0.001	0.032	0.166	0.295	0.585	0.851	0.825	0.921	1.000	0.836	0.553	0.712	0.702	0.727	0.879	0.618	0.631	0.745	0.661	0.651	0.418
WEST PARKING	0.097	0.352	0.013	0.000	0.000	0.150	0.249	0.464	0.348	0.391	0.815	0.857	1.000	0.669	0.704	0.692	0.351	0.488	0.343	0.427	0.489	0.735	0.355	0.180
ENGTEST1	1.000	1.000	1.000	1.000	1.000	1.000	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.043	0.043	0.043	1.000	1.000
ENGTEST2	0.301	0.091	0.091	0.091	0.001	0.001	0.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.006	0.006	0.006	0.001	0.001
EAST STAGING	0.021	0.000	0.000	0.000	0.000	0.187	0.197	0.332	0.382	0.806	0.694	1.000	0.503	0.601	0.591	0.409	0.575	0.793	0.560	0.767	0.850	0.705	0.378	0.109
WEST STAGING	0.014	0.000	0.000	0.000	0.000	0.600	0.014	0.184	0.605	0.680	1.000	0.946	0.844	0.490	0.687	0.741	0.483	0.347	0.351	0.551	0.823	0.422	0.381	0.183
EAST EMPLOYEE	0.723	0.455	0.179	0.063	0.071	0.214	0.285	0.268	0.348	0.118	0.143	0.188	0.394	0.652	0.920	1.000	0.920	0.634	0.455	0.313	0.295	0.375	0.652	0.893

Attachment E
Interim-Year Construction Input to Environmental
Analysis for LAX Master Plan

Activity ID	Activity Description	Org. C. Dur.	Planned Start	Planned Finish	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
16	Parallel Taxiways - Earthwork/Fdn	66	07JAN02	13APR03																				
17	Parallel Taxiways - Pavement	67	27MAY02	07SEP03																				
18	Parallel Taxiways - Utilities	64	14OCT02	04JAN04																				
01C Connector Taxiways																								
20	Connector Taxiways	102	07JAN02*	21DEC03																				
21	Connector Taxiways - Earthwork/Fdn	66	07JAN02	13APR03																				
22	Connector Taxiways - Utilities	62	14OCT02	21DEC03																				
23	Connector Taxiways - Pavement	70	27MAY02	28SEP03																				
01D Sepulveda Tunnel																								
25	Sepulveda Tunnel	102	05JAN03*	19DEC04																				
26	Sepulveda Tunnel - Demolition	78	05JAN03	04JUL04																				
27	Sepulveda Tunnel - Structures - Roadway	82	26MAY03	19DEC04																				
01E Sepulveda Interchange																								
30	Sepulveda Interchange	102	06JAN03*	19DEC04																				
31	Sepulveda Interchange - Demolition	74	06JAN03	06JUN04																				
32	Sepulveda Interchange - Pavement	62	13OCT03	19DEC04																				
33	Sepulveda Interchange - Structures - Roadway	64	26MAY03	15AUG04																				
01F Terminal 3 modification																								
35	Terminal 3 Modification	102	07JAN02*	21DEC03																				
36	Terminal 3 modification - Demolition	50	07JAN02	22DEC02																				
37	Terminal 3 modification - Structures - Buildings	50	27MAY02	11MAY03																				
39	Terminal 3 modification - Utilities	42	12MAY03	29FEB04																				
01G Airside Service Road																								
40	Airside Service Road	102	01JAN01	15DEC02																				
41	Airside Service Road - Pavement	102	01JAN01	15DEC02																				
02 North Airfield Runway 24R Relocation																								
02A Runway																								
45	Runway	102	06JAN03*	19DEC04																				
46	Runway - Demolition	50	06JAN03	21DEC03																				
47	Runway - Earthwork/Fdn	50	26MAY03	09MAY04																				
48	Runway - Pavement	50	13OCT03	28SEP04																				
49	Runway - Utilities	42	01MAR04	19DEC04																				
02B Parallel Taxiways																								
50	Parallel Taxiways	102	05JAN04*	18DEC05																				
51	Parallel Taxiways - Earthwork/Fdn	66	05JAN04	10APR05																				
52	Parallel Taxiways - Pavement	65	24MAY04	21AUG05																				
53	Parallel Taxiways - Utilities	62	11OCT04	18DEC05																				

Activity ID	Activity Description	Orig Dur	Planned Start	Planned Finish	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
93	Runway - Pavement	77	18MAY09	07NOV10																					
94	Runway - Utilities	93	05OCT09	17JUL11																					
04B Parallel Taxiways																									
95	Parallel Taxiways	255	01JAN07*	20NOV11																					
97	Parallel Taxiways - Earthwork/Fdn	86	01JAN07	24AUG08																					
98	Parallel Taxiways - Pavement	115	08OCT07	20DEC09																					
99	Parallel Taxiways - Utilities	135	14JUL08	13FEB11																					
04C Taxiways																									
100	Taxiways	77	16JUN08*	06DEC09																					
102	Taxiways - Earthwork/Fdn	59	16JUN08	02AUG09																					
103	Taxiways - Pavement	61	21JUL08	20SEP09																					
104	Taxiways - Utilities	62	25AUG08	01NOV09																					
04D Taxiways																									
105	Taxiways	77	16JUN08*	06DEC09																					
107	Taxiways - Earthwork/Fdn	50	16JUN08	31MAY09																					
108	Taxiways - Pavement	57	25AUG08	27SEP09																					
109	Taxiways - Utilities	47	03NOV08	27SEP09																					
04E CTA Modifications (Concourses 4,5,6,7,8)																									
110	CTA Modifications (Concourses 4,5,6,7,8)	102	26DEC05*	09DEC07																					
111	CTA Mods (Concourses 4,5,6,7,8) - Demol	67	26DEC05	08APR07																					
112	CTA Mods (Concourses 4,5,6,7,8) - Pmnt	72	15MAY06	30SEP07																					
113	CTA Mods (Conc 4,5,6,7,8) - Struct - Bldgs	72	06MAR06	22JUL07																					
114	CTA Mods (Concourses 4,5,6,7,8) - Util	72	24JUL06	09DEC07																					
04F Airside Service Road																									
115	Airside Service Road	62	31DEC07*	08MAR09																					
117	Airside Service Road - Pavement	62	31DEC07	08MAR09																					
04G Sepulveda - South Tunnel Extension																									
120.1	Sepulveda - South, Tunnel Extension	1	01JAN01	07JAN01																					
120.1	Sepulveda - South, Tunnel Extension	82	05JAN04*	31JUL05																					
121.1	Sepulveda - South, Tunnel Extension - Demolition	67	05JAN04	17APR05																					
122.1	Sepulveda - South, Tunnel Extension - Roadway	62	24MAY04	31JUL05																					
04H Aviation Blvd. - South																									
125.1	Aviation Blvd. - South	62	05JAN04*	13MAR05																					
126.1	Aviation Blvd. - South - Struct - Rdwy	62	05JAN04	13MAR05																					
05 TBIT Expansion																									
05A Terminal																									
120	Terminal	153	06JAN03*	11DEC05																					

Activity ID	Activity Description	Orig. Est.	Planned Start	Planned Finish	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
121	Terminal - Demolition	72	06JAN03	23MAY04																			
122	Terminal - Structures - Buildings	101	26MAY03	01MAY05																			
123	Terminal - Utilities	113	13OCT03	11DEC05																			
05B Apron																							
125	Apron	102	05JAN04*	18DEC05																			
126	Apron - Pavement	68	05JAN04	24APR05																			
127	Apron - Utilities	82	24MAY04	18DEC05																			
05C Cross Taxiways																							
130	Cross Taxiways	102	06JAN03*	19DEC04																			
131	Cross Taxiways - Earthwork/Fdn	50	06JAN03	21DEC03																			
132	Cross Taxiways - Pavement	64	26MAY03	15AUG04																			
133	Cross Taxiways - Utilities	62	13OCT03	19DEC04																			
06 CTA Access Road Improvements																							
06A Roadways																							
135	Roadways	77	05JAN04*	26JUN05																			
136	Roadways - Demolition	50	05JAN04	19DEC04																			
137	Roadways - Pavement	46	24MAY04	10APR05																			
138	Roadways - Structures - Roadway	37	11OCT04	26JUN05																			
07 CTA APM (Circulator)																							
07A APM																							
140	APM	153	03JAN11*	08DEC13																			
141	APM - Structures - Buildings	80	03JAN11	15JUL12																			
142	APM - Structures - Roadway	133	23MAY11	08DEC13																			
08 CTA APM (Connection to WTA)																							
08A APM																							
145	APM	153	03JAN11*	08DEC13																			
146	APM - Structures - Roadway	153	03JAN11	08DEC13																			
09 WTA - Phase I																							
09A Terminal/Concourse 13																							
150	Terminal/Concourse 13	153	06JAN03*	11DEC05																			
151	Terminal/Concourse 13 - Earthwork/Fdn	69	06JAN03	02MAY04																			
152	Terminal/Concourse 13 - Struct - Buildings	86	26MAY03	16JAN05																			
153	Terminal/Concourse 13 - Utilities	83	10MAY04	11DEC05																			
WTA008	West Terminal / Conc. 13	156*	23DEC02	18DEC05																			
WTA010	West Terminal / Conc. 13 - Demolition	105	23DEC02	28DEC04																			
WTA020	West Terminal / Conc. 13 - Excavation / Fdns	40	24MAR03	28DEC03																			
WTA030	West Terminal / Conc. 13 - Utilities	53	26MAY03	30MAY04																			
</																							

Activity ID	Description	Orig. Dur.	Planned Start	Planned Finish	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
192	Utility and Bgge Tunnel/Sys - Struct - Bldgs	133	26MAY03	11DEC05																			
09J APM (Secure) Tunnel (partial structure only)																							
195	APM (Secure) Tunnel (partial structure only)	153	06JAN03*	11DEC05																			
196	APM (Secure) Tunnel - Earthwork/Fdn	83	06JAN03	08AUG04																			
197	APM (Secure) Tunnel - Structures - Roadway	133	26MAY03	11DEC05																			
09K APM (Non-secure) Tunnel (partial structure only)																							
200	APM (Non-secure) Tunnel (partial structure only)	153	06JAN03*	11DEC05																			
201	APM (Non-secure) Tunnel - Earthwork/Fdn	98	06JAN03	21NOV04																			
202	APM (Non-secure) Tunnel - Struct - Rdwy	133	26MAY03	11DEC05																			
09L CVR Tunnel (partial structure only)																							
205	CVR Tunnel (partial structure only)	153	06JAN03*	11DEC05																			
206	CVR Tunnel - Earthwork/Fdn	92	06JAN03	10OCT04																			
207	CVR Tunnel - Structures - Roadway	133	26MAY03	11DEC05																			
09M Central Plant																							
210	Central Plant	102	05JAN04*	18DEC05																			
211	Central Plant - Structures - Buildings	102	05JAN04	18DEC06																			
09N Temporary Road																							
215	Temporary Road	51	06JAN03*	28DEC03																			
216	Temporary Road - Pavement	41	17MAR03	28DEC03																			
217	Temporary Road - Structures - Roadway	34	06JAN03	31AUG03																			
09O Temporary Apron																							
220	Temporary Apron	102	07JAN02*	21DEC03																			
221	Temporary Apron - Pavement	71	07JAN02	18MAY03																			
222	Temporary Apron - Utilities	82	27MAY02	21DEC03																			
09P Demolition																							
225.1	Demolition	98	05JAN04*	20NOV05																			
226.1	Demolition - Facilities	67	05JAN04	17APR05																			
227.1	Demolition - Pavements	78	24MAY04	20NOV05																			
09Q Greenline																							
230.1	Greenline	102	07JAN13*	21DEC14																			
231.1	Greenline - Earthwork / Fdns	92	07JAN13	12OCT14																			
232.1	Greenline - Structures - Roadway	62	14OCT13	21DEC14																			
10 WTA - Phase II																							
10A Concourse 11																							
225	Concourse 11	204	03JAN11*	30NOV14																			
226	Concourse 11 - Demolition	78	03JAN11	01JUL12																			
227	Concourse 11 - Earthwork/Fdn	65	23MAY11	06JAN13																			

Activity ID	Activity Description	Orig Qty	Planned Start	Planned Finish	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
228	Concourse 11 - Structures - Buildings	95	10OCT11	04AUG13																			
229	Concourse 11 - Utilities	144	27FEB12	30NOV14																			
10B Apron																							
230	Apron	153	02JAN12*	07DEC14																			
231	Apron - Earthwork/Fdn	77	02JAN12	23JUN13																			
232	Apron - Pavement	90	21MAY12	09FEB14																			
233	Apron - Utilities	113	08OCT12	07DEC14																			
10C Taxiways																							
235	Taxiways	153	02JAN12*	07DEC14																			
236	Taxiways - Earthwork/Fdn	82	02JAN12	28JUL13																			
237	Taxiways - Pavement	93	21MAY12	02MAR14																			
238	Taxiways - Utilities	113	08OCT12	07DEC14																			
10D Rental Car Facility																							
240	Rental Car Facility	153	04JAN10*	09DEC12																			
241	Rental Car Facility - Structures - Buildings	153	04JAN10	09DEC12																			
10E Comm'l Vehicle Staging																							
245	Commercial Vehicle Staging	102	03JAN11*	16DEC12																			
246	Comm'l Vehicle Staging - Structures - Buildings	102	03JAN11	16DEC12																			
10F Roadway Expansion																							
250	Roadway Expansion	153	04JAN10*	09DEC12																			
251	Roadway Expansion - Demolition	72	04JAN10	22MAY11																			
252	Roadway Expansion - Pavement	113	11OCT10	09DEC12																			
253	Roadway Expansion - Structures - Roadway	77	24MAY10	13NOV11																			
10H APM (Secure) Tunnel Extension and Compl Sys																							
260	APM (Secure) Tunnel Extension & Complete System	153	03JAN11*	08DEC13																			
261	APM (Secure) Tunnel Extension - Demolition	81	03JAN11	22JUL12																			
262	APM (Secure) Tunnel Extension - Earthwork/Fdn	85	23MAY11	06JAN13																			
263	APM (Secure) Tunnel Extension - Struct - Rdwy	113	10OCT11	08DEC13																			
10I APM (Non-secure) Tunnel Extension and Compl Sys																							
265	APM (Non-secure) Tunnel Extension & Complete Sys	153	03JAN11*	08DEC13																			
266	APM (Non-secure) Tunnel Exten - Ethwk/Fdn	87	03JAN11	02SEP12																			
267	APM (Non-secure) Tunnel Exten - Struct - Rdwy	133	23MAY11	08DEC13																			
10J APM Connection to Rental Car																							
270	APM Connection to Rental Car	153	03JAN11*	08DEC13																			
271	APM Connection to Rental Car - Earthwork/Fdn	76	03JAN11	17JUN12																			
273	APM Connection to Rental Car - Struct - Rdwy	113	10OCT11	08DEC13																			

Activity ID	Activity Description	Orig. Dur.	Planned Start	Planned Finish	2000	2002	2003	2005	2006	2010	2012	2014	2016	2018
34 Employee Parking - Manchester														
34A Parking														
590	Parking	153	31DEC12*	06DEC15										
591	Parking - Demolition	75	31DEC12	08JUN14										
592	Parking - Pavement	133	20MAY13	06DEC15										
35 CTA - Commercial Vehicle Staging														
35A Roadways														
595	Roadways	102	05JAN04*	18DEC05										
596	Roadways - Pavement	102	05JAN04	18DEC05										
36 LAX Airport Expressway														
36A Roadways														
600	Roadways	153	03JAN11*	08DEC13										
601	Roadways - Demolition	50	03JAN11	18DEC11										
602	Roadways - Pavement	85	23MAY11	06JAN13										
603	Roadways - Structures - Roadway	113	10OCT11	08DEC13										
37 Arbor Vitae Improvements														
37A Roadways														
605	Roadways	153	03JAN11*	08DEC13										
606	Roadways - Demolition	73	03JAN11	27MAY12										
607	Roadways - Pavement	85	23MAY11	06JAN13										
608	Roadways - Structures - Roadway	113	10OCT11	08DEC13										
38 Imperial Highway Upgrade														
38A Roadways														
610	Roadways	102	05JAN04*	18DEC05										
611	Roadways - Demolition	50	05JAN04	19DEC04										
612	Roadways - Pavement	50	24MAY04	08MAY05										
613	Roadways - Structures - Roadway	62	11OCT04	18DEC05										

2000	2002	2004	2006	2008	2010	2012	2014	2016	2018
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RESOURCE CALCULATIONS
(Truck Trips)

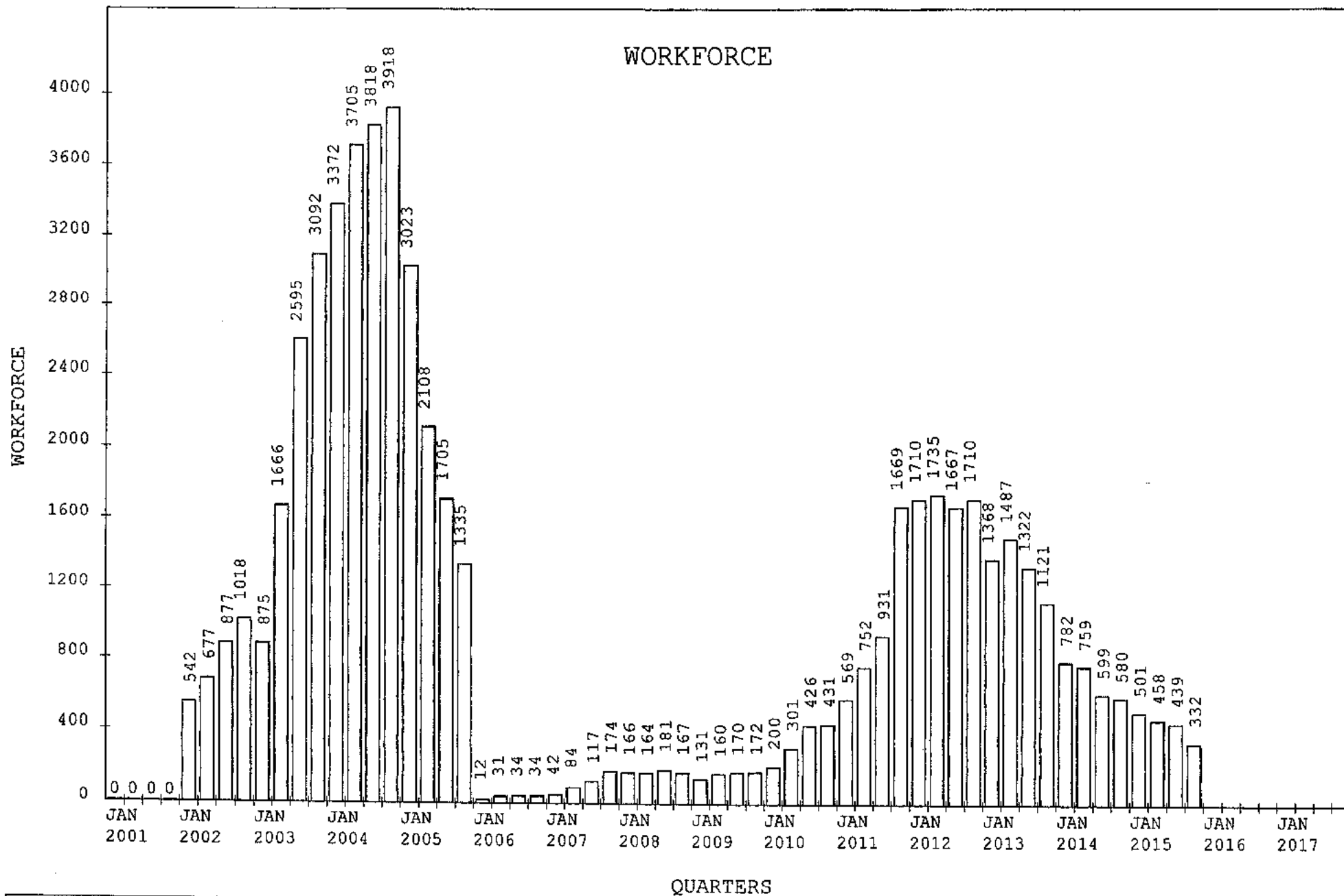
AltID	Project	FacID	Facility	Activity Description	Units	QTY	Estimated Cost Distribution of Contingency	Crav Type	No. of Crews	Brake Horsepower / Hr	Fuel Consumption Gal / Hr	Crav Hrs/Wk	Scheduled Duration in Weeks	Total Brake Horsepower	Total Fuel Consumption Gallons	Material / Equipment Costs	Material / Equipment Costs	Truck Trips / Day	Total Truck Trips / Day	Truck Trips / Day	Total Truck Trips On-Site
C7H010	Concrete Batch Plant Operations		Concrete Batch Plant Operations		CY	8,288,000	N/A	SPS	3	10,850	508	50	720	1,187,360,000	33,789,180	N/A	N/A	0	0	0	\$07,841
C7H010	Concrete Batch Plant Operations		Concrete Batch Plant Operations - Cement		N/A									208	343,282,800	9,087,130	N/A	N/A	0	208,000	
C7H010	Concrete Batch Plant Operations		Concrete Batch Plant Operations - Sand		N/A									820	884,135,000	24,102,000	N/A	N/A	0	820,000	
C7H010	Concrete Batch Plant Operations		Concrete Batch Plant Operations - Aggregate		N/A												N/A	N/A	0	168,640	
C7H040	Asphalt Plant Operations		Asphalt Batch Plant Operations - Asphalt Concrete		TONS	1,438,760	N/A	SPS	2	8,070	218	50	720	586,314,000	15,309,600	N/A	N/A	0	36,704	0	36,704
C7H040	Asphalt Plant Operations		Asphalt Batch Plant Operations - Asphalt AC-40 / Bunker		N/A									182	146,874,000	3,087,800	N/A	N/A	0	8,890	
C7H040	Asphalt Plant Operations		Asphalt Batch Plant Operations - Aggregate		N/A									520	419,340,000	11,348,000	N/A	N/A	0	23,821	
MGT090	Management Facilities / Operations		Management Operations		Vehicle	87	N/A	SPS	1	18,000	287	50	720	877,870,000	8,750,150	N/A	N/A	0	1,178,000	0	2,483,860
MGT090	Management Facilities / Operations		Control Shop / Yard Operations		Vehicle	120	N/A	SPS	15	2,250	111	50	720	1,232,821,250	60,689,250	N/A	N/A	0	1,305,000	0	1,305,000
19	Runway	01A	Runway	EARTHWORK / FDNB	CY	3,900,000	\$44,000,000	ES	1	8,873	250	50	50	14,181,600	623,780	33%	\$ 18,440,750	0	32,278	90,000	108,428
11	Extend Runway 24L Extension	01A	Runway	PAVEMENTS	SY	264,300	\$38,000,000	P2	1	7,473	250	50	50	18,918,000	625,000	40%	\$ 18,246,250	33,278	18,300	0	0
12	Extend Runway 24L Extension	01A	Runway	UTILITIES	Acres	80	\$3,000,000	E1	1	4,017	124	50	50	19,853,200	389,020	42%	\$ 1,250,000	0	129	0	0
16	Runway	01B	Parallel Taxiways	EARTHWORK / FDNB	CY	264,000	\$4,700,000	ES	1	5,873	250	50	50	18,918,000	675,360	35%	\$ 1,603,500	0	8,870	6,100	10,268
17	Extend Runway 24L Extension	01B	Parallel Taxiways	PAVEMENTS	SY	167,550	\$17,800,000	P2	1	7,473	250	50	50	25,039,800	833,500	40%	\$ 11,018,750	8,570	4,970	0	0
18	Extend Runway 24L Extension	01B	Parallel Taxiways	UTILITIES	Acres	75	\$4,700,000	E1	1	4,017	124	50	50	12,833,120	305,200	40%	\$ 1,993,000	0	182	0	0
20	Runway	01C	Connector Taxiways	EARTHWORK / FDNB	CY	47,808	\$1,100,000	ES	1	5,873	250	50	50	18,918,000	323,580	35%	\$ 980,750	0	3,013	1,790	2,410
21	Extend Runway 24L Extension	01C	Connector Taxiways	PAVEMENTS	SY	37,008	\$6,500,000	P2	1	7,473	250	50	50	35,100,000	1,013	40%	\$ 3,360,000	2,013	1,317	0	0
22	Extend Runway 24L Extension	01C	Connector Taxiways	UTILITIES	Acres	16	\$1,100,000	E1	1	4,017	124	50	50	16,466,000	508,250	40%	\$ 437,500	0	44	0	0
29	Extend Runway 24L Extension	01D	Seaplane Tunnel	DEMOLITION - FACILITIES	Acres	10	\$3,100,000	D5	2	4,531	177	50	720	37,618,800	1,380,600	66%	\$ 2,001,250	0	4,150	2,708	1,771
30	Extend Runway 24L Extension	01E	Seaplane Tunnel	STRUCTURES - ROADWAY	SP	34,300	\$13,100,000	S6	1	12,182	420	50	720	40,843,200	1,785,000	35%	\$ 38,580,750	4,250	1,063	0	0
31	Extend Runway 24L Extension	01E	Seaplane Interchange	DEMOLITION - FACILITIES	Acres	21	\$2,000,000	D5	1	4,531	177	50	720	17,813,220	654,900	71%	\$ 1,450,000	0	3,418	1,933	2,185
32	Extend Runway 24L Extension	01E	Seaplane Interchange	PAVEMENTS	SY	38,567	\$25,000,000	P3	1	20,301	883	50	720	62,853,400	2,148,300	40%	\$ 10,880,000	0	0	0	0
33	Extend Runway 24L Extension	01E	Seaplane Interchange	STRUCTURES - ROADWAY	SP	27,502	\$41,100,000	S6	3	3,881	117	50	720	18,130,800	748,800	39%	\$ 28,308,000	3,458	850	0	0
35	Extend Runway 24L Extension	01F	Terminal 3 modification	DEMOLITION - PAVEMENTS	SY	7,584	\$600,000	D1	1	3,138	81	50	50	6,000,000	183,500	61%	\$ 818,500	0	2,016	864	864
37	Extend Runway 24L Extension	01F	Terminal 3 modification	STRUCTURES - BUILDINGS	SP	53,750	\$25,700,000	S1	3	4,388	161	50	50	21,792,000	698,000	40%	\$ 10,272,500	3,018	208	0	0
40	Extend Runway 24L Extension	01F	Terminal 3 modification	UTILITIES	Acres	1	\$1,700,000	E1	1	4,017	124	50	720	6,434,880	230,250	38%	\$ 687,500	0	87	0	0
41	Extend Runway 24L Extension	01G	Alameda Service Road	PAVEMENTS	SY	7,778	\$700,000	P2	1	7,473	250	50	720	36,106,180	1,378,000	36%	\$ 262,500	73	73	42	42
45	Runway 24R Relocation	02A	Runway	DEMOLITION - PAVEMENTS	SY	270,472	\$18,900,000	D5	1	4,531	177	50	50	15,301,300	331,380	80%	\$ 10,142,500	0	11,172	13,325	0
46	Runway 24R Relocation	02A	Runway	EARTHWORK / FDNB	CY	2,000,000	\$30,100,000	ES	1	8,873	250	50	50	14,181,200	623,780	35%	\$ 10,580,750	0	30,000	0	0
48	Runway 24R Relocation	02A	Runway	PAVEMENTS	SY	205,400	\$48,100,000	P2	1	7,473	250	50	50	18,918,000	625,000	40%	\$ 18,862,500	11,171	6,480	0	0
50	Runway 24R Relocation	02B	Parallel Taxiways	UTILITIES	Acres	130	\$8,100,000	E1	1	4,017	124	50	720	18,986,720	314,700	40%	\$ 3,250,000	0	323	0	0
51	Runway 24R Relocation	02B	Parallel Taxiways	EARTHWORK / FDNB	CY	175,000	\$4,000,000	ES	1	5,873	250	50	50	18,918,000	675,360	35%	\$ 1,400,000	0	7,284	3,378	0
52	Runway 24R Relocation	02B	Parallel Taxiways	PAVEMENTS	SY	158,251	\$23,700,000	P2	1	7,473	250	50	50	24,262,700	812,500	40%	\$ 8,485,750	7,254	4,285	0	0
53	Runway 24R Relocation	02C	Connector Taxiways	UTILITIES	Acres	84	\$4,000,000	E1	1	4,017	124	50	720	12,481,460	382,850	40%	\$ 1,600,000	0	180	0	0
55	Runway 24R Relocation	02C	Connector Taxiways	DEMOLITION - PAVEMENTS	SY	11,587	\$1,100,000	D1	1	3,138	81	50	720	33,584,510	820,850	58%	\$ 847,500	0	7,863	663	10,263
57	Runway 24R Relocation	02C	Connector Taxiways	EARTHWORK / FDNB	CY	187,344	\$4,300,000	ES	1	5,873	250	50	720	20,868,820	673,150	39%	\$ 1,488,750	0	4,684	0	0
58	Runway 24R Relocation	02C	Connector Taxiways	PAVEMENTS	SY	144,878	\$28,300,000	P2	1	7,473	250	50	720	31,067,140	1,037,500	40%	\$ 10,127,500	7,869	4,584	0	0
59	Runway 24R Relocation	02D	Connector Taxiways	UTILITIES	Acres	88	\$4,300,000	E1	1	4,017	124	50	720	18,977,190	374,275	40%	\$ 1,715,000	0	171	0	0
60	Runway 24R Relocation	02D	Parallel Taxiways	DEMOLITION - PAVEMENTS	SY	77,813	\$3,800,000	D4	1	6,121	231	50	50	18,918,000	582,580	60%	\$ 2,330,000	0	8,020	8,113	9,123
62	Runway 24R Relocation	02D	Parallel Taxiways	EARTHWORK / FDNB	CY	118,531	\$2,700,000	ES	1	5,873	250	50	50	14,181,500	623,780	35%	\$ 958,750	0	2,680	0	0
63	Runway 24R Relocation	02D	Parallel Taxiways	PAVEMENTS	SY	92,300	\$18,200,000	P2	1	7,473	250	50	50	18,918,000	625,000	40%	\$ 8,481,750	8,720	2,912	0	0
64	Runway 24R Relocation	02D	Parallel Taxiways	UTILITIES	Acres	44	\$2,700,000	E1	1	4,017	124	50	720	6,434,880	230,250	40%	\$ 1,085,500	0	109	0	0
65	Runway 24R Relocation	02E	Alameda Service Road	PAVEMENTS	SY	24	\$57,800,000	E1	1	4,017	124	50	720	10,941,500	308,750	45%	\$ 23,040,000	0	0	2,304	13,878
70	Runway 24R Relocation	02F	Lincoln/Walsh Interchange	DEMOLITION - FACILITIES	Acres	288	\$14,100,000	D5	2	4,531	177	50	720	33,814,500	1,238,000	85%	\$ 8,141,250	0	1,268	0	0
71	Runway 24R Relocation	02F	Lincoln/Walsh Interchange	DEMOLITION - PAVEMENTS	SY	63,000	\$1,700,000	D4	2	4,531	177	50	720	33,814,500	1,238,000	85%	\$ 993,750	0	1,268	0	0
72	Runway 24R Relocation	02F	Lincoln/Walsh Interchange	PAVEMENTS	SY	48,803	\$17,200,000	S4	1	20,301	883	50	720	64,989,580	2,217,800	40%	\$ 6,876,000	0	0	0	0
73	Runway 24R Relocation	02F	Lincoln/Walsh Interchange	STRUCTURES - ROADWAY	SP	90,000	\$28,100,000	S2	3	3,261	117	50	720	18,841,720	722,800	55%	\$ 8,143,750	1,254	313	0	0
78	Runway 24R Relocation	02G	Walsh/Walsh Interchange	DEMOLITION - FACILITIES	Acres	18	\$2,800,000	D5	2	4,531	177	50	720	30,848,000	1,203,600	85%	\$ 1,798,500	0	2,270	0	0
79	Runway 24R Relocation	02G	Walsh/Walsh Interchange	DEMOLITION - PAVEMENTS	SY	96,000	\$3,000,000	D4	2	4,531	177	50	720	30,848,000	1,203,600	85%	\$ 1,400,000	0	2,400	0	0
80	Runway 24R Relocation	02H	Alameda Service Road	PAVEMENTS	SY	38,987	\$54,800,000	P3	1	20,301	883	50	720	45,330,350	3,841,300	40%	\$ 21,800,000	0	0	0	0
81	Runway 24R Relocation	02H	Alameda Service Road	PAVEMENTS	SY	11,353	\$3,900,000	P3	1	20,301	883	50	720	100,534,000	3,934,300	40%	\$ 1,308,750	168	81	0	0
82	South Airfield Rapid Exit Taxiway	03A	Rapid Exit Taxiways	EARTHWORK / FDNB	CY	10,823	\$200,000	ES	1	5,873	250	50	25	7,085,750	311,875	43%	\$ 88,000	0	269	0	0
83	South Airfield Rapid Exit Taxiway	03A	Rapid Exit Taxiways	PAVEMENTS	SY	83,980	\$3,800,000	P2	1	7,473	250	50	25	15,860,300	528,000	40%	\$ 2,245,000	1,744	1,011	0	0
84	South Airfield Rapid Exit Taxiway	03A	Rapid Exit Taxiways	UTILITIES	Acres	6	\$300,000	E1	1	4,017	124	50	25	7,229,800	372,500	39%	\$ 183,750	0	18	0	0
90	South Airfield Runway/Taxiway	04A	Runway	EARTHWORK / FDNB	CY	410,159	\$8,000,000	ES	1	5,873	250	50	70	18,918,100	875,250	35%	\$ 3,281,250	0	13,200	10,264	19,688
91	South Airfield Runway/Taxiway	04A	Runway	PAVEMENTS	SY	242,700	\$28,500,000	P2	1	7,473	250	50	70	23,798,800	892,500	40%	\$ 11,818,250	13,700	7,656	0	0
94	South Airfield Runway/Taxiway	04B	Parallel Taxiways	UTILITIES	Acres	150	\$8,400,000	E1	1	4,017	124	50	70	18,977,190	374,275	40%	\$ 15,780,000	0	1,979	0	0
97	South Airfield Runway/Taxiway	04B	Parallel Taxiways	EARTHWORK / FDNB	CY	176,250	\$4,000,000	ES	1	5,873	250	50	70	24,592,100	1,071,850	35%	\$ 1,410,000	0	4,408	21,889	0
98	South Airfield Runway/Taxiway	04B	Parallel Taxiways	PAVEMENTS	SY	535,500	\$30,400,000	P2	1	7,473	250	50	70	43,988,100	1,437,500	40%	\$ 37,380,000	29,017	18,800	0	0
100	South Airfield Runway/Taxiway	04C	Parallel Taxiways	UTILITIES	Acres	126	\$8,100,000	E1	1	4,017	1										

ADD	Project	Phase	Family	Activity Description	Units	QTY	Estimated Cost Excluding w/ Contingency	Crew Type	No. of Crews	Brake Horsepower / Hr	Fuel Consumption Gal / Hr	CrewHrs/8Hr	Scheduled Duration in Weeks	Total Brake Horsepower	Total Fuel Consumption Gallons	% Malt by Soybean Coyle	Material by Manufacturer Costs	Truck Trips On- Site	Total Truck Trips On- Site	Truck Trips Off- Site	Total Truck Trips Off-Site
121.1	South Airfield Runway/Taxiway Reb.	040	Rehab/Repl	South Tunnel Extension DEMOLITION - FACILITIES	Acres	81	\$1,100,000	02	2	5,292	178	30	87	35,233,728	1,785,285	80%	\$ 2,091,290	0	2,708	11,200	
122.1	South Airfield Runway/Taxiway Reb.	040	Rehab/Repl	South Tunnel Extension DEMOLITION - FACILITIES	Acres	5,400	\$21,800,000	02	2	5,292	178	30	82	10,541,728	722,500	35%	\$ 11,159,150	6,750	1,858	11,200	
123.1	South Airfield Runway/Taxiway Reb.	040	Rehab/Repl	South Tunnel Extension DEMOLITION - FACILITIES	Acres	441	\$1,100,000	02	2	5,292	178	30	82	10,541,728	722,500	35%	\$ 11,159,150	6,750	1,858	11,200	
124	South Airfield Runway/Taxiway Reb.	040	Rehab/Repl	South Tunnel Extension DEMOLITION - FACILITIES	Acres	441	\$1,100,000	02	2	5,292	178	30	82	10,541,728	722,500	35%	\$ 11,159,150	6,750	1,858	11,200	
121	TBIT Expansion	05A	Terminal	DEMOLITION - PAVEMENTS	SY	3,351	\$400,000	02	2	5,292	178	30	75	30,000,000	1,378,000	81%	\$ 248,350	0	335	2,333	
122	TBIT Expansion	05A	Terminal	DEMOLITION - PAVEMENTS	SY	648,750	\$2,400,000	02	2	5,292	178	30	101	44,018,940	1,695,100	46%	\$ 38,185,608	24,333	1,974	2,333	
123	TBIT Expansion	05A	Terminal	DEMOLITION - PAVEMENTS	SY	33	\$2,000,000	02	2	5,292	178	30	113	45,387,900	1,695,100	41%	\$ 37,692,800	0	81	2,333	
124	TBIT Expansion	05A	Terminal	DEMOLITION - PAVEMENTS	SY	69,028	\$11,700,000	02	2	5,292	178	30	98	35,425,440	1,695,100	46%	\$ 30,730,340	3,019	2,971	3,187	
125	TBIT Expansion	05A	Terminal	DEMOLITION - PAVEMENTS	SY	111	\$6,900,000	02	2	5,292	178	30	12	32,938,128	1,613,700	40%	\$ 2,783,780	0	278	3,187	
126	TBIT Expansion	05A	Terminal	DEMOLITION - PAVEMENTS	SY	111	\$6,900,000	02	2	5,292	178	30	12	32,938,128	1,613,700	40%	\$ 2,783,780	0	278	3,187	
127	TBIT Expansion	05A	Terminal	DEMOLITION - PAVEMENTS	SY	647,500	\$19,400,000	02	2	5,292	178	30	80	14,181,800	623,700	35%	\$ 4,783,000	0	17,788	31,683	
128	TBIT Expansion	05A	Terminal	DEMOLITION - PAVEMENTS	SY	300,000	\$32,800,000	02	2	5,292	178	30	84	23,308,128	800,800	40%	\$ 21,000,000	17,708	21,188	31,683	
129	TBIT Expansion	05A	Terminal	DEMOLITION - PAVEMENTS	SY	222	\$6,800,000	02	2	5,292	178	30	82	12,451,480	593,800	40%	\$ 3,880,000	0	398	31,683	
130	CTA Access Road Improvements	06A	Roadways	DEMOLITION - PAVEMENTS	SY	82,120	\$3,900,000	05	1	4,801	177	65	35	12,008,808	446,500	60%	\$ 1,875,000	0	32,444	38,826	
131	CTA Access Road Improvements	06A	Roadways	DEMOLITION - PAVEMENTS	SY	4,714	\$600,000	05	1	4,801	177	65	48	87,355,888	3,131,800	41%	\$ 1,850,000	0	28	38,826	
132	CTA Access Road Improvements	06A	Roadways	DEMOLITION - PAVEMENTS	SY	739,200	\$48,700,000	05	2	4,801	177	65	37	18,327,300	82,000	35%	\$ 18,327,300	82,000	23,100	38,826	
133	CTA Access Road Improvements	06A	Roadways	DEMOLITION - PAVEMENTS	SY	222	\$6,800,000	02	2	5,292	178	30	82	12,451,480	593,800	40%	\$ 3,880,000	0	398	38,826	
134	CTA Access Road Improvements	06A	Roadways	DEMOLITION - PAVEMENTS	SY	82,120	\$3,900,000	05	1	4,801	177	65	35	12,008,808	446,500	60%	\$ 1,875,000	0	32,444	38,826	
135	CTA Access Road Improvements	06A	Roadways	DEMOLITION - PAVEMENTS	SY	4,714	\$600,000	05	1	4,801	177	65	48	87,355,888	3,131,800	41%	\$ 1,850,000	0	28	38,826	
136	CTA Access Road Improvements	06A	Roadways	DEMOLITION - PAVEMENTS	SY	739,200	\$48,700,000	05	2	4,801	177	65	37	18,327,300	82,000	35%	\$ 18,327,300	82,000	23,100	38,826	
137	CTA Access Road Improvements	06A	Roadways	DEMOLITION - PAVEMENTS	SY	222	\$6,800,000	02	2	5,292	178	30	82	12,451,480	593,800	40%	\$ 3,880,000	0	398	38,826	
138	CTA Access Road Improvements	06A	Roadways	DEMOLITION - PAVEMENTS	SY	82,120	\$3,900,000	05	1	4,801	177	65	35	12,008,808	446,500	60%	\$ 1,875,000	0	32,444	38,826	
139	CTA Access Road Improvements	06A	Roadways	DEMOLITION - PAVEMENTS	SY	4,714	\$600,000	05	1	4,801	177	65	48	87,355,888	3,131,800	41%	\$ 1,850,000	0	28	38,826	
140	CTA Access Road Improvements	06A	Roadways	DEMOLITION - PAVEMENTS	SY	739,200	\$48,700,000	05	2	4,801	177	65	37	18,327,300	82,000	35%	\$ 18,327,300	82,000	23,100	38,826	
141	CTA Access Road Improvements	06A	Roadways	DEMOLITION - PAVEMENTS	SY	222	\$6,800,000	02	2	5,292	178	30	82	12,451,480	593,800	40%	\$ 3,880,000	0	398	38,826	
142	CTA Access Road Improvements	06A	Roadways	DEMOLITION - PAVEMENTS	SY	82,120	\$3,900,000	05	1	4,801	177	65	35	12,008,808	446,500	60%	\$ 1,875,000	0	32,444	38,826	
143	CTA Access Road Improvements	06A	Roadways	DEMOLITION - PAVEMENTS	SY	4,714	\$600,000	05	1	4,801	177	65	48	87,355,888	3,131,800	41%	\$ 1,850,000	0	28	38,826	
144	CTA Access Road Improvements	06A	Roadways	DEMOLITION - PAVEMENTS	SY	739,200	\$48,700,000	05	2	4,801	177	65	37	18,327,300	82,000	35%	\$ 18,327,300	82,000	23,100	38,826	
145	CTA Access Road Improvements	06A	Roadways	DEMOLITION - PAVEMENTS	SY	222	\$6,800,000	02	2	5,292	178	30	82	12,451,480	593,800	40%	\$ 3,880,000	0	398	38,826	
146	CTA Access Road Improvements	06A	Roadways	DEMOLITION - PAVEMENTS	SY	82,120	\$3,900,000	05	1	4,801	177	65	35	12,008,808	446,500	60%	\$ 1,875,000	0	32,444	38,826	
147	CTA Access Road Improvements	06A	Roadways	DEMOLITION - PAVEMENTS	SY	4,714	\$600,000	05	1	4,801	177	65	48	87,355,888	3,131,800	41%	\$ 1,850,000	0	28	38,826	
148	CTA Access Road Improvements	06A	Roadways	DEMOLITION - PAVEMENTS	SY	739,200	\$48,700,000	05	2	4,801	177	65	37	18,327,300	82,000	35%	\$ 18,327,300	82,000	23,100	38,826	
149	CTA Access Road Improvements	06A	Roadways	DEMOLITION - PAVEMENTS	SY	222	\$6,800,000	02	2	5,292	178	30	82	12,451,480	593,800	40%	\$ 3,880,000	0	398	38,826	
150	CTA Access Road Improvements	06A	Roadways	DEMOLITION - PAVEMENTS	SY	82,120	\$3,900,000	05	1	4,801	177	65	35	12,008,808	446,500	60%	\$ 1,875,000	0	32,444	38,826	
151	WTA - Phase I	08A	Terminal/Concourse 13	DEMOLITION - PAVEMENTS	SY	1,421,900	\$32,500,000	05	1	4,801	177	65	66	23,759,770	819,370	33%	\$ 11,375,820	0	47,385	62,762	
152	WTA - Phase I	08A	Terminal/Concourse 13	DEMOLITION - PAVEMENTS	SY	2,026,000	\$803,100,000	05	1	4,801	177	65	66	23,759,770	819,370	33%	\$ 11,375,820	0	47,385	62,762	
153	WTA - Phase I	08A	Terminal/Concourse 13	DEMOLITION - PAVEMENTS	SY	212	\$14,200,000	05	1	4,801	177	65	66	23,759,770	819,370	33%	\$ 11,375,820	0	47,385	62,762	
154	WTA - Phase I	08A	Terminal/Concourse 13	DEMOLITION - PAVEMENTS	SY	212	\$14,200,000	05	1	4,801	177	65	66	23,759,770	819,370	33%	\$ 11,375,820	0	47,385	62,762	
155	WTA - Phase I	08A	Terminal/Concourse 13	DEMOLITION - PAVEMENTS	SY	212	\$14,200,000	05	1	4,801	177	65	66	23,759,770	819,370	33%	\$ 11,375,820	0	47,385	62,762	
156	WTA - Phase I	08A	Terminal/Concourse 13	DEMOLITION - PAVEMENTS	SY	212	\$14,200,000	05	1	4,801	177	65	66	23,759,770	819,370	33%	\$ 11,375,820	0	47,385	62,762	
157	WTA - Phase I	08A	Terminal/Concourse 13	DEMOLITION - PAVEMENTS	SY	212	\$14,200,000	05	1	4,801	177	65	66	23,759,770	819,370	33%	\$ 11,375,820	0	47,385	62,762	
158	WTA - Phase I	08A	Terminal/Concourse 13	DEMOLITION - PAVEMENTS	SY	212	\$14,200,000	05	1	4,801	177	65	66	23,759,770	819,370	33%	\$ 11,375,820	0	47,385	62,762	
159	WTA - Phase I	08A	Terminal/Concourse 13	DEMOLITION - PAVEMENTS	SY	212	\$14,200,000	05	1	4,801	177	65	66	23,759,770	819,370	33%	\$ 11,375,820	0	47,385	62,762	
160	WTA - Phase I	08A	Terminal/Concourse 13	DEMOLITION - PAVEMENTS	SY	212	\$14,200,000	05	1	4,801	177	65	66	23,759,770	819,370	33%	\$ 11,375,820	0	47,385	62,762	
161	WTA - Phase I	08A	Terminal/Concourse 13	DEMOLITION - PAVEMENTS	SY	212	\$14,200,000	05	1	4,801	177	65	66	23,759,770	819,370	33%	\$ 11,375,820	0	47,385	62,762	
162	WTA - Phase I	08A	Terminal/Concourse 13	DEMOLITION - PAVEMENTS	SY	212	\$14,200,000	05	1	4,801	177	65	66	23,759,770	819,370	33%	\$ 11,375,820	0	47,385	62,762	
163	WTA - Phase I	08A	Terminal/Concourse 13	DEMOLITION - PAVEMENTS	SY	212	\$14,200,000	05	1	4,801	177	65	66	23,759,770	819,370	33%	\$ 11,375,820	0	47,385	62,762	
164	WTA - Phase I	08A	Terminal/Concourse 13	DEMOLITION - PAVEMENTS	SY	212	\$14,200,000	05	1	4,801	177	65	66	23,759,770	819,370	33%	\$ 11,375,820	0	47,385	62,762	
165	WTA - Phase I	08A	Terminal/Concourse 13	DEMOLITION - PAVEMENTS	SY	212	\$14,200,000	05	1	4,801	177	65	66	23,759,770	819,370	33%	\$ 11,375,820	0	47,385	62,762	
166	WTA - Phase I	08A	Terminal/Concourse 13	DEMOLITION - PAVEMENTS	SY	212	\$14,200,000	05	1	4,801	177	65	66	23,759,770	819,370	33%	\$ 11,375,820	0	47,385	62,762	
167	WTA - Phase I	08A	Terminal/Concourse 13	DEMOLITION - PAVEMENTS	SY	212	\$14,200,000	05	1	4,801	177	65	66	23,759,770	819,370	33%	\$ 11,375,820	0	47,385	62,762	
168	WTA - Phase I	08A	Terminal/Concourse 13	DEMOLITION - PAVEMENTS	SY	212	\$14,200,000	05	1	4,801	177	65	66	23,759,770	819,370	33%	\$ 11,375,820	0	47,385	62,762	
169	WTA - Phase I	08A	Terminal/Concourse 13	DEMOLITION - PAVEMENTS	SY	212	\$14,200,000	05	1	4,801	177	65	66	23,759,770	819,370	33%	\$ 11,375,820	0	47,385	62,762	
170	WTA - Phase I	08A	Terminal/Concourse 13	DEMOLITION - PAVEMENTS	SY	212	\$14,200,000	05	1	4,801	177	65	66	23,759,770	819,370	33%	\$ 11,375,820	0	47,385	62,762	
171	WTA - Phase I	08A	Terminal/Concourse 13	DEMOLITION - PAVEMENTS	SY	212	\$14,200,000	05	1	4,801	177	65	66	23,759,770	819,370	33%	\$ 11,375,820	0	47,385	62,762	
172	WTA - Phase I	08A	Terminal/Concourse 13	DEMOLITION - PAVEMENTS	SY	212	\$14,200,000	05	1	4,801	177	65	66	23,759,770	819,370	33%	\$ 11,375,820	0	47,385	62,762	
173	WTA - Phase I	08A	Terminal/Concourse 13	DEMOLITION - PAVEMENTS	SY	212	\$14,200,000	05	1	4,801	177	65	66	23,759,770	819,370	33%	\$ 11,375,820	0	47,385	62,762	
174	WTA - Phase I	08A	Terminal/Concourse 13	DEMOLITION - PAVEMENTS	SY	212	\$14,200,000	05	1	4,801	177	65	66	23,759,770</							

Activity	Project	Facility	Activity Description	Units	QTY	Estimated Cost Distribution of Contingency	Crew Type	No. of Crews	Brake Horse Power (hp)	Fuel Consumption Gal / hr	Crew Hrs/Wk	Scheduled Duration in Weeks	Total Brake HorsePower	Total Fuel Consumption Gallons	% Fuel at 4000 GPH	Estimated Equipment Costs	Truck Trips On- Site	Total Truck Trips On- Site	Truck Trips On- Site	Total Truck Trips On- Site	
427	South Gate - West	18C	Parking	EARTHWORK / FDNIS	CY	37,344	\$800,000	E2	8	8,772	228	41	83,380,685	2,810,850	56%	\$ 218,750	0	864	864		
428	South Gate - West	18C	Parking	PAVEMENTS	SY	20,846	\$1,200,000	P3	1	20,301	693	41	41,816,642	1,270,820	40%	\$ 318,250	185	112	112	636	
440		17A	Hanger	DEMOLITION - FACILITIES	Acres	15	\$800,000	D8	1	12,321	418	58	43,282,080	1,214,000	51%	\$ 386,250	0	268	268		
441	Airline Maintenance - Century	17A	Hanger	STRUCTURES - BUILDINGS	SF	118,000	\$16,400,000	E1	3	4,358	161	50	83,898,270	1,680,300	40%	\$ 1,375,000	285	148	148	2,605	
442	Airline Maintenance - Century	17B	Apron	DEMOLITION - FACILITIES	Acres	34	\$1,200,000	D8	1	12,321	418	80	51,805,000	1,040,000	68%	\$ 453,750	0	1,158	1,158		
446	Airline Maintenance - Century	17B	Apron	PAVEMENTS	SY	40,000	\$5,500,000	P2	1	7,472	250	80	30,632,560	1,020,000	40%	\$ 1,200,000	0	1,362	1,362		
450		17E	Taxiways	STRUCTURES - ROADWAY	GF	40,000	\$20,000,000	B3	1	12,183	430	80	51,083,880	1,040,300	35%	\$ 1,000,000	5,000	1,250	1,250	5,817	
451	Airline Maintenance - Century	18A	Hanger	EARTHWORK / FDNIS	CY	147,696	\$3,400,000	E1	3	6,772	229	74	75,164,785	2,236,350	55%	\$ 1,164,250	0	4,922	4,922		
456	Airline Maintenance - Sepulveda	18A	Hanger	STRUCTURES - BUILDINGS	SF	716,000	\$111,900,000	E1	3	4,358	161	133	86,890,043	1,211,850	40%	\$ 44,750,000	1,780	12,161	12,161	18,845	
467	Airline Maintenance - Sepulveda	18B	Apron	EARTHWORK / FDNIS	CY	377,344	\$9,100,000	E2	3	8,772	228	74	75,164,785	2,236,350	35%	\$ 3,016,750	0	12,575	12,575		
471	Airline Maintenance - Sepulveda	18B	Apron	PAVEMENTS	SY	208,340	\$28,400,000	P2	1	7,472	250	133	49,688,140	1,682,200	40%	\$ 11,350,000	12,161	7,068	7,068		
475		18C	Runup Enclosure	DEMOLITION - FACILITIES	Acres	7	\$300,000	D8	1	5,296	178	88	53,974,320	1,810,300	54%	\$ 182,500	0	440	440	437	
476	Airline Maintenance - Sepulveda	18C	Runup Enclosure	STRUCTURES - BUILDINGS	GF	176,000	\$27,300,000	E1	3	4,358	161	88	53,974,320	1,810,300	40%	\$ 11,000,000	440	219	219		
477	Airline Maintenance - Sepulveda	18C	Runup Enclosure	PAVEMENTS	SY	176,000	\$27,300,000	E1	3	4,358	161	88	53,974,320	1,810,300	40%	\$ 11,000,000	440	219	219		
490	Catering Kitchens - Phase I	18A	Facilities	EARTHWORK / FDNIS	CY	66,625	\$1,500,000	E2	3	8,772	228	88	46,546,880	1,263,000	35%	\$ 625,000	0	2,184	2,184		
492	Catering Kitchens - Phase I	18A	Facilities	STRUCTURES - BUILDINGS	SF	318,000	\$78,000,000	E1	3	4,358	161	88	46,546,880	1,263,000	40%	\$ 31,800,000	785	1,226	1,226	1,894	
495	Catering Kitchens - Phase I	18B	Parking	EARTHWORK / FDNIS	CY	14,868	\$600,000	E2	3	8,772	228	88	46,546,880	1,263,000	35%	\$ 187,500	0	823	823		
496	Catering Kitchens - Phase I	18B	Parking	PAVEMENTS	SY	13,525	\$800,000	P3	1	20,301	693	88	46,546,880	1,263,000	41%	\$ 256,750	128	73	73	897	
500		20A	Facilities	EARTHWORK / FDNIS	CY	16,408	\$400,000	E2	3	8,772	228	88	46,546,880	1,263,000	35%	\$ 131,250	0	547	547		
501	Catering Kitchens - Phase II	20A	Facilities	STRUCTURES - BUILDINGS	SF	75,000	\$18,500,000	E1	3	4,358	161	88	46,546,880	1,263,000	40%	\$ 7,500,000	168	150	150	294	
502	Catering Kitchens - Phase II	20B	Parking	EARTHWORK / FDNIS	CY	6,281	\$200,000	E2	3	8,772	228	88	46,546,880	1,263,000	37%	\$ 86,250	0	276	276		
506	Catering Kitchens - Phase II	20B	Parking	PAVEMENTS	SY	3,343	\$200,000	P3	1	20,301	693	88	46,546,880	1,263,000	42%	\$ 83,750	31	18	18		
510		21A	Facilities	STRUCTURES - BUILDINGS	GF	20,300	\$2,500,000	E1	3	4,358	161	88	46,546,880	1,263,000	40%	\$ 1,800,000	50	28	28	29	
511	Aircraft Rescue & Fire Fighting	21A	Facilities	STRUCTURES - BUILDINGS	GF	20,300	\$2,500,000	E1	3	4,358	161	88	46,546,880	1,263,000	40%	\$ 1,800,000	50	28	28	29	
515		22A	Facilities	STRUCTURES - BUILDINGS	GF	10,000	\$1,300,000	E1	3	4,358	161	88	46,546,880	1,263,000	40%	\$ 500,000	25	10	10		
516	Fuel Farm Remediation	22A	Facilities	UTILITIES	Acres	222	\$13,900,000	E1	1	4,017	124	148	22,722,840	812,000	40%	\$ 5,500,000	0	857	857		
520		23A	Facilities	DEMOLITION - FACILITIES	Acres	24	\$800,000	D8	1	5,296	188	46	23,028,080	780,000	58%	\$ 810,000	0	848	848		
521	Ground Handling Services	23A	Facilities	STRUCTURES - BUILDINGS	GF	218,000	\$20,800,000	E1	3	4,358	161	46	23,028,080	780,000	40%	\$ 6,217,500	548	164	164		
522	Ground Handling Services	24A	Facilities	EARTHWORK / FDNIS	CY	24,888	\$880,000	E2	3	8,772	228	88	46,546,880	1,263,000	37%	\$ 197,500	0	823	823		
531	General Aviation	24A	Facilities	STRUCTURES - BUILDINGS	GF	100,076	\$8,400,000	E1	3	4,358	161	88	46,546,880	1,263,000	40%	\$ 3,757,500	256	75	75	1,077	
532	General Aviation	24B	Apron	EARTHWORK / FDNIS	CY	41,084	\$800,000	E1	3	8,772	228	88	46,546,880	1,263,000	37%	\$ 326,750	0	1,370	1,370		
533	General Aviation	24B	Apron	PAVEMENTS	SY	20,846	\$2,800,000	P2	1	7,472	250	88	46,546,880	1,263,000	41%	\$ 1,138,000	1,219	707	707	1,502	
540		24C	Parking	EARTHWORK / FDNIS	CY	41,084	\$880,000	E2	3	8,772	228	88	46,546,880	1,263,000	37%	\$ 326,750	0	1,370	1,370		
541	General Aviation	24C	Parking	PAVEMENTS	SY	24,442	\$1,540,000	P3	1	20,301	693	88	46,546,880	1,263,000	41%	\$ 817,250	218	131	131	217	
542	General Aviation	25A	Facilities	STRUCTURES - BUILDINGS	GF	10,000	\$1,300,000	E1	3	4,358	161	88	46,546,880	1,263,000	40%	\$ 500,000	25	10	10		
543	CHQ/LNG	25A	Facilities	UTILITIES	Acres	123	\$7,700,000	E1	1	4,017	124	88	46,546,880	1,263,000	40%	\$ 3,089,250	0	309	309		
546	CHQ/LNG	25A	Facilities	STRUCTURES - BUILDINGS	GF	10,000	\$1,300,000	E1	3	4,358	161	88	46,546,880	1,263,000	40%	\$ 500,000	25	10	10		
550		25A	Facilities	UTILITIES	Acres	123	\$7,700,000	E1	1	4,017	124	88	46,546,880	1,263,000	40%	\$ 3,089,250	0	309	309		
551	Police	27A	Facilities	STRUCTURES - BUILDINGS	GF	45,000	\$8,400,000	E1	3	4,358	161	88	46,546,880	1,263,000	40%	\$ 3,312,500	113	60	60		
555		27A	Facilities	EARTHWORK / FDNIS	CY	4,201	\$200,000	E2	3	8,772	228	88	46,546,880	1,263,000	37%	\$ 86,250	0	276	276		
556	USCG	27A	Facilities	STRUCTURES - BUILDINGS	GF	50,000	\$4,700,000	E1	3	4,358	161	88	46,546,880	1,263,000	40%	\$ 1,875,000	125	38	38	3,246	
561	CTA Parking Expansion/Improvement	30A	Parking	PAVEMENTS	SY	933,498	\$159,800,000	P3	1	20,301	693	81	51,787,545	1,787,135	40%	\$ 82,752,500	5,630	3,698	3,698	5,346	
571	Employee Parking - Airport/006	30A	Parking	DEMOLITION - PAVEMENTS	SY	240,500	\$10,000,000	D8	1	7,430	238	85	24,146,200	778,125	60%	\$ 8,012,500	0	8,017	8,017		
572	Employee Parking - Airport/006	30A	Parking	PAVEMENTS	SY	5,820	\$13,100,000	P3	1	20,301	693	85	24,146,200	778,125	40%	\$ 8,237,500	54	31	31		
575	Employee Parking - Aviation	31A	Parking	DEMOLITION - PAVEMENTS	SY	309,000	\$12,200,000	D8	1	7,430	238	81	30,088,880	948,875	60%	\$ 7,816,250	0	10,026	10,026		
577	Employee Parking - Aviation	31A	Parking	PAVEMENTS	SY	7,815	\$17,800,000	P3	1	20,301	693	81	30,088,880	948,875	40%	\$ 7,827,500	73	43	43		
585		33A	Parking	DEMOLITION - PAVEMENTS	SY	42,000	\$1,800,000	D8	1	7,430	238	81	18,645,440	606,175	58%	\$ 1,850,000	0	1,450	1,450		
586	Employee Parking - Imperial	33A	Parking	PAVEMENTS	SY	1,832	\$3,700,000	P3	1	20,301	693	81	18,645,440	606,175	40%	\$ 1,448,250	15	6	6	804	
590		34A	Parking	DEMOLITION - PAVEMENTS	SY	15,000	\$800,000	D8	1	7,430	238	85	27,641,800	844,375	65%	\$ 375,000	0	900	900		
591	Employee Parking - Manchester	34A	Parking	PAVEMENTS	SY	830	\$1,400,000	P3	1	20,301	693	85	27,641,800	844,375	41%	\$ 587,500	0	3	3	1,583	
595		35A	Roadways	PAVEMENTS	SY	250,000	\$1,800,000	P3	2	20,301	695	80	102	207,088,180	7,048,800	39%	\$ 780,000	2,332	1,353	1,353	5,777
600	CTA - Commercial Vehicle Staging	36A	Roadways	DEMOLITION - FACILITIES	Acres	94	\$3,800,000	D10	1	17,788	418	85	26,486,800	1,037,800	68%	\$ 2,380,250	0	1,142	1,142		
601	LAX Airport Expressway	36A	Roadways	PAVEMENTS	SY	370,000	\$33,100,000	P3	2	20,301	695	85	26,486,800	1,037,800	40%	\$ 9,250,000	3,452	3,022	3,022		
602	LAX Airport Expressway	36A	Roadways	STRUCTURES - ROADWAY	GF	20,238	\$147,000,000	B5	1	12,182	430	80	80,817,170	2,438,200	35%	\$ 51,800,000	2,592	623	623	5,414	
605		37A	Roadways	DEMOLITION - FACILITIES	Acres	31	\$800,000	D10	1	17,788	418	80	42,087,285	1,514,750	67%	\$ 262,500	0	710	710		
606	Aber Vista Improvements	37A	Roadways	DEMOLITION - PAVEMENTS	SY	32,000	\$1,000,000	D10	1	17,788	418	80	42,087,285	1,514,750	68%	\$ 650,000	0	800	800		
607	Aber Vista Improvements	37A	Roadways	PAVEMENTS	SY	284,000	\$16,400,000	P3	2	20,301	693	85	172,159,800	5,587,500	40%	\$ 7,350,000	2,743	1,551	1,551		
608	Aber Vista Improvements	37A	Roadways	STRUCTURES - ROADWAY	GF	10,007	\$30,700,000	B5	1	12,182	430	80	113	68,817,170	2,438,200	35%	\$ 10,727,000	1,231	313	313	6,241
610		38A	Roadways	DEMOLITION - PAVEMENTS	SY	55,000	\$1,700,000	D8	2	4,531	177	88	34,155,000	845,000	61%	\$ 1,031,250	0	1,375	1,375		
611	Imperial Highway Upgrade	38A	Roadways	PAVEMENTS	SY	648,100	\$40,300,000	P3	2	20,301	693	88	34,155,000	845,000	40%	\$ 18,150,000	8,018	3,481	3,481		
613	Imperial Highway Upgrade	38A	Roadways	STRUCTURES - ROADWAY	GF	12,091	\$17,000,000	B5	1	12,182	430	80	81	37,185,240	1,237,000	35%	\$ 8,307,500	1,363	376	376	4,482,247
Grand Total																					

CONSTRUCTION EQUIPMENT IMPACTS ON AIR QUALITY

CI_Mar-024_Submittal.pdf



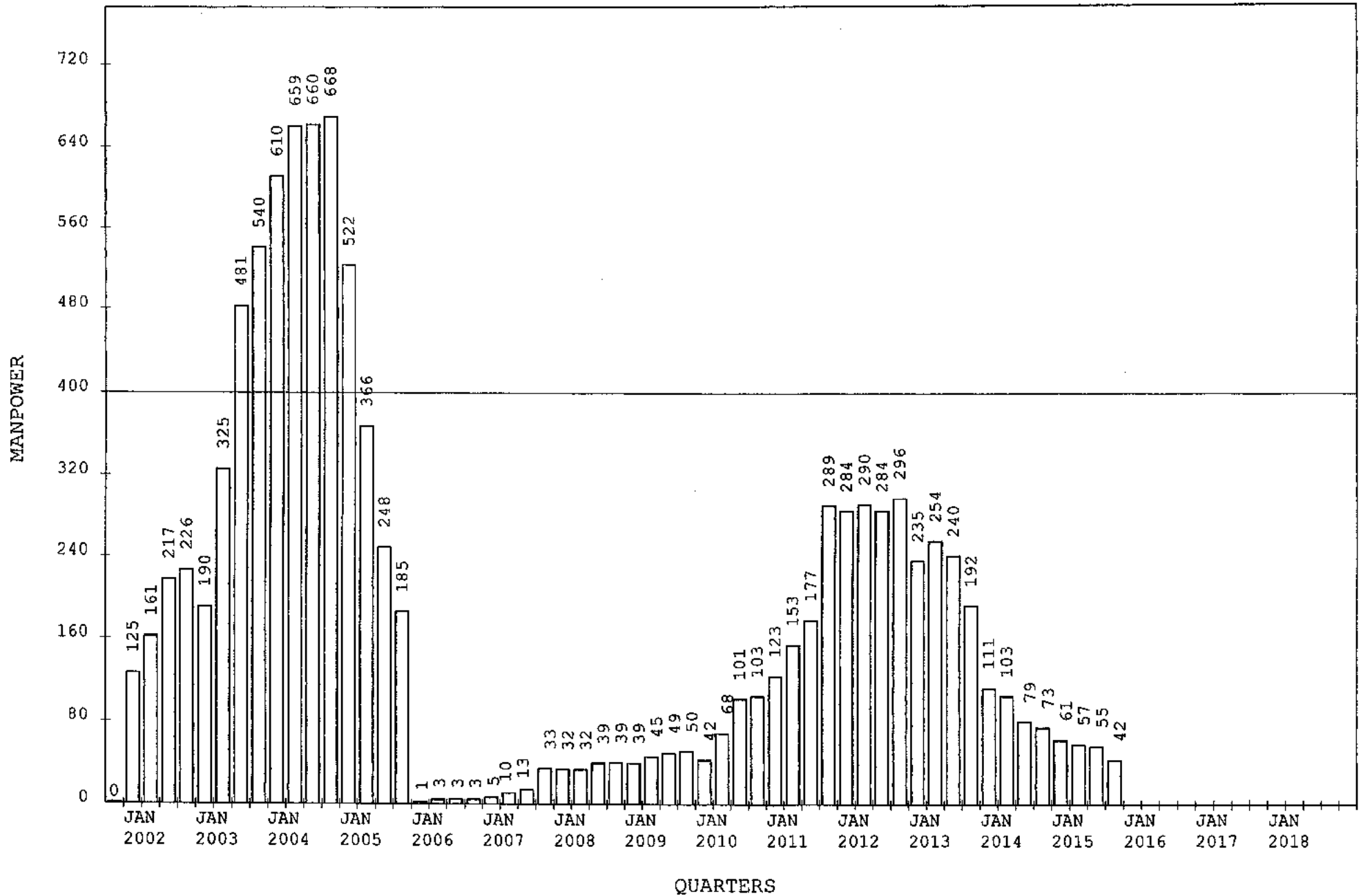
Project Start 5JAN98		Sheet 1 of 1		LOS ANGELES INTERNATIONAL AIRPORT MASTER PLAN PHASE III - CRT			
Project Finish 3JAN16*							
Data Date 1JAN01*							
Plot Date 14MAR00*							
(c) Primavera Systems, Inc.				Date	Revision	Checked	Approved

LOS ANGELES INTERNATIONAL AIRPORT
LAX MASTER PLAN

JOBHOUR DISTRIBUTION
BY
SHIFT

Activity ID.	Activity Description	SHIFT DISTRIBUTION			Total Jobhours	SHIFT JOBHOURS		
		1st	2nd	3rd		1st - CRT	2nd - CRT2	3rd - CRT3
NAF006	AIRFIELD CONSTRUCTION -PHASE 1	50%	35%	15%	4,113,891	2,056,946	1,439,862	617,084
SAF008	AIRFIELD CONSTRUCTION -PHASE 2	50%	35%	15%	1,683,612	841,806	589,264	252,542
CTA002	CENTRAL TERMINAL AREA - CONSTRUCTION	85%	10%	5%	2,945,819	2,503,946	294,582	147,291
WTA002	WEST TERMINAL AREA - CONSTRUCTION PH1	85%	10%	5%	10,099,212	8,584,330	1,009,921	504,961
WTA108	WEST TERMINAL AREA - CONSTRUCTION PH 2	85%	10%	5%	7,038,999	5,983,149	703,900	351,950
WTA955	WEST TERMINAL AREA - APM / BHS SYSTEMS	75%	15%	10%	12,472,711	9,354,533	1,870,907	1,247,271
WTA830	PARKING FACILITIES - CONSTRUCTION PH 1	85%	10%	5%	4,169,090	3,543,727	416,909	208,455
WTA860	PARKING FACILITIES - CONSTRUCTION PH 2	85%	10%	5%	1,203,019	1,022,566	120,302	60,151
RDS008	ROADWAY CONSTRUCTION - PHASE 1	45%	40%	15%	4,730,982	2,128,942	1,892,393	709,647
RDS058	ROADWAY CONSTRUCTION - PHASE 2	45%	40%	15%	3,304,956	1,487,230	1,321,982	495,743
TRN008	REGIONAL TRANSIT - GREENLINE CONSTRUCTION	N/A	N/A	N/A	N/A	0	0	0
CAF008	CARGO FACILITIES - CONSTRUCTION PH 1	85%	10%	5%	2,738,737	2,327,926	273,874	136,937
CAF058	CARGO FACILITIES - CONSTRUCTION PH 2	85%	10%	5%	2,232,362	1,897,508	223,236	111,618
AAF008	ANCILLARY FACILITIES - CONSTRUCTION PH 1	85%	10%	5%	1,363,941	1,159,350	136,394	68,197
FKF158	ANCILLARY FACILITIES - CONSTRUCTION PH 2	85%	10%	5%	3,081,092	2,618,928	308,109	154,055
TOTAL PROGRAM DISTRIBUTION		74%	17%	8%	61,178,423	45,510,887	10,601,635	5,065,901
MANWEEKS @ AVERAGE 50 JHRS / WEEK / MAN					1,223,568	910,218	212,033	101,318

CRAFT LABOR SECOND SHIFT



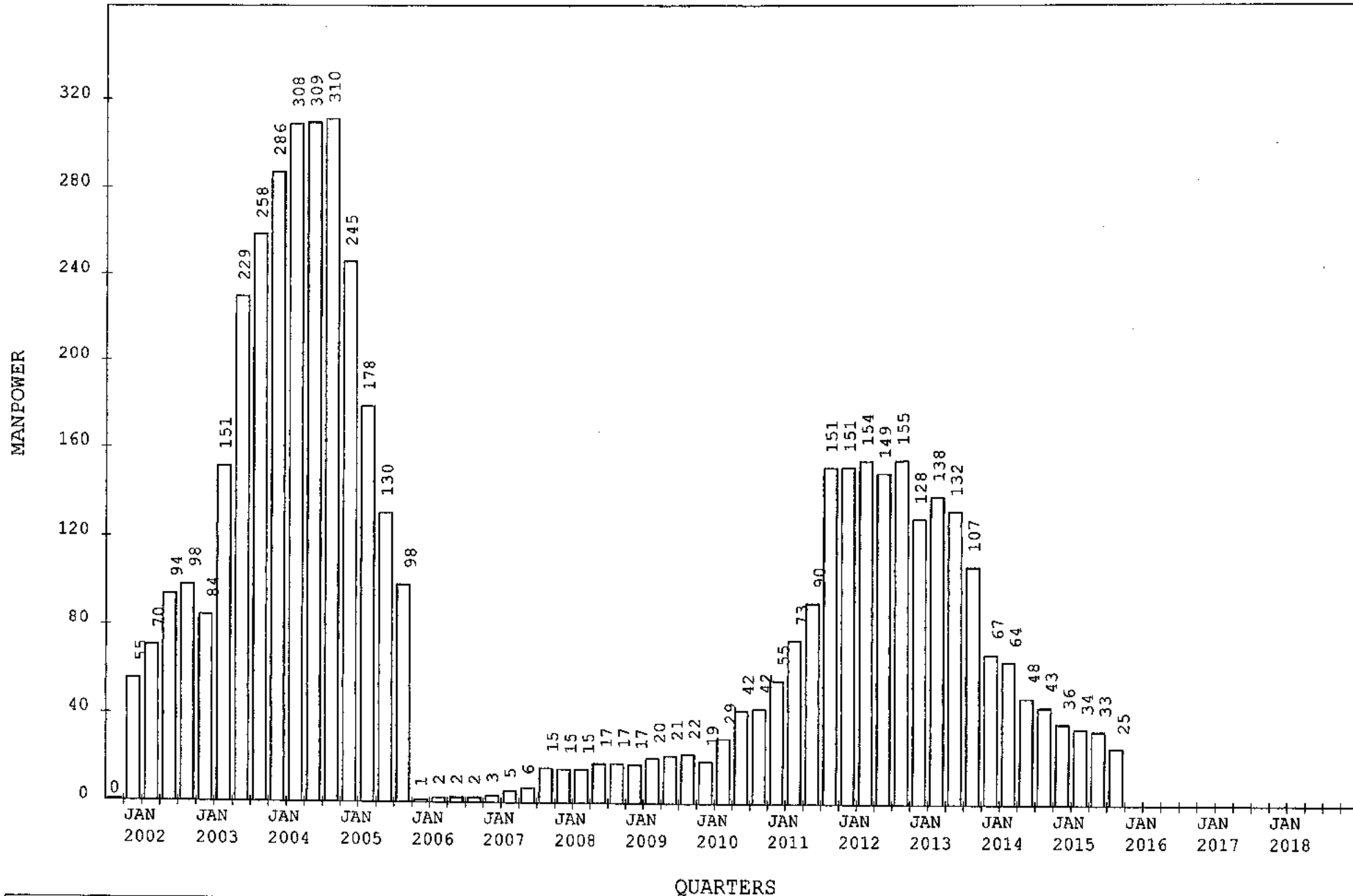
QUARTERS

Project Start 5JAN98
Project Finish 3JAN16*
Data Date 1JAN01*
Plot Date 14MAR00*

LOS ANGELES INTERNATIONAL AIRPORT MASTER PLAN PHASE III - CRT Shift 2

Sheet 1 of 1

Date	Revision	Checked	Approved

[illegible]

TRUCK TRIPS

TRUCK TRIPS

180
160
140
120
100
80
60
40
20
0

APR
2001

APR
2003

APR
2005

APR
2007

APR
2009

APR
2011

APR
2013

APR
2015

APR
2017

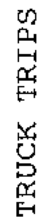
QUARTERS

Project Start	5JAN98
Project Finish	3JAN16*
Data Date	1JAN01*
Plot Date	14MAR00*

Sheet 1 of 1

LOS ANGELES INTERNATIONAL AIRPORT
MASTER PLAN PHASE III - TRIPS

[illegible]



120
110
100
90
80
70
60
50
40
30
20
10
0

APR
2001

APR
2003

APR
2005

APR
2007

APR
2009

APR
2011

APR
2013

APR
2015

APR
2017

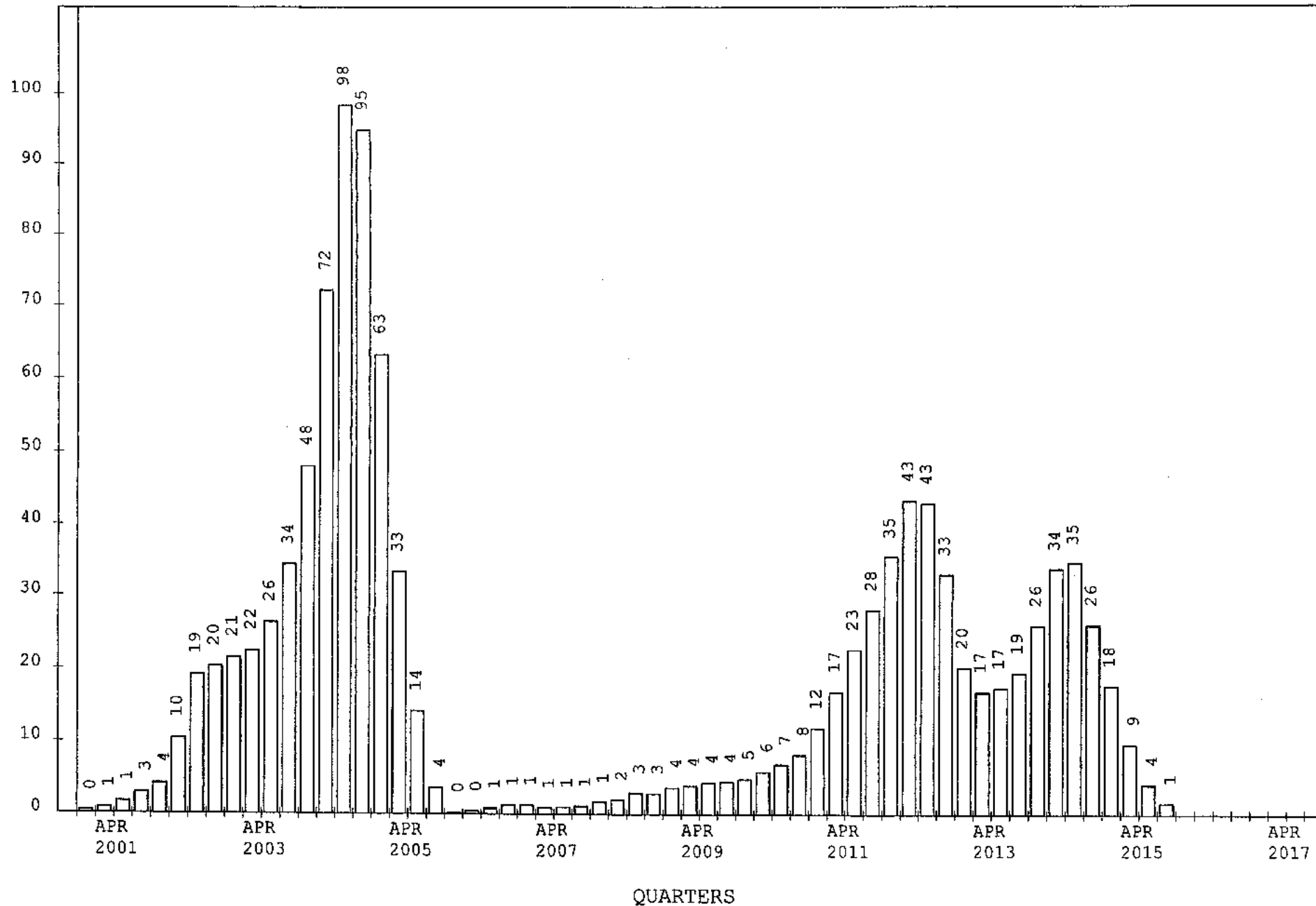
QUARTERS

LOS ANGELES INTERNATIONAL AIRPORT
MASTER PLAN PHASE III - TRIPS OFFSITE

Sheet 1 of 1

[illegible]

TRUCK TRIPS



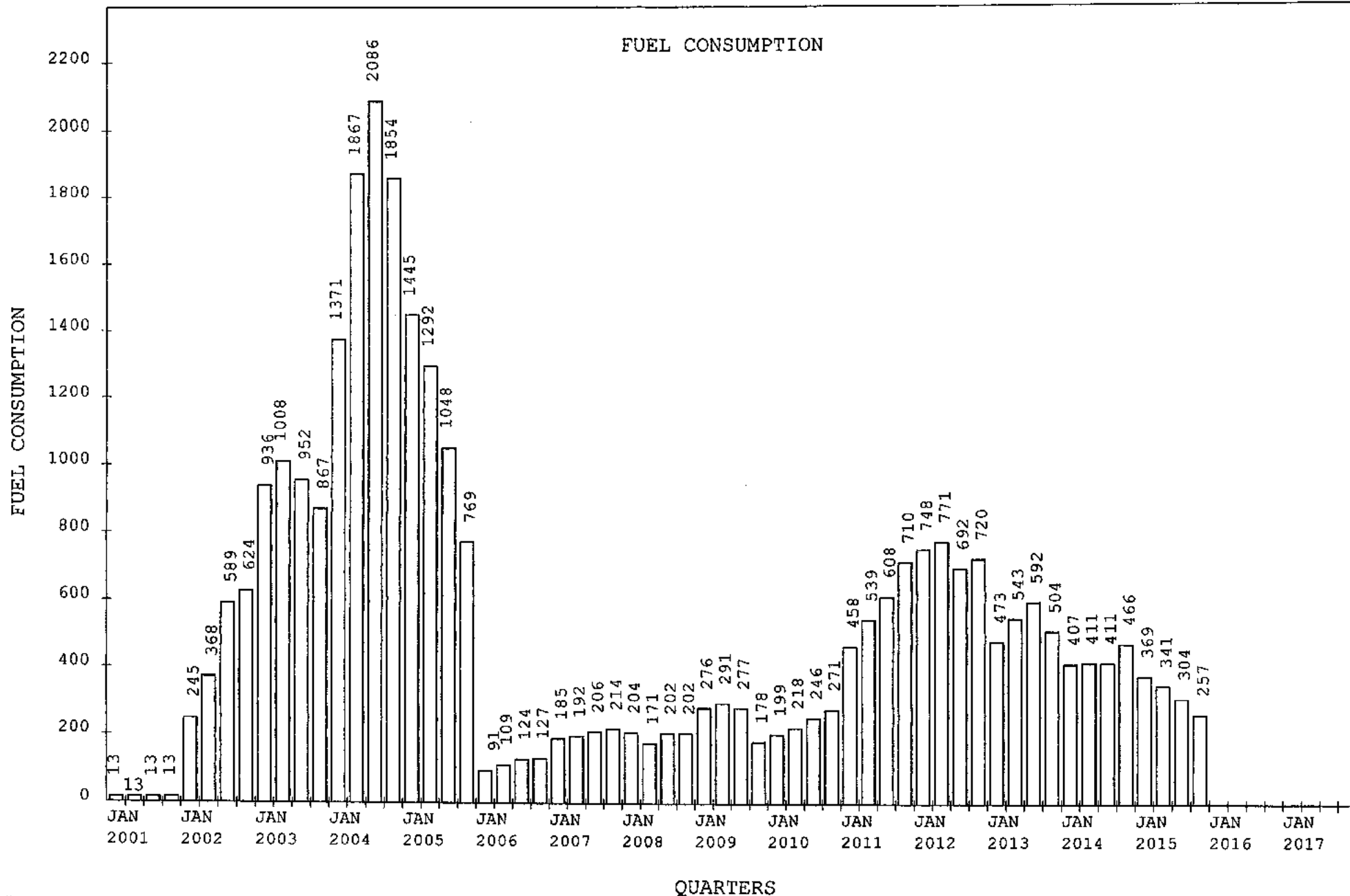
QUARTERS

Project Start 5JAN98
 Project Finish 3JAN16*
 Data Date 1JAN01*
 Plot Date 28FEB00*

LOS ANGELES INTERNATIONAL AIRPORT
 MASTER PLAN PHASE III
 MASTER PLAN PHASE III - TRIPS ONSITE

Sheet 1 of 1

Date	Revision	Checked	Approved

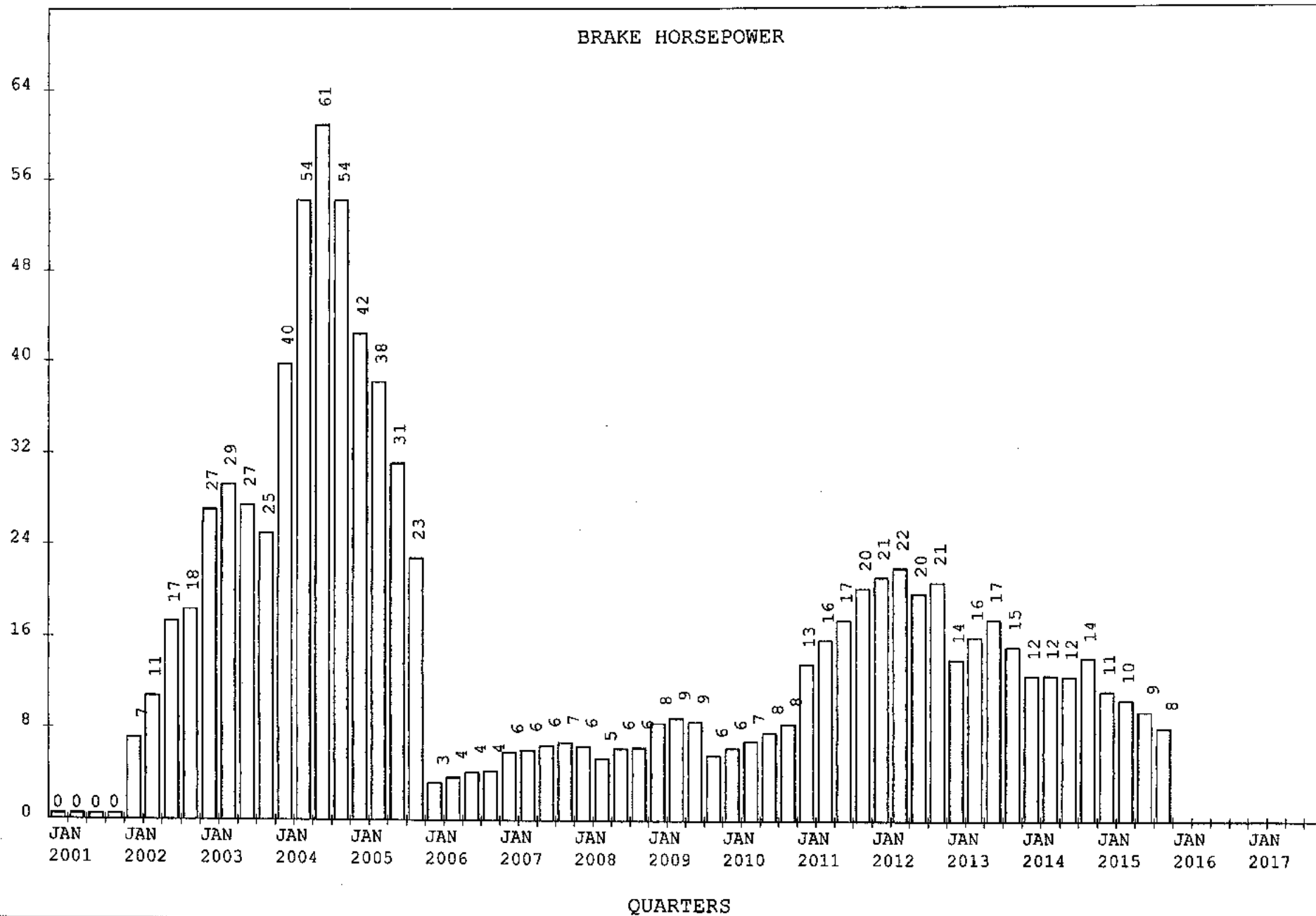


Project Start 5JAN98
 Project Finish 3JAN16*
 Data Date 1JAN01*
 Plot Date 14MAR00*

LOS ANGELES INTERNATIONAL AIRPORT
MASTER PLAN PHASE III - FLC

Sheet 1 of 1

Date	Revision	Checked	Approved



Project Start	5JAN98	<div>Sheet 1 of 1</div> <div>LOS ANGELES INTERNATIONAL AIRPORT</div> <div>MASTER PLAN PHASE III - BHP</div>				
Project Finish	3JAN16*		Date	Revision	Checked	Approved
Data Date	1JAN01*					
Plot Date	14MAR00*					
(c) Primavera Systems, Inc.						

Attachment F

Construction Vehicle Emission Factors

TABLE A9 - 8 - B
EXHAUST EMISSION FACTORS (L) AT 100% LOAD FOR EACH CRITERIA
POLLUTANT

(4-stroke and 2-stroke description applies only to gasoline-powered equipment)
 (Pounds Per Horsepower-Hour)

As much as possible use emission factors provided in Table A9 - 8 - A. The following emission factors should be used only if emission factors from previous Table cannot be used. As a last source to estimate construction related exhaust emissions use Tables A9 - 3 - C and A9 - 3 - H. These tables provide methodology to estimate construction related BTU-values for a project. Convert daily BTU consumption to daily horsepower-hour (multiply BTUs by 0.000793) consumption and then use the following emission factors:

Equipment Type ***	CO		ROC		NOx		SOx		PM10	
	Diesel	Gas.	Diesel	Gas.	Diesel	Gas.	Diesel	Gas.	Diesel	Gas.
Paving Equip (4-stk)	0.010	0.83	0.002	0.042	0.024	0.004	0.002	0.0005	0.001	0.00025
Paving Equip (2-stk)	0.010	2.04	0.002	0.896	0.024	0.0006	0.002	0.0005	0.001	0.00845
Plate Compactor (4-stk)	0.007	0.83	0.002	0.043	0.020	0.004	0.002	0.0005	0.001	0.00025
Plate Compactor (2-stk)	0.007	2.04	0.002	0.897	0.020	0.0006	0.002	0.0005	0.001	0.00845
Bore/Drill Rig (4-stk)	0.020	0.57	0.003	0.025	0.024	0.011	0.002	0.0005	0.0015	0.00005
Bore/Drill Rig (2-stk)	0.020	2.04	0.003	0.897	0.024	0.0006	0.002	0.0005	0.0015	0.00845
ChainSaws >4HP (2-Strk)	--	2.15	--	0.684	--	0.0021	--	0.0008	--	0.00143
Temp/Rammer (2-Strk)	--	2.04	--	0.897	--	0.0006	--	0.0005	--	0.00845
Tampers/Rammers	--	0.83	--	0.043	--	0.004	--	0.0005	--	0.00025
Skid-Steer Loader	0.020	0.44	0.004	0.018	0.021	0.44	0.002	0.0005	0.0015	0.00005
Rubber Tired Loaders	0.011	0.47	0.002	0.021	0.023	0.012	0.002	0.0005	0.0015	0.00005
Tractor/Loader/Backho	0.015	0.57	0.003	0.025	0.022	0.011	0.002	0.0005	0.001	0.00005
Terminal Tractors	0.013	0.026	0.003	0.57	0.031	0.011	0.002	0.0006	0.0015	0.00005
Excavators	0.011	0.57	0.001	0.025	0.024	0.011	0.002	0.0005	0.0015	0.00005
Trenchers	0.020	0.57	0.003	0.026	0.022	0.011	0.002	0.0005	0.0015	0.00005
Rollers	0.007	0.85	0.002	0.049	0.020	0.005	0.002	0.0006	0.001	0.00025
Other Cnstrn Equip	0.020	0.57	0.003	0.025	0.024	0.011	0.002	0.0005	0.0015	0.00005
Cement/Mortar Mix	0.010	0.83	0.002	0.040	0.024	0.004	0.002	0.0005	0.001	0.00025
Asphalt Pavers	0.007	0.57	0.001	0.025	0.023	0.011	0.002	0.0005	0.001	0.00025
Concrete Saws	0.020	0.003	0.024	0.043	0.002	0.004	0.003	0.0005	0.001	0.00025
Crushing Equipment	0.020	0.57	0.003	0.025	0.024	0.011	0.002	0.0005	0.0015	0.00005
Aerial Lifts	0.013	0.57	0.003	0.025	0.031	0.011	0.002	0.0006	0.0015	0.00005
Rough Terrain Fork Lifts	0.022	0.57	0.003	0.025	0.018	0.011	0.002	0.0005	0.0015	0.00005
Crushing Equipment	0.020	0.57	0.003	0.025	0.024	0.011	0.002	0.0005	0.0015	0.00005
Fork Lifts	0.013	0.57	0.003	0.025	0.031	0.011	0.002	0.0006	0.0015	0.00005
Cranes	0.009	0.57	0.003	0.025	0.023	0.011	0.002	0.0005	0.0015	0.00005
Sprayers	0.008	0.62	0.005	0.029	0.017	0.011	0.002	0.0006	0.0015	0.00025
Dumpers/Tenders	0.006	0.83	0.002	0.043	0.021	0.004	0.002	0.0005	0.0015	0.00025
Signal Boards	0.011	0.83	0.002	0.043	0.018	0.004	0.002	0.0005	0.001	0.00025
Sweepers/Scrubbers	0.013	0.57	0.003	0.025	0.031	0.011	0.002	0.0006	0.0015	0.00005
Sweepers/Scrubbers	0.013	0.57	0.003	0.025	0.031	0.011	0.002	0.0006	0.0015	0.00005
Generator sets <50 HP	0.011	1.479	0.002	0.054	0.018	0.002	0.002	0.0006	0.001	0.00025
Genrtr <50 HP (2-stroke)	0.011	2.036	0.002	0.893	0.018	0.0006	0.002	0.0006	0.001	0.00845
Pressur Washer <50 HP	0.011	1.479	0.002	0.054	0.018	0.002	0.002	0.0006	0.001	0.00025
Hydro Power Units	0.008	0.913	0.005	0.038	0.017	0.005	0.002	0.0006	0.0015	0.00025
Welders <50 HP	0.011	1.479	0.002	0.054	0.018	0.002	0.002	0.0006	0.001	0.00025
Pumps <50 HP	0.011	1.479	0.002	0.054	0.018	0.002	0.002	0.0006	0.001	0.00025
Air Compressor <50 HP	0.011	1.479	0.002	0.054	0.018	0.002	0.002	0.0006	0.001	0.00025
Surfacing Equipment	--	0.83	--	0.043	--	0.004	--	0.0005	--	0.00025
2-Wheeled Tractors	--	0.600	--	0.032	--	0.0058	--	0.0005	--	0.00025
Shredder >5 HP	--	1.479	--	0.056	--	0.0018	--	0.0004	--	0.0004
Concrete Pavers	0.01	--	0.002	--	0.022	--	0.002	--	0.001	--
Rubber Tired Dozers	0.01	--	0.002	--	0.021	--	0.002	--	0.0005	--
Off-Highway Tractors	0.032	--	0.005	--	0.026	--	0.002	--	0.002	--
Skidder	0.011	--	0.002	--	0.025	--	0.002	--	0.0015	--
Crawler Tractors	0.011	--	0.002	--	0.023	--	0.002	--	0.001	--
Grader	0.008	--	0.003	--	0.021	--	0.002	--	0.001	--
Scraper	0.011	--	0.001	--	0.019	--	0.002	--	0.0015	--

A9-83

The following empirical expression may be used to estimate the quantity in pounds (lb) of size-specific particulate emissions from an unpaved road, per vehicle mile traveled (VMT):

$$E = \frac{k (s/12)^a (W/3)^b}{(M/0.2)^c} \quad (1)$$

where k , a , b and c are empirical constants (Reference 6) given below and

E = size-specific emission factor (lb/VMT)

s = surface material silt content (%)

W = mean vehicle weight (tons)

M = surface material moisture content (%)

The source characteristics s , W and M are referred to as correction parameters for adjusting the emission estimates to local conditions. The metric conversion from lb/VMT to grams (g) per vehicle kilometer traveled (VKT) is as follows:

$$1 \text{ lb/VMT} = 281.9 \text{ g/VKT}$$

The constants for Equation 1 based on the stated aerodynamic particle sizes are shown in Table 13.2.2-2.

Table 13.2.2-2. CONSTANTS FOR EQUATION 1

Constant	PM-2.5	PM-10	PM-30 ^a
k (lb/VMT)	0.38	2.6	10
a	0.8	0.8	0.8
b	0.4	0.4	0.5
c	0.3	0.3	0.4
Quality rating	C	B	B

^aAssumed equivalent to total suspended particulate (TSP).

Table 13.2.2-2 also contains the quality ratings for the various size-specific versions of Equation 1. The equation retains the assigned quality rating, if applied within the ranges of source conditions, shown in Table 13.2.2-3, that were tested in developing the equation:

Table 13.2.2-3. RANGE OF SOURCE CONDITIONS USED IN DEVELOPING EQUATION 1

Surface Silt Content, %	Mean Vehicle Weight		Mean Vehicle Speed		Mean No. of Wheels	Surface Moisture Content, %
	Mg	ton	km/hr	mph		
1.2-35	1.4-260	1.5-290	8-88 ^a	5-55 ^a	4-7 ^a	0.03-20

^aSee discussion in text.

As noted earlier, Equation 1 was developed from tests of traffic on unpaved surfaces, either uncontrolled or watered. Unpaved roads have a hard, generally nonporous surface that usually dries quickly after a rainfall or watering, because of traffic-enhanced natural evaporation. (Factors influencing

13.2.1.3 Predictive Emission Factor Equations¹⁰

The quantity of dust emissions from vehicle traffic on a paved road may be estimated using the following empirical expression:

$$E = k (sL/2)^{0.45} (W/3)^{1.5} \quad (1)$$

where:

- E = particulate emission factor (having units matching the units of k)
 k = base emission factor for particle size range and units of interest (see below)
 sL = road surface silt loading (grams per square meter) (g/m²)
 W = average weight (tons) of the vehicles traveling the road

It is important to note that Equation 1 calls for the average weight of all vehicles traveling the road. For example, if 99 percent of traffic on the road are 2 Mg cars/trucks while the remaining 1 percent consists of 20 Mg trucks, then the mean weight "W" is 2.2 Mg. More specifically, Equation 1 is not intended to be used to calculate a separate emission factor for each vehicle weight class. Instead, only one emission factor should be calculated to represent the "fleet" average weight of all vehicles traveling the road.

The particle size multiplier (k) above varies with aerodynamic size range as shown in Table 13.2.1-1. To determine particulate emissions for a specific particle size range, use the appropriate value of k shown in Table 13.2.1-1.

Table 13.2.1-1. PARTICLE SIZE MULTIPLIERS FOR PAVED ROAD EQUATION

Size range ^a	Multiplier k ^b		
	g/VKT	g/VMT	lb/VMT
PM-2.5 ^c	1.1	1.8	0.0040
PM-10	4.6	7.3	0.016
PM-15	5.5	9.0	0.020
PM-30 ^d	24	38	0.082

^a Refers to airborne particulate matter (PM-x) with an aerodynamic diameter equal to or less than x micrometers.

^b Units shown are grams per vehicle kilometer traveled (g/VKT), grams per vehicle mile traveled (g/VMT), and pounds per vehicle mile traveled (lb/VMT). The multiplier k includes unit conversions to produce emission factors in the units shown for the indicated size range from the mixed units required in Equation 1.

^c Ratio of PM-2.5 to PM-10 taken from Reference 22.

^d PM-30 is sometimes termed "suspensible particulate" (SP) and is often used as a surrogate for TSP.

The above equation is based on a regression analysis of numerous emission tests, including 65 tests for PM-10.¹⁰ Sources tested include public paved roads, as well as controlled and uncontrolled industrial paved roads. All sources tested were of freely flowing vehicles on relatively level roads and at constant speed. No tests of "stop-and-go" traffic or vehicles under load were available for inclusion in the data base. The equations retain the quality rating of A (B for PM-2.5), if applied within the range of source conditions that were tested in developing the equation as follows:

Table 11.9-2 (Metric Units). EMISSION FACTOR EQUATIONS FOR UNCONTROLLED OPEN DUST SOURCES AT WESTERN SURFACE COAL MINES

AT WESTERN SURFACE COAL MINES ^a						
Operation	Material	Emissions By Particle Size Range (Aerodynamic Diameter) ^b				EMISSION FACTOR RATING
		Emission Factor Equations		Scaling Factors		
		TSP ≤ 30 μm	≤ 15 μm	≤ 10 μm ^d	≤ 2.5 μm/TSP ^e	
Blasting ^f	Coal or overburden	0.00022(A) ^{1.5}	ND	0.52 ^g	0.03	C ₁ DD
Truck loading	Coal	$\frac{0.580}{(M)^{0.5}}$	$\frac{0.0506}{(M)^{0.5}}$	0.75	0.019	BBCC
Bucket loading	Coal	$\frac{15.6(S)^{1.2}}{(M)^{0.5}}$	$\frac{8.44(S)^{1.2}}{(M)^{0.5}}$	0.75	0.022	CCDD
Dragline	Overburden	$\frac{2.6(S)^{1.2}}{(M)^{0.5}}$	$\frac{0.45(S)^{1.2}}{(M)^{0.5}}$	0.75	0.105	BCDD
Vehicle traffic ^h	Overburden	$\frac{0.0046(S)^{1.1}}{(M)^{0.5}}$	$\frac{0.0029(S)^{1.1}}{(M)^{0.5}}$	0.75	0.017	BCDD
Grading		0.0034(S) ^{1.5}	0.0056(S) ^{1.5}	0.60	0.031	CCDD
Active storage pile ^a (wind erosion and maintenance)	Coal	1.8 ^u	ND	ND	ND	C ₁ ---

^a Reference 1, except as noted. VKT = vehicle kilometers traveled. ND = no data. Quality ratings coded as "QXYZ", where Q, X, Y, and Z are quality ratings for ≤ 30 μm, ≤ 15 μm, ≤ 10 μm, and ≤ 2.5 μm, respectively. See also note below.

^b Particulate matter less than or equal to 30 μm in aerodynamic diameter is sometimes termed "suspensible particulate" and is often used as a surrogate for TSP (total suspended particulate). TSP denotes what is measured by a standard high volume sampler (see Section 13.2).

^c Symbols for equations:

A = horizontal area (m²) with blasting depth ≤ 21 m. Not for vertical face of a bench.

M = material moisture content (%)

s = material silt content (%)

u = wind speed (m/sec)

d = drop height (m)

W = mean vehicle weight (Mg)

S = mean vehicle speed (kph)

w = mean number of wheels

Attachment G

Construction Activities Emissions Inventories

**LAX CONSTRUCTION EMISSIONS
ALTERNATIVE A**

(tons/quarter)

Quarter	CO	ROC	NOx	SOx	PM ₁₀
2001 1	4	1	9	1	2
2001 2	4	1	9	1	2
2001 3	4	1	9	1	2
2001 4	4	1	9	1	2
Annual Total	16	4	36	4	8
2002 1	187	31	243	27	140
2002 2	237	41	333	36	167
2002 3	299	55	454	48	193
2002 4	335	63	518	55	202
Annual Total	1,058	190	1,548	166	702
2003 1	455	87	667	79	346
2003 2	492	95	711	86	336
2003 3	504	96	679	86	349
2003 4	476	89	582	80	333
Annual Total	1,927	367	2,619	331	1,364
2004 1	641	120	778	110	474
2004 2	827	162	1,088	147	549
2004 3	883	178	1,207	160	547
2004 4	815	165	937	146	431
Annual Total	3,166	625	4,010	563	2,001
2005 1	621	126	1,170	112	334
2005 2	552	115	1,058	101	255
2005 3	458	96	863	83	164
2005 4	360	74	624	63	122
Annual Total	1,991	411	3,715	359	875
2006 1	78	11	76	8	19
2006 2	86	13	92	10	22
2006 3	89	14	101	11	24
2006 4	90	14	102	11	24
Annual Total	343	52	371	40	89
2007 1	113	18	147	15	59
2007 2	119	20	158	16	55
2007 3	123	21	168	17	58
2007 4	120	20	162	17	55
Annual Total	475	79	635	65	225
2008 1	122	21	167	17	56
2008 2	114	19	147	16	61
2008 3	129	21	175	19	100
2008 4	124	21	169	18	85
Annual Total	489	82	658	70	302
2009 1	150	25	221	23	120
2009 2	158	28	239	24	115
2009 3	147	26	223	22	77
2009 4	117	20	152	16	54
Annual Total	572	99	835	85	366
2010 1	116	19	47	16	54
2010 2	125	21	51	18	40
2010 3	140	25	60	21	36
2010 4	148	27	65	22	39
Annual Total	529	92	223	77	168
2011 1	238	44	109	38	133
2011 2	277	52	132	46	173
2011 3	317	61	157	55	217
2011 4	377	74	187	66	233
Annual Total	1,209	231	585	205	756
2012 1	394	77	198	70	285
2012 2	397	79	204	72	285
2012 3	359	72	185	65	238
2012 4	342	69	177	62	213
Annual Total	1,492	297	764	269	1,021
2013 1	307	59	150	53	186
2013 2	319	62	157	56	185
2013 3	316	63	156	55	142
2013 4	301	60	148	53	130
Annual Total	1,243	244	611	217	643
2014 1	239	46	115	40	115
2014 2	242	47	118	41	115
2014 3	248	48	121	42	140
2014 4	252	50	126	44	122
Annual Total	981	191	480	167	492
2015 1	187	36	161	31	125
2015 2	173	33	146	29	113
2015 3	154	30	131	25	79
2015 4	139	27	118	22	71
Annual Total	653	126	556	107	388

(lbs/day)

Quarter	CO	ROC	NOx	SOx	PM ₁₀
2001 1	85	21	191	22	40
2001 2	85	21	191	19	40
2001 3	85	21	191	19	40
2001 4	85	21	191	19	40
Daily Total	340	84	764	79	160
2002 1	4,105	673	5,329	587	3,074
2002 2	5,207	900	7,308	788	3,660
2002 3	6,554	1,197	9,966	1,053	4,226
2002 4	7,362	1,367	11,384	1,201	4,422
Daily Total	23,228	4,137	33,987	3,629	15,382
2003 1	9,998	1,895	14,656	1,728	7,598
2003 2	10,812	2,085	15,619	1,882	7,388
2003 3	11,062	2,097	14,914	1,890	7,669
2003 4	10,452	1,952	12,341	1,751	7,306
Daily Total	42,324	8,029	57,530	7,251	29,941
2004 1	14,088	2,631	17,083	2,406	10,403
2004 2	18,160	3,547	23,898	3,218	12,064
2004 3	19,407	3,893	26,522	3,509	12,008
2004 4	17,899	3,614	20,572	3,206	9,464
Daily Total	69,554	13,685	86,075	12,339	43,940
2005 1	13,635	2,784	25,703	2,446	7,338
2005 2	12,126	2,610	23,240	2,204	5,593
2005 3	10,056	2,092	18,952	1,805	3,588
2005 4	7,899	1,619	13,706	1,385	2,674
Daily Total	43,716	8,985	81,601	7,840	19,193
2006 1	1,695	236	1,665	172	412
2006 2	1,869	274	2,002	205	471
2006 3	1,953	294	2,200	223	515
2006 4	1,967	297	2,233	226	523
Daily Total	7,484	1,101	8,100	826	1,921
2007 1	2,473	390	3,228	324	1,295
2007 2	2,597	421	3,459	349	1,195
2007 3	2,684	445	3,678	369	1,229
2007 4	2,630	431	3,548	357	1,205
Daily Total	10,384	1,587	13,913	1,399	4,924
2008 1	2,664	443	3,660	367	1,222
2008 2	2,489	401	3,230	333	1,332
2008 3	2,815	457	3,831	399	2,198
2008 4	2,724	447	3,696	384	1,851
Daily Total	10,692	1,748	14,417	1,483	6,603
2009 1	3,278	549	4,853	490	2,630
2009 2	3,457	594	5,251	526	2,509
2009 3	3,228	565	4,895	482	1,677
2009 4	2,551	418	3,321	344	1,171
Daily Total	12,512	2,126	18,320	1,842	7,987
2010 1	2,546	407	1,015	339	1,177
2010 2	2,739	459	1,120	377	859
2010 3	3,077	538	1,301	442	756
2010 4	3,243	581	1,418	480	840
Daily Total	11,605	1,985	4,854	1,638	3,632
2011 1	5,213	948	2,388	632	2,919
2011 2	6,069	1,135	2,897	1,010	3,783
2011 3	6,949	1,331	3,434	1,197	4,786
2011 4	8,273	1,812	4,099	1,447	5,103
Daily Total	26,504	5,026	12,818	4,486	16,571
2012 1	8,839	1,677	4,346	1,533	6,262
2012 2	8,719	1,720	4,471	1,568	6,260
2012 3	7,876	1,572	4,065	1,420	5,209
2012 4	7,513	1,502	3,875	1,349	4,678
Daily Total	32,747	6,471	16,757	5,870	22,408
2013 1	6,730	1,295	3,284	1,162	4,076
2013 2	7,004	1,359	3,437	1,216	4,057
2013 3	6,928	1,371	3,421	1,206	3,118
2013 4	6,615	1,305	3,249	1,144	2,841
Daily Total	27,277	5,330	13,391	4,728	14,092
2014 1	5,239	1,000	2,515	876	2,515
2014 2	5,314	1,024	2,587	895	2,524
2014 3	5,441	1,040	2,859	920	3,067
2014 4	5,536	1,090	2,766	953	2,660
Daily Total	21,530	4,154	10,527	3,644	10,766
2015 1	4,107	799	3,533	678	2,738
2015 2	3,785	722	3,202	617	2,472
2015 3	3,371	645	2,867	536	1,734
2015 4	3,049	574	2,584	474	1,558
Daily Total	14,312	2,730	12,186	2,305	8,502

**LAX CONSTRUCTION EMISSIONS
ALTERNATIVE B**

(tons/quarter)

Quarter	CO	ROC	NO _x	SO _x	PM ₁₀
2001					
1	4	1	10	1	2
2	4	1	10	1	2
3	4	1	10	1	2
4	4	1	10	1	2
Annual Total	18	4	40	4	8
2002					
1	214	35	277	31	160
2	271	47	381	41	191
3	341	62	519	55	220
4	383	71	593	63	230
Annual Total	1,209	215	1,770	189	801
2003					
1	521	99	763	90	396
2	563	109	813	98	384
3	576	109	777	98	399
4	544	102	643	91	380
Annual Total	2,204	418	2,996	377	1,559
2004					
1	734	137	890	125	542
2	946	185	1,244	168	628
3	1,011	203	1,381	183	625
4	932	188	1,071	167	493
Annual Total	3,622	712	4,586	642	2,288
2005					
1	710	144	1,338	127	382
2	631	131	1,210	115	291
3	524	109	987	94	187
4	411	84	714	72	139
Annual Total	2,276	468	4,249	408	999
2006					
1	88	12	87	9	21
2	97	14	104	11	24
3	102	15	115	12	27
4	102	15	116	12	27
Annual Total	390	57	422	43	100
2007					
1	129	20	168	17	67
2	135	22	180	18	62
3	140	23	192	19	64
4	137	22	185	19	63
Annual Total	541	88	724	73	256
2008					
1	139	23	191	19	64
2	130	21	168	17	69
3	147	24	199	21	114
4	142	23	192	20	96
Annual Total	557	91	751	77	344
2009					
1	171	29	253	25	137
2	180	31	273	27	131
3	168	29	255	25	87
4	133	22	173	18	61
Annual Total	651	111	954	96	416
2010					
1	133	21	53	18	61
2	143	24	58	20	45
3	160	28	68	23	39
4	169	30	74	25	44
Annual Total	604	103	253	85	189
2011					
1	271	49	124	43	152
2	316	59	151	53	197
3	362	69	179	62	248
4	431	84	213	75	266
Annual Total	1,380	262	667	233	863
2012					
1	450	87	226	80	326
2	454	90	233	82	326
3	410	82	212	74	271
4	391	78	202	70	244
Annual Total	1,705	337	872	306	1,167
2013					
1	350	67	171	60	212
2	365	71	179	63	211
3	361	71	178	63	162
4	344	68	169	60	148
Annual Total	1,420	277	697	246	734
2014					
1	273	52	131	46	131
2	277	53	135	47	131
3	283	54	138	48	160
4	288	57	144	50	139
Annual Total	1,121	216	548	190	561
2015					
1	214	41	184	35	143
2	197	38	167	32	129
3	176	34	149	28	90
4	159	30	135	25	81
Annual Total	745	142	634	120	443

(lbs/day)

Quarter	CO	ROC	NO _x	SO _x	PM ₁₀
2001					
1	97	23	218	24	45
2	97	24	218	21	46
3	97	24	218	21	46
4	97	24	218	21	46
Daily Total	388	95	874	88	182
2002					
1	4,697	770	6,098	671	3,518
2	5,958	1,029	8,363	901	4,188
3	7,500	1,370	11,405	1,205	4,836
4	8,425	1,584	13,028	1,374	5,060
Daily Total	26,581	4,734	38,895	4,151	17,601
2003					
1	11,441	2,169	16,772	1,977	8,695
2	12,373	2,386	17,874	2,153	8,431
3	12,659	2,399	17,067	2,163	8,776
4	11,961	2,234	14,123	2,004	8,361
Daily Total	48,434	9,187	65,836	8,296	34,263
2004					
1	16,122	3,010	19,550	2,753	11,906
2	20,782	4,059	27,349	3,682	13,806
3	22,209	4,455	30,352	4,015	13,743
4	20,484	4,135	23,543	3,668	10,831
Daily Total	79,597	15,658	100,795	14,119	50,285
2005					
1	15,604	3,162	29,415	2,798	8,398
2	13,877	2,872	26,596	2,522	8,400
3	11,508	2,393	21,689	2,066	4,106
4	9,039	1,853	15,685	1,584	3,059
Daily Total	50,028	10,280	93,386	8,970	21,963
2006					
1	1,939	269	1,905	196	471
2	2,139	313	2,291	234	538
3	2,235	336	2,518	255	589
4	2,251	339	2,555	258	598
Daily Total	8,564	1,257	9,268	943	2,196
2007					
1	2,830	446	3,693	370	1,481
2	2,972	481	3,958	399	1,367
3	3,071	508	4,209	422	1,406
4	3,010	493	4,060	407	1,378
Daily Total	11,882	1,928	15,920	1,598	5,632
2008					
1	3,048	508	4,188	419	1,397
2	2,848	459	3,696	380	1,524
3	3,221	522	4,384	456	2,515
4	3,117	511	4,229	438	2,118
Daily Total	12,234	1,998	16,497	1,694	7,554
2009					
1	3,751	627	5,553	560	3,009
2	3,956	680	6,009	601	2,871
3	3,691	646	5,602	551	1,919
4	2,919	478	3,800	394	1,339
Daily Total	14,317	2,431	20,964	2,105	9,137
2010					
1	2,913	468	1,161	388	1,346
2	3,134	525	1,281	430	982
3	3,521	615	1,488	505	865
4	3,711	665	1,623	549	961
Daily Total	13,279	2,271	5,553	1,872	4,154
2011					
1	5,965	1,084	2,732	952	3,340
2	6,945	1,298	3,315	1,155	4,329
3	7,952	1,522	3,929	1,369	5,454
4	9,468	1,845	4,690	1,656	5,840
Daily Total	30,330	5,749	14,667	5,132	18,963
2012					
1	9,886	1,919	4,973	1,753	7,166
2	9,978	1,968	5,116	1,794	7,164
3	9,013	1,799	4,652	1,624	5,961
4	8,598	1,718	4,434	1,543	5,353
Daily Total	37,475	7,404	19,175	6,715	25,644
2013					
1	7,701	1,482	3,758	1,329	4,664
2	8,015	1,554	3,933	1,391	4,642
3	7,928	1,568	3,914	1,380	3,567
4	7,570	1,493	3,718	1,308	3,251
Daily Total	31,214	6,097	15,322	5,408	16,125
2014					
1	5,995	1,144	2,878	1,002	2,878
2	6,081	1,172	2,960	1,024	2,888
3	6,226	1,190	3,043	1,052	3,509
4	6,335	1,247	3,165	1,090	3,044
Daily Total	24,637	4,753	12,046	4,168	12,320
2015					
1	4,699	902	4,043	776	3,133
2	4,331	825	3,664	705	2,829
3	3,857	737	3,280	612	1,984
4	3,489	656	2,956	542	1,782
Daily Total	16,376	3,121	13,944	2,635	9,728

**LAX CONSTRUCTION EMISSIONS
ALTERNATIVE C**

(tons/quarter)						
Quarter	CO	ROC	NOx	SOx	PM ₁₀	
2001	1	4	1	9	1	2
	2	4	1	9	1	2
	3	4	1	9	1	2
	4	4	1	9	1	2
Annual Total	16	4	36	4	8	
2002	1	193	32	251	28	145
	2	245	42	344	37	172
	3	309	56	470	50	199
	4	347	64	537	57	208
Annual Total	1,095	195	1,602	171	725	
2003	1	471	89	691	81	358
	2	510	98	736	89	347
	3	521	99	703	89	361
	4	493	92	582	83	344
Annual Total	1,995	378	2,712	342	1,411	
2004	1	664	124	805	113	490
	2	856	167	1,127	152	569
	3	915	183	1,250	165	566
	4	844	170	970	151	446
Annual Total	3,279	645	4,152	582	2,071	
2005	1	643	130	1,212	115	346
	2	572	118	1,086	104	264
	3	474	99	893	85	169
	4	372	76	646	65	126
Annual Total	2,061	423	3,847	369	905	
2006	1	80	11	78	8	19
	2	88	13	94	10	22
	3	92	14	104	10	24
	4	93	14	105	11	25
Annual Total	353	52	382	39	90	
2007	1	117	18	152	15	61
	2	122	20	163	16	56
	3	126	21	173	17	58
	4	124	20	167	17	57
Annual Total	489	79	656	66	232	
2008	1	126	21	173	17	58
	2	117	19	152	16	63
	3	133	22	181	19	104
	4	128	21	174	18	87
Annual Total	504	82	680	70	311	
2009	1	155	26	229	23	124
	2	163	28	248	25	118
	3	152	27	231	23	79
	4	120	20	157	16	55
Annual Total	590	100	864	87	376	
2010	1	120	19	48	16	55
	2	129	22	53	18	40
	3	145	25	61	21	36
	4	153	27	67	23	40
Annual Total	547	94	229	77	171	
2011	1	246	45	113	39	138
	2	286	53	137	48	178
	3	328	63	162	56	225
	4	390	76	193	68	241
Annual Total	1,249	237	604	211	781	
2012	1	407	79	205	72	295
	2	411	81	211	74	295
	3	371	74	192	67	246
	4	354	71	183	64	220
Annual Total	1,544	305	790	277	1,056	
2013	1	317	61	155	55	192
	2	330	64	162	57	191
	3	327	65	161	57	147
	4	312	61	153	54	134
Annual Total	1,286	251	631	223	664	
2014	1	247	47	119	41	119
	2	250	48	122	42	119
	3	256	49	125	43	145
	4	261	51	130	45	125
Annual Total	1,015	196	496	172	507	
2015	1	194	37	167	32	129
	2	178	34	151	29	117
	3	159	30	135	25	82
	4	144	27	122	22	73
Annual Total	675	129	574	109	401	

(lbs/day)						
Quarter	CO	ROC	NOx	SOx	PM ₁₀	
2001	1	88	21	198	22	41
	2	88	21	198	19	41
	3	88	21	198	19	41
	4	88	21	198	19	41
Daily Total	352	86	791	79	165	
2002	1	4,252	697	5,521	608	3,184
	2	5,394	932	7,571	816	3,791
	3	6,790	1,240	10,325	1,091	4,378
	4	7,627	1,416	11,794	1,244	4,581
Daily Total	24,063	4,285	35,211	3,758	15,934	
2003	1	10,358	1,963	15,184	1,790	7,871
	2	11,202	2,160	16,181	1,949	7,633
	3	11,460	2,172	15,451	1,958	7,945
	4	10,828	2,022	12,785	1,814	7,569
Daily Total	43,847	8,317	59,601	7,511	31,018	
2004	1	14,595	2,725	17,699	2,492	10,777
	2	18,814	3,674	24,759	3,334	12,499
	3	20,106	4,033	27,478	3,635	12,441
	4	18,544	3,743	21,314	3,321	9,805
Daily Total	72,059	14,175	91,249	12,782	45,523	
2005	1	14,127	2,863	26,630	2,533	7,602
	2	12,563	2,600	24,077	2,283	5,794
	3	10,418	2,167	19,635	1,870	3,717
	4	8,183	1,677	14,200	1,434	2,770
Daily Total	45,291	9,307	84,542	8,120	19,883	
2006	1	1,755	244	1,724	177	426
	2	1,936	284	2,074	212	487
	3	2,023	304	2,279	231	533
	4	2,038	307	2,313	234	542
Daily Total	7,753	1,138	8,391	854	1,988	
2007	1	2,562	404	3,344	335	1,341
	2	2,690	436	3,583	361	1,237
	3	2,780	460	3,811	382	1,273
	4	2,725	446	3,676	369	1,248
Daily Total	10,757	1,746	14,413	1,447	5,099	
2008	1	2,760	458	3,792	380	1,265
	2	2,579	415	3,346	344	1,380
	3	2,916	473	3,969	413	2,277
	4	2,822	463	3,829	397	1,917
Daily Total	11,076	1,809	14,935	1,534	6,839	
2009	1	3,396	568	5,027	507	2,724
	2	3,581	615	5,440	544	2,599
	3	3,342	585	5,071	499	1,737
	4	2,643	433	3,440	356	1,212
Daily Total	12,961	2,201	18,979	1,906	8,272	
2010	1	2,837	421	1,051	351	1,219
	2	2,837	475	1,160	390	889
	3	3,187	557	1,347	457	783
	4	3,359	602	1,489	487	870
Daily Total	12,021	2,056	5,027	1,695	3,761	
2011	1	5,400	982	2,473	862	3,024
	2	6,287	1,175	3,001	1,046	3,919
	3	7,199	1,378	3,557	1,239	4,937
	4	8,571	1,670	4,246	1,499	5,287
Daily Total	27,458	5,205	13,278	4,646	17,167	
2012	1	8,950	1,737	4,502	1,587	6,487
	2	9,033	1,782	4,631	1,624	6,485
	3	8,159	1,629	4,211	1,471	5,397
	4	7,784	1,555	4,014	1,397	4,846
Daily Total	33,926	6,703	17,359	6,080	23,215	
2013	1	6,972	1,341	3,402	1,203	4,222
	2	7,258	1,407	3,560	1,259	4,202
	3	7,177	1,420	3,543	1,249	3,230
	4	6,853	1,352	3,366	1,184	2,943
Daily Total	28,258	5,520	13,871	4,896	14,598	
2014	1	5,428	1,036	2,605	907	2,605
	2	5,505	1,061	2,680	927	2,615
	3	5,636	1,077	2,754	952	3,177
	4	5,735	1,129	2,855	987	2,756
Daily Total	22,304	4,302	10,905	3,773	11,153	
2015	1	4,254	817	3,650	702	2,836
	2	3,921	747	3,317	638	2,561
	3	3,492	667	2,970	554	1,796
	4	3,158	594	2,676	491	1,613
Daily Total	14,825	2,825	12,623	2,386	8,807	

**Attachment D-2
Construction Emissions Totals**

NP-LCD LAX Construction Emissions (tons/quarter)		CO	ROC	Nox	Sox	PM10
Quarter						
1998	1					
	2					
	3					
	4					
Annual Total						
1999	1	115	69	126	16	38
	2	113	70	127	16	39
	3	113	70	127	16	39
	4	113	70	127	18	39
Annual Total		454	279	506	64	155
2000	1	113	70	127	16	39
	2	127	101	144	18	42
	3	262	182	320	39	108
	4	149	111	192	23	68
Annual Total		651	465	782	96	257
2001	1	151	112	154	23	68
	2	157	112	155	23	68
	3	156	112	154	23	68
	4	161	112	155	23	68
Annual Total		625	448	618	92	273
2002	1	161	112	117	23	68
	2	92	122	57	12	18
	3	92	122	58	12	18
	4	91	122	57	12	18
Annual Total		436	479	290	58	123
2003	1	241	206	102	31	64
	2	255	245	110	33	69
	3	252	244	110	33	69
	4	252	243	110	33	69
Annual Total		1000	939	432	129	271
2004	1	314	270	78	44	118
	2	410	380	102	57	137
	3	431	416	106	60	141
	4	393	397	96	55	127
Annual Total		1547	1463	383	215	524
2005	1	171	253	104	23	36
	2	161	219	100	21	33
	3	165	219	100	21	33
	4	170	219	100	21	34
Annual Total		667	909	405	87	137
2006	1	128	159	59	15	29
	2	116	106	66	15	28
	3	129	145	76	17	30
	4	138	156	81	18	33
Annual Total		512	566	291	65	120
2007	1	63	66	33	8	18
	2	63	65	33	8	17
	3	34	53	20	4	7
	4	26	49	16	4	5
Annual Total		186	233	102	25	48
2008	1	16	5	9	3	6
	2	78	36	38	11	20
	3	108	77	59	16	27
	4	123	104	71	19	30
Annual Total		324	222	178	49	82
2009	1	123	104	72	19	30
	2	136	112	77	20	32
	3	104	97	61	15	24
	4	62	75	41	9	14
Annual Total		426	388	251	62	100
2010	1	61	75	41	9	14
	2	49	61	33	7	11
	3					
	4					
Annual Total		110	136	74	17	25

NP-LCD LAX Construction Emissions (lbs/day)		CO	ROC	Nox	Sox	PM10
Quarter						
1998	1	-	-	-	-	-
	2	-	-	-	-	-
	3	-	-	-	-	-
	4	-	-	-	-	-
1999	1	3,535	2,134	3,879	490	1,182
	2	3,489	2,153	3,901	496	1,195
	3	3,462	2,149	3,896	496	1,195
	4	3,492	2,152	3,901	496	1,195
2000	1	3,471	2,150	3,897	496	1,195
	2	3,898	3,116	4,442	545	1,300
	3	8,064	5,601	9,842	1,209	3,319
	4	4,597	3,428	5,894	706	2,102
2001	1	4,636	3,432	4,727	706	2,102
	2	4,844	3,450	4,760	708	2,104
	3	4,792	3,443	4,753	706	2,103
	4	4,965	3,457	4,779	706	2,105
2002	1	4,956	3,457	3,607	706	2,105
	2	2,819	3,762	1,767	357	556
	3	2,844	3,767	1,776	358	558
	4	2,802	3,764	1,769	358	557
2003	1	7,401	6,348	3,127	945	1,977
	2	7,853	7,533	3,395	1,011	2,118
	3	7,754	7,518	3,383	1,011	2,118
	4	7,761	7,491	3,392	1,013	2,127
2004	1	9,647	8,313	2,414	1,343	3,645
	2	12,610	11,701	3,137	1,742	4,226
	3	13,253	12,785	3,274	1,857	4,337
	4	12,100	12,205	2,952	1,677	3,908
2005	1	5,267	7,792	3,215	698	1,111
	2	4,958	6,725	3,065	659	1,029
	3	5,080	6,732	3,084	659	1,030
	4	5,228	6,734	3,084	659	1,031
2006	1	3,948	4,899	2,115	458	887
	2	3,583	3,275	2,018	459	850
	3	3,984	4,453	2,329	526	938
	4	4,234	4,795	2,486	568	1,017
2007	1	1,928	2,018	1,028	261	566
	2	1,926	2,008	1,013	255	536
	3	1,055	1,621	605	137	215
	4	813	1,515	506	110	168
2008	1	479	168	289	85	170
	2	2,407	1,119	1,171	345	616
	3	3,314	2,356	1,809	483	819
	4	3,770	3,202	2,197	577	925
2009	1	3,797	3,206	2,211	577	924
	2	4,189	3,438	2,368	607	993
	3	3,201	2,989	1,863	448	726
	4	1,907	2,311	1,268	280	430
2010	1	1,862	2,305	1,253	280	430
	2	1,515	1,874	1,019	228	349
	3	-	-	-	-	-
	4	-	-	-	-	-

Note: Does not include 50% reduction of PM₁₀ for soil stabilization.

**Attachment D-2
Construction Emissions Totals**

NP-LCD	Quarter	LAX Construction Emissions (tons/quarter)				
		CO	ROC	Nox	Sox	PM10
2011	1					
	2					
	3					
	4					
	Annual Total					
2012	1					
	2					
	3					
	4					
	Annual Total					
2013	1					
	2					
	3					
	4					
	Annual Total					
2014	1					
	2					
	3					
	4					
	Annual Total					
2015	1					
	2					
	3					
	4					
	Annual Total					

NP-LCD	Quarter	LAX Construction Emissions (lbs/day)				
		CO	ROC	Nox	Sox	PM10
2011	1	-	-	-	-	-
	2	-	-	-	-	-
	3	-	-	-	-	-
	4	-	-	-	-	-
2012	1	-	-	-	-	-
	2	-	-	-	-	-
	3	-	-	-	-	-
	4	-	-	-	-	-
2013	1	-	-	-	-	-
	2	-	-	-	-	-
	3	-	-	-	-	-
	4	-	-	-	-	-
2014	1	-	-	-	-	-
	2	-	-	-	-	-
	3	-	-	-	-	-
	4	-	-	-	-	-
2015	1	-	-	-	-	-
	2	-	-	-	-	-
	3	-	-	-	-	-
	4	-	-	-	-	-

CONSTRUCTION EQUIPMENT DATA SHEETS
DEMOLITION

Work hours/ 10.00
Work days/m 5.00
3 months/qu 1.00

2.5 gram/tp-hr

CREW NUMBER	SUBTA SK	EQUIPMENT DESCRIPTION	NUMBER UNITS	MANUFACTURE	MODEL NUMBER	Air Pollutant Emissions (lbs/hour)					Air Pollutant Emissions (lbs/hour)					Air Pollutant Emissions(lbs/week)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
						CO	ROC	Nox	Sox	PM10	CO	ROC	Nox	Sox	PM10	CO	ROC	Nox	Sox	PM10																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
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CONSTRUCTION EQUIPMENT DATA SHEETS
DEMOLITION

Work hours/ 10.00
Work days/m 5.00
3 months/qu 1.00

2.5 grams/hp-hr

CREW NUMBER	SUBTA SK	EQUIPMENT DESCRIPTION	NUMBER UNITS	MANUFACTURE	MODEL NUMBER	Air Pollutant Emissions (lbs/hour)					Air Pollutant Emissions (lbs/hour)					Air Pollutant Emissions (lbs/week)								
						CO	ROC	Nox	Sox	PM10	CO	ROC	Nox	Sox	PM10	CO	ROC	Nox	Sox	PM10				
DEMOLITION																								
D5	ROADWAYS																							
		Excavator	1.00	CAT	330L	CAT 330L	1.18	0.11	2.56	0.21	0.20	1.18	0.11	0.59	0.21	0.20	59	5	128	11	10			
		Crane RT 50 Ton	1.00	Grove	RT880	Grove RT880	0.80	0.27	2.05	0.18	0.13	0.80	0.27	0.49	0.18	0.13	40	13	103	9	7			
		Flatbed Truck - 10 W	2.00	Freightliner	FLD120SD	Flatbed Truck - 10 Wheel	0.52	0.34	0.08	0.00	0.02	0.52	0.34	0.08	0.00	0.02	52	34	8	-	2			
		Haul Truck - 10 W/ha	4.00	Freightliner	FLD120SD	Haul Truck - 10 Wheel	2.10	1.35	0.30	0.00	0.07	2.10	1.35	0.30	0.00	0.07	420	270	60	-	15			
		Front End Loader	1.00	CAT	988F	CAT 988F	1.70	0.31	3.65	0.31	1.32	1.70	0.31	0.85	0.31	1.32	85	15	178	15	66			
		Motor Grader	1.00	CAT	16H	CAT 16H	1.05	0.39	5.78	0.28	0.89	1.05	0.39	0.72	0.28	0.89	52	20	289	13	45			
		Compactor	1.00	CAT	CB634C	CAT CB634C	0.62	0.21	1.59	0.14	0.19	0.62	0.21	0.38	0.14	0.19	31	10	80	7	9			
		Breaker/Shear	1.00	CAT	325L	L - With Breaker/Shear At	0.89	0.08	1.54	0.16	0.14	0.89	0.08	0.45	0.16	0.14	44	4	97	8	7			
		CMI Grinder	1.00	CMI	RS650	CMI RS650 Grinder	8.42	1.26	10.10	0.84	0.63	8.42	1.26	2.32	0.84	0.63	421	63	505	42	32			
		Dozer	1.00	CAT	D9R	CAT D9R	1.98	0.40	4.18	0.40	0.18	1.98	0.40	1.09	0.40	0.18	99	20	208	20	9			
		Welder	4.00	Lincoln	Classic III D	Incoln Classic III D Weld	0.16	0.03	0.26	0.03	0.01	0.16	0.03	0.08	0.03	0.01	32	6	52	6	3			
		Total					19.42	4.74	32.38	2.53	3.80	Total	19.42	4.74	7.34	2.53	3.80	D5	ROADWAYS	1,336	460	1,707	131	204
D6	Res/Ind																							
	1-D1,		1.00				5.53	2.37	8.69	0.60	2.34	5.53	2.37	2.02	0.60	2.34	D1		487	253	465	30	124	
	2-D4		2.00				18.62	4.47	30.82	2.35	3.66	18.62	4.47	6.85	2.35	3.66	D4		3,349	1,255	4,360	315	649	
																	D6	Res/Ind	3,838	1,508	4,825	345	773	
D7	Res/Ind/Mid																							
	3-D1, 2-D2,		3.00				5.53	2.37	8.69	0.60	2.34	5.53	2.37	2.02	0.60	2.34	D1	RESIDENTIAL	1,460	760	1,394	89	373	
	D1						10.34	3.44	20.42	1.57	3.07	10.34	3.44	4.71	1.57	3.07	D2	INDUSTRIAL	701	147	1,756	138	379	
	D2		2.00				10.83	3.54	21.45	1.67	3.09	10.83	3.54	4.98	1.57	3.09	D3	MID-RISE	1,287	569	1,565	121	252	
	D3		1.00														D7	RES,IND,MID	3,448	1,477	4,714	348	1,004	
	Total																							
D8	Res/Ind																							
	1-D1, 1-D2		1.00				5.53	2.37	8.69	0.60	2.34	5.53	2.37	2.02	0.60	2.34	D1	RESIDENTIAL	487	253	465	30	124	
	D2		1.00				10.34	3.44	20.42	1.57	3.07	10.34	3.44	4.71	1.57	3.07	D2	INDUSTRIAL	351	74	678	89	189	
	TOTAL																D8	Res/Ind	837	327	1,342	99	314	
D8	Res/Ind/Roads																							
	D1		2.00				5.53	2.37	8.69	0.60	2.34	5.53	2.37	2.02	0.60	2.34	D1	RESIDENTIAL	973	507	928	60	248	
	D2		2.00				10.34	3.44	20.42	1.57	3.07	10.34	3.44	4.71	1.57	3.07	D2	INDUSTRIAL	701	147	1,756	138	379	
	D5		3.00				19.42	4.74	32.38	2.53	3.80	19.42	4.74	7.34	2.53	3.80	D5	ROADWAYS	4,008	1,381	5,121	393	812	
	Total																D9	Res/Ind/Roads	5,683	2,035	7,806	591	1,240	
2-D1, 2-D2, 3-D5																								
D10	Res/Roads																							
	D1		1.00				5.53	2.37	8.69	0.60	2.34	5.53	2.37	2.02	0.60	2.34	D1	RESIDENTIAL	487	253	465	30	124	
	D5		2.00				19.42	4.74	32.38	2.53	3.80	19.42	4.74	7.34	2.53	3.80	D5	ROADWAYS	2,673	921	3,414	262	408	
	1-D1, 2-D5																D10	Res/Roads	3,159	1,174	3,878	292	532	
D11	RES/IND																							
	D1		3.00				5.53	2.37	8.69	0.60	2.34	5.53	2.37	2.02	0.60	2.34	D1	RESIDENTIAL	1,460	760	1,394	89	373	
	D2		2.00				10.34	3.44	20.42	1.57	3.07	10.34	3.44	4.71	1.57	3.07	D2	INDUSTRIAL	701	147	1,756	138	379	
																	D11	RES/IND	2,161	907	3,150	228	751	

CONSTRUCTION EQUIPMENT DATA SHEETS
EXCAVATION

Work hours/day 10.0
Work days/week 5.0
3 months/quarter 1.0

CREW NUMBER	SUBTASK	EQUIPMENT DESCRIPTION	NUMBER UNITS	MANUFACTURE	MODEL NUMBER	Air Pollutant Emissions (lbs/hour)					Air Pollutant Emissions (lbs/hour)					Air Pollutant Emissions(lbs/week)														
						CO	ROC	Nox	Sox	PM10	CO	ROC	Nox	Sox	PM10	CO	ROC	Nox	Sox	PM10										
EXCAVATION/FOUNDATIONS																CO	ROC	Nox	Sox	PM10										
E1 UTILITIES																CO	ROC	Nox	Sox	PM10	CO	ROC	Nox	Sox	PM10					
	Excavator	1	CAT	325L	CAT 325L	0.89	0.08	1.94	0.16	0.16	0.00	0.89	0.08	0.45	0.16	0.16	44	4	97	8	8									
	Crane RT 25 Ton	1	Grove	RT500C	Grove RT500C	0.42	0.14	1.07	0.09	0.07	0	0.42	0.14	0.26	0.09	0.07	21	7	53	5	3									
	Flatbed Truck - 10 Whe	2	Freightliner	FLD120SD	Flatbed Truck - 10 Wh	0.52	0.34	0.08	0.00	0.02	0.00	0.52	0.34	0.08	0.00	0.02	52	34	8	-	2									
	Haul Truck - 10 Wheel	4	Freightliner	FLD120SD	Haul Truck - 10 Whe	2.10	1.35	0.30	0.00	0.07	0.00	2.10	1.35	0.30	0.00	0.07	420	270	60	-	15									
	Front End Loader	1	CAT	966F	CAT 966F	0.93	0.17	1.95	0.17	1.11	0	0.93	0.17	0.47	0.17	1.11	47	8	96	8	55									
	Motor Grader	1	CAT	12H	CAT 12H	0.53	0.20	2.94	0.13	0.83	0	0.53	0.20	0.37	0.13	0.83	27	10	147	7	41									
	Compactor	1	CAT	CP433C	CAT CP433C	0.46	0.15	1.17	0.10	0.16	0.00	0.46	0.15	0.28	0.10	0.16	23	8	59	5	8									
	Light Plant	4	Almond Brothers	axi Show 100	1 Show 1000 Light	0.09	0.02	0.15	0.02	0.01	0	0.09	0.02	0.05	0.02	0.01	19	3	31	3	2									
	Welder	4	Lincoln	Classic III D	oin Classic III D We	0.16	0.03	0.26	0.03	0.01	0	0.16	0.03	0.08	0.03	0.01	32	6	52	6	3									
	Water Wagon	1	CAT	766C	Water Wagon	0.52489	0.337	0.07611	0	0.0185	0	0.52	0.34	0.08	0.00	0.02	26	17	4	-	1									
	Total					6.64	2.81	9.94	0.71	2.46	Total	6.64	2.81	2.39	0.71	2.46	E1 UTILITIES	711	367	806	42	138								
E2 STRUCTURAL - BUILDINGS																CO	ROC	Nox	Sox	PM10	CO	ROC	Nox	Sox	PM10	CO	ROC	Nox	Sox	PM10
	Excavator	2	CAT	330L	CAT 330L	1.18	0.11	2.56	0.21	0.20	0.00	1.18	0.11	0.59	0.21	0.20	118	11	256	21	20									
	Crane RT 50 Ton	1	Grove	RT750	Grove RT750	0.64	0.21	1.64	0.14	0.11	0.00	0.64	0.21	0.39	0.14	0.11	32	11	82	7	5									
	Crane - Track	1	Mantwoc	3900	Mantwoc 3900	0.92	0.31	2.36	0.20	0.15	0.00	0.92	0.31	0.56	0.20	0.15	46	15	118	10	8									
	Flatbed Truck - 10 Whe	2	Freightliner	FLD120SD	Flatbed Truck - 10 Wh	0.52	0.34	0.08	0.00	0.02	0.00	0.52	0.34	0.08	0.00	0.02	52	34	8	-	2									
	Haul Truck - 10 Wheel	6	Freightliner	FLD120SD	Haul Truck - 10 Whe	2.10	1.35	0.30	0.00	0.07	0.00	2.10	1.35	0.30	0.00	0.07	630	404	90	-	22									
	Front End Loader	2	CAT	966F	CAT 966F	1.70	0.31	3.65	0.31	1.32	0.00	1.70	0.31	0.85	0.31	1.32	170	31	355	31	132									
	Motor Grader	1	CAT	14H	CAT 14H	0.82	0.31	4.52	0.21	0.66	0.00	0.82	0.31	0.57	0.21	0.66	41	15	226	10	43									
	Compactor	1	CAT	433C	CAT CP433C	0.46	0.15	1.17	0.10	0.16	0.00	0.46	0.15	0.28	0.10	0.16	23	8	59	5	8									
	Light Plant	6	Almond Brothers	axi Show 100	1 Show 1000 Light	0.09	0.02	0.15	0.02	0.01	0.00	0.09	0.02	0.05	0.02	0.01	28	5	46	5	3									
	Welder	4	Lincoln	Classic III D	oin Classic III D We	0.16	0.03	0.26	0.03	0.01	0.00	0.16	0.03	0.08	0.03	0.01	32	6	52	6	3									
	Water Wagon	1	CAT	766C	Water Wagon	0.52	0.34	0.08	0.00	0.02	0.00	0.52	0.34	0.08	0.00	0.02	26	17	4	-	1									
	Pile Hammer	1	Mantwoc	3900	Mantwoc 3900	0.92	0.31	2.36	0.20	0.15	0.00	0.92	0.31	0.56	0.20	0.15	46	15	118	10	8									
	Fork Lift	1	Manitou	M430CP	50 Ton	0.44	0.06	0.36	0.04	0.06	50 Ton	0.44	0.06	0.11	0.04	0.06	22	3	18	2	3									
	Total					10.48	3.83	19.38	1.47	3.15	Total	10.48	3.83	4.49	1.47	3.15	E2 URAL - BUI	1,265	675	1,431	108	257								
E3 STRUCTURAL - ROADS																CO	ROC	Nox	Sox	PM10	CO	ROC	Nox	Sox	PM10	CO	ROC	Nox	Sox	PM10
	Excavator	1	CAT	330L	CAT 330L	1.18	0.11	2.56	0.21	0.20	0.00	1.18	0.11	0.59	0.21	0.20	59	5	128	11	10									
	Crane RT 25 Ton	1	Grove	RT750	Grove RT750	0.64	0.21	1.64	0.14	0.11	0.00	0.64	0.21	0.39	0.14	0.11	32	11	82	7	5									
	Flatbed Truck - 10 Whe	2	Freightliner	FLD120SD	Flatbed Truck - 10 Wh	0.52	0.34	0.08	0.00	0.02	0.00	0.52	0.34	0.08	0.00	0.02	52	34	8	-	2									
	Haul Truck - 10 Wheel	6	Freightliner	FLD120SD	Haul Truck - 10 Whe	2.10	1.35	0.30	0.00	0.07	0.00	2.10	1.35	0.30	0.00	0.07	630	404	90	-	22									
	Front End Loader	1	CAT	966F	CAT 966F	1.70	0.31	3.65	0.31	1.32	0.00	1.70	0.31	0.85	0.31	1.32	85	15	178	15	86									
	Compactor	1	CAT	CB634C	CAT CB634C	0.62	0.21	1.59	0.14	0.19	0.00	0.62	0.21	0.38	0.14	0.19	31	10	60	7	9									
	Light Plant	4	Almond Brothers	axi Show 100	1 Show 1000 Light	0.09	0.02	0.15	0.02	0.01	0.00	0.09	0.02	0.05	0.02	0.01	19	3	31	3	2									
	Welder	4	Lincoln	Classic III D	oin Classic III D We	0.16	0.03	0.26	0.03	0.01	0.00	0.16	0.03	0.08	0.03	0.01	32	6	52	6	3									
	Pile Hammer	1	Mantwoc	3900	Mantwoc 3900	0.92	0.31	2.36	0.20	0.15	0.00	0.92	0.31	0.56	0.20	0.15	46	15	118	10	8									
	Fork Lift	1	Manitou	M430CP	50 Ton	0.44	0.06	0.36	0.04	0.06	50 Ton	0.44	0.06	0.11	0.04	0.06	22	3	18	2	3									
	Total					8.38	2.94	12.85	1.09	2.14	Total	8.38	2.94	3.39	1.09	2.14	E3 CTURAL - R	1,008	508	784	62	130								
E4 GENERAL ROADS																CO	ROC	Nox	Sox	PM10	CO	ROC	Nox	Sox	PM10	CO	ROC	Nox	Sox	PM10
	Scraper	6	CAT	631E	CAT 631E	2.72	0.25	4.70	0.50	16.24	0	2.72	0.25	1.36	0.50	16.24	817	74	1,411	149	4,872									
	Front End Loader	1	CAT	992D	CAT 992D	2.93	0.53	6.13	0.53	1.62	0	2.93	0.53	1.47	0.53	1.62	146	27	306	27	81									
	Compactor	1	CAT	CB634C	CAT CB634C	0.62	0.21	1.59	0.14	0.19	0.00	0.62	0.21	0.38	0.14	0.19	31	10	60	7	9									
	Compactor	2	CAT	825G	CAT 825G	1.35	0.45	3.46	0.30	0.31	0.00	1.35	0.45	0.83	0.30	0.31	135	45	346	30	31									
	Light Plant	8	Almond Brothers	axi Show 100	1 Show 1000 Light	0.09	0.02	0.15	0.02	0.01	0	0.09	0.02	0.06	0.02	0.01	37	7	61	7	3									
	Welder	4	Lincoln	Classic III D	oin Classic III D We	0.16	0.03	0.26	0.03	0.01	0	0.16	0.03	0.08	0.03	0.01	32	6	52	6	3									
	Fork Lift	1	Manitou	M430CP	50 Ton	0.44	0.06	0.36	0.04	0.06	50 Ton	0.44	0.06	0.11	0.04	0.06	22	3	18	2	3									
	Dozer	2	CAT	D10R	CAT D10R	2.79	0.56	5.86	0.56	0.22	0.00	2.79	0.56	1.54	0.56	0.22	279	56	586	56	22									
	Total					11.11	2.10	22.51	2.11	18.68	Total	11.11	2.10	5.81	2.11	18.68	E4 NERAL RO	1,600	226	2,860	283	5,025								

CONSTRUCTION EQUIPMENT DATA SHEETS
EXCAVATION

Work hours/day 10.0
Work days/week 5.0
3 months/quarter 1.0

CREW NUMBER	SUBTASK	EQUIPMENT DESCRIPTION	NUMBER UNITS	MANUFACTURE	MODEL NUMBER	Air Pollutant Emissions (lbs/hour)					Air Pollutant Emissions (lbs/hour)					Air Pollutant Emissions (lbs/week)							
						CO	ROC	Nox	Sox	PM10	CO	ROC	Nox	Sox	PM10	CO	ROC	Nox	Sox	PM10			
EXCAVATION/FOUNDATIONS																							
E5	NEE-LEB	Scrapper	6	CAT	631E	CAT 631E	2.72	0.25	4.70	0.50	16.24	0	2.72	0.25	1.36	0.50	16.24	817	74	1,411	149	4,872	
		Front End Loader	1	CAT	992D	CAT 992D	2.93	0.53	8.13	0.53	1.62	0	2.93	0.53	1.47	0.53	1.62	146	27	306	27	81	
		Compactor	1	CAT	CB634C	CAT CB634C	0.82	0.21	1.69	0.14	0.19	0.00	0.82	0.21	0.38	0.14	0.19	31	10	80	7	9	
		Compactor	2	CAT	825G	CAT 825G	1.35	0.45	3.46	0.30	0.31	0.00	1.35	0.45	0.83	0.30	0.31	135	45	345	30	31	
		Light Plant	8	Almond Brothers	axl Show 100	I Show 1000 Light	0.09	0.02	0.15	0.02	0.01	0	0.09	0.02	0.05	0.02	0.01	37	7	61	7	3	
		Welder	4	Lincoln	Classic III D	oln Classic III D We	0.16	0.03	0.26	0.03	0.01	0	0.16	0.03	0.08	0.03	0.01	32	6	52	6	3	
		Fork Lift	1	Manitou	M430CP	50 Ton	0.44	0.06	0.36	0.04	0.06	50 Ton	0.44	0.06	0.11	0.04	0.06	22	3	18	2	3	
		Dozer	2	CAT	D10R	CAT D10R	2.79	0.56	5.85	0.56	0.22	0.00	2.79	0.56	1.54	0.56	0.22	279	56	588	56	22	
Total						11.11	2.10	22.51	2.11	18.66	Total	11.11	2.10	5.81	2.11	18.66	E6	AIRFIELD	1,500	228	2,860	283	5,025
E6 CUT & COVER (TIGHT)																							
		Excavator	2	CAT	375	CAT 375	2.27	0.21	4.94	0.41	0.36	0.00	2.27	0.21	1.13	0.41	0.36	227	21	494	41	36	
		Crane RT 55 Ton	1	Grove	RT635C	Grove RT635C	0.49	0.18	1.25	0.11	0.08	0	0.49	0.18	0.30	0.11	0.08	24	8	62	5	4	
		Flatbed Truck - 10 Whe	2	Freightliner	FLD120SD	bed Truck - 10 Wh	0.52	0.34	0.08	0.00	0.02	0.00	0.52	0.34	0.08	0.00	0.02	52	34	8	-	2	
		Haul Truck - 10 Wheel	6	Freightliner	FLD120SD	aul Truck - 10 Whe	2.10	1.35	0.30	0.00	0.07	0.00	2.10	1.35	0.30	0.00	0.07	630	404	90	-	22	
		Front End Loader	2	CAT	986F	CAT 986F	1.70	0.31	5.55	0.31	1.32	0	1.70	0.31	0.85	0.31	1.32	170	31	355	31	132	
		Motor Grader	1	CAT	16H	CAT 16H	1.05	0.39	5.78	0.26	0.89	0	1.05	0.39	0.72	0.26	0.89	52	20	289	13	45	
		Compactor	1	CAT	CP433C	CAT CP433C	0.48	0.15	1.17	0.10	0.16	0.00	0.48	0.15	0.28	0.10	0.16	23	8	59	5	8	
		Light Plant	6	Almond Brothers	axl Show 100	I Show 1000 Light	0.09	0.02	0.15	0.02	0.01	0	0.09	0.02	0.05	0.02	0.01	28	5	46	5	3	
		Welder	4	Lincoln	Classic III D	oln Classic III D We	0.16	0.03	0.26	0.03	0.01	0	0.16	0.03	0.08	0.03	0.01	32	6	52	6	3	
		Water Wagon	1	CAT	766C	Water Wagon	0.52	0.34	0.08	0.00	0.02	0	0.52	0.34	0.08	0.00	0.02	26	17	4	-	1	
		Pile Hammer	1	Manitowoc	3900	Manitowoc 3900	0.92	0.31	2.36	0.20	0.15	0	0.92	0.31	0.66	0.20	0.15	46	15	118	10	8	
		Fork Lift	1	Manitou	M430CP	50 Ton	0.44	0.06	0.36	0.04	0.06	50 Ton	0.44	0.06	0.11	0.04	0.06	22	3	18	2	3	
Total						10.73	3.68	20.27	1.48	3.16	Total	10.73	3.68	4.54	1.48	3.16	E6 & COVER (TI	1,333	571	1,585	119	268	
E7 CUT & COVER (OPEN)																							
		Scrapper	6	CAT	631E	CAT 631E	2.72	0.25	4.70	0.50	16.24	0	2.72	0.25	1.36	0.50	16.24	817	74	1,411	149	4,872	
		Front End Loader	1	CAT	992D	CAT 992D	2.93	0.53	8.13	0.53	1.62	0	2.93	0.53	1.47	0.53	1.62	146	27	306	27	81	
		Compactor	1	CAT	CP433C	CAT CP433C	0.48	0.15	1.17	0.10	0.16	0.00	0.48	0.15	0.28	0.10	0.16	23	8	59	5	8	
		Compactor	2	CAT	825G	CAT 825G	1.35	0.45	3.46	0.30	0.31	0.00	1.35	0.45	0.83	0.30	0.31	135	45	345	30	31	
		Light Plant	6	Almond Brothers	axl Show 100	I Show 1000 Light	0.09	0.02	0.15	0.02	0.01	0	0.09	0.02	0.05	0.02	0.01	28	5	46	5	3	
		Welder	4	Lincoln	Classic III D	oln Classic III D We	0.16	0.03	0.26	0.03	0.01	0	0.16	0.03	0.08	0.03	0.01	32	6	52	6	3	
		Fork Lift	1	Manitou	M430CP	50 Ton	0.44	0.06	0.36	0.04	0.06	50 Ton	0.44	0.06	0.11	0.04	0.06	22	3	18	2	3	
		Dozer	2	CAT	D10R	CAT D10R	2.79	0.56	5.86	0.56	0.22	0.00	2.79	0.56	1.54	0.56	0.22	279	56	586	56	22	
		Pile Hammer	1	Manitowoc	3900	Manitowoc 3900	0.92	0.31	2.36	0.20	0.15	0	0.92	0.31	0.66	0.20	0.15	46	15	118	10	8	
Total						11.87	2.36	24.45	2.28	18.79	Total	11.87	2.36	6.28	2.28	18.79	E7 & COVER (O	1,529	239	2,942	269	5,030	
E8	Roadways 200	E3	4				8.38	2.94	12.85	1.09	2.14	8.38	2.94	3.39	1.09	2.14	E3	CTURAL - R	4,032	2,030	3,135	247	519
4-E4, 4-E3, 2-E6		E4	4				11.11	2.10	22.51	2.11	18.66	11.11	2.10	5.81	2.11	18.66	E4	NEPAL ROA	6,000	911	11,440	1,130	20,099
		E6	2				10.73	3.68	20.27	1.48	3.16	10.73	3.68	4.54	1.48	3.16	E6	& COVER (TI	2,665	1,142	3,189	238	531
																	E8	oadways 20	12,665	4,084	17,764	1,514	21,150
E9	Roadways	E3	2				8.38	2.94	12.85	1.09	2.14	8.38	2.94	3.39	1.09	2.14	E3	CTURAL - R	2,016	1,015	1,567	123	260
2-E3, 2-E4		E4	2				11.11	2.10	22.51	2.11	18.66	11.11	2.10	5.81	2.11	18.66	E4	NEPAL ROA	3,000	455	5,720	565	10,050
																	E9	Roadways	5,016	1,471	7,287	688	10,309
E10	Roadways	E4	1				11.11	2.10	22.51	2.11	18.66	11.11	2.10	5.81	2.11	18.66	E4	NEPAL ROA	1,500	228	2,860	283	5,025
1-E4, 1-E6		E6	1				10.73	3.68	20.27	1.48	3.16	10.73	3.68	4.54	1.48	3.16	E6	& COVER (TI	1,333	571	1,595	119	268
																	E10	Roadways	2,833	799	4,455	401	5,290

CONSTRUCTION EQUIPMENT DATA SHEETS
STRUCTURES

Work hours/day 10.0
Work days/week 5.0
3 months/quarter 1.0

CREW NUMBER	SUBTASK	EQUIPMENT DESCRIPTION	UNIT NUMBER	MANUFACTURE	MODEL NUMBER	Air Pollutant Emissions (lb/year)					Air Pollutant Emissions (lb/hour) 2.5 gpm/10'					Air Pollutant Emissions (lb/week)						
						CO	ROC	Nox	Sox	PM10	CO	ROC	Nox	Sox	PM10	CO	ROC	Nox	Sox	PM10		
STRUCTURAL ERECTION																						
S1	BUILDINGS					CO	ROC	Nox	Sox	PM10	CO	ROC	Nox	Sox	PM10	CO	ROC	Nox	Sox	PM10		
	Crane RT 50 Ton	1	Grove	RT750	Grove RT750	0.84	0.21	1.84	0.14	0.11	0.84	0.21	0.39	0.14	0.11	32	11	82	7	5		
	Crane - Track	2	Manitowoc	3900	Manitowoc 3900	0.92	0.31	2.36	0.20	0.15	0.92	0.31	0.56	0.20	0.15	92	31	236	20	16		
	Flatbed Truck - 10 Wheel	4	Freightliner	FLD120SD	Flatbed Truck - 10 Wh	0.52	0.34	0.08	0.00	0.02	0.52	0.34	0.08	0.00	0.02	105	67	15	-	4		
	Front End Loader	2	CAT	966F	CAT 966F	0.93	0.17	1.95	0.17	1.11	0.93	0.17	0.47	0.17	1.11	93	17	195	17	111		
	Motor Grader	1	CAT	12H	CAT 12H	0.53	0.20	2.94	0.13	0.83	0.53	0.20	0.37	0.13	0.83	27	10	147	7	41		
	Compactor	1	CAT	CB224C	CAT CB224C	0.14	0.05	0.36	0.03	0.11	0.14	0.05	0.09	0.03	0.11	7	2	18	2	5		
	Light Plant	6	Almond Brothers	Maxi Show 100	1 Show 1000 Light P	0.09	0.02	0.15	0.02	0.01	0.09	0.02	0.05	0.02	0.01	28	5	48	5	3		
	Welder	6	Lincoln	Classic III D	Lin Classic III D We	0.16	0.03	0.26	0.03	0.01	0.16	0.03	0.08	0.03	0.01	48	9	78	9	4		
	Fork Lift	2	Manitou	M430CP	50 Ton	0.44	0.06	0.36	0.04	0.06	0.44	0.06	0.11	0.04	0.06	44	6	36	4	6		
	Concrete Pump	1	Putzmeister	S2M	later S2M Concrete	1.96	0.36	3.21	0.36	0.18	1.96	0.36	0.98	0.36	0.18	98	18	160	18	9		
	Generator	1	CAT	3412TA	Generator	5.06	0.92	8.28	0.92	0.46	5.06	0.92	2.53	0.92	0.46	253	46	414	46	23		
	Total					11.41	2.65	21.59	2.04	3.04	Total	11.41	2.65	5.70	2.04	3.04	S1 BUILDING	827	222	1,428	134	227
S2 ROADWAYS																						
	Crane RT 80 Ton	1	Grove	RT880	Grove RT880	0.80	0.27	2.05	0.18	0.13	0.80	0.27	0.49	0.18	0.13	40	13	103	9	7		
	Crane - Track	1	Manitowoc	3900	Manitowoc 3900	0.92	0.31	2.36	0.20	0.15	0.92	0.31	0.56	0.20	0.15	46	16	118	10	8		
	Flatbed Truck - 10 Wheel	2	Freightliner	FLD120SD	Flatbed Truck - 10 Wh	0.52	0.34	0.08	0.00	0.02	0.52	0.34	0.08	0.00	0.02	52	34	8	-	2		
	Front End Loader	1	CAT	966F	CAT 966F	0.93	0.17	1.95	0.17	1.11	0.93	0.17	0.47	0.17	1.11	47	8	96	8	55		
	Motor Grader	1	CAT	12H	CAT 12H	0.53	0.20	2.94	0.13	0.83	0.53	0.20	0.37	0.13	0.83	27	10	147	7	41		
	Compactor	1	CAT	CB224C	CAT CB224C	0.14	0.05	0.36	0.03	0.11	0.14	0.05	0.09	0.03	0.11	7	2	18	2	5		
	Light Plant	4	Almond Brothers	Maxi Show 100	1 Show 1000 Light P	0.09	0.02	0.15	0.02	0.01	0.09	0.02	0.05	0.02	0.01	19	3	31	3	2		
	Welder	4	Lincoln	Classic III D	Lin Classic III D We	0.16	0.03	0.26	0.03	0.01	0.16	0.03	0.08	0.03	0.01	32	6	52	6	3		
	Fork Lift	1	Manitou	M430CP	50 Ton	0.44	0.06	0.36	0.04	0.06	0.44	0.06	0.11	0.04	0.06	22	3	18	2	3		
	Concrete Pump	1	Putzmeister	S2M	later S2M Concrete	1.96	0.36	3.21	0.36	0.18	1.96	0.36	0.98	0.36	0.18	98	18	160	18	9		
	Generator	1	CAT	3412TA	Generator	5.06	0.92	8.28	0.92	0.46	5.06	0.92	2.53	0.92	0.46	253	46	414	46	23		
	Total					11.57	2.71	22.00	2.08	3.07	Total	11.57	2.71	5.80	2.08	3.07	S2 ROADWAY	643	159	1,168	111	158
S3 CUT & COVER																						
	Crane RT 50 Ton	1	Grove	RT750	Grove RT750	0.84	0.21	1.84	0.14	0.11	0.84	0.21	0.39	0.14	0.11	32	11	82	7	5		
	Crane - Track	1	Manitowoc	3900	Manitowoc 3900	0.92	0.31	2.36	0.20	0.15	0.92	0.31	0.56	0.20	0.15	46	16	118	10	8		
	Flatbed Truck - 10 Wheel	4	Freightliner	FLD120SD	Flatbed Truck - 10 Wh	0.52	0.34	0.08	0.00	0.02	0.52	0.34	0.08	0.00	0.02	105	67	15	-	4		
	Front End Loader	2	CAT	966F	CAT 966F	0.93	0.17	1.95	0.17	1.11	0.93	0.17	0.47	0.17	1.11	93	17	195	17	111		
	Motor Grader	1	CAT	12H	CAT 12H	0.53	0.20	2.94	0.13	0.83	0.53	0.20	0.37	0.13	0.83	27	10	147	7	41		
	Compactor	2	CAT	CB434B	CAT CB434B	0.34	0.11	0.88	0.08	0.14	0.34	0.11	0.21	0.08	0.14	34	11	88	8	14		
	Light Plant	6	Almond Brothers	Maxi Show 100	1 Show 1000 Light P	0.09	0.02	0.15	0.02	0.01	0.09	0.02	0.05	0.02	0.01	28	5	48	5	3		
	Welder	4	Lincoln	Classic III D	Lin Classic III D We	0.16	0.03	0.26	0.03	0.01	0.16	0.03	0.08	0.03	0.01	32	6	52	6	3		
	Fork Lift	1	Manitou	M430CP	50 Ton	0.44	0.06	0.36	0.04	0.06	0.44	0.06	0.11	0.04	0.06	22	3	18	2	3		
	Concrete Pump	1	Putzmeister	S2M	later S2M Concrete	1.96	0.36	3.21	0.36	0.18	1.96	0.36	0.98	0.36	0.18	98	18	160	18	9		
	Generator	1	CAT	3412TA	Generator	5.06	0.92	8.28	0.92	0.46	5.06	0.92	2.53	0.92	0.46	253	46	414	46	23		
	Haul Truck - 10 Wheel	8	Freightliner	FLD120SD	Haul Truck - 10 Whe	2.10	1.35	0.30	0.00	0.07	2.10	1.35	0.30	0.00	0.07	630	404	90	-	22		
	Total					13.71	4.07	22.40	2.08	3.15	13.71	4.07	6.13	2.08	3.15	S3 T & COV	1,400	614	1,428	125	246	
S4 Roadway																						
6-S2, 2-S3	S2	6				11.57	2.71	22.00	2.08	3.07	11.57	2.71	5.80	2.08	3.07	S2 ROADWAY	5,142	1,275	9,328	887	1,282	
	S3	2				13.71	4.07	22.40	2.09	3.15	13.71	4.07	6.13	2.09	3.15	S3 T & COV	2,801	1,228	2,851	251	491	
	Total				S4	25.28	6.78	44.40	4.17	6.22	0	25.28	6.78	11.93	4.17	6.22	S4 ROADWAY	7,943	2,503	12,178	1,138	1,753
S5 Roadway																						
2-S2, 1-S3	S2	2				11.57	2.71	22.00	2.08	3.07	11.57	2.71	5.80	2.08	3.07	S2 ROADWAY	1,286	319	2,332	222	316	
	S3	1				13.71	4.07	22.40	2.09	3.15	13.71	4.07	6.13	2.09	3.15	S3 T & COV	1,400	814	1,426	125	246	
	Total				S5	25.28	6.78	44.40	4.17	6.22	0	25.28	6.78	11.93	4.17	6.22	S5 ROADWAY	2,686	933	3,757	347	561

CONSTRUCTION EQUIPMENT DATA SHEETS
PAVING

Work hours/day 10.0
Work days/month 5.0
3 months/quarter 1.0

CREW NUMBER	SUBTASK	EQUIPMENT DESCRIPTION	NUMBER UNITS	MANUFACTURE	MODEL NUMBER	Air Pollutant Emissions (lbs/hour)					Air Pollutant Emissions (lbs/hour)					Air Pollutant Emissions (lbs/week)									
						CO	ROC	Nox	Sox	PM10	CO	ROC	Nox	Sox	PM10	CO	ROC	Nox	Sox	PM10					
PAVEMENTS																									
P1	ASPHALT																								
		Crane RT 25 Ton	1	Grove	RT500C	Grove RT500C	0.42	0.14	1.07	0.09	0.07	0	0.42	0.14	0.26	0.09	0.07	21	7	53	5	3			
		Flatbed Truck - 10 W	2	Freightliner	FLD120SD	Flatbed Truck - 10 Wh	0.52	0.34	0.08	0.00	0.02	0	0.52	0.34	0.08	0.00	0.02	52	34	8	-	2			
		Front End Loader	2	CAT	988F	CAT 988F	1.70	0.31	3.55	0.31	1.32	0	1.70	0.31	0.85	0.31	1.32	170	31	355	31	132			
		Motor Grader	2	CAT	16H	CAT 16H	1.05	0.39	5.78	0.26	0.89	0	1.05	0.39	0.72	0.26	0.89	105	39	578	26	89			
		Compactor	2	CAT	CB634C	CAT CB634C	0.62	0.21	1.59	0.14	0.19	0.00	0.62	0.21	0.38	0.14	0.19	62	21	159	14	19			
		Light Plant	6	Almond Brothers	axi Show 100	1 Show 1000 Light	0.09	0.02	0.15	0.02	0.01	0	0.09	0.02	0.05	0.02	0.01	28	5	46	5	3			
		Welder	4	Lincoln	Classic III D	aln Classic III D W	0.16	0.03	0.26	0.03	0.01	0	0.16	0.03	0.08	0.03	0.01	32	6	52	6	3			
		Haul Truck - 10 Whee	6	Freightliner	FLD120SD	aul Truck - 10 Whe	2.10	1.35	0.30	0.00	0.07	0	2.10	1.35	0.30	0.00	0.07	630	404	90	-	22			
		Reclaimer/Stabilizer	1	CAT	SM-350	Road Reclaimer/S	1.85	0.62	4.72	0.41	0.39	0.00	1.85	0.62	1.13	0.41	0.39	92	31	235	21	20			
		CMI Paver	1	Barber-Greene	BQ270B	CMI Paver	1.98	0.66	5.05	0.44	0.41	0.00	1.98	0.66	1.21	0.44	0.41	99	33	252	22	21			
		Water Wagon	1	CAT	768C	Water Wagon	0.52	0.34	0.08	0.00	0.02	0	0.52	0.34	0.08	0.00	0.02	26	17	4	-	1			
		Oil Tank Truck	1	Freightliner	FLD120SD	Oil Tank Truck	0.26	0.17	0.04	0.00	0.01	0	0.26	0.17	0.04	0.00	0.01	13	8	2	-	0			
						Total	11.28	4.56	22.66	1.70	3.41	Total	11.28	4.56	5.16	1.70	3.41	P1 ASPHALT	1,331	636	1,835	129	314		
P2	CONCRETE																								
		Crane RT 25 Ton	1	Grove	RT500C	Grove RT500C	0.42	0.14	1.07	0.09	0.07	0	0.42	0.14	0.26	0.09	0.07	21	7	53	5	3			
		Flatbed Truck - 10 W	2	Freightliner	FLD120SD	Flatbed Truck - 10 Wh	0.52	0.34	0.08	0.00	0.02	0	0.52	0.34	0.08	0.00	0.02	52	34	8	-	2			
		Front End Loader	2	CAT	988F	CAT 988F	1.70	0.31	3.55	0.31	1.32	0	1.70	0.31	0.85	0.31	1.32	170	31	355	31	132			
		Motor Grader	2	CAT	16H	CAT 16H	1.05	0.39	5.78	0.26	0.89	0	1.05	0.39	0.72	0.26	0.89	105	39	578	26	89			
		Compactor	2	CAT	CB634C	CAT CB634C	0.62	0.21	1.59	0.14	0.19	0.00	0.62	0.21	0.38	0.14	0.19	62	21	159	14	19			
		Light Plant	6	Almond Brothers	axi Show 100	1 Show 1000 Light	0.09	0.02	0.15	0.02	0.01	0	0.09	0.02	0.05	0.02	0.01	28	5	46	5	3			
		Welder	4	Lincoln	Classic III D	aln Classic III D W	0.16	0.03	0.26	0.03	0.01	0	0.16	0.03	0.08	0.03	0.01	32	6	52	6	3			
		Haul Truck - 10 Whee	6	Freightliner	FLD120SD	aul Truck - 10 Whe	2.10	1.35	0.30	0.00	0.07	0	2.10	1.35	0.30	0.00	0.07	630	404	90	-	22			
		Reclaimer/Stabilizer	1	CAT	SM-350	Road Reclaimer/S	1.85	0.62	4.72	0.41	0.39	0.00	1.85	0.62	1.13	0.41	0.39	92	31	235	21	20			
		CMI Paver	1	CAT	SF-7400	CMI Paver	1.98	0.66	5.05	0.44	0.41	0.00	1.98	0.66	1.21	0.44	0.41	99	33	252	22	21			
		Water Wagon	1	CAT	768C	Water Wagon	0.52	0.34	0.08	0.00	0.02	0	0.52	0.34	0.08	0.00	0.02	26	17	4	-	1			
		Texturing/Curing Mac	1	CMI	TC2502T	turing/Curing Mac	0.37	0.12	0.85	0.08	0.15	0.00	0.37	0.12	0.23	0.08	0.15	19	6	48	4	7			
						Total	11.39	4.52	23.57	1.78	3.55	Total	11.39	4.52	5.35	1.78	3.55	P2 CONCRET	1,546	769	1,911	133	328		
P3	CONCRETE/ASPHALT																								
2-P1, 1-P2	P1		2				11.28	4.56	22.66	1.70	3.41	11.28	4.56	5.16	1.70	3.41	P1 ASPHALT	2,662	1,272	3,670	258	628			
	P2		1				11.39	4.52	23.57	1.78	3.55	11.39	4.52	5.35	1.78	3.55	P2 CONCRET	1,546	769	1,911	133	328			
							22.66	9.08	46.23	3.48	6.96	22.66	9.08	10.52	3.48	6.96	P3 RETE/AS	4,208	2,041	5,581	391	956			
P4	CONCRETE/ASPHALT 2005																								
4-P1, 4-P2	P1		4				11.28	4.56	22.66	1.70	3.41	11.28	4.56	5.16	1.70	3.41	P1 ASPHALT	5,323	2,544	7,340	516	1,256			
	P2		4				11.39	4.52	23.57	1.78	3.55	11.39	4.52	5.35	1.78	3.55	P2 CONCRET	6,185	3,074	7,844	533	1,313			
							22.66	9.08	46.23	3.48	6.96	22.66	9.08	10.52	3.48	6.96	P4 TE/ASPH	11,509	5,618	14,984	1,049	2,569			

CONSTRUCTION EQUIPMENT DATA SHEETS
CONSTRUCTION SUPPORT

Work hr 10.0
Work da 5.0
3 month 1.0

CREW NUMBER	SUBTASK	EQUIPMENT DESCRIPTION	NUMBER UNITS	MANUFACTURE	MODEL NUMBER	Air Pollutant Emissions(lbs/quarter)					Air Pollutant Emissions(lbs/quarter) 2.5 grams/hp-hr					Air Pollutant Emissions(lbs/week)							
						CO	ROC	Hox	Sox	PM10	CO	ROC	Hox	Sox	PM10	CO	ROC	Hox	Sox	PM10			
CONSTRUCTION SUPPORT																							
SP1	YARD / MAINTENANCE / SHOP																						
	Fuel/Lube Truck	1	Freightliner	FLD 120SD	latbed Truck - 10 Whe	0.52	0.34	0.08	0.00	0.02	0	0.52	0.34	0.08	0.00	0.02	26	17	4	-	1		
	Maintenance Truck	1	Freightliner	FLD 120SD	latbed Truck - 10 Whe	0.52	0.34	0.08	0.00	0.02	0	0.52	0.34	0.08	0.00	0.02	26	17	4	-	1		
	Fork Lift	1	Manitou	M430CP	50 Ton	0.44	0.06	0.36	0.04	0.06	50 Ton	0.44	0.06	0.11	0.04	0.06	22	3	18	2	3		
	Pick Up Truck 3/4 Ton	6	Ford	F250	Pickup Truck	0.06	0.01	0.01	0.00	0.10	0	0.06	0.01	0.01	0.00	0.10	24	3	5	-	40		
	Crane RT	1	Grove	RT500C	Grove RT500C	0.42	0.14	1.07	0.09	0.07	0	0.42	0.14	0.26	0.09	0.07	21	7	53	5	3		
	Front End Loader	1	CAT	966F	CAT 966F	0.93	0.17	1.85	0.17	1.11	0	0.93	0.17	0.47	0.17	1.11	47	8	98	8	55		
	Generator	1	CAT	3412TA	Generator	5.06	0.92	8.28	0.92	0.46	0	5.06	0.92	2.53	0.92	0.46	253	46	414	46	23		
	Welder	4	Lincoln	Classic III D	coin Classic III D Wet	0.16	0.03	0.26	0.03	0.01	0	0.16	0.03	0.08	0.03	0.01	32	6	62	6	3		
	Total					6.12	2.00	12.08	1.26	1.85	Total	6.12	2.00	3.61	1.25	1.85	SP1	YARD / MAINTENANCE / SHO	451	107	647	87	130
	SP2 CONCRETE PLANT																						
SP2	Front End Loader	2	CAT	992D	CAT 992D	2.93	0.53	6.13	0.53	1.62	0	2.93	0.53	1.47	0.53	1.62	293	53	613	53	162		
	Transit Truck 14YDS.	10	Freightliner	FLD 120SD	latbed Truck - 10 Whe	0.52	0.34	0.08	0.00	0.02	0	0.52	0.34	0.08	0.00	0.02	262	169	38	-	9		
	Crane RT	1	Grove	RT500C	Grove RT500C	0.42	0.14	1.07	0.09	0.07	0	0.42	0.14	0.26	0.09	0.07	21	7	53	5	3		
	Dozer	1	CAT	D9R	CAT D9R	1.98	0.40	4.16	0.40	0.18	0.00	1.98	0.40	1.09	0.40	0.18	99	20	208	20	9		
	Haul Truck 10 Wheel	10	Freightliner	FLD 120SD	Haul Truck - 10 Wheel	2.10	1.35	0.30	0.00	0.07	0	2.10	1.35	0.30	0.00	0.07	1,050	674	150	-	37		
	Motor Grader	1	CAT	143H	CAT 143H	0.57	0.21	3.15	0.14	0.83	0	0.57	0.21	0.39	0.14	0.83	29	11	158	7	42		
	Water Wagon	1	CAT	786C	Haul Truck - 10 Wheel	2.10	1.35	0.30	0.00	0.07	0	2.10	1.35	0.30	0.00	0.07	105	67	15	-	4		
	Light Plant	4	Almond Brothers	axi Show 100	axi Show 1000 Light Pl	0.09	0.02	0.15	0.02	0.01	0	0.09	0.02	0.05	0.02	0.01	19	3	31	3	2		
	Generator	1	CAT	3412TA	Generator	5.06	0.92	8.28	0.92	0.46	0	5.06	0.92	2.53	0.92	0.46	253	46	414	46	23		
	Total					15.78	5.25	23.62	2.10	3.34	Total	15.78	5.25	6.46	2.10	3.34	SP2	CONCRETE PLANT	2,131	1,050	1,679	134	291
	SP3 ASPHALT PLANT																						
SP3	Front end Loader	2	CAT	966C	CAT 966F	0.934	0.16982	1.95201	0.16982	1.11	0	0.93	0.17	0.47	0.17	1.11	93	17	195	17	111		
	Crane RT	1	Grove	RT500C	Grove RT500C	0.42	0.14	1.07	0.09	0.07	0	0.42	0.14	0.26	0.09	0.07	21	7	53	5	3		
	Dozer	1	CAT	D9R	CAT D9R	1.98	0.40	4.16	0.40	0.18	0	1.98	0.40	1.09	0.40	0.18	99	20	208	20	9		
	Haul Truck 10 Wheel	10	Freightliner	FLD 120SD	Haul Truck - 10 Wheel	2.10	1.35	0.30	0.00	0.07	0	2.10	1.35	0.30	0.00	0.07	1,050	674	150	-	37		
	Motor Grader	1	CAT	143H	CAT 143H	0.57	0.21	3.15	0.14	0.83	0	0.57	0.21	0.39	0.14	0.83	29	11	158	7	42		
	Water Wagon	1	CAT	786C	Water Wagon	0.52	0.34	0.08	0.00	0.02	0	0.52	0.34	0.06	0.00	0.02	26	17	4	-	1		
	Light Plant	4	Almond Brothers	axi Show 100	axi Show 1000 Light Pl	0.09	0.02	0.15	0.02	0.01	0	0.09	0.02	0.05	0.02	0.01	19	3	31	3	2		
	Oil Tanker	1	Freightliner	FLD 120SD	Oil Tank Truck	0.26	0.17	0.04	0.00	0.01	0	0.26	0.17	0.04	0.00	0.01	13	8	2	-	0		
	Generator	1	CAT	3412TA	Generator	5.06	0.92	8.28	0.92	0.46	0	5.06	0.92	2.53	0.92	0.46	253	46	414	46	23		
	Total					11.95	3.71	19.16	1.74	2.77	Total	11.95	3.71	5.20	1.74	2.77	SP3	ASPHALT PLANT	1,603	803	1,215	98	228
	SP4 PROGRAM MANAGEMENT																						
SP4	Pick Up Truck 3/4 Ton	75	Ford	F250	Pickup Truck	0.06	0.01	0.01	0.00	0.10	0	0.06	0.01	0.01	0.00	0.10	225	26	43	-	376		
	Automobiles	20	Ford	Taurus	Automobiles	0.05	0.01	0.01	0.00	0.00	0	0.05	0.01	0.01	0.00	0.00	54	6	7	-	0		
	Ambulance	2	Ford	F350	Ambulance	0.04	0.00	0.01	0.00	0.00	0	0.04	0.00	0.01	0.00	0.00	4	0	1	-	0		
	Total					0.16	0.02	0.03	0.00	0.10	Total	0.16	0.02	0.03	0.00	0.10	SP4	PROGRAM MANAGEMENT	286	33	51	-	376

CONSTRUCTION EQUIPMENT DATA SHEETS
DEMOLITION

Work hours/ 10.00
Work days/m 5.00
3 months/qu 1.00

2.5 grams/hp-hr

CREW NUMBER	SUBTA SK	EQUIPMENT DESCRIPTION	NUMBER UNITS	MANUFACTURE	MODEL NUMBER	Air Pollutant Emissions (lbs/hour)					Air Pollutant Emissions (lbs/hour)					Air Pollutant Emissions (lbs/week)								
						CO	ROC	Nox	Sox	PM10	CO	ROC	Nox	Sox	PM10	CO	ROC	Nox	Sox	PM10				
DEMOLITION																								
D1	RESIDENTIAL																							
		Excavator	1.00	CAT	320.00	CAT 320	0.68	0.06	1.48	0.12	0.10	0.68	0.06	0.34	0.12	0.10	34	3	74	6	5			
		Crane RT 25 Ton	1.00	Grove	RT500C	Grove RT500C	0.42	0.14	1.07	0.09	0.07	0.42	0.14	0.26	0.09	0.07	21	7	53	5	3			
		Flatbed Truck - 10 W	1.00	Freightliner	FLD120SD	Flatbed Truck - 10 Wheel	0.52	0.34	0.06	0.00	0.02	0.52	0.34	0.08	0.00	0.02	26	17	4	-	1			
		Haul Truck - 10 Whe	3.00	Freightliner	FLD120SD	Haul Truck - 10 Wheel	2.10	1.35	0.30	0.00	0.07	2.10	1.35	0.30	0.00	0.07	315	202	45	-	11			
		Front End Loader	1.00	CAT	966F	CAT 966F	0.93	0.17	1.85	0.17	1.11	0.93	0.17	0.47	0.17	1.11	47	8	98	8	55			
		Motor Grader	1.00	CAT	12H	CAT 12H	0.53	0.20	2.84	0.13	0.83	0.53	0.20	0.37	0.13	0.83	27	10	147	7	41			
		Compactor	1.00	CAT	CB434B	CAT CB434B	0.34	0.11	0.88	0.08	0.14	0.34	0.11	0.21	0.08	0.14	17	6	44	4	7			
					Total		5.53	2.37	8.69	0.60	2.34	Total	5.53	2.37	2.02	0.60	2.34	D1	RESIDENTIAL	487	253	455	30	124
D2	INDUSTRIAL																							
		Excavator	2.00	CAT	325L	CAT 325L	0.89	0.08	1.94	0.16	0.16	0.89	0.08	0.45	0.16	0.16	89	8	194	16	16			
		Crane RT 50 Ton	1.00	Grove	RT750	Grove RT750	0.64	0.21	1.64	0.14	0.11	0.64	0.21	0.39	0.14	0.11	32	11	82	7	5			
		Crane Truck	1.00	Mantiwoc	3900.00	Mantiwoc 3900	0.92	0.31	2.30	0.20	0.15	0.92	0.31	0.56	0.20	0.15	46	15	118	10	8			
		Flatbed Truck - 10 W	2.00	Freightliner	FLD120SD	Flatbed Truck - 10 Wheel	0.52	0.34	0.08	0.00	0.02	0.52	0.34	0.08	0.00	0.02	52	34	8	-	2			
		Haul Truck - 10 Whe	6.00	Freightliner	FLD120SD	Haul Truck - 10 Wheel	2.10	1.35	0.30	0.00	0.07	2.10	1.35	0.30	0.00	0.07	630	404	90	-	22			
		Front End Loader	2.00	CAT	980G	CAT 980G	1.27	0.23	2.66	0.23	1.19	1.27	0.23	0.64	0.23	1.19	127	23	266	23	119			
		Motor Grader	1.00	CAT	14H	CAT 14H	0.82	0.31	4.52	0.21	0.86	0.82	0.31	0.57	0.21	0.86	41	15	226	10	43			
		Compactor	1.00	CAT	CB563C	CAT CB563C	0.62	0.21	1.59	0.14	0.19	0.62	0.21	0.38	0.14	0.19	31	10	80	7	9			
		Breaker/Shear	1.00	CAT	325L	L - With Breaker/Shear At	0.89	0.08	1.94	0.16	0.14	0.89	0.08	0.45	0.16	0.14	44	4	97	6	7			
		Dozer	1.00	CAT	D9R	CAT D9R	1.49	0.30	3.14	0.30	0.16	1.49	0.30	0.82	0.30	0.16	75	15	157	15	6			
		Welder	4.00	Lincoln	Classic III D	Lincoln Classic III D Weld	0.16	0.03	0.26	0.03	0.01	0.16	0.03	0.08	0.03	0.01	32	6	52	6	3			
					Total		10.34	3.44	20.42	1.57	3.07	Total	10.34	3.44	4.71	1.57	3.07	D2	INDUSTRIAL	351	74	878	69	189
D3	MID-RISE																							
		Excavator	1.00	CAT	325L	CAT 325L	0.89	0.08	1.94	0.16	0.16	0.89	0.08	0.45	0.16	0.16	44	4	97	6	8			
		Crane RT 50 Ton	1.00	Grove	RT760	Grove RT760	0.64	0.21	1.64	0.14	0.11	0.64	0.21	0.39	0.14	0.11	32	11	82	7	5			
		Crane Truck	2.00	Mantiwoc	3900.00	Mantiwoc 3900	0.92	0.31	2.36	0.20	0.15	0.92	0.31	0.56	0.20	0.15	92	31	236	20	15			
		Flatbed Truck - 10 W	2.00	Freightliner	FLD120SD	Flatbed Truck - 10 Wheel	0.52	0.34	0.08	0.00	0.02	0.52	0.34	0.08	0.00	0.02	52	34	8	-	2			
		Haul Truck - 10 Whe	6.00	Freightliner	FLD120SD	Haul Truck - 10 Wheel	2.10	1.35	0.30	0.00	0.07	2.10	1.35	0.30	0.00	0.07	630	404	90	-	22			
		Front End Loader	2.00	CAT	980G	CAT 980G	1.27	0.23	2.66	0.23	1.19	1.27	0.23	0.64	0.23	1.19	127	23	266	23	119			
		Motor Grader	1.00	CAT	14H	CAT 14H	0.82	0.31	4.52	0.21	0.86	0.82	0.31	0.57	0.21	0.86	41	15	226	10	43			
		Compactor	1.00	CAT	CB563C	CAT CB563C	0.62	0.21	1.59	0.14	0.19	0.62	0.21	0.38	0.14	0.19	31	10	80	7	9			
		Breaker/Shear	2.00	CAT	325L	L - With Breaker/Shear At	0.89	0.08	1.94	0.16	0.14	0.89	0.08	0.45	0.16	0.14	89	8	194	16	14			
		Dozer	1.00	CAT	D9R	CAT D9R	1.49	0.40	4.16	0.40	0.18	1.49	0.40	1.09	0.40	0.18	99	20	208	20	9			
		Welder	6.00	Lincoln	Classic III D	Lincoln Classic III D Weld	0.16	0.03	0.26	0.03	0.01	0.16	0.03	0.08	0.03	0.01	48	9	78	9	4			
					Total		10.83	3.54	21.45	1.67	3.09	Total	10.83	3.54	4.98	1.67	3.09	D3	MID-RISE	1,287	589	1,565	121	252
D4	AIRFIELD																							
		Excavator	1.00	CAT	330L	CAT 330L	1.18	0.11	2.58	0.21	0.20	1.18	0.11	0.59	0.21	0.20	59	5	128	11	10			
		Flatbed Truck - 10 W	2.00	Freightliner	FLD120SD	Flatbed Truck - 10 Wheel	0.52	0.34	0.08	0.00	0.02	0.52	0.34	0.08	0.00	0.02	52	34	8	-	2			
		Haul Truck - 10 Whe	6.00	Freightliner	FLD120SD	Haul Truck - 10 Wheel	2.10	1.35	0.30	0.00	0.07	2.10	1.35	0.30	0.00	0.07	630	404	90	-	22			
		Front End Loader	2.00	CAT	986F	CAT 986F	1.70	0.31	3.55	0.31	1.32	1.70	0.31	0.65	0.31	1.32	170	31	355	31	132			
		Motor Grader	2.00	CAT	16H	CAT 16H	1.05	0.39	5.78	0.26	0.89	1.05	0.39	0.72	0.26	0.89	105	39	578	26	89			
		Compactor	2.00	CAT	CB634C	CAT CB634C	0.62	0.21	1.59	0.14	0.19	0.62	0.21	0.38	0.14	0.19	62	21	159	14	19			
		Breaker/Shear	1.00	CAT	325L	L - With Breaker/Shear At	0.89	0.08	1.94	0.16	0.14	0.89	0.08	0.45	0.16	0.14	44	4	97	6	7			
		CMI Grinder	1.00	CMI	RS650	CMI RS650 Grinder	8.42	1.26	10.10	0.84	0.63	8.42	1.26	2.32	0.84	0.63	421	63	505	42	32			
		Dozer	1.00	CAT	D9R	CAT D9R	1.49	0.40	4.16	0.40	0.18	1.49	0.40	1.09	0.40	0.18	99	20	208	20	9			
		Welder	4.00	Lincoln	Classic III D	Lincoln Classic III D Weld	0.16	0.03	0.26	0.03	0.01	0.16	0.03	0.08	0.03	0.01	32	6	52	6	3			
					Total		18.62	4.47	30.32	2.35	3.66	Total	18.62	4.47	6.85	2.35	3.66	D4	AIRFIELD	1,675	627	2,180	157	325

CONSTRUCTION EQUIPMENT DATA SHEETS
DEMOLITION

Work hours/ 10.00
Work days/m 5.00
3 months/qu 1.00

2.5 grams/hp-hr

CREW NUMBER	SUBTA SK	EQUIPMENT DESCRIPTION	NUMBER UNITS	MANUFACTURE	MODEL NUMBER	Air Pollutant Emissions (lbs/hour)					Air Pollutant Emissions (lbs/hour)					Air Pollutant Emissions(lbs/week)							
						CO	ROC	Nox	Sox	PM10	CO	ROC	Nox	Sox	PM10	CO	ROC	Nox	Sox	PM10			
DEMOLITION																							
D3	ROADWAYS																						
		Excavator	1.00	CAT	330L	1.18	0.11	2.58	0.21	0.20	1.18	0.11	0.59	0.21	0.20	59	5	128	11	10			
		Crane RT 50 Ton	1.00	Grove	RT680	0.80	0.27	2.05	0.18	0.13	0.80	0.27	0.49	0.18	0.13	40	13	103	9	7			
		Flatbed Truck - 10 W	2.00	Freightliner	FLD120SD	0.52	0.34	0.08	0.00	0.02	0.52	0.34	0.08	0.00	0.02	52	34	8		2			
		Haul Truck - 10 Whe	4.00	Freightliner	FLD120SD	2.10	1.35	0.30	0.00	0.07	2.10	1.35	0.30	0.00	0.07	420	270	60		15			
		Front End Loader	1.00	CAT	988F	1.70	0.31	3.55	0.31	1.32	1.70	0.31	0.85	0.31	1.32	85	15	178	15	68			
		Motor Grader	1.00	CAT	16H	1.05	0.39	5.78	0.26	0.89	1.05	0.39	0.72	0.26	0.89	52	20	289	13	45			
		Compactor	1.00	CAT	CB634C	0.62	0.21	1.59	0.14	0.19	0.62	0.21	0.38	0.14	0.19	31	10	80	7	9			
		Breaker/Shear	1.00	CAT	325L	0.89	0.08	1.94	0.16	0.14	0.89	0.08	0.45	0.16	0.14	44	4	97	8	7			
		CMI Grinder	1.00	CMI	RS650	8.42	1.26	10.10	0.84	0.63	8.42	1.26	2.32	0.84	0.63	421	63	506	42	32			
		Dozer	1.00	CAT	D8R	1.98	0.40	4.16	0.40	0.18	1.98	0.40	1.09	0.40	0.18	89	20	208	20	9			
		Welder	4.00	Lincoln	Classic III D	0.16	0.03	0.26	0.03	0.01	0.16	0.03	0.09	0.03	0.01	32	6	52	6	3			
		Total				19.42	4.74	32.98	2.53	3.80	Total	19.42	4.74	7.34	2.53	3.80	D5	ROADWAYS	1,336	460	1,707	131	204
D6	Res/Ind																						
	1-D1,		1.00			5.53	2.37	8.69	0.60	2.34	5.53	2.37	2.02	0.60	2.34	D1		487	253	465	30	124	
	2-D4		2.00			10.34	3.44	20.42	1.57	3.07	10.34	3.44	4.71	1.57	3.07	D4		3,349	1,255	4,360	315	649	
	Total					15.87	5.81	30.32	2.35	3.66	15.87	5.81	6.73	2.35	3.66	D6	Res/Ind	3,836	1,506	4,825	345	773	
D7	Res/Ind/Mid																						
3-D1, 2-D2,	D1		3.00			5.53	2.37	8.69	0.60	2.34	5.53	2.37	2.02	0.60	2.34	D1	RESIDENTIAL	1,480	760	1,394	89	373	
	D2		2.00			10.34	3.44	20.42	1.57	3.07	10.34	3.44	4.71	1.57	3.07	D2	INDUSTRIAL	701	147	1,756	138	379	
	D3		1.00			10.34	3.44	21.45	1.67	3.09	10.34	3.54	4.98	1.67	3.09	D3	MID-RISE	1,287	589	1,565	121	252	
	Total					26.20	8.25	40.56	3.84	8.50	26.20	8.35	12.00	3.84	8.50	D7	RES/IND/MID	3,468	1,477	4,714	348	1,004	
D8	Res/Ind																						
1-D1, 1-D2	D1		1.00			5.53	2.37	8.69	0.60	2.34	5.53	2.37	2.02	0.60	2.34	D1	RESIDENTIAL	487	253	465	30	124	
	D2		1.00			10.34	3.44	20.42	1.57	3.07	10.34	3.44	4.71	1.57	3.07	D2	INDUSTRIAL	351	74	878	69	189	
	TOTAL					15.87	5.81	30.42	2.17	5.41	15.87	5.81	6.73	2.17	5.41	D8	Res/Ind	837	327	1,342	99	314	
D9	Res/Ind/Roads																						
	D1		2.00			5.53	2.37	8.69	0.60	2.34	5.53	2.37	2.02	0.60	2.34	D1	RESIDENTIAL	973	507	929	60	248	
	D2		2.00			10.34	3.44	20.42	1.57	3.07	10.34	3.44	4.71	1.57	3.07	D2	INDUSTRIAL	701	147	1,756	138	379	
	D5		3.00			19.42	4.74	32.98	2.53	3.80	19.42	4.74	7.34	2.53	3.80	D5	ROADWAYS	4,009	1,381	5,121	393	612	
	Total					25.29	8.15	41.59	4.70	8.21	25.29	8.15	12.07	4.70	8.21	D9	Res/Ind/Roads	6,683	2,036	7,896	591	1,240	
2-D1, 2-D2, 3-D5																							
D10	Res/Roads																						
	D1		1.00			5.53	2.37	8.69	0.60	2.34	5.53	2.37	2.02	0.60	2.34	D1	RESIDENTIAL	487	253	465	30	124	
	D5		2.00			19.42	4.74	32.98	2.53	3.80	19.42	4.74	7.34	2.53	3.80	D5	ROADWAYS	2,673	921	3,414	262	408	
	Total					24.95	7.11	41.67	3.13	6.14	24.95	7.11	9.36	3.13	6.14	D10	Res/Roads	3,159	1,174	3,878	292	532	
D11	RES/IND																						
	D1		3.00			5.53	2.37	8.69	0.60	2.34	5.53	2.37	2.02	0.60	2.34	D1	RESIDENTIAL	1,480	760	1,394	89	373	
	D2		2.00			10.34	3.44	20.42	1.57	3.07	10.34	3.44	4.71	1.57	3.07	D2	INDUSTRIAL	701	147	1,756	138	379	
	Total					15.87	5.81	30.42	2.17	5.41	15.87	5.81	6.73	2.17	5.41	D11	RES/IND	2,181	907	3,150	229	751	

CONSTRUCTION EQUIPMENT DATA SHEETS
EXCAVATION

Work hours/day 10.0
Work days/week 5.0
3 months/quarter 1.0

CREW NUMBER	SUBTASK	EQUIPMENT DESCRIPTION	NUMBER UNITS	MANUFACTURE	MODEL NUMBER	Air Pollutant Emissions (lbs/hour)					Air Pollutant Emissions (lbs/hour)					Air Pollutant Emissions(lbs/week)							
						CO	ROC	Nox	Sox	PM10	CO	ROC	Nox	Sox	PM10	CO	ROC	Nox	Sox	PM10			
EXCAVATION/FOUNDATIONS																							
E1	UTILITIES																						
		Excavator	1	CAT	325L	CAT 325L	0.89	0.08	1.94	0.16	0.16	0.00	0.89	0.08	0.45	0.16	0.16	44	4	97	8	8	
		Crane RT 25 Ton	1	Grove	RT500C	Grove RT500C	0.42	0.14	1.07	0.09	0.07	0	0.42	0.14	0.26	0.09	0.07	21	7	53	5	3	
		Flatbed Truck - 10 Whe	2	Freightliner	FLD120SD	Flatbed Truck - 10 Wh	0.52	0.34	0.08	0.00	0.02	0.00	0.52	0.34	0.08	0.00	0.02	52	34	8	-	2	
		Haul Truck - 10 Wheel	4	Freightliner	FLD120SD	aul Truck - 10 Whe	2.10	1.35	0.30	0.00	0.07	0.00	2.10	1.35	0.30	0.00	0.07	420	270	60	-	15	
		Front End Loader	1	CAT	986F	CAT 986F	0.93	0.17	1.95	0.17	1.11	0	0.93	0.17	0.47	0.17	1.11	47	8	98	8	55	
		Motor Grader	1	CAT	12H	CAT 12H	0.53	0.20	2.84	0.13	0.83	0	0.53	0.20	0.37	0.13	0.83	27	10	147	7	41	
		Compactor	1	CAT	CP433C	CAT CP433C	0.46	0.15	1.17	0.10	0.16	0.00	0.46	0.15	0.28	0.10	0.16	23	8	69	5	8	
		Light Plant	4	Almond Brothers	axi Show 100	1 Show 1000 Light	0.09	0.02	0.15	0.02	0.01	0	0.09	0.02	0.05	0.02	0.01	19	3	31	3	2	
		Welder	4	Lincoln	Classic III D	cin Classic III D We	0.16	0.03	0.26	0.03	0.01	0	0.16	0.03	0.08	0.03	0.01	32	6	52	6	3	
		Water Wagon	1	CAT	766C	Water Wagon	0.52469	0.337	0.07511	0	0.0185	0	0.52	0.34	0.08	0.09	0.02	26	17	4	-	1	
						Total	6.64	2.81	9.94	0.71	2.46	Total	6.64	2.81	2.39	0.71	2.46	E1 UTILITIES	711	367	608	42	138
E2	STRUCTURAL - BUILDINGS																						
		Excavator	2	CAT	330L	CAT 330L	1.18	0.11	2.56	0.21	0.20	0.00	1.18	0.11	0.59	0.21	0.20	118	11	258	21	20	
		Crane RT 50 Ton	1	Grove	RT750	Grove RT750	0.64	0.21	1.64	0.14	0.11	0.00	0.64	0.21	0.39	0.14	0.11	32	11	82	7	5	
		Crane - Truck	1	Manitowoc	3900	Manitowoc 3900	0.92	0.31	2.36	0.20	0.15	0.00	0.92	0.31	0.56	0.20	0.15	46	15	118	10	8	
		Flatbed Truck - 10 Whe	2	Freightliner	FLD120SD	Flatbed Truck - 10 Wh	0.52	0.34	0.08	0.00	0.02	0.00	0.52	0.34	0.08	0.00	0.02	52	34	8	-	2	
		Haul Truck - 10 Wheel	5	Freightliner	FLD120SD	aul Truck - 10 Whe	2.10	1.35	0.30	0.00	0.07	0.00	2.10	1.35	0.30	0.00	0.07	530	404	90	-	22	
		Front End Loader	2	CAT	986F	CAT 986F	1.70	0.31	3.55	0.31	1.32	0.00	1.70	0.31	0.85	0.31	1.32	170	51	355	31	132	
		Motor Grader	1	CAT	14H	CAT 14H	0.82	0.31	4.52	0.21	0.86	0.00	0.82	0.31	0.57	0.21	0.86	41	15	226	10	49	
		Compactor	1	CAT	433C	CAT CP433C	0.46	0.15	1.17	0.10	0.16	0.00	0.46	0.15	0.28	0.10	0.16	23	8	59	5	8	
		Light Plant	6	Almond Brothers	axi Show 100	1 Show 1000 Light	0.09	0.02	0.15	0.02	0.01	0.00	0.09	0.02	0.05	0.02	0.01	28	5	48	5	3	
		Welder	4	Lincoln	Classic III D	cin Classic III D We	0.16	0.03	0.26	0.03	0.01	0.00	0.16	0.03	0.08	0.03	0.01	32	6	52	6	3	
		Water Wagon	1	CAT	766C	Water Wagon	0.52	0.34	0.08	0.00	0.02	0.00	0.52	0.34	0.08	0.00	0.02	26	17	4	-	1	
		Pile Hammer	1	Manitowoc	3900	Manitowoc 3900	0.92	0.31	2.36	0.20	0.15	0.00	0.92	0.31	0.56	0.20	0.15	46	15	118	10	8	
		Fork Lift	1	Manitou	M430CP	50 Ton	0.44	0.06	0.36	0.04	0.06	50 Ton	0.44	0.06	0.11	0.04	0.06	22	3	18	2	3	
						Total	10.48	3.83	19.39	1.47	3.15	Total	10.48	3.83	4.49	1.47	3.15	E2 URAL - BUI	1,266	575	1,431	108	257
E3	STRUCTURAL - ROADS																						
		Excavator	1	CAT	330L	CAT 330L	1.18	0.11	2.56	0.21	0.20	0.00	1.18	0.11	0.59	0.21	0.20	59	5	128	11	10	
		Crane RT 25 Ton	1	Grove	RT750	Grove RT750	0.64	0.21	1.64	0.14	0.11	0.00	0.64	0.21	0.39	0.14	0.11	32	11	82	7	5	
		Flatbed Truck - 10 Whe	2	Freightliner	FLD120SD	Flatbed Truck - 10 Wh	0.52	0.34	0.08	0.00	0.02	0.00	0.52	0.34	0.08	0.00	0.02	52	34	8	-	2	
		Haul Truck - 10 Wheel	6	Freightliner	FLD120SD	aul Truck - 10 Whe	2.10	1.35	0.30	0.00	0.07	0.00	2.10	1.35	0.30	0.00	0.07	830	404	90	-	22	
		Front End Loader	1	CAT	986F	CAT 986F	1.70	0.31	3.55	0.31	1.32	0.00	1.70	0.31	0.85	0.31	1.32	85	15	178	15	66	
		Compactor	1	CAT	CB634C	CAT CB634C	0.62	0.21	1.59	0.14	0.19	0.00	0.62	0.21	0.38	0.14	0.19	31	10	80	7	9	
		Light Plant	4	Almond Brothers	axi Show 100	1 Show 1000 Light	0.09	0.02	0.15	0.02	0.01	0.00	0.09	0.02	0.05	0.02	0.01	19	3	31	3	2	
		Welder	4	Lincoln	Classic III D	cin Classic III D We	0.16	0.03	0.26	0.03	0.01	0.00	0.16	0.03	0.08	0.03	0.01	32	6	52	6	3	
		Pile Hammer	1	Manitowoc	3900	Manitowoc 3900	0.92	0.31	2.36	0.20	0.15	0.00	0.92	0.31	0.56	0.20	0.15	46	15	118	10	8	
		Fork Lift	1	Manitou	M430CP	50 Ton	0.44	0.06	0.36	0.04	0.06	50 Ton	0.44	0.06	0.11	0.04	0.06	22	3	18	2	3	
						Total	8.38	2.94	12.85	1.09	2.14	Total	8.38	2.94	3.39	1.09	2.14	E3 CTURAL - R	1,008	508	784	62	130
E4	GENERAL ROADS																						
		Scraper	6	CAT	631E	CAT 631E	2.72	0.25	4.70	0.50	16.24	0	2.72	0.25	1.36	0.50	16.24	817	74	1,411	149	4,872	
		Front End Loader	1	CAT	982D	CAT 982D	2.93	0.53	6.13	0.53	1.62	0	2.93	0.53	1.47	0.53	1.62	146	27	306	27	81	
		Compactor	1	CAT	CB634C	CAT CB634C	0.62	0.21	1.59	0.14	0.19	0.00	0.62	0.21	0.38	0.14	0.19	31	10	80	7	9	
		Compactor	2	CAT	825G	CAT 825G	1.35	0.45	3.46	0.30	0.31	0.00	1.35	0.45	0.83	0.30	0.31	135	45	346	30	31	
		Light Plant	8	Almond Brothers	axi Show 100	1 Show 1000 Light	0.09	0.02	0.15	0.02	0.01	0	0.09	0.02	0.05	0.02	0.01	37	7	61	7	3	
		Welder	4	Lincoln	Classic III D	cin Classic III D We	0.16	0.03	0.26	0.03	0.01	0	0.16	0.03	0.08	0.03	0.01	32	6	52	6	3	
		Fork Lift	1	Manitou	M430CP	50 Ton	0.44	0.06	0.36	0.04	0.06	50 Ton	0.44	0.06	0.11	0.04	0.06	22	3	18	2	3	
		Dozer	2	CAT	D10R	CAT D10R	2.79	0.56	5.86	0.56	0.22	0.00	2.79	0.56	1.54	0.56	0.22	279	56	586	56	22	
						Total	11.11	2.10	22.51	2.11	18.68	Total	11.11	2.10	5.81	2.11	18.66	E4 NERAL RO	1,500	228	2,860	283	5,025

CREW NUMBER	SUBTASK	EQUIPMENT DESCRIPTION	NUMBER UNITS	MANUFACTURE	MODEL NUMBER	Air Pollutant Emissions (lbs/hour)					Air Pollutant Emissions (lbs/hour)					Air Pollutant Emissions(lbs/week)							
						CO	RDC	Nox	Sox	PM10	CO	RDC	Nox	Sox	PM10	CO	RDC	Nox	Sox	PM10			
EXCAVATION/FOUNDATIONS																							
E6 AIRFIELD																							
		Scraper	6	CAT	631E	CAT 631E	2.72	0.25	4.70	0.50	16.24	0	2.72	0.25	1.36	0.50	16.24	817	74	1,411	149	4,872	
		Front End Loader	1	CAT	992D	CAT 992D	2.93	0.53	6.13	0.53	1.62	0	2.93	0.53	1.47	0.53	1.62	146	27	306	27	81	
		Compactor	1	CAT	CB634C	CAT CB634C	0.62	0.21	1.59	0.14	0.19	0.00	0.62	0.21	0.38	0.14	0.19	31	10	90	7	9	
		Compactor	2	CAT	825G	CAT 825G	1.35	0.45	3.46	0.30	0.31	0.00	1.35	0.45	0.83	0.30	0.31	135	45	346	30	31	
		Light Plant	8	Almond Brothers	axl Show 100	I Show 1000 Light	0.09	0.02	0.15	0.02	0.01	0	0.09	0.02	0.05	0.02	0.01	37	7	61	7	3	
		Welder	4	Lincoln	Classic III D	cin Classic III D We	0.16	0.03	0.28	0.03	0.01	0	0.16	0.03	0.08	0.03	0.01	32	6	52	6	3	
		Fork Lift	1	Manitou	M430CP	50 Ton	0.44	0.06	0.36	0.04	0.06	50 Ton	0.44	0.06	0.11	0.04	0.06	22	3	18	2	3	
		Dozer	2	CAT	D10R	CAT D10R	2.79	0.56	5.86	0.56	0.22	0.00	2.79	0.56	1.64	0.56	0.22	279	56	586	56	22	
Total						11.11	2.10	22.51	2.11	18.66	Total	11.11	2.10	5.81	2.11	18.66	E5 AIRFIELD 1,500 228 2,860 283 5,025						
E6 CUT & COVER (TIGHT)																							
		Excavator	2	CAT	375	CAT 375	2.27	0.21	4.94	0.41	0.36	0.00	2.27	0.21	1.13	0.41	0.36	227	21	494	41	36	
		Crane RT 55 Ton	1	Grove	RT635C	Grove RT635C	0.49	0.16	1.25	0.11	0.08	0	0.49	0.16	0.30	0.11	0.08	24	8	62	5	4	
		Flatbed Truck - 10 Whe	2	Freightliner	FLD120SD	tbbed Truck - 10 Wh	0.52	0.34	0.08	0.00	0.02	0.00	0.52	0.34	0.08	0.00	0.02	52	34	8	-	2	
		Haul Truck - 10 Wheel	6	Freightliner	FLD120SD	aul Truck - 10 Whe	2.10	1.35	0.30	0.00	0.07	0.00	2.10	1.35	0.30	0.00	0.07	630	404	90	-	22	
		Front End Loader	2	CAT	988F	CAT 988F	1.70	0.31	3.55	0.31	1.32	0	1.70	0.31	0.85	0.31	1.32	170	31	355	31	132	
		Motor Grader	1	CAT	16H	CAT 16H	1.05	0.39	5.78	0.28	0.89	0	1.05	0.39	0.72	0.26	0.89	52	20	289	13	45	
		Compactor	1	CAT	CP433C	CAT CP433C	0.46	0.15	1.17	0.10	0.16	0.00	0.46	0.15	0.28	0.10	0.16	23	8	59	5	8	
		Light Plant	8	Almond Brothers	axl Show 100	I Show 1000 Light	0.09	0.02	0.15	0.02	0.01	0	0.09	0.02	0.05	0.02	0.01	28	5	46	5	3	
		Welder	4	Lincoln	Classic III D	cin Classic III D We	0.16	0.03	0.26	0.03	0.01	0	0.16	0.03	0.08	0.03	0.01	32	6	52	6	3	
		Water Wagon	1	CAT	786C	Water Wagon	0.52	0.34	0.08	0.00	0.02	0	0.52	0.34	0.08	0.00	0.02	26	17	4	-	1	
		Pile Hammer	1	Manitowoc	3900	Manitowoc 3900	0.82	0.31	2.36	0.20	0.15	0	0.82	0.31	0.56	0.20	0.15	46	15	118	10	8	
		Fork Lift	1	Manitou	M430CP	50 Ton	0.44	0.06	0.36	0.04	0.06	50 Ton	0.44	0.06	0.11	0.04	0.06	22	3	18	2	3	
Total						10.73	3.66	20.27	1.48	3.16	Total	10.73	3.66	4.54	1.48	3.16	E6 & COVER (TI) 1,333 571 1,595 119 266						
E7 CUT & COVER (OPEN)																							
		Scraper	8	CAT	631E	CAT 631E	2.72	0.25	4.70	0.50	16.24	0	2.72	0.25	1.36	0.50	16.24	817	74	1,411	149	4,872	
		Front End Loader	1	CAT	992D	CAT 992D	2.93	0.53	6.13	0.53	1.62	0	2.93	0.53	1.47	0.53	1.62	146	27	306	27	81	
		Compactor	1	CAT	CP433C	CAT CP433C	0.46	0.15	1.17	0.10	0.16	0.00	0.46	0.15	0.28	0.10	0.16	23	8	59	5	8	
		Compactor	2	CAT	825G	CAT 825G	1.35	0.45	3.46	0.30	0.31	0.00	1.35	0.45	0.83	0.30	0.31	135	45	346	30	31	
		Light Plant	8	Almond Brothers	axl Show 100	I Show 1000 Light	0.09	0.02	0.15	0.02	0.01	0	0.09	0.02	0.05	0.02	0.01	28	5	46	5	3	
		Welder	4	Lincoln	Classic III D	cin Classic III D We	0.16	0.03	0.26	0.03	0.01	0	0.16	0.03	0.08	0.03	0.01	32	6	52	6	3	
		Fork Lift	1	Manitou	M430CP	50 Ton	0.44	0.06	0.36	0.04	0.06	50 Ton	0.44	0.06	0.11	0.04	0.06	22	3	18	2	3	
		Dozer	2	CAT	D10R	CAT D10R	2.79	0.56	5.86	0.56	0.22	0.00	2.79	0.56	1.64	0.56	0.22	279	56	586	56	22	
		Pile Hammer	1	Manitowoc	3900	Manitowoc 3900	0.82	0.31	2.36	0.20	0.15	0	0.82	0.31	0.56	0.20	0.15	46	15	118	10	8	
Total						11.87	2.36	24.45	2.28	18.79	Total	11.87	2.36	6.28	2.28	18.79	E7 & COVER (O) 1,529 239 2,942 289 5,030						
E8 Roadways 200																							
4-E4, 4-E3, 2-E6																							
	E3		4				6.38	2.94	12.85	1.09	2.14		6.38	2.94	3.39	1.09	2.14	E3 CTURAL - R	4,032	2,030	3,135	247	519
	E4		4				11.11	2.10	22.51	2.11	18.66		11.11	2.10	5.81	2.11	18.66	E4 NERAL ROA	6,000	911	11,440	1,130	20,099
	E6		2				10.73	3.66	20.27	1.48	3.16		10.73	3.66	4.54	1.48	3.16	E6 & COVER (TI)	2,666	1,142	3,189	238	531
Total																		E8 Roadways 20	12,698	4,084	17,764	1,614	21,150
E9 Roadways																							
2-E3, 2-E4																							
	E3		2				8.38	2.94	12.85	1.09	2.14		8.38	2.94	3.39	1.09	2.14	E3 CTURAL - R	2,016	1,015	1,567	123	260
	E4		2				11.11	2.10	22.51	2.11	18.66		11.11	2.10	5.81	2.11	18.66	E4 NERAL ROA	3,000	456	5,720	665	10,060
Total																		E9 Roadways	5,016	1,471	7,287	888	10,306
E10 Roadways																							
1-E4, 1-E6																							
	E4		1				11.11	2.10	22.51	2.11	18.66		11.11	2.10	5.81	2.11	18.66	E4 NERAL ROA	1,500	228	2,860	283	5,025
	E6		1				10.73	3.66	20.27	1.48	3.16		10.73	3.66	4.54	1.48	3.16	E6 & COVER (TI)	1,333	571	1,595	119	266
Total																		E10 Roadways	2,833	799	4,455	401	5,290

CONSTRUCTION EQUIPMENT DATA SHEETS
STRUCTURES

Work hours/day 10.0
Work days/week 5.0
3 months/quarter 1.0

CREW NUMBER	SUBTASK	EQUIPMENT DESCRIPTION	UNIT NUMBER	MANUFACTURE	MODEL NUMBER	Air Pollutant Emissions (per hour)					Air Pollutant Emissions (per hour) 2.5 grams/hr-ft					Air Pollutant Emissions (per week)							
						CO	ROC	Nox	Sox	PM10	CO	ROC	Nox	Sox	PM10	CO	ROC	Nox	Sox	PM10			
STRUCTURAL ERECTION																							
S1 BUILDINGS																							
		Crane RT 50 Ton	1	Grove	RT750	Grove RT750	0.84	0.21	1.64	0.14	0.11	0.84	0.21	0.39	0.14	0.11	32	11	82	7	5		
		Crane - Track	2	Mantiwoc	3900	Mantiwoc 3900	0.92	0.31	2.36	0.20	0.15	0.92	0.31	0.56	0.20	0.15	92	31	236	20	15		
		Flatbed Truck - 10 Wheel	4	Freightliner	FLD120SD	Flatbed Truck - 10 Wh	0.52	0.34	0.08	0.00	0.02	0.52	0.34	0.08	0.00	0.02	105	67	15	-	4		
		Front End Loader	2	CAT	966F	CAT 966F	0.93	0.17	1.95	0.17	1.11	0.93	0.17	0.47	0.17	1.11	93	17	195	17	111		
		Motor Grader	1	CAT	12H	CAT 12H	0.53	0.20	2.94	0.13	0.83	0.53	0.20	0.37	0.13	0.83	27	10	147	7	41		
		Compactor	1	CAT	CB224C	CAT CB224C	0.14	0.05	0.36	0.03	0.11	0.14	0.05	0.09	0.03	0.11	7	2	18	2	5		
		Light Plant	6	Almond Brothers	Maxi Show 100	1 Show 1000 Light P	0.09	0.02	0.15	0.02	0.01	0.09	0.02	0.05	0.02	0.01	28	5	46	5	3		
		Welder	6	Lincoln	Classic III D	oin Classic III D We	0.16	0.03	0.26	0.03	0.01	0.16	0.03	0.08	0.03	0.01	48	9	78	9	4		
		Fork Lift	2	Manitou	M430CP	50 Ton	0.44	0.06	0.36	0.04	0.06	0.44	0.06	0.11	0.04	0.06	44	6	36	4	6		
		Concrete Pump	1	Pulzmeister	52M	ister 52M Concrete	1.96	0.36	3.21	0.36	0.18	1.96	0.36	0.98	0.36	0.18	98	18	160	18	9		
		Generator	1	CAT	3412TA	Generator	5.06	0.92	8.28	0.92	0.46	5.06	0.92	2.53	0.92	0.46	253	46	414	46	23		
						Total	11.41	2.65	21.59	2.04	3.04	Total	11.41	2.65	5.70	2.04	3.04	S1 BUILDING	827	222	1,428	134	227
S2 ROADWAYS																							
		Crane RT 50 Ton	1	Grove	RT880	Grove RT880	0.80	0.27	2.05	0.18	0.13	0.80	0.27	0.49	0.18	0.13	40	13	103	9	7		
		Crane - Track	1	Mantiwoc	3900	Mantiwoc 3900	0.92	0.31	2.36	0.20	0.15	0.92	0.31	0.56	0.20	0.15	46	15	118	10	8		
		Flatbed Truck - 10 Wheel	2	Freightliner	FLD120SD	Flatbed Truck - 10 Wh	0.52	0.34	0.08	0.00	0.02	0.52	0.34	0.08	0.00	0.02	52	34	8	-	2		
		Front End Loader	1	CAT	966F	CAT 966F	0.93	0.17	1.95	0.17	1.11	0.93	0.17	0.47	0.17	1.11	47	8	98	8	55		
		Motor Grader	1	CAT	12H	CAT 12H	0.53	0.20	2.94	0.13	0.83	0.53	0.20	0.37	0.13	0.83	27	10	147	7	41		
		Compactor	1	CAT	CB224C	CAT CB224C	0.14	0.05	0.36	0.03	0.11	0.14	0.05	0.09	0.03	0.11	7	2	18	2	5		
		Light Plant	4	Almond Brothers	Maxi Show 100	1 Show 1000 Light P	0.09	0.02	0.15	0.02	0.01	0.09	0.02	0.05	0.02	0.01	19	3	31	3	2		
		Welder	4	Lincoln	Classic III D	oin Classic III D We	0.16	0.03	0.26	0.03	0.01	0.16	0.03	0.08	0.03	0.01	32	6	52	6	3		
		Fork Lift	1	Manitou	M430CP	50 Ton	0.44	0.06	0.36	0.04	0.06	0.44	0.06	0.11	0.04	0.06	22	3	18	2	3		
		Concrete Pump	1	Pulzmeister	52M	ister 52M Concrete	1.96	0.36	3.21	0.36	0.18	1.96	0.36	0.98	0.36	0.18	98	18	160	18	9		
		Generator	1	CAT	3412TA	Generator	5.06	0.92	8.28	0.92	0.46	5.06	0.92	2.53	0.92	0.46	253	46	414	46	23		
						Total	11.57	2.71	22.00	2.08	3.07	Total	11.57	2.71	5.80	2.08	3.07	S2 ROADWAY	643	159	1,186	111	158
S3 CUT & COVER																							
		Crane RT 50 Ton	1	Grove	RT750	Grove RT750	0.64	0.21	1.64	0.14	0.11	0.64	0.21	0.39	0.14	0.11	32	11	82	7	5		
		Crane - Track	1	Mantiwoc	3900	Mantiwoc 3900	0.92	0.31	2.36	0.20	0.15	0.92	0.31	0.56	0.20	0.15	46	15	118	10	8		
		Flatbed Truck - 10 Wheel	4	Freightliner	FLD120SD	Flatbed Truck - 10 Wh	0.52	0.34	0.08	0.00	0.02	0.52	0.34	0.08	0.00	0.02	105	67	15	-	4		
		Front End Loader	2	CAT	966F	CAT 966F	0.93	0.17	1.95	0.17	1.11	0.93	0.17	0.47	0.17	1.11	93	17	195	17	111		
		Motor Grader	1	CAT	12H	CAT 12H	0.53	0.20	2.94	0.13	0.83	0.53	0.20	0.37	0.13	0.83	27	10	147	7	41		
		Compactor	2	CAT	CB434B	CAT CB434B	0.34	0.11	0.88	0.08	0.14	0.34	0.11	0.21	0.08	0.14	34	11	88	8	14		
		Light Plant	6	Almond Brothers	Maxi Show 100	1 Show 1000 Light P	0.09	0.02	0.15	0.02	0.01	0.09	0.02	0.05	0.02	0.01	28	5	46	5	3		
		Welder	4	Lincoln	Classic III D	oin Classic III D We	0.16	0.03	0.26	0.03	0.01	0.16	0.03	0.08	0.03	0.01	32	6	52	6	3		
		Fork Lift	1	Manitou	M430CP	50 Ton	0.44	0.06	0.36	0.04	0.06	0.44	0.06	0.11	0.04	0.06	22	3	18	2	3		
		Concrete Pump	1	Pulzmeister	52M	ister 52M Concrete	1.96	0.36	3.21	0.36	0.18	1.96	0.36	0.98	0.36	0.18	98	18	160	18	9		
		Generator	1	CAT	3412TA	Generator	5.06	0.92	8.28	0.92	0.46	5.06	0.92	2.53	0.92	0.46	253	46	414	46	23		
		Haul Truck - 10 Wheel	6	Freightliner	FLD120SD	aul Truck - 10 Whe	2.10	1.35	0.30	0.00	0.07	2.10	1.35	0.30	0.00	0.07	630	404	90	-	22		
						Total	13.71	4.07	22.40	2.09	3.15	Total	13.71	4.07	6.13	2.09	3.15	S3 T & COV	1,400	614	1,426	125	246
S4 ROADWAY																							
		Crane RT 50 Ton	1	Grove	RT750	Grove RT750	0.64	0.21	1.64	0.14	0.11	0.64	0.21	0.39	0.14	0.11	32	11	82	7	5		
		Crane - Track	1	Mantiwoc	3900	Mantiwoc 3900	0.92	0.31	2.36	0.20	0.15	0.92	0.31	0.56	0.20	0.15	46	15	118	10	8		
		Flatbed Truck - 10 Wheel	4	Freightliner	FLD120SD	Flatbed Truck - 10 Wh	0.52	0.34	0.08	0.00	0.02	0.52	0.34	0.08	0.00	0.02	105	67	15	-	4		
		Front End Loader	2	CAT	966F	CAT 966F	0.93	0.17	1.95	0.17	1.11	0.93	0.17	0.47	0.17	1.11	93	17	195	17	111		
		Motor Grader	1	CAT	12H	CAT 12H	0.53	0.20	2.94	0.13	0.83	0.53	0.20	0.37	0.13	0.83	27	10	147	7	41		
		Compactor	2	CAT	CB434B	CAT CB434B	0.34	0.11	0.88	0.08	0.14	0.34	0.11	0.21	0.08	0.14	34	11	88	8	14		
		Light Plant	6	Almond Brothers	Maxi Show 100	1 Show 1000 Light P	0.09	0.02	0.15	0.02	0.01	0.09	0.02	0.05	0.02	0.01	28	5	46	5	3		
		Welder	4	Lincoln	Classic III D	oin Classic III D We	0.16	0.03	0.26	0.03	0.01	0.16	0.03	0.08	0.03	0.01	32	6	52	6	3		
		Fork Lift	1	Manitou	M430CP	50 Ton	0.44	0.06	0.36	0.04	0.06	0.44	0.06	0.11	0.04	0.06	22	3	18	2	3		
		Concrete Pump	1	Pulzmeister	52M	ister 52M Concrete	1.96	0.36	3.21	0.36	0.18	1.96	0.36	0.98	0.36	0.18	98	18	160	18	9		
		Generator	1	CAT	3412TA	Generator	5.06	0.92	8.28	0.92	0.46	5.06	0.92	2.53	0.92	0.46	253	46	414	46	23		
		Haul Truck - 10 Wheel	6	Freightliner	FLD120SD	aul Truck - 10 Whe	2.10	1.35	0.30	0.00	0.07	2.10	1.35	0.30	0.00	0.07	630	404	90	-	22		
						Total	13.71	4.07	22.40	2.09	3.15	Total	13.71	4.07	6.13	2.09	3.15	S3 T & COV	1,400	614	1,426	125	246
S5 ROADWAY																							
		Crane RT 50 Ton	1	Grove	RT750	Grove RT750	0.64	0.21	1.64	0.14	0.11	0.64	0.21	0.39	0.14	0.11	32	11	82	7	5		
		Crane - Track	1	Mantiwoc	3900	Mantiwoc 3900	0.92	0.31	2.36	0.20	0.15	0.92	0.31	0.56	0.20	0.15	46	15	118	10	8		
		Flatbed Truck - 10 Wheel	4	Freightliner	FLD120SD	Flatbed Truck - 10 Wh	0.52	0.34	0.08	0.00	0.02	0.52	0.34	0.08	0.00	0.02	105	67	15	-	4		
		Front End Loader	2	CAT	966F	CAT 966F	0.93	0.17	1.95	0.17	1.11	0.93	0.17	0.47	0.17	1.11	93	17	195	17	111		
		Motor Grader	1	CAT	12H	CAT 12H	0.53	0.20	2.94	0.13	0.83	0.53	0.20	0.37	0.13	0.83	27	10	147	7	41		
		Compactor	2	CAT	CB434B	CAT CB434B	0.34	0.11	0.88	0.08	0.14	0.34	0.11	0.21	0.08	0.14	34	11	88	8	14		
		Light Plant	6	Almond Brothers	Maxi Show 100	1 Show 1000 Light P	0.09	0.02	0.15	0.02	0.01	0.09	0.02	0.05	0.02	0.01	28	5	46	5	3		
		Welder	4	Lincoln	Classic III D	oin Classic III D We	0.16	0.03	0.26	0.03	0.01	0.16	0.03	0.08	0.03	0.01	32	6	52	6	3		
		Fork Lift	1	Manitou	M430CP	50 Ton	0.44	0.06	0.36	0.04	0.06	0.44	0.06	0.11	0.04	0.06	22	3	18	2	3		
		Concrete Pump	1	Pulzmeister	52M	ister 52M Concrete	1.96	0.36	3.21	0.36	0.18	1.96	0.36	0.98	0.36	0.18	98	18	160	18	9		
		Generator	1	CAT	3412TA	Generator	5.06	0.92	8.28	0.92	0.46	5.06	0.92	2.53	0.92	0.46	253	46	414	46	23		
		Haul Truck - 10 Wheel	6	Freightliner	FLD120SD	aul Truck - 10 Whe	2.10	1.35	0.30	0.00	0.07	2.10	1.35	0.30	0.00	0.07	630	404	90	-	22		
						Total	13.71	4.07	22.40	2.09	3.15	Total	13.71	4.07	6.13	2.09	3.15	S3 T & COV	1,400	614	1,426	125	246
S5 ROADWAY																							
		Crane RT 50 Ton	1	Grove	RT750	Grove RT750	0.64	0.21	1.6														

CONSTRUCTION EQUIPMENT DATA SHEETS
PAVING

Work hours/day 10.0
Work days/month 5.0
3 months/quarter 1.0

CREW NUMBER	SUBTASK	EQUIPMENT DESCRIPTION	NUMBER UNITS	MANUFACTURE	MODEL NUMBER	Air Pollutant Emissions (lbs/hour)					Air Pollutant Emissions (lbs/hour)					Air Pollutant Emissions(lbs/week)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
						CO	ROC	Nox	Sox	PM10	CO	ROC	Nox	Sox	PM10	CO	ROC	Nox	Sox	PM10																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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CONSTRUCTION EQUIPMENT DATA SHEETS
CONSTRUCTION SUPPORT

Work ho 10.0
Work da 5.0
3 month 1.0

CREW NUMBER	SUBTASK	EQUIPMENT DESCRIPTION	NUMBER UNITS	MANUFACTURE	MODEL NUMBER	Air Pollutant Emissions(ton/quarter)					Air Pollutant Emissions(ton/quarter) 2.5 grams/tp-hr					Air Pollutant Emissions(ton/week)							
						CO	ROC	Nox	Sox	PM10	CO	ROC	Nox	Sox	PM10	CO	ROC	Nox	Sox	PM10			
CONSTRUCTION SUPPORT																							
SP1	YARD / MAINTENANCE / SHOP																						
	Fuel/Lube Truck	1	Freightliner	FLD120SD	latbed Truck - 10 Whe	0.52	0.34	0.08	0.00	0.02	0	0.52	0.34	0.08	0.00	0.02	26	17	4	-	1		
	Maintenance Truck	1	Freightliner	FLD120SD	latbed Truck - 10 Whe	0.52	0.34	0.08	0.00	0.02	0	0.52	0.34	0.08	0.00	0.02	26	17	4	-	1		
	Fork Lift	1	Manitou	M430CP	50 Ton	0.44	0.06	0.38	0.04	0.06	50 Ton	0.44	0.06	0.11	0.04	0.06	22	3	18	2	3		
	Pick Up Truck 3/4 Ton	8	Ford	F250	Pickup Truck	0.06	0.01	0.01	0.00	0.10	0	0.06	0.01	0.01	0.00	0.10	24	3	5	-	40		
	Crane RT	1	Grove	RT500C	Grove RT500C	0.42	0.14	1.07	0.09	0.07	0	0.42	0.14	0.26	0.09	0.07	21	7	53	5	3		
	Front End Loader	1	CAT	966F	CAT 966F	0.93	0.17	1.95	0.17	1.11	0	0.93	0.17	0.47	0.17	1.11	47	8	98	8	55		
	Generator	1	CAT	3412TA	Generator	5.06	0.92	8.28	0.92	0.46	0	5.06	0.92	2.53	0.92	0.46	253	46	414	46	23		
	Welder	4	Lincoln	Classic III D	coin Classic III D Wel	0.16	0.03	0.26	0.03	0.01	0	0.16	0.03	0.08	0.03	0.01	32	6	52	6	3		
					Total	8.12	2.00	12.08	1.25	1.85	Total	8.12	2.00	3.81	1.25	1.85	SP1	YARD / MAINTENANCE / SHO	451	107	647	67	130
SP2	CONCRETE PLANT																						
	Front End Loader	2	CAT	982D	CAT 982D	2.93	0.53	6.13	0.53	1.62	0	2.93	0.53	1.47	0.53	1.62	293	53	613	53	162		
	Transit Truck 14YDS.	10	Freightliner	FLD120SD	latbed Truck - 10 Whe	0.52	0.34	0.08	0.00	0.02	0	0.52	0.34	0.08	0.00	0.02	262	169	38	-	8		
	Crane RT	1	Grove	RT500C	Grove RT500C	0.42	0.14	1.07	0.09	0.07	0	0.42	0.14	0.26	0.09	0.07	21	7	53	5	3		
	Dozer	1	CAT	D9R	CAT D9R	1.98	0.40	4.18	0.40	0.18	0.00	1.98	0.40	1.09	0.40	0.18	99	20	208	20	9		
	Haul Truck 10 Wheel	10	Freightliner	FLD120SD	Haul Truck - 10 Wheel	2.10	1.35	0.30	0.00	0.07	0	2.10	1.35	0.30	0.00	0.07	1,050	674	150	-	37		
	Motor Grader	1	CAT	143H	CAT 143H	0.57	0.21	3.15	0.14	0.83	0	0.57	0.21	0.39	0.14	0.83	29	11	158	7	42		
	Water Wagon	1	CAT	765C	Haul Truck - 10 Wheel	2.10	1.35	0.30	0.00	0.07	0	2.10	1.35	0.30	0.00	0.07	105	67	15	-	4		
	Light Plant	4	Almond Brothers	axl Show 100	xl Show 1000 Light Pl	0.09	0.02	0.15	0.02	0.01	0	0.09	0.02	0.05	0.02	0.01	19	3	31	3	2		
	Generator	1	CAT	3412TA	Generator	5.06	0.92	8.28	0.92	0.46	0	5.06	0.92	2.53	0.92	0.46	253	46	414	46	23		
					Total	15.78	5.25	23.62	2.10	3.34	Total	15.78	5.25	6.48	2.10	3.34	SP2	CONCRETE PLANT	2,131	1,090	1,678	134	281
SP3	ASPHALT PLANT																						
	Front End Loader	2	CAT	966C	CAT 966F	0.934	0.16882	1.95291	0.16882	1.11		0.93	0.17	0.47	0.17	1.11	93	17	185	17	111		
	Crane RT	1	Grove	RT500C	Grove RT500C	0.42	0.14	1.07	0.09	0.07		0.42	0.14	0.26	0.09	0.07	21	7	53	5	3		
	Dozer	1	CAT	D9R	CAT D9R	1.98	0.40	4.16	0.40	0.18		1.98	0.40	1.09	0.40	0.18	99	20	208	20	9		
	Haul Truck 10 Wheel	10	Freightliner	FLD120SD	Haul Truck - 10 Wheel	2.10	1.35	0.30	0.00	0.07		2.10	1.35	0.30	0.00	0.07	1,050	674	150	-	37		
	Motor Grader	1	CAT	143H	CAT 143H	0.57	0.21	3.15	0.14	0.83		0.57	0.21	0.39	0.14	0.83	29	11	158	7	42		
	Water Wagon	1	CAT	766C	Water Wagon	0.52	0.34	0.08	0.00	0.02		0.52	0.34	0.08	0.00	0.02	26	17	4	-	1		
	Light Plant	4	Almond Brothers	axl Show 100	xl Show 1000 Light Pl	0.09	0.02	0.15	0.02	0.01		0.09	0.02	0.05	0.02	0.01	19	3	31	3	2		
	Oil Tanker	1	Freightliner	FLD120SD	Oil Tank Truck	0.35	0.17	0.04	0.00	0.01		0.35	0.17	0.04	0.00	0.01	13	8	2	-	0		
	Generator	1	CAT	3412TA	Generator	5.06	0.92	8.28	0.92	0.46		5.06	0.92	2.53	0.92	0.46	253	46	414	46	23		
					Total	11.95	3.71	19.18	1.74	2.77	Total	11.95	3.71	5.20	1.74	2.77	SP3	ASPHALT PLANT	1,603	803	1,215	88	228
SP4	PROGRAM MANAGEMENT																						
	Pick Up Truck 3/4 Ton	75	Ford	F250	Pickup Truck	0.06	0.01	0.01	0.00	0.10	0	0.06	0.01	0.01	0.00	0.10	228	26	43	-	375		
	Automobiles	20	Ford	Taurus	Automobiles	0.05	0.01	0.01	0.00	0.00	0	0.05	0.01	0.01	0.00	0.00	54	6	7	-	0		
	Ambulances	2	Ford	F350	Ambulances	0.04	0.00	0.01	0.00	0.00	0	0.04	0.00	0.01	0.00	0.00	4	0	1	-	0		
					Total	0.16	0.02	0.03	0.00	0.10	Total	0.16	0.02	0.03	0.00	0.10	SP4	PROGRAM MANAGEMENT	286	33	51	-	375

Attachment H
Aircraft Engine Particulate Matter Emissions Data
Technical Memorandum

LAX Master Plan EIS/EIR

Aircraft Engine Particulate Matter Emissions Data

June 1999

Prepared for:
Los Angeles World Airports

Prepared by:
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Draft Version 1

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Attachments

- A. Estimate of Particle Emission Indices as a Function of Particle Size for the LTO-Cycle for Commercial Jet Engines.
- B. Smoke No. Versus PM Mass Concentration from 1994 California FIP.

1. Introduction

Camp Dresser & McKee Inc. (CDM) has developed this technical memorandum to support the preparation of the Environmental Impact Statement (EIS)/Environmental Impact Report (EIR) for the Los Angeles International Airport (LAX) Master Plan. This technical memorandum documents the sources of aircraft engine emission indices for particulate matter with an equivalent aerodynamic diameter less than $10\ \mu\text{m}$ (PM_{10}). Specifically, turbofan aircraft engine PM_{10} data sources are identified in this technical memorandum.

1.1 PROJECT BACKGROUND

The City of Los Angeles (the City) is preparing a Master Plan for the Los Angeles International Airport (LAX) to identify facilities needed through the year 2015. As part of the environmental review for this project, emissions inventories are being developed for various criteria air pollutants and their precursors including carbon monoxide (CO), nitrogen dioxide (NO_2), oxides of nitrogen (NO_x), ozone (O_3), PM_{10} , and sulfur dioxide (SO_2). This technical memorandum identifies sources of PM_{10} emissions data from aircraft engines. A comparison of the available emission indices are presented.

1.2 PURPOSE OF ANALYSIS

The purpose of the analysis documented in this technical memorandum is to provide the necessary and sufficient air quality technical details regarding air pollutants with ambient air quality standards to support the LAXMP EIS/EIR and to ensure compliance with all applicable federal, state, and local requirements, including the National Environmental Policy Act, the California Environmental Quality Act, Section 176 of the Clean Air Act, and Section 509 of the Airport and Airways Improvement Act.

The current, primary data sources for estimating aircraft engine emissions include the International Civil Aviation Organization (ICAO) Engine Exhaust Emissions Databank, U.S. FAA Engine Emissions Database (FAEED), and U.S. FAA Emissions and Dispersion Modeling System (EDMS) program. However, none of these sources contain emissions data for PM_{10} . While older sources of total suspended particulate (TSP) data exists, no direct measurements of aircraft engine PM_{10} mass emissions have been conducted recently. This technical memorandum lists the existing sources of particulate matter data for aircraft engines and presents, in Attachment A, some recent findings developed at the University of Missouri - Rolla, Cloud and Aerosol Sciences Laboratory.

2. Aircraft Engine Particulate Matter Emissions Sources

This section lists the primary sources of aircraft engine particulate matter emissions.

2.1 SOURCES OF AVAILABLE DATA

To identify available sources of aircraft engine particulate matter emissions, CDM conducted a literature review. The primary references for the data identified in this technical Memorandum are presented below:

- "Compilation of Air Pollutant Emission Factors, Volume II: Mobile Sources," AP-42, Fourth Edition, U.S. EPA, Motor Vehicle emission Laboratory, Ann Arbor, MI, September 1985.
- "Characterization of Particulate Emissions from the J79-GE-15A Engine, McClellan Air Force Base, California," AESO Report No. 2-87, U.S. Navy, Aircraft Environmental Support Office, San Diego, CA, April 1987.
- "Particulate Emissions from Aircraft Engines," AESO Report No. 2-90, U.S. Navy, Aircraft Environmental Support Office, San Diego, CA, June 1990.
- "Summary Tables of Gaseous and Particulate Emissions from Aircraft Engines," AESO Report No. 6-90, U.S. Navy, Aircraft Environmental Support Office, San Diego, CA, June 1990.
- "A Field Sampling of Jet Exhaust Aerosols," D.E. Hagen, M.B. Trueblood, and P.D. Whitefield, *Particulate Science and Technology*, 10: 53-63, 1992.
- "American Airlines, Inc.'s Proposed Commercial Aviation Operations Emissions Rule for the South Coast Air Quality Management District," 1994 California FIP, Docket A-94-09, IV-E-49, U.S. EPA, National Vehicle and Fuel Emissions Laboratory, Ann Arbor, MI, November 1994.
- "Effect of Altitude Conditions on the Particle Emissions of a J85-GE-5L Turbojet Engine," J.E. Rickey, NASA-TM-106669, NASA, Lewis Research Center, Cleveland, OH, February 1995.
- "Particulate Emissions in the Exhaust Plume from Commercial Jet Aircraft Under Cruise Conditions," D.E. Hagen, P.D. Whitefield, and H. Schlager, *Journal of Geophysical Research*, 101(D4): 19551-19557, August 27, 1996.
- "Experimental Characterization of Gas Turbine Emissions at Simulated Flight Altitude Conditions," R.P. Howard, R.S. Hiers, Jr., P.D. Whitefield, D.E. Hagen, J.C. Wormhoudt, R.C. Micke-Lye, and R. Strange, AEDC-TR-96-3, USAF, Arnold Engineering Development Center, Arnold AFB, TN, September 1996.
- "In Situ Observations of Air Traffic Emission Signatures in the North Atlantic Flight Corridor," H. Schlager, P. Konopka, U. Schumann, H. Zierets, F. Arnold, M. Klemm, D.E. Hagen, P.D. Whitefield, and J. Ovarlez, *Journal of Geophysical Research*, 102(D9): 10739-10750, May 20, 1997.
- "Particulate Sizing and Emission Indices for a Jet Engine Exhaust Sampled at Cruise," D. Hagen, P. Whitefield, J. Paladino, M. Trueblood, and H. Lilentfeld, *Geophysical Research Letters*, 25(10): 1681-1684, May 15, 1998.
- "Particle Concentration Characterization for Jet Engine Emissions Under Cruise Conditions," J. Paladino, P. Whitefield, D. Hagen, A.R. Hopkins, and M. Trueblood, *Geophysical Research Letters*, 25(10): 1697-1700, May 15, 1998.
- "National Air Pollutant Emission Trends, Procedures Document, 1900-1996," U.S. EPA, Office of Air Quality Planning and Standards, Research Triangle Park, NC, May 1998.
- "Engine Gaseous, Aerosol Precursor and Particulate Emissions at Simulated Flight Altitude Conditions," C.C. Wey, C. Wey, D.J. Dickl, K.H. Loos, D.E. Noss, D.E. Hagen, P.D. Whitefield, M.B. Trueblood, M.E. Wilson, D. Olson, J.O. Ballenthin, T.M. Miller, A.A. Viggiano, J. Wormhoudt, T. Berkoff, and R.C. Micke-Lye, NASA/TM-1998-208509, NASA, Lewis Research Center, Cleveland, OH, October 1998.

2.2 DATA DEVELOPED FOR THE LAX MASTER PLAN

In reviewing the available data on particulate matter emissions from aircraft engines, it was determined that the more recent emission indices in the literature were given in terms of the number of particles per mass of fuel consumed. Additional information was needed to convert the number-based (or particle count) emission indices to mass-based indices. Drs. Whitefield and Hagen at the Cloud and Aerosol Sciences Laboratory, University of Missouri, Rolla, were contracted to provide the additional information and develop mass-based emission indices. Their final report is included as Attachment A to this technical memorandum.

3. Comparison of Aircraft Engine Particulate Emission Indices

The review of particulate matter emission indices indicates that some data does exist for aircraft engines. However, most of the available emission indices are for military turbojets. Since these engines are substantially different than the high bypass turbofans in today's commercial airline fleet, the military engine indices were not considered directly useable for the LAX Master Plan EIS/EIR. Particulate mass-based emission indices for turbofan engines come primarily from three sources: 1) the Fourth Edition of AP-42, Volume II (U.S. EPA 1985), 2) the 1994 California FIP Docket (see Attachment B), and 3) the Whitefield and Hagen study (Attachment A).

Figure 1 plots the particulate emission indices for these three data sources under all aircraft operating modes. The particulate emission indices plotted are directly emitted soot (non-volatile) mass, and do not consider secondary particulate formation. Figures 2 through 5 are plots of these emission indices for each of four operating modes: takeoff, climbout, approach, and taxi/idle, respectively.

Visual inspection of the takeoff and climbout data indicated a slight trend with engine size. That is, the larger the engine, the lower the index. No such trend was obvious from inspection of the approach and taxi/idle data. Therefore, exponential functions of fuel flow are recommended for estimating the PM index for a given engine in takeoff and climbout modes. Average values for all engines are recommended for approach and taxi/idle modes. The functions and average values are included in the legends of Figures 2 through 5.

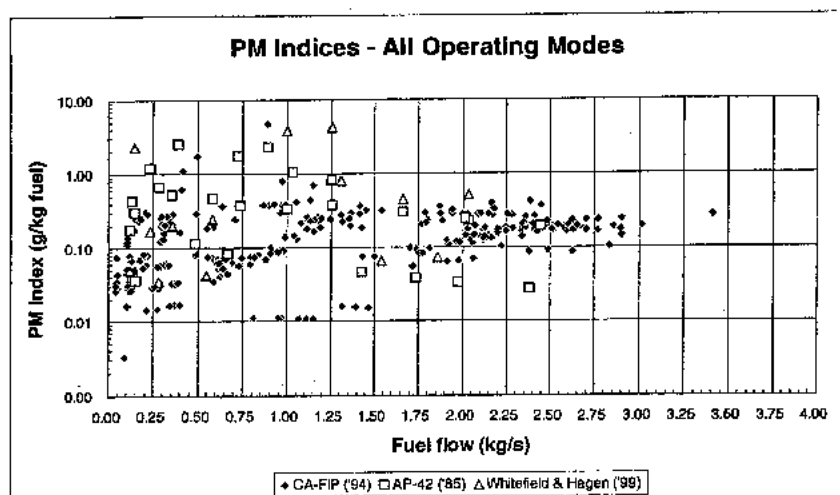


Figure 1. PM Index Data Points for All Operating Modes.

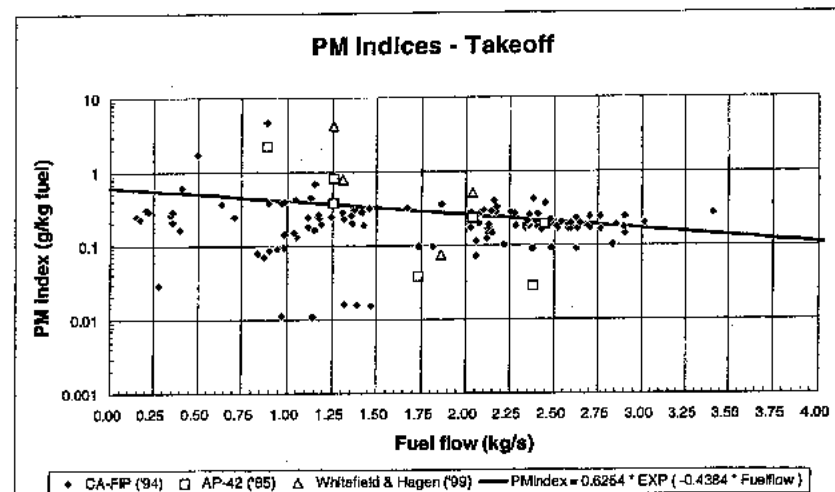


Figure 2. PM Index Data Points for Takeoff.

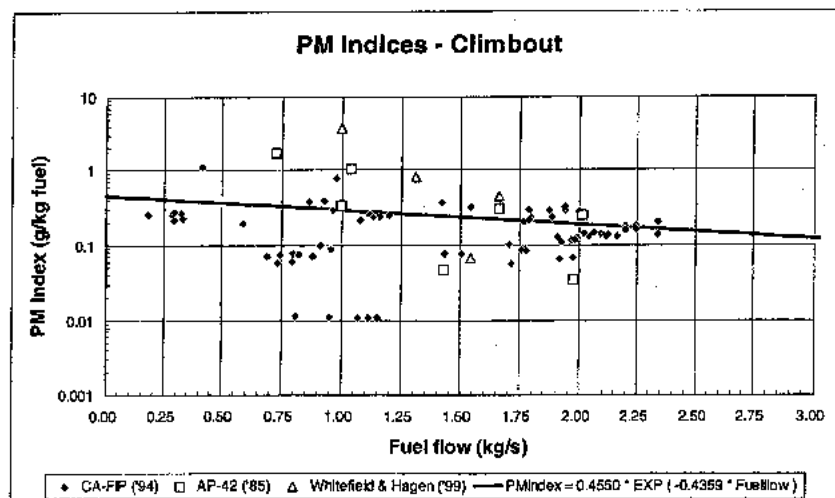


Figure 3. PM Index Data Points for Climbout.

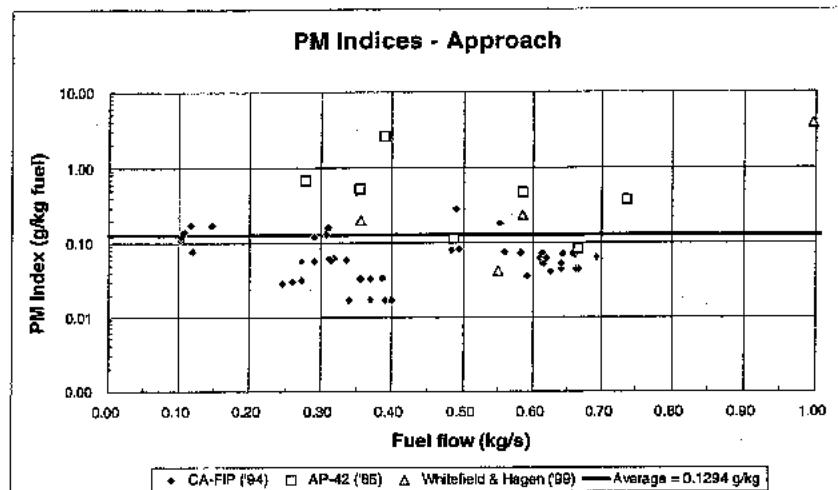


Figure 4. PM Index Data Points for Approach.

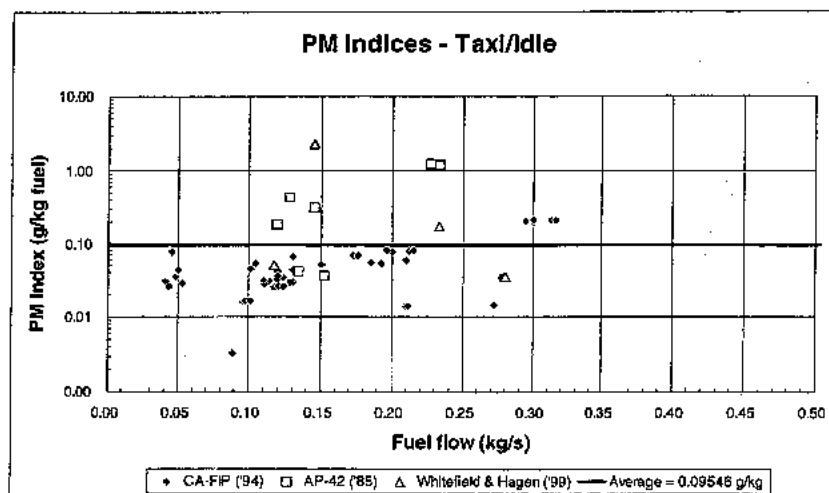


Figure 5. PM Index Data Points for Taxi/Idle.

4. References

- International Civil Aviation Organization (ICAO). 1995. "ICAO Engine Exhaust Emissions Data Bank." Doc 9646-AN/943, First Edition, Montreal, Canada.
- U.S. Environmental Protection Agency, 1985. "Compilation of Air Pollution Emission Factors. Volume II: Mobile Sources" (AP-42, 5th Edition), U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Environmental Sciences Research Laboratory, Research Triangle Park, NC.
- U.S. Environmental Protection Agency, 1994. "California FIP NPRM: Civil and Military Aviation Technical Support Document," (Docket A-94-09, Index IV-E-49), U.S. Environmental Protection Agency, Motor Vehicle Emission Laboratory, Ann Arbor, MI.
- U.S. Federal Aviation Administration, 1995. FAA Aircraft Engine Emission Database (FAEED), FAA Office of Environment and Energy (AEE-110), Washington, DC.
- U.S. Federal Aviation Administration and the U.S. Air Force, 1997b. "Emissions and Dispersion Modeling System (EDMS) Reference Manual," FAA-AEE-97-01, FAA Office of Environment and Energy (AEE-120), Washington, DC and USAF Armstrong Laboratory, Tyndall Air Force Base, FL.

LAX Master Plan EIS/EIR

Aircraft Engine Particulate Matter Emissions Data

Attachment A

Estimate Of Particle Emission Indices as a Function of Particle Size for the LTO Cycle for Commercial Jet Engines

March 1999

Prepared for:

Camp Dresser & McKee Inc.

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ESTIMATE OF PARTICLE EMISSION INDICES AS A FUNCTION OF PARTICLE SIZE FOR THE LTO CYCLE FOR COMMERCIAL JET ENGINES.

1. OBJECTIVE

The objective of this study is to estimate the particle emission indices (EI's)¹ as a function of particle size and fuel sulfur content for the LTO cycle for several commercial jet engines and calculate associated mass-based emission indices. Emission indices are defined as either the number of particles produced per kilogram of fuel burned or the mass of particles produced (in grams) per kilogram of fuel burned. The engines used in this study are the Rolls Royce RB211, Pratt and Whitney JT8D and JT9D, and the General Electric CFM56-5C2 engines. To achieve this objective particle emission concentrations and their size distributions, measured for the jet engines using the UMRMASS methodology (see Appendix I or a brief description of the MASS methodology), were correlated with LTO cycle smoke numbers for the same engines reported in the ICAO database (Hagen et al 1992, Hagen et al 1995 and Paladino 1997a). It is important to note that this work depends on an extremely small database of MASS type measurements and any estimates reported are limited by this paucity of data. Furthermore these estimates require that the following important assumptions be made and accepted.

- (1) Non-volatile (soot) particles are essentially spherical in shape (particles < 500nm diameter).
- (2) Non-volatile (soot) particles have a uniform density of 1g/cc.
- (3) Particle mass can be calculated from a knowledge of total particle volume (obtained from measured size distributions) and particle density.
- (4) All particles emitted by an engine have diameters $\leq 2500\text{nm}$ (2.5 μm).
- (5) The UMR measurements used in this study are representative and can be directly compared to measurements in the ICAO database.
- (6) RB211, JT8D, JT9D and CFM56-5C2 engines are representative of the fleet of engines anticipated to operate at or around LAX.
- (7) The ratio of non-volatile to total particle EI's at sea level will be the same as that measured at cruise.
- (8) The fuel sulfur dependency observed with the RB211 engine will be the same for the other engines in this study.
- (9) EI's for thrust settings not measured can be predicted using correlations between smoke number and EI established in this study.

¹ A list of abbreviations and parameters is given in Appendix IV.

2. APPROACH

The ICAO data base contains much jet engine data, e.g. smoke number and fuel flow rates, on a large number of engines. Our goal is to combine this ICAO data with some UMR data on EI's (Emission Indices) for a few engines, and generate some information on mass based emissions as a function of fuel flow rate, for a large number of engines. The ICAO data base contains no direct data on particle mass emissions. The smoke number gives some information on the populations of very large emission particles, but these constitute a very small component of the total particulate population (Paladino 1987). However since large particles make a relatively large contribution to aerosol mass, there is reason to hope that the smoke number may carry some information on mass based emissions.

Ground based measurements using optical extinction-scattering measurements on a tubular combustor rig indicated that particle mass (per unit volume of sample exhaust air) is an increasing function of the fuel air ratio, FAR, (Charalampopoulos 1992; Schumann 1995). Their data is shown in Fig. 1 (circles). Also shown in Fig. 1 is a quadratic fit which indicates that the slope of this data continually increases with increasing FAR, and the coefficient of the quadratic term is positive. Now the coefficient of the quadratic term in a particle mass vs. FAR fit is proportional to the linear term in a mass based EI vs FAR fit (see Appendix II). Also in normal operation the fuel flow increases as the FAR increases. Hence it is reasonable to expect the mass based emissions to vary linearly with fuel flow rate, and to have a positive slope. This can be tested against existing data.

ICAO data on smoke number and UMR data on mass based emission indices (EI's) was analyzed to study the emissions variation with fuel flow. Figs. 2 and 3 show plots of normalized smoke number, NSN, vs. fuel flow rate, \dot{m} , for seventeen engines taken from the ICAO data base, where NSN is defined as any smoke number for a given engine divided by the maximum smoke number for that engine as reported in the ICAO database. NSN's were used to put all smoke number calculations on the same scale. These data exhibit an interesting trend, a roughly linear behavior with slopes ranging from 0.33 - 0.85 s/kg.

Let us now consider the applicability of NSN vs. \dot{m} relationship to the commercial fleets in general. Table 1 shows usage and relationship applicability data for 29 of the most widely used engines, based on distances flown. These engines represent 74% of total miles flown based on global aircraft emission inventory data for 1991/92 (Gardner et al. 1998). The table provides information on the number of miles flown by any aircraft type and the percentage of those aircraft with a given engine type. From these data two parameters are extracted and shown in the table: \dot{m} , total distance flown by a given engine type, and R_E , the fraction of the total miles flown by commercial aircraft associated with a given engine type. With these data we can identify which engines types do the most work in the commercial fleets. In addition a parameter "slope" is provided, which is the slope (in units of s/kg) of the normalized smoke number vs. fuel flow rate for that engine. For engines for which there was insufficient smoke number data to calculate a slope, X is recorded. A Y is recorded for cases where the NSN is roughly independent of \dot{m} , indicating these engines did not exhibit the linear dependence required for the model. The group of engines from Table 1 which exhibit a linear variation in NSN with \dot{m} represent 23.7% of total jet engine miles flown, those with insufficient data for such an analysis represent 47.6% of total miles, and the engine group for which smoke number was roughly constant represent 2.3% of total miles. These results show that for the most widely used engines, for which smoke number vs. fuel flow rate is available, representing the normalized smoke number as a linear function of fuel flow with a positive slope is a reasonable model. The weighted average slope (NSN vs. \dot{m}) is found to be 0.613 ± 0.054 s/kg.

2.1 DEMONSTRATION OF THE APPROACH FOR A SPECIFIC ENGINE - THE RB211-535C

Table 2 shows ground test and airborne sampling data for EI's taken by UMR during NASA projects SNIF and SUCCESS (Hagen et al. 1996 and 1998). Appendix III provides short descriptions of the field campaigns from which the UMR data is drawn. These data were taken on the emissions from a Rolls Royce RB211-535C engine.

A normalized mass based EI, NEIm, was calculated and then a linear fit of NEIm to fuel flow was undertaken. NEIm is defined as any EI from a given engine test divided by the maximum EI recorded in that engine test. The fit yielded a R-value (correlation coefficient) of 0.975 (which indicates that the fit is good) and a positive slope of 2.7 s/kg. The magnitude of this slope is greater than the weighted average slope given by the normalized smoke number analysis. However the large value of this slope is dictated by the large value of the EI reported from the airborne measurements. In flight, sampling is done usually on the order of 30-90 seconds after the engine has exhausted the sample into the atmosphere, during this time gas-to-particle

conversion processes are active in the exhaust plume of an aircraft and this processing will increase the value of the EI's measured in-situ (Fahey et al. 1995 and Pueschel et al. 1998). Plume processing is not involved in the ground based measurements. If only the two Project SNIF measurements (ground test data) were used in the NEIm calculations, then a slope of 0.48 s/kg is obtained, which falls into the range of slopes presented in figures 2 and 3, but is slightly below the weighted average NSN vs. \dot{m} slope. Hence the two estimations of the NEIm from airborne and ground based measurements bracket the weighted average slope value for NSN. The smoke number was designed to give a measure of the visibility of the exhaust plume. Large (> 500 nm diameter i.e. $>>$ wavelength of visible light) particles have a light scattering coefficient approaching 2 (Cadle 1965). For an aerosol dominated by a single size species, the light scattering and hence the smoke number should be roughly proportional to the particle diameter squared times the particle concentration. This functional dependency is similar to that of the particle mass concentration, i.e. diameter cubed times the concentration. We therefore adopt the approximation that the slope of NSN vs. \dot{m} can be used for the slope of the NEIm vs. \dot{m} . This choice is made because it involves parameters available in the ICAO data base. It is important to note these approximations do not apply to all engines listed in the ICAO database but are reasonable for a significant number of engines currently operating in the commercial fleets.

Let us consider some exceptions:

- (1) There are two GE engines the CF6-50C and CF6-50E2 where changes in their fuel injection nozzles can have a substantial impact on their emissions, in particular their LTO cycle smoke numbers. These engines are essentially the same model, with the same combustor, but with different fuel injection nozzle configurations that yield completely different smoke number behaviors. With one nozzle configuration (low emissions version) emissions increase with fuel flow and have a slope that falls into the range reported above for numerous ICAO engines; with the other fuel nozzle configuration (regular), emissions are approximately independent of fuel flow. Hence for these "regular" engines the linear normalized emissions vs. fuel flow model would not be appropriate.
- (2) Extensive UMR measurements on particle emissions have been made for the Pratt F-100 engine (Wey et al. 1998). This is a modern engine representing advanced combustor technology. It was found to have a smoke number of zero and its EI's do not correlate with fuel flow (average $R^2 = 0.063$, a perfect correlation would yield $R^2 = 1.0$). The F-100 engine has the most accurately measured EI vs engine condition data set that exists to date (see Fig. 4). Particle mass density (Particle mass per unit volume) vs. FAR for the F100 is plotted in Fig. 5. This data does not show the particle mass density correlation with FAR discussed by Charalampopoulos (1992) and Schumann (1995). Hence for the F100 engine the linear normalized emissions vs. fuel flow model would not be appropriate.

3. APPLICATION

We now apply the approach to a number of engines for which we have EI data from various UMR measurement campaigns. The weighted average slope of NSN vs. \dot{m} from the ICAO database has a value of 0.613 s/kg, as developed above. This slope is applied to the variation of EI with fuel flow rate, \dot{m} , for a given engine, and this linearly fitted EI, fei , is referenced to the EI measured by UMR at a particular fuel flow rate, \dot{m}_{UMR} .

$$fei = EI_{UMR} \cdot [1 + (0.613 \text{ s/kg}) \cdot (\dot{m} - \dot{m}_{UMR})]$$

Table 3 shows UMR data from projects SNIF and POLINAT, in which EI's were measured for 4 different engines.

Here \dot{m} refers to fuel flow rate and X_{barv} is the mean volumetric diameter for the size distribution taken under the sampled conditions. Note that the total aerosol volume per unit volume of exhaust aerosol, V_A , is given by

$$V_A = (\pi/6) \cdot X_{barv}^3 \cdot N_A \quad (\text{where } N_A \text{ is the aerosol concentration})$$

Fuel flow rates for the LTO cycle of these engines taken from the ICAO data base, combined with the weighted average slope of NSN vs. \dot{m} and the UMR measurement data given in Table 3, were used to evaluate fitted EI's, fei , for each LTO cycle fuel flow rate. The results are shown in Table 4. The mass-based EI's, fei_m , in table 4 were determined using

$$fei_m = (\pi/6) \cdot \rho \cdot X_{barv}^3 \cdot fei$$

The assumed density of the particles (carbonaceous) was taken to be $\rho = 1.0 \text{ g/cm}^3$. The mean volumetric diameter, X_{barv} , varies from engine type to engine type, but for a given engine is generally found to be independent of thrust (Howard et al 1996, Wey et al 1998). Thus for these calculations it is reasonable to use a single diameter to represent all thrust settings in the LTO cycle. This diameter, X_{barv} , is also recorded in Table 4.

The total particle EI's were obtained using the ratio of total to non-volatile particles EI's for the NASA B757 aircrafts RB211-535C engines, measured in flight under cruise conditions during NASA's field campaign SUCCESS (Hagen et al 1998). During this campaign measurements were also made in the exhaust plume with two different fuels one with low sulfur (72ppmm) and one with high sulfur (676ppmm) and total particle EI's for both sulfur conditions are given in Table 4. The particle concentration enhancement factors, including the fuel sulfur dependency, measured in situ for the RB211, were assumed to apply to the other engines described in

4. DISCUSSION

The approach and its application described in this report are clearly only the first steps to be taken in the process of being able to accurately predict the environmental impact of aircraft related particulate emissions during the LTO cycle for commercial aircraft. The approach shows promise for further application and currently is mainly limited by the availability of mass-based emissions data for the type of particulates emitted by jet engines. It is important to note that a fundamental assumption in this model is that the normalized smoke number slope (derivative of normalized smoke number with respect to fuel flow rate) can be used for the slope of the normalized emission index. Arguments were made to show that this is approximately true for the Rolls Royce RB211-535C engine, a case for which measurement data on the emission index was available. This relationship should be tested for other engines, but this requires further emission index measurements.

Table 4 provides "first of a kind" estimates of number and mass-based EI's for the LTO cycle of four popular engines currently in use in the commercial fleets. The EI's are provided for both non-volatile (soot) particulates and for the total particulates for both high and low fuel sulfur contents. Table 4 reveals a number of important observations:

- (1) For both number and mass-based EI's, EI increases with thrust.
- (2) For number-based EI's the greatest engine-to-engine variability range is observed at idle and this variability range decreases with increasing thrust.
- (3) For mass-based EI's the overall engine-to-engine variability range is much larger than that for number-based EI's, and the range also decreases with increasing thrust, although this dependency is much weaker.
- (4) The difference in the engine-to-engine variability range for mass-based EI's compared to number-based EI's is driven by the variability of the number-based EI's and shifts in the engine size spectra. Both these factors enter into the calculation of mass-based EI's.
- (5) The engine-to-engine variability demonstrated in the mass-based EI's clearly indicates a need for more size dependent measurements on a wider range of engines than is available to this report.
- (6) Higher levels of sulfur in fuel result in higher mass-based EI's. This fact is measured for the RB211 engine and as stated earlier is assumed to apply to other engines.

The F100 results presented in Fig. 4 indicate that should the community that purchases jet engines require lower mass-based particulate emissions, such a goal is achievable. The data presented in Fig. 4 indicates that low EI's can be achieved even at high fuel flow rates by the proper choice of operating conditions. There will be a trade off with thrust and the other parameters that are varied during operating condition optimization studies.

The estimates provided in this study can only be of use if their associated level of uncertainty is assessed. There are two major categories of uncertainty. The first deals with uncertainties associated with the measurement of the parameters used to develop the estimates. The second and by far the most significant are those introduced as a result of the inevitable assumptions invoked in order to develop the estimates. The validity of these assumptions can only be verified with additional experimental data. In particular a more accurate measure of soot density for jet engine produced soot is needed. A survey of the literature indicates that a value anywhere between 1-2g/cm³ can be used (Malissa 1976, Rivera-Carpio 1996, and Hitznerberger et al 1996). In the words of Hitznerberger et al "a major problem is caused (in this type of analysis) by the fact that the density of black carbon particles is unknown." To the best of our knowledge this problem has yet to be resolved. The magnitude of the uncertainty introduced by the density factor is a factor of two. This uncertainty dwarfs all others associated with this study (see below) and is an unavoidable obstacle in the absence of any reliable measurement of the density of the soot generated by jet engines.

Measurement uncertainties, with one exception, are typically $\pm 30\%$ with most parameters known to within $\pm 10-12\%$ (Howard et al 1996, Wey et al 1998). The exception is the problem of accounting for all of the available mass within the window of the size distribution diameter range for the MASS methodology. Historically, the scientific community has been mainly interested in number-based size distributions and the engine studies used in these analyses covered a size range sufficient to characterize number-based size distributions. Mass-based data have been determined from the number-based data using (1) volumetric size distributions derived from the measured number-based data and (2) an assumed density for soot. The UMRMASS methodology used to acquire the number-based size distributions typically operates within a particle diameter range between 10 and 400nm. This is perfectly adequate to account for >95% of the total

concentration of particles emitted from the jet engines studied to date (see Wey et al 1998). Our analysis shows, however, that since the particle mass is related to the particle diameter cubed we are only accounting for 60-70% of the total particle mass for the engines in this study. This effect can be seen clearly in the examples of mass-based size distributions for the RB211 and JT8D engine emissions given in figure 6. As an example of how this effect is less pronounced in more recent engine developments a plot of the mass-based size distribution for an F100 engine is also provided in figure 6. The combustor in the F100 engine is considered to be representative of that for current-advanced commercial engines [Wey et al 1998]. The $dm/dlogx$ plotting format in figure 6 is chosen since it provides a visual proportional relation between the mass and the area under the curve. Our best estimate of this effect suggests that the mass-based EI's reported in table 4 underestimate actual mass-based EI's by 35%. This result, however, is dependent entirely on the assumption that the particle mass-based distributions continue to fall smoothly at diameters beyond the MASS diameter range in a similar manner to the F100 engine.

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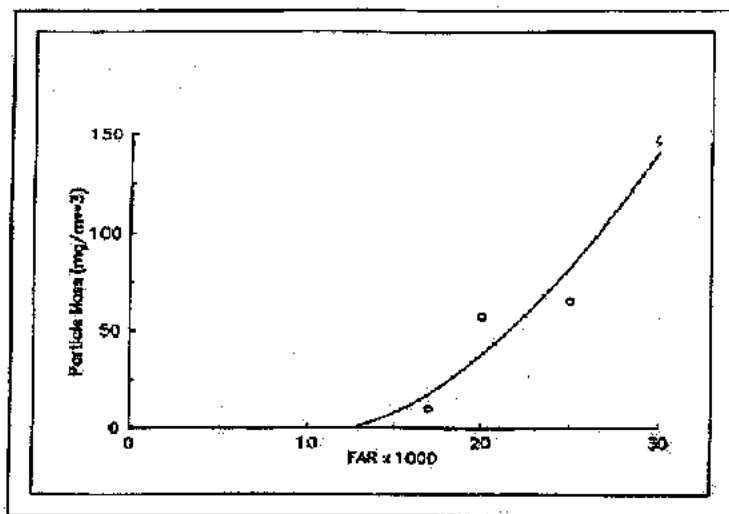


Figure 1. Particle mass versus fuel air ratio for a tubular combustor rig.

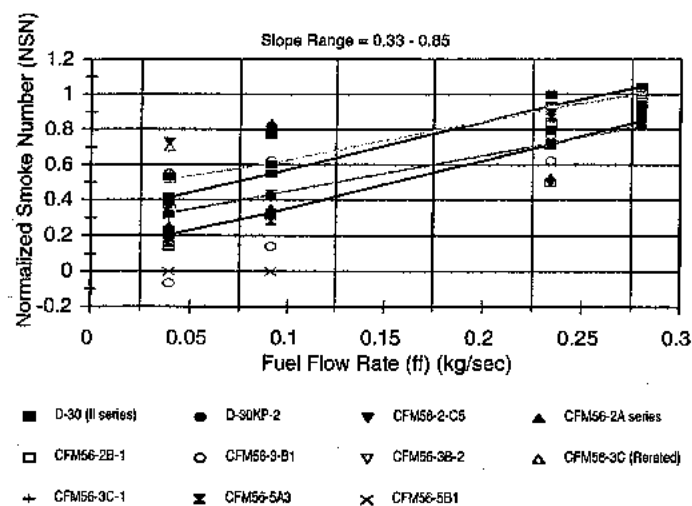


Figure 2. A plot of normalized smoke number versus fuel flow rate for 11 engines taken from the ICAO database.

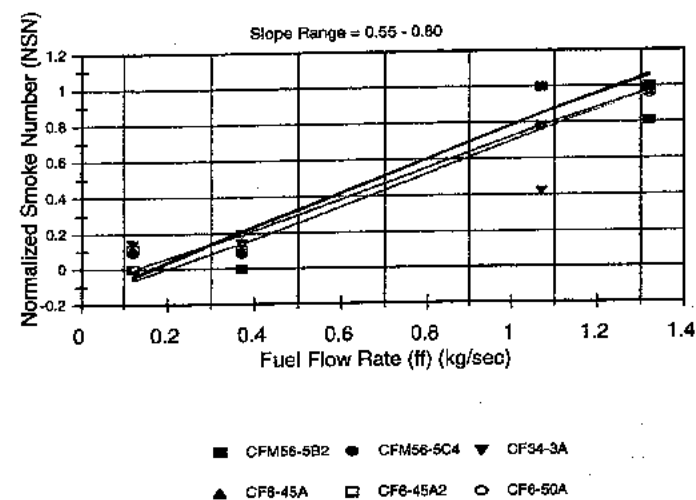


Figure 3. A plot of normalized smoke number versus fuel flow rate for 6 engines taken from the ICAO database.

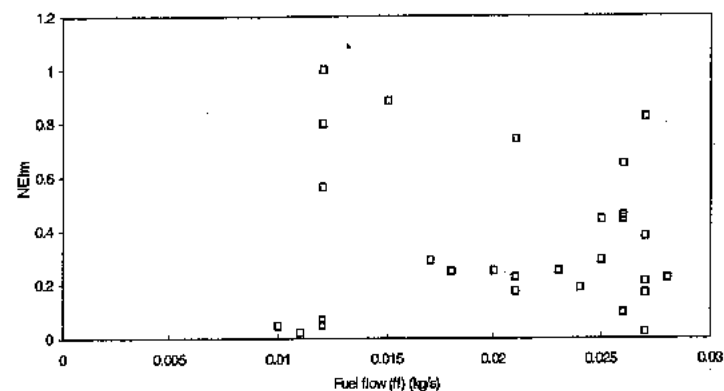


Figure 4. Normalized mass-based emission index versus fuel flow rate for the F100 engine.

ATTACHMENT A - ESTIMATE OF PARTICLE EMISSION INDICES

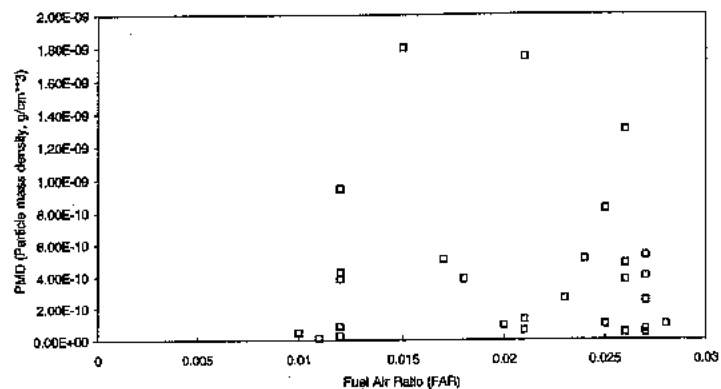


Figure 5. Particle mass density versus fuel air ratio (FAR) for the F100 engine.

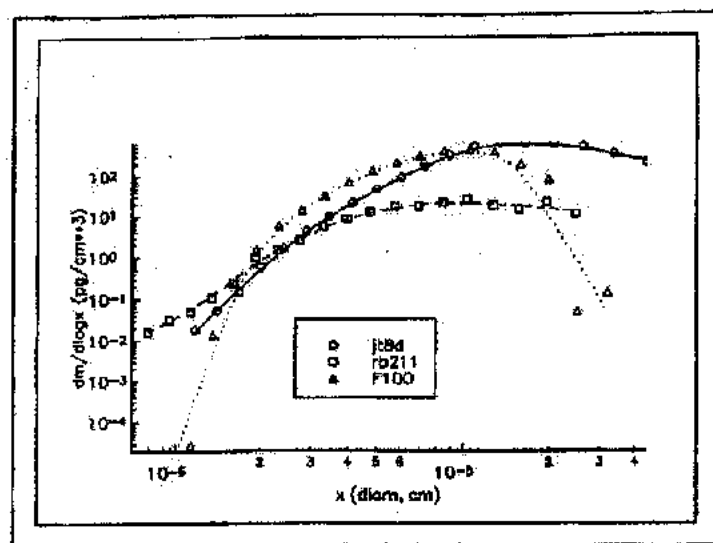


Figure 6. Aerosol mass distributions for the JT8D, RB211 and F100 engines measured with the UMR MASS.

ATTACHMENT A - ESTIMATE OF PARTICLE EMISSION INDICES

Table 1. Usage and relationship applicability data for 29 of the most widely used engines in the commercial fleet, based on distances flown.

aircraft	distance	CFM56B1	CFM56B2	CFM56C2	PWJT8D7	PWJT8D9
727	2.43E+06				7.9	25.3
737 100/200	1.78E+06				7.2	31.3
737 300/400	1.53E+06	45.4	36.9	17.5		
747 100/300	2.18E+06					
767	1.73E+06					
DC10	1.53E+06					
DC9	1.21E+06				44.3	33.2
MD80	1.40E+06					
total	1.73E+07					
de		6.937E+05	5.638E+05	2.674E+05	8.553E+05	1.574E+06
Re		0.040	0.033	0.015	0.050	0.091
slope		0.39292	0.79406	0.57655	X	X
aircraft	distance	PWJT8D17C	PWJT8D217	PWJT8D219	GECP650C	GECP650C1
727	2.43E+06	7.8				
737 100/200	1.78E+06					
737 300/400	1.53E+06					
747 100/300	2.18E+06					17.6
767	1.73E+06					
DC10	1.53E+06				11	34.1
DC9	1.21E+06					
MD80	1.40E+06		56.9	99.7		
total	1.73E+07					
de		1.846E+05	7.982E+05	5.569E+05	1.679E+05	8.094E+05
Re		0.011	0.046	0.032	0.010	0.052
slope		X	X	X	Y	0.87464
aircraft	distance	GECP680C2B5	GECP680C2D1F	PW4060	PW4460	PWJT9D7A
727	2.43E+06					
737 100/200	1.78E+06					
737 300/400	1.53E+06					
747 100/300	2.18E+06					31.1
767	1.73E+06	11.4		16		
DC10	1.53E+06		7.5		5.4	5.1
DC9	1.21E+06					
MD80	1.40E+06					
total	1.73E+07					
de		1.968E+05	1.145E+05	2.762E+05	8.241E+04	7.546E+05
Re		0.011	0.007	0.016	0.005	0.044
slope		0.52356	0.51839	X	X	0.49469

ATTACHMENT A - ESTIMATE OF PARTICLE EMISSION INDICES

Table 1. Usage and relationship applicability data for 29 of the most widely used engines in the commercial fleet, based on distances flown. (continued)

aircraft	Distance	PWJT8D15	PWJT8D16A	PWJT8D17	PWJT8D17A	GECF86D1K
727	2.43E+06	46.6		9.8		
737 100/200	1.78E+06	21.8	15.4	13.1	11.2	
737 300/400	1.53E+06					
747 100/300	2.18E+06					
767	1.73E+06					
DC10	1.53E+06					11.5
DC9	1.21E+06	9				
MD80	1.40E+06					
total	1.73E+07					
de		1.630E+06	2.748E+05	4.718E+05	1.998E+05	1.765E+05
Re		0.094	0.016	0.027	0.012	0.010
slope		X	X	X	X	X
aircraft	Distance	GECF880A2	GECF880C2B2	PWJT9D70.7W(70A)	PWJT9D7A4D.D	PWJT9D7R4G2
727	2.43E+06					
737 100/200	1.78E+06					
737 300/400	1.53E+06					
747 100/300	2.18E+06			16.9		11.6
767	1.73E+06	13.2	8.2		16.7	
DC10	1.53E+06					
DC9	1.21E+06					
MD80	1.40E+06					
total	1.73E+07					
de		2.278E+05	1.415E+05	3.677E+05	2.883E+05	2.524E+05
Re		0.013	0.008	0.021	0.017	0.016
slope		0.86011	0.35723	X	X	X
aircraft	Distance	PWJT8D11	GECF86D	PWJT9D7J.20J	GECF80A	sum
727	2.43E+06					97.2
737 100/200	1.78E+06					100
737 300/400	1.53E+06					99.8
747 100/300	2.18E+06			5.5		82.7
767	1.73E+06				14.4	79.9
DC10	1.53E+06		15			89.6
DC9	1.21E+06	8.4				94.9
MD80	1.40E+06					96.6
total	1.73E+07					
de		1.014E+06	2.289E+05	1.197E+05	2.486E+05	
Re		0.006	0.013	0.007	0.014	0.73621
slope		X	Y	X	0.27810	0.56607

ATTACHMENT A - ESTIMATE OF PARTICLE EMISSION INDICES

Table 2. UMR Elm's for the RB211-535C engine.

Test	ff (kg/s)	Elm (g/kg)	NElm
Gnd, SNIF	.391	.131	.187
Gnd, SNIF	.479	.160	.229
Airborne, SUCCESS	.709	.70	1

Table 3. UMR data from projects SNIF and POLINAT in which emission indices for 4 different engines were measured.

Engine	ff (kg/s)	Elv1.E14 (kg)	Test	Project	Xbarv (nm)
RB211-535C	.479	7.0	Ground	SNIF	47.8
IT8D	.391	15.8	Ground	SNIF	149
IT9D-7J	.912	4.5	Airborne	POLINAT2	106
CFM56-5C2	1.67	15	Airborne	POLINAT2	107

Table 4. Estimates of number- and mass-based EI's for the LTO cycle of four popular engines.

Engine: RB211-22B					
Xbarv=47.8nm					
Cond	ff	Fei	Nv	Tot_HS	Tot_LS
	(kg/s)	(#/kg_f)	(g/kg_f)	(g/kg_f)	(g/kg_f)
T/O	1.9	1.3E+15	0.074	1.1	0.19
C/O	1.5	1.2E+15	0.066	1.0	0.17
App	0.55	7.3E+14	0.042	0.61	0.11
Idle	0.28	6.2E+14	0.035	0.52	0.091

Engine: JT9D-7J					
Xbarv=106nm					
Cond	ff	Fei	Nv	Tot_HS	Tot_LS
	(kg/s)	(#/kg_f)	(g/kg_f)	(g/kg_f)	(g/kg_f)
T/O	2.3	8.4E+14	0.52	7.7	1.3
C/O	1.9	7.2E+14	0.45	6.6	1.2
App	0.68	3.9E+14	0.24	3.5	0.62
Idle	0.24	2.6E+14	0.17	2.4	0.43

Engine: CFM56-5C2					
Xbarv=107nm					
Cond	ff	Fei	Nv	Tot_HS	Tot_LS
	(kg/s)	(#/kg_f)	(g/kg_f)	(g/kg_f)	(g/kg_f)
T/O	1.3	1.2E+15	0.80	12	2.1
C/O	1.1	1.0E+15	0.65	10	1.7
App	0.36	3.1E+14	0.20	2.9	0.52
Idle	0.12	7.7E+13	0.050	0.73	0.13

Engine: JT8D					
Xbarv=148nm					
Cond	ff	Fei	Nv	Tot_HS	Tot_LS
	(kg/s)	(#/kg_f)	(g/kg_f)	(g/kg_f)	(g/kg_f)
T/O	1.3	2.5E+15	4.2	62	11
C/O	1.0	2.2E+15	3.8	56	10
App	0.35	1.5E+15	2.7	39	6.9
Idle	0.15	1.3E+15	2.3	34	6.0

APPENDIX I. A BRIEF DESCRIPTION OF THE MASS METHODOLOGY.

Introduction:

The University of Missouri-Rolla (UMR) Mobile Aerosol Sampling System (MASS) has been widely deployed in over the past eight years as a particulate characterization experimental package. The versatility and comprehensive nature of the MASS system has made it an ideal platform from which to study submicron particulates.

The MASS system is a compact, versatile particulate characterization platform suitable for both ground-based and flight campaigns. The MASS is made of several modular sub-systems: the sample acquisition facility, particle profiles system and particle size distribution system. The sample acquisition facility is the most fluid part of the MASS system as its configuration changes with each test venue. Samples are analyzed either in real time or from grab-tanks. The particle profile subsystem acquires continuous data on various particulate species. Primarily, this system monitors total particle concentration and non-volatile particle concentration through a condensation nucleus counter, for non-volatile samples a thermal volatilization unit precedes the counter. The particulate size distribution subsystem acquires size information based upon the electrical mobility of particles within an applied field (particles <700nm dia.) and light scattering (particles >500nm).

Sample Acquisition:

In order to properly evaluate particle data, one must have knowledge of the many environmental parameters that influence the particle concentration and size distribution. Within the sample acquisition facility are a number of parameters that must be taken into account, these include: sample dilution, probe effects, sample aging, and sample losses.

Sample Dilution: It is often times desirable to dilute the incoming particulate sample. The particle counters often have a saturation efficiency beyond which they no longer accurately register the correct concentration. Additionally, when sampling under high temperature conditions, it is often desirable to dilute with low humidity air to prevent condensation within the sample lines. The MASS methodology utilizes two primary methods of achieving dilution: probe tip dilution, and filter needle dilution.

Probe Tip Dilution: Probe tip dilution is accomplished by bleeding dry compressed air into the probe tip. Knowledge of the flow rates is critical to calculating the appropriate dilution factor, and the MASS system uses two slaved electronic mass flow meters to regulate the flow of dilution air to the probe tip.

Filter needle Dilution: The MASS system has a novel method of diluting the sample flow by passing the air parcel through an absolute filter that has been pierced by a capillary tube. The effective dilution is determined by the diameter of the capillary tube. With dilution ratios varying between 40 and 80, multiple filter needles may be employed to achieve dramatic reductions in the ambient aerosol concentration.

Probe Effects: The method of probe sampling varies with the experimental venue. Of primary concern with particulate characterization is preferential particulate sampling and where necessary iso-kinetic sampling is employed or the deviation from non-iso kinetic conditions is modelled.

Sample Aging: Since often the particle size distributions data is acquired from tank samples, a diffusion/coagulation model is used to predict the particulate losses, and shifts in the size distribution spectrum.

Sample Losses (line losses): There are two methods of particulate losses: impaction, and diffusion. In order to accurately correct for these losses, great care must be taken in the construction and design of the instrument.

Impaction Losses: Inertial impaction is generally not as significant of a problem as diffusional losses. The MASS system was built with large radii of curvature for sample lines.

Diffusional Losses: Diffusional losses are significant in the typical size range for MASS operations (5-250nm). To correct for these diffusional losses, several variables must be monitored, these include: sample flow rate, tubing length, temperature, and pressure. These variables can then be applied to a size spectrum and the cumulative corrections results in a single value that can then be used to correct for diffusional losses. Additionally, particles may be lost at an accelerated rate due to the tubing material, or particulate charging. The materials of the MASS system have undergone testing to determine the penetration losses and appropriate calibration factors have been calculated.

Particle Profiles:

The MASS system typically employs a continuous flow thermal diffusion counter, or condensation nucleus counter (CNC). CNC's are commercially available from such companies as MetOne, Inc. (Grand Pass, Oregon), or TSI, Inc. (St. Paul, Minnesota). Thermal diffusion counters general function by passing the aerosol containing sample over a pool of heated alcohol vapor, the vapor laden sample is then passed into a low temperature condenser region, where the alcohol vapor, in supersaturation, condenses on the particles rendering them large enough for optical detection. However, commercial CNC's are designed to operate under very specific conditions, i.e. one atmosphere, and they generally demand a constant flow rate for optimal performance. These conditions are difficult to meet in anything but laboratory applications. In order to operate at reduced pressures for airborne sampling, calibration curves have been constructed for the various CNC devices. As each device has minute variations from another, every device must be calibrated individually. The MASS system generally produces 3 particulate profiles: total aerosol population (TCN), nonvolatile aerosol population (NVCN), and a large particle profile by laser scattering (LCN). The nonvolatile aerosol population is determined by passing the total aerosol population stream through a known high temperature regime designed to volatilize aerosols. This sub-system operates at 350 C, and has a discrimination efficiency of better than 95% at 80nm diameter.

Particle Size Distribution:

Particulate size distributions are acquired through the use of a differential mobility analyzer (DMA). To acquire a size distribution, the particles are first passed through a bipolar charging device, either a Polonium, or krypton alpha particle emitter. This serves to ionize the air, and the statistical nature of collisions and charge transference will place a Boltzmann distribution of charges on the particles as a function of particulate diameter. The resulting particles flow possessing the Boltzmann distribution of charges can then be passed into the DMA device. The MASS DMA's are either commercially available from TSI Inc. (St. Paul, Minnesota), or are "Zalabski" type analyzers built and calibrated at UMR. The DMA consists of concentric cylinders with an applied electric field between them. The polydisperse aerosol sample with the enforced Boltzmann distribution of ambient charges is then subjected to the field. The particles then moving in the y direction by an applied sheath flow of air, also move in the x direction based upon their electrical mobility corrected for their slip coefficient. With the known geometries of the DMA's a band pass function can be calculated to determine what monodisperse size segment is passed through the DMA as a function of the applied electric field.

With this information, and the known distribution of charges for particle diameters, a system of linear equations can uniquely be solved to invert the resultant data and calculate the original aerosol concentration in the sample.

APPENDIX II. FUEL FLOW RATE DEPENDENCY OF MASS BASED EI.

Assuming that particle mass concentration is a quadratic function of fuel air ratio (FAR), with a very small constant coefficient and a positive quadratic coefficient, yields:

$$P_{mc} = \text{particle mass concentration} = c_0 + c_1 \cdot \text{FAR} + c_2 \cdot \text{FAR}^2,$$

where c_0 is small and $c_2 > 0$.

$$\text{Let } \alpha = 1/\rho_a$$

where: α = air specific volume, and

$$\rho_a = \text{air density.}$$

$$\text{Let FAR} = M_{\text{fuel}}/M_{\text{air}}$$

$$P_{\text{conc}} = \text{Number of particles per unit volume of air}$$

$$\rho_{\text{fuel}} = \text{Mass of fuel per unit volume of air}$$

$$= \text{FAR}/\alpha$$

$$\text{EI} = \text{Number of particles per g}_{\text{fuel}}$$

$$= P_{\text{conc}}/\rho_{\text{fuel}}$$

$$= \alpha \cdot P_{\text{conc}}/\text{FAR}$$

$$\text{EI} = \text{Number of particles per kg}_{\text{fuel}}$$

$$= 1000 \cdot \text{EI} = 1000 \cdot \alpha \cdot P_{\text{conc}}/\text{FAR}$$

$$\text{EIm} = \text{EI} \cdot (\pi/6) \cdot \rho_p \cdot \bar{X}^3$$

$$= (\pi/6) \cdot 1000 \cdot \alpha \cdot \rho_p \cdot \bar{X}^3 \cdot P_{\text{conc}}/\text{FAR}$$

$$= (1000 \cdot \alpha / \text{FAR}) \cdot (c_0 + c_1 \cdot \text{FAR} + c_2 \cdot \text{FAR}^2)$$

Neglect the small term c_0 .

$$= (1000 \cdot \alpha) \cdot (c_1 + c_2 \cdot \text{FAR})$$

Let \dot{m} = fuel flow rate, which is proportional to FAR for normal operations.

$$\text{EIm} = c_3 + c_4 \cdot \dot{m}$$

Mass based EI should be a linear function of fuel flow rate.

APPENDIX III. FIELD CAMPAIGN DESCRIPTIONS.

Project POLINAT - Pollution from aircraft Emissions in the North Atlantic flight Corridor.

This project encompassing three campaigns from 1994 - 1997 sponsored by the EEC and NASA was aimed at determining the distribution and transformation of pollutants emitted from aircraft in the North Atlantic flight corridor. (See EEC report EUR 16978 EN)

Project SNIFF - SASS Near Field Interactions Flight.

A project sponsored by NASA and operating out of NASA Langley with ground-based and airborne measurements of the EI's and size distributions of a range of aircraft commercial, military and NASA owned. The size dependent data was only made on the ground in this project. (See Anderson B., et al Proceedings of the NASA AEAP Meeting at Virginia Beach 1997 and 1998).

Project SUCCESS - Subsonic Aircraft: contrail and cloud Effects Special Study.

This campaign sponsored by NASA used aircraft, satellite and ground-based measurements to better understand cirrus cloud and contrail formation and whether aircraft exhaust could effect the formation process. (selected paper from GRL vol 25 Numbers 8,9,10 and 12)

APPENDIX IV. LIST OF ABBREVIATIONS AND PARAMETERS.

de	total distance flown by a given engine type
EI	number-based emission index, number of particles per kg_fuel
EI ₁	number-based emission index, number of particles per g_fuel
EI _m	mass-based emission index
EI _{UMR}	measured EI
FAR	fuel to air ratio
fei	fitted number-based EI using model
fei_m	fitted mass-based EI using model
ff	fuel flow rate
ff _{UMR}	fuel flow rate for UMR measured EI
GE	General Electric
ICAO	International Civil Aviation Authority
LAX	Los Angeles International Airport
LTO	landing and take off
M _{fuel}	mass of fuel
M _{air}	mass of air
MASS	mobile aerosol sampling system
N _A	aerosol concentration
NEI _m	normalized mass-based emission index
NSN	normalized smoke number
NV	non-volatile (soot)
Pconc	Number of particles per unit volume of air
Pmc	particle mass concentration
Re	the fraction of total miles flown by commercial aircraft associated with a given engine type
slope	slope of the NSN -vs- ff plot for a given engine
Tot_HS	mass-based EI for total particles for high sulfur fuel conditions
Tot_LS	mass-based EI for total particles for low sulfur fuel conditions
UMR	University of Missouri - Rolla
V _A	aerosol volume per unit volume of sample
Xbarv	mean volumetric diameter
α	air specific volume
ρ _p	density of soot
ρ _a	air density
ρ _{fuel}	mass of fuel per unit volume of air

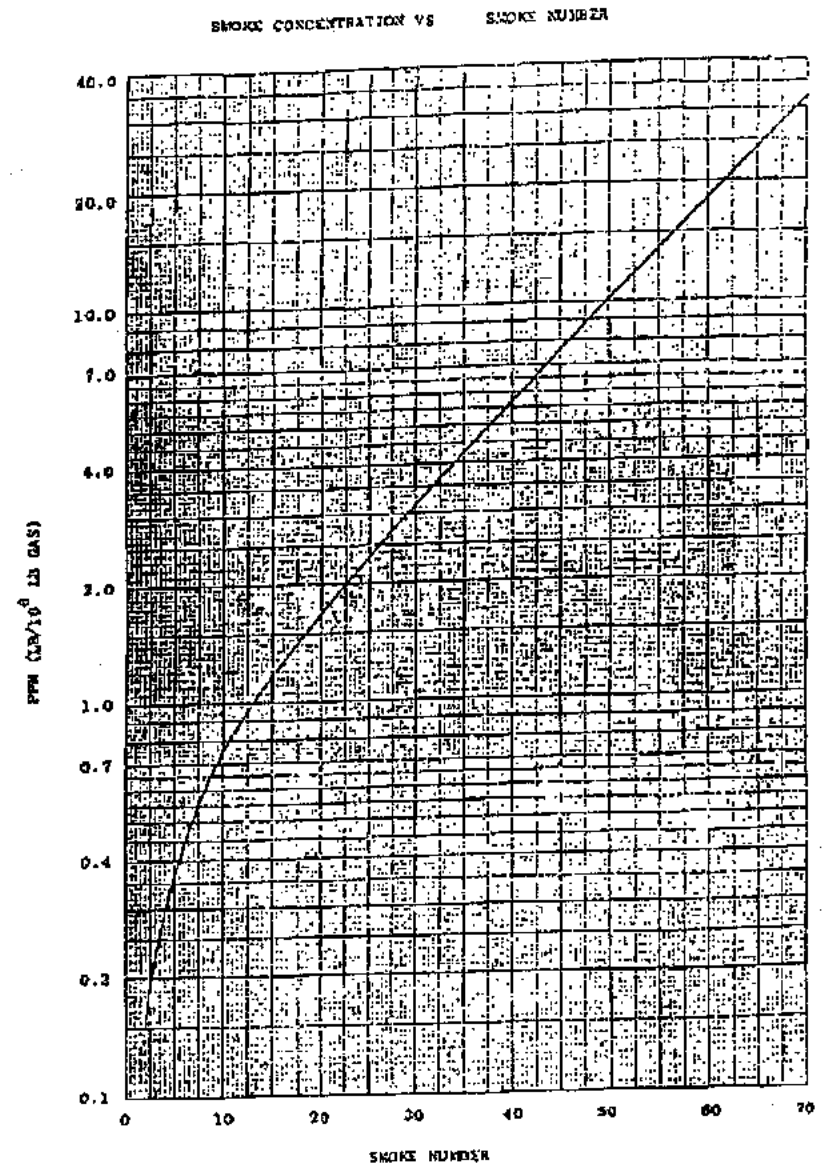
LAX Master Plan EIS/EIR

Aircraft Engine Particulate Matter
Emissions Data

Attachment B

Particulate Mass Concentration Versus
Smoke Number, from 1994 California FIP

ATTACHMENT B - PARTICULATE MASS CONCENTRATION VS. SMOKE NO.



Particulate Mass Concentration vs. Smoke No. from 1994 California FIP.

Attachment I
Annual LTO Data by Aircraft and Runway for the
LAX Master Plan

Aircraft Landing/Takeoff Operations (LTO) Summary

Alternative / Forecast Year	Annual Passenger Aircraft LTOs	Annual Cargo Aircraft LTOs	Annual Total LTOs
No Action/No Project / 2005	370891	20243	391134
All Alternatives / 2005	370891	22988	393879
No Action/No Project / 2015	371234	20243	391477
Alternative A / 2015	439854	27105	466959
Alternative B / 2015	439854	27105	466959
Alternative C / 2015	370891	27105	397996

Source: Camp Dresser & McKee, Inc.

Annual LTO Data by Aircraft and Runway for the LAX Master Plan
No Action/No Project - 2005

Aircraft Name	Annual LTOs	Passenger Aircraft Percentages		LTOs	
		RWY 24	RWY 25	RWY 24	RWY 25
FOKKER 100-100	1372	75%	25%	1029	343
A310-200	2402	14%	86%	343	2059
A319	1029	57%	33%	686	343
A320	10293	30%	70%	3088	7205
A330	2745	50%	50%	1372	1372
A340-200	3431	50%	50%	1716	1716
B727-200	2745	50%	50%	1372	1372
B737-300	47348	75%	25%	35662	11665
B737-400	3088	44%	56%	1372	1716
B737-500	14067	71%	29%	9950	4117
B747-400	15783	58%	41%	9264	6519
B747-200	5833	35%	65%	2059	3774
B747 Combination	2059	50%	50%	1029	1029
B757-200	54210	62%	38%	33624	20586
B767-300	6519	32%	68%	2059	4460
B767-200	13381	26%	74%	3431	9950
B777-200	7205	48%	52%	3431	3774
A300-3	10293	30%	70%	3088	7205
ATR72-200	3088	56%	44%	1716	1372
ATR42	1716	40%	60%	686	1029
BH-1900	5147	73%	27%	3774	1372
Canadair RJ50	3774	45%	55%	1716	2059
GenAvProp	14753	0%	100%	0	14753
DC10-30	9960	34%	66%	3431	6519
DC-9	343	100%	0%	343	0
DASH-7	3774	82%	18%	3088	686
EMB-120	14067	68%	32%	9607	4460
EMB110KQ1	1372	50%	50%	686	686
FOKKER 50	343	100%	0%	343	0
FOKKER 70	2059	87%	13%	1372	686
GenAvJet	3088	0%	100%	0	3088
IL-86	343	100%	0%	343	0
Jetstream 31	14753	51%	49%	7548	7205
L1611-500	2745	38%	62%	1029	1716
MD-11	10979	25%	75%	2745	8234
MD-80	23381	80%	20%	14067	9314
MD-80-87	1372	100%	0%	1372	0
MD-90-10	8234	54%	46%	4460	3774
MD-90-45	3774	45%	55%	1716	2059
Saab 2000	3431	50%	50%	1716	1716
SHORT 360	3088	78%	22%	2402	686
SF-340A	20586	53%	47%	10979	9607
Swearingen Metro 2	10979	34%	66%	3774	7205
Total	370891			193508	177383

Annual LTO Data by Aircraft and Runway for the LAX Master Plan
No Action/No Project - 2005

Aircraft Name	Annual LTOs	Cargo Aircraft Percentage		LTOs	RWY 25
		RWY 24	RWY 25		
A300-C4-200 Cargo	1029	0%	100%	0	1029
A310-200 Cargo	1029	0%	100%	0	1029
B737-200C Cargo	2745	0%	100%	0	2745
B747-400 Cargo	2059	0%	100%	0	2059
B747-200 Cargo	2402	0%	100%	0	2402
B757-200 Cargo	1372	0%	100%	0	1372
B767-200 Cargo	2059	0%	100%	0	2059
BH-1900 Cargo	1029	0%	100%	0	1029
GenAvProp Cargo	2745	0%	100%	0	2745
DC10-30 Cargo	2059	0%	100%	0	2059
MD-11 Cargo	1716	0%	100%	0	1716
Total	20243			0	20243

Source: Camp Dresser & McKee, Inc.

Annual LTO Data by Aircraft and Runway for the LAX Master Plan
All Alternatives - 2005

Aircraft Name	Annual LTOs	Passenger Aircraft Percentage		LTOs	RWY 25
		RWY 24	RWY 25		
FOKKER 100-100	1372	50%	50%	686	686
A310-200	2402	29%	71%	686	1716
A319	1029	67%	33%	686	343
A320	10293	40%	60%	4117	6176
A330	2745	63%	38%	1716	1029
A340-200	3431	30%	70%	1029	2402
B727-200	2745	38%	63%	1029	1716
B737-300	47348	57%	43%	27105	20243
B737-400	3088	56%	44%	1716	1372
B737-500	14067	44%	56%	6176	7891
B747-400	15783	46%	54%	7205	8578
B747-200	5833	53%	47%	3088	2745
B747 Combination	2059	67%	33%	1372	686
B757-200	54210	53%	47%	28820	25389
B767-300	6519	32%	68%	2059	4460
B767-200	13381	33%	67%	4460	8921
B777-200	7205	48%	52%	3431	3774
A300B	10293	47%	53%	4803	5490
ATR72-200	3088	56%	44%	1716	1372
ATR42	1716	40%	60%	686	1029
BH-1900	5147	73%	27%	3774	1372
Canadair R150	3774	45%	55%	1716	2059
GenAvProp	14753	0%	100%	0	14753
DC10-30	9950	34%	66%	3431	6519
DC-9	343	100%	0%	343	0
DASH-7	3774	82%	18%	3088	686
EMB 120	14067	68%	32%	9607	4460
EMB110KQ1	1372	50%	50%	686	686
FOKKER 50	343	100%	0%	343	0
FOKKER 70	2059	67%	33%	1372	686
GenAvjet	3088	0%	100%	0	3088
IL-96	343	100%	0%	343	0
Jetstream 31	14753	51%	49%	7548	7205
L1011-500	2745	38%	63%	1029	1716
MD-11	10979	41%	59%	4460	6519
MD-80	23331	41%	59%	9607	13724
MD-80-87	1372	75%	25%	1029	343
MD-80-10	8234	20%	80%	2402	5833
MD-90-95	3774	18%	82%	686	3088
Saab 2000	3431	50%	50%	1716	1716
SHORT 360	3088	78%	22%	2402	686
SF-340A	20596	53%	47%	10979	9607
Swearingen Metro 2	10979	34%	66%	3774	7205
Total	370891			172922	197969

Annual LTO Data by Aircraft and Runway for the LAX Master Plan
All Alternatives - 2005

Aircraft Name	Annual LTOs	Cargo Aircraft Percentage		LTOs	
		RWY 24	RWY 25	RWY 24	RWY 25
A300-C4-200 Cargo	1029	0%	100%	0	1029
A310-200 Cargo	1372	25%	75%	343	1029
B727 Cargo	1029	0%	100%	0	1029
B737-200C Cargo	2059	33%	67%	686	1372
B747-400 Cargo	1716	40%	60%	686	1029
B747-200 Cargo	2745	50%	50%	1372	1372
B757-200 Cargo	1716	0%	100%	0	1716
B767-200 Cargo	2059	0%	100%	0	2059
BH-1900 Cargo	1029	33%	67%	343	686
GenAvProp Cargo	3088	56%	44%	1716	1372
DC10-30 Cargo	3088	0%	100%	0	3088
DC9 Cargo	686	50%	50%	343	343
MD-11 Cargo	1372	25%	75%	343	1029
Total	22966			5833	17155

Source: Camp Dresser & McKee, Inc.

Annual LTO Data by Aircraft and Runway for the LAX Master Plan
No Action/No Project - 2015

Aircraft Name	Annual LTOs	Passenger Aircraft Percentage		LTOs	
		RWY 24	RWY 25	RWY 24	RWY 25
FOKKER 100-100	1029	67%	33%	686	343
A310-200	2745	25%	75%	686	2059
A319	686	50%	50%	343	343
A320	7205	24%	76%	1716	5490
A330	2402	71%	29%	1716	686
A340-200	2402	86%	14%	2059	343
B737-300	34310	89%	11%	30536	3774
B737-400	13381	64%	36%	8578	4803
B737-500	22645	76%	24%	17155	5490
B747-400	17841	87%	13%	15440	2402
B747-200	1372	75%	25%	1029	343
B747 Combination	2402	86%	14%	2059	343
B747-X	4803	0%	100%	0	4803
B757-200	52151	49%	51%	25733	26419
B767-300	72302	43%	57%	9697	12695
B767-200	12352	17%	83%	2059	10293
B777-200	5147	60%	40%	3088	2059
A300B	22645	35%	65%	7891	14753
ATR72-200	3774	45%	55%	1716	2059
ATR42	7548	58%	41%	4460	3088
BH-1900	6519	63%	37%	4117	2402
Canadair R350	6176	44%	56%	2745	3431
Canadair R70	686	100%	0%	686	0
GenAvProp	14753	0%	100%	0	14753
DASH-7	6921	42%	58%	3774	5147
EMB-120	3431	80%	20%	2745	686
EMB110KQ1	3431	80%	20%	2745	686
FOKKER 50	2745	63%	38%	1716	1029
FOKKER 70	1029	67%	33%	686	343
GenAvJet	3088	0%	100%	0	3088
Jetstream 31	7548	45%	55%	3431	4117
MD-11	19557	51%	49%	9950	9607
MD-80	16469	54%	46%	8921	7548
MD-80-87	343	100%	0%	343	0
MD-90-10	5490	44%	56%	2402	3088
MD-90-95	4803	50%	50%	2402	2402
Saab 2000	8921	62%	38%	5490	3431
SHORT 360	1029	67%	33%	686	343
SF-340A	5490	89%	11%	3774	1716
Swearingen Metro 2	11665	41%	59%	4803	6862
Total	371234			197969	173265

Annual LTO Data by Aircraft and Runway for the LAX Master Plan
No Action/No Project - 2015

Aircraft Name	Annual LTOs	Cargo Aircraft Percentage		RWY 24	RWY 25
		RWY 24	RWY 25		
A300-C4-200 Cargo	1029	0%	100%	0	1029
A310-200 Cargo	1029	0%	100%	0	1029
B737-200C Cargo	2745	0%	100%	0	2745
B747-400 Cargo	2059	0%	100%	0	2059
B747-200 Cargo	2402	0%	100%	0	2402
B757-200 Cargo	1372	0%	100%	0	1372
B767-200 Cargo	2059	0%	100%	0	2059
BH-1900 Cargo	1029	0%	100%	0	1029
GenAvProp Cargo	2745	0%	100%	0	2745
DC10-30 Cargo	2059	0%	100%	0	2059
MD-11 Cargo	1716	0%	100%	0	1716
Total	20243			0	20243

Source: Camp Dresser & McKee, Inc.

Annual LTO Data by Aircraft and Runway for the LAX Master Plan
Alternative A - 2015

Aircraft Name	Annual LTOs	Passenger Aircraft Percentage		RWY 24	RWY 25
		RWY 24	RWY 25		
FOKKER 100 100	1029	67%	33%	686	343
A310-200	2745	25%	75%	686	2059
A319	1372	75%	25%	1029	343
A320	9950	21%	79%	2059	7891
A330	5833	47%	53%	2745	3088
A340-200	6862	60%	40%	4117	2745
B737-300	28477	59%	41%	16812	11665
B737-400	8578	40%	60%	3431	5147
B737-500	9950	55%	45%	5490	4460
B747-400	22302	78%	22%	17499	4803
B747-200	1372	75%	25%	1029	343
B747 Combination	3431	50%	50%	1716	1716
B747-X	5147	100%	0%	5147	0
B757-200	38520	48%	52%	42544	45975
B767-300	17498	53%	47%	9264	8234
B767-200	13381	18%	82%	2402	10979
B777-200	15783	35%	65%	5490	10293
A300B	23331	78%	22%	6519	16812
ATR72 200	4803	57%	43%	2745	2059
ATR42	9950	50%	50%	5833	4117
BH-1900	7548	68%	32%	5147	2402
Canadair RJ30	10836	39%	61%	4117	6519
Canadair RJ70	686	100%	0%	686	0
GenAvProp	14067	51%	49%	7205	6862
DASH-7	11322	52%	48%	5833	5490
EMB 120	5490	56%	44%	3088	2402
EMB110KQ1	4803	93%	7%	4460	343
FOKKER 50	4460	54%	46%	2402	2059
FOKKER 70	1716	60%	40%	1029	686
GenAvJet	4803	57%	43%	2745	2059
Jetstream 31	7548	38%	62%	2745	4803
MD-11	23331	32%	68%	7548	15783
MD-80	16469	33%	67%	5490	10979
MD-80-87	1029	33%	67%	343	686
MD-90-10	7891	43%	57%	3431	4460
MD-90-35	6519	47%	53%	3088	3431
Saab 2000	12352	53%	47%	6519	5833
SHORT 360	2059	67%	33%	1372	686
SF-340A	6862	55%	45%	3774	3088
Swearingen Metro 2	9950	45%	55%	4460	5490
Total	439854			212722	227132

Annual LTO Data by Aircraft and Runway for the LAX Master Plan
Alternative A - 2015

Aircraft Name	Annual LTOs	Cargo Aircraft Percentage		LTOs	
		RWY 24	RWY 25	RWY 24	RWY 25
A300-C4-200 Cargo	1716	20%	80%	343	1372
A310-200 Cargo	1716	20%	80%	343	1372
B737-200C Cargo	3431	30%	70%	1029	2402
B747-400 Cargo	3088	56%	44%	1716	1372
B747-200 Cargo	3088	44%	56%	1372	1716
B757-200 Cargo	2059	17%	83%	343	1716
B767-200 Cargo	2432	0%	100%	0	2402
BH-1900 Cargo	1029	0%	100%	0	1029
GenAvProp Cargo	3088	67%	33%	2059	1029
DC10-30	2745	25%	75%	686	2059
MD-11 Cargo	2745	38%	63%	1029	1716
Total	27105			8921	18184

Source: Camp Dresser & McKee, Inc.

Annual LTO Data by Aircraft and Runway for the LAX Master Plan
Alternative B - 2015

Aircraft Name	Annual LTOs	Passenger Aircraft Percentage		LTOs	
		RWY 24	RWY 25	RWY 24	RWY 25
FOKKER 100-100	1029	100%	0%	1029	0
A310-200	2745	13%	88%	343	2402
A319	1372	75%	25%	1029	343
A320	9950	21%	79%	2059	7891
A330	5833	35%	65%	2059	3774
A340-200	6862	60%	40%	4117	2745
B727-300	28477	59%	41%	16812	11665
B737-400	8578	36%	64%	3088	5490
B737-500	9950	41%	59%	4117	5833
B747-400	22302	75%	25%	16812	5490
B747-300	1372	75%	25%	1029	343
B747 Combination	3431	50%	50%	1716	1716
B747-X	5147	100%	0%	5147	0
B757-200	88520	48%	52%	42544	45975
B767-300	17498	59%	41%	10293	7205
B767-200	13381	33%	67%	4450	8921
B777-200	15783	46%	54%	7205	8578
A300B	23331	21%	79%	4803	18527
ATR72-200	4803	57%	43%	2745	2059
ATR42	9950	53%	47%	5833	4117
BH-1900	7548	66%	32%	5147	2402
Canadair R150	10636	33%	67%	4117	6519
Canadair R170	686	100%	0%	686	0
GenAvProp	14067	51%	49%	7205	6862
DASH-7	11322	52%	48%	5833	5490
EMB-120	5490	56%	44%	3088	2402
EMB114KQ1	4803	93%	7%	4460	343
FOKKER 50	4460	54%	46%	2402	2059
FOKKER 70	1716	90%	10%	1029	686
GenAvjet	4803	57%	43%	2745	2059
Jetstream 31	7548	36%	64%	2745	4803
MD-11	23331	31%	69%	7205	16126
MD-80	16489	48%	52%	7891	8578
MD-80-87	1029	0%	100%	0	1029
MD-90-10	7891	52%	48%	4117	3774
MD-90-95	6519	47%	53%	3088	3431
Scaris 2000	12352	53%	47%	6519	5833
SHORT 880	2059	67%	33%	1372	686
SF-340A	6862	55%	45%	3774	3088
Swearingen Metro 2	9950	45%	55%	4460	5490
Total	439854			215124	224731

Annual LTO Data by Aircraft and Runway for the LAX Master Plan
Alternative B – 2015

Aircraft Name	Annual LTOs	Cargo Aircraft Percentage		LTOs	
		RWY 24	RWY 25	RWY 24	RWY 25
A300-C4-200 Cargo	1716	20%	80%	343	1372
A310-200 Cargo	1716	20%	80%	343	1372
B737-200C Cargo	3431	30%	70%	1029	2402
B747-400 Cargo	3088	87%	33%	2059	1029
B747-200 Cargo	3088	44%	56%	1372	1716
B757-200 Cargo	2059	17%	83%	343	1716
B767-200 Cargo	2402	0%	100%	0	2402
BH-1900 Cargo	1029	0%	100%	0	1029
GenAvProp Cargo	3088	67%	33%	2059	1029
DC10-30 Cargo	2745	50%	50%	1372	1372
MD-11 Cargo	2745	38%	63%	1029	1716
Total	27165			9950	17155

Source: Camp Dresser & McKee, Inc.

Annual LTO Data by Aircraft and Runway for the LAX Master Plan
Alternative C – 2015

Aircraft Name	Annual LTOs	Passenger Aircraft Percentage		LTOs	
		RWY 24	RWY 25	RWY 24	RWY 25
FOKKER 100-100	1029	33%	67%	343	686
A310-200	3088	22%	78%	686	2402
A319	686	100%	0%	686	0
A320	9254	33%	67%	3088	6176
A330	5833	53%	47%	3088	2745
A340-200	5490	89%	31%	3774	1716
B737-300	27449	54%	46%	14753	12695
B737-400	8578	44%	56%	3774	4803
B737-500	11665	56%	44%	6519	5147
B747-400	21615	81%	19%	17498	4117
B747-200	1372	75%	25%	1029	343
B747 Combination	3088	78%	22%	2402	686
B747-X	5147	100%	0%	5147	0
B757-200	78227	88%	32%	52837	25389
B767-300	13724	58%	40%	7891	5833
B767-200	12352	22%	78%	2745	9607
B777-200	14413	43%	57%	6176	8234
A300B	22983	37%	63%	8578	14410
ATR72-200	2059	50%	50%	1029	1029
ATR42	5833	65%	35%	3774	2059
BH-1900	4803	64%	36%	3088	1716
Canadair R/50	5147	47%	53%	2402	2745
Canadair R/70	686	100%	0%	686	0
GenAvProp	14753	0%	100%	0	14753
DASH-7	5490	38%	63%	2059	3431
EMB-120	3088	78%	22%	2402	686
EMB110KQ1	2402	86%	14%	2059	343
FOKKER 50	1716	40%	60%	686	1029
FOKKER 70	686	100%	0%	686	0
GenAvjet	3088	0%	100%	0	3088
Jetstream 31	4460	46%	54%	2059	2402
MD-11	21615	46%	54%	9950	11665
MD-80	17155	60%	40%	10293	6862
MD-80-87	1029	67%	33%	686	343
MD-80-10	7205	48%	52%	3431	3774
MD-80-95	5833	41%	59%	2402	3431
Saab 2000	6176	67%	33%	4117	2059
SHORT 300	686	50%	50%	343	343
SF-340A	3774	64%	36%	2402	1372
Swearingen Metro 2	7205	38%	62%	2745	4460
Total	370891			196312	172579

Annual LTO Data by Aircraft and Runway for the LAX Master Plan
Alternative C – 2015

Aircraft Name	Annual LTOs	Cargo Aircraft Percentage		LTOs	
		RWY 24	RWY 25	RWY 24	RWY 25
A300-C4-200 Cargo	1716	40%	60%	696	1029
A310-200 Cargo	1716	20%	80%	343	1372
B737-200C Cargo	3431	30%	70%	1029	2402
B747-400 Cargo	3088	56%	44%	1716	1372
B747-200 Cargo	3088	44%	56%	1372	1716
B757-200 Cargo	2059	17%	83%	343	1716
B767-200 Cargo	2402	0%	100%	0	2402
BH-1900 Cargo	1029	0%	100%	0	1029
GenAv/Prop Cargo	3088	67%	33%	2059	1029
DC13-30 Cargo	2745	25%	75%	686	2059
MD-11 Cargo	2745	63%	38%	1716	1029
Total	27105			9950	17155

Source: Camp Dresser & McKee, Inc.

Attachment J
SCAQMD Memorandum from Joe Cassmassi to
Zorik Pirveysian

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

M E M O R A N D U M

DATE: May 18, 1993
TO: Zorik Pirveysian
FROM: Joe Cassmassi CC
SUBJECT: Mixing Heights for Summer 1990

The Meteorology section has calculated average minimum, average maximum and average mid-morning mixing heights for July and August 1990 for seven airport locations in the basin. The average mid-morning mixing height was estimated as the mean of the average minimum and average maximum mixing heights. Since the minimum mixing height usually occurs at about 0500 PST and the maximum at about 1400 PST, the mean of the minimum and maximum mixing heights appears to a reasonable approximation of the actual value. The following table summarizes the data.

Location	Avg Minimum Mixing Ht (Feet AGL)*	Avg Maximum Mixing Ht (Feet AGL)	Avg Mid-Morning Mixing Ht (Feet AGL)
Los Angeles Int.	1700	1900	1800
Long Beach Airport	1800	2400	2100
John Wayne Airport	1800	2400	2100
Burbank Airport	1200	2400	1800
Ontario	1200	3600	2400
San Bernardino/ Riverside	1000	3600	2600

* AGL -- Above Ground Level

cc: H. Hogo

Attachment K

Ground Support Equipment Emissions Indices

**Ground Support Equipment (GSE) Emission Factors
All Scenarios**

GSE Unit Name	Operating Time Per LTC	CO (kg/hr)	HC (kg/hr)	NO _x (kg/hr)	SO _x (kg/hr)	PM (kg/hr)
APU GTCF 36 (80HP)	26.0	0.262	0.026	1.293	0.000	0.000
APU GTCF 660 (300 HP)	26.0	3.386	0.110	2.086	0.000	0.000
APU GTCF 85 (200 HP)	26.0	1.920	0.110	0.507	0.000	0.000
Diesel Aircraft Tug Narrow	6.0	0.560	0.168	1.540	0.035	0.070
Diesel Aircraft Tug Wide	8.0	1.600	0.480	4.400	0.100	0.200
Diesel Baggage Tug	85.0	0.172	0.052	0.472	0.011	0.022
Diesel Belt Loader	48.0	0.380	0.023	0.248	0.007	0.016
Diesel Cabin Service	15.0	0.221	0.044	0.232	0.006	0.017
Diesel Cargo Loader	92.0	0.152	0.046	0.418	0.010	0.019
Diesel Container Loader	92.0	0.221	0.044	0.231	0.006	0.017
Diesel Food Truck	35.0	0.295	0.059	0.309	0.008	0.023
Diesel Fuel Truck	35.0	0.180	0.054	0.485	0.011	0.023
Diesel Lavatory Truck	20.0	0.221	0.044	0.232	0.006	0.017
Diesel Water Truck	12.0	0.221	0.044	0.232	0.006	0.017
Gasoline Aircraft Tug Narrow	6.0	24.960	0.416	0.416	0.027	0.000
Gasoline Aircraft Tug Wide	8.0	96.000	1.600	1.600	0.104	0.000
Gasoline Baggage Tug	85.0	13.200	0.220	3.014	0.000	0.000
Gasoline Belt Loader	48.0	7.200	0.120	0.120	0.008	0.000
Gasoline Cabin Service	15.0	1.455	0.335	0.086	0.001	0.003
Gasoline Cargo Loader	92.0	8.400	0.140	0.140	0.009	0.000
Gasoline Container Loader	92.0	1.748	0.335	0.100	0.001	0.003
Gasoline Food Truck	35.0	1.898	0.446	0.114	0.002	0.004
Gasoline Fuel Truck	35.0	7.800	0.130	0.130	0.009	0.000
Gasoline Lavatory Truck	20.0	7.800	0.130	0.130	0.009	0.000
Gasoline Water Truck	12.0	7.200	0.120	0.120	0.008	0.000
**CNG Aircraft Tug Narrow	6	0.218	0.104	0.364	0.000	0.000
**CNG Aircraft Tug Wide	8	0.840	0.400	1.400	0.000	0.000
**CNG Baggage Tug	85	0.116	0.055	0.193	0.000	0.000
**CNG Belt Loader	48	0.076	0.036	0.126	0.000	0.000
**CNG Cabin Service	15	0.076	0.036	0.126	0.000	0.000
**CNG Cargo Loader	92	0.074	0.035	0.123	0.000	0.000
**CNG Container Loader	92	0.074	0.035	0.123	0.000	0.000
**CNG Food Truck	35	0.076	0.036	0.126	0.000	0.000
**CNG Fuel Truck	35	0.068	0.053	0.114	0.000	0.000
**CNG Hydrant Truck	35	0.068	0.033	0.114	0.000	0.000
**CNG Lavatory Truck	10	0.068	0.033	0.114	0.000	0.000
**CNG Water Truck	12	0.063	0.030	0.105	0.000	0.000
* Diesel Hydrant Truck	35	0.130	0.029	0.358	0.000	0.016
**Electric Aircraft Tug Narrow	6	0.000	0.000	0.000	0.000	0.000
**Electric Aircraft Tug Wide	8	0.000	0.000	0.000	0.000	0.000

**Ground Support Equipment (GSE) Emission Factors
All Scenarios**

GSE Unit Name	Operating Time Per LTC	CO (kg/hr)	HC (kg/hr)	NO _x (kg/hr)	SO _x (kg/hr)	PM (kg/hr)
**Electric Baggage Tug	85	0.000	0.000	0.000	0.000	0.000
**Electric Belt Loader	48	0.000	0.000	0.000	0.000	0.000
**Electric Cabin Service	15	0.000	0.000	0.000	0.000	0.000
**Electric Cargo Loader	92	0.000	0.000	0.000	0.000	0.000
**Electric Container Loader	92	0.000	0.000	0.000	0.000	0.000
**Electric Food Truck	35	0.000	0.000	0.000	0.000	0.000
**Electric Fuel Truck	35	0.000	0.000	0.000	0.000	0.000
**Electric Hydrant Truck	35	0.000	0.000	0.000	0.000	0.000
**Electric Lavatory Truck	20	0.000	0.000	0.000	0.000	0.000
**Electric Water Truck	12	0.000	0.000	0.000	0.000	0.000
**Gasoline Hydrant Truck	35	7.800	0.130	0.130	0.000	0.000
**Propane Baggage Tug	85	5.600	0.110	0.330	0.000	0.000
**Propane Belt Loader	48	4.320	0.072	0.216	0.000	0.000
**Propane Cabin Service	15	4.320	0.072	0.216	0.000	0.000
**Propane Cargo Loader	92	4.200	0.070	0.210	0.000	0.000
**Propane Container Loader	92	4.200	0.070	0.210	0.000	0.000
**Propane Food Truck	35	4.320	0.072	0.216	0.000	0.000
**Propane Fuel Truck	35	3.900	0.065	0.195	0.000	0.000
**Propane Lavatory Truck	20	3.900	0.065	0.195	0.000	0.000
**Propane Narrow Tug	6	12.480	0.208	0.624	0.000	0.000
**Propane Water Truck	12	3.600	0.060	0.180	0.000	0.000
**Propane Wide Tug	8	48.000	0.800	2.400	0.000	0.000

** User-created GSE. Emission factors calculated from CARB, 1994.

Attachment L

Ground Support Equipment Assignments to Aircraft

Ground Support Equipment (GSE) Assignments to Aircraft
2005 No Action/No Project

Passenger Aircraft

	340	744	747	74M	763	767	777	A330	DC10	IL-86	L1011	MD-11
APU GTCF	All these aircraft are utilize APU GTCF 800 (300HP)											
Narrow Tug	Gasoline	Diesel	Gasoline	Diesel	Electric	Propane	Propane	Propane	Diesel	Gasoline	Diesel	Diesel
Baggage Tug	Propane	Gasoline	Gasoline	Diesel	Propane	Propane	Propane	Propane	Diesel	Gasoline	Diesel	Diesel
Belt Loader	Diesel	Gasoline	Diesel	Gasoline	Propane	Propane	Propane	Propane	Gasoline	Propane	Diesel	Diesel
Cabin Service	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Propane	Gasoline
Container Loader	Gasoline	Diesel	Diesel	Gasoline	Propane	Propane	Propane	Propane	Diesel	Propane	Propane	Propane
Food Truck	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Propane	Gasoline	Propane
Hydrant Truck	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Gasoline	Gasoline	Gasoline	Gasoline
Luxury Truck	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel
Water Truck	Gasoline	Diesel	Diesel	Propane	Diesel	Diesel	Diesel	Diesel	Diesel	Gasoline	Diesel	Gasoline

	100	310	319	320/325	330	722	733	734	738/735	757	C50	DC9	F70	M80	M87	M90	M95
APU GTCF	All these aircraft are utilize APU GTCF 85 (200HP)																
Narrow Tug	Electric	Electric	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Gasoline	Gasoline	Gasoline	Diesel	Diesel	Diesel	Propane
Baggage Tug	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane
Belt Loader	Diesel	Electric	Electric	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Propane	Electric	Electric	Diesel	Diesel	Diesel	Electric
Cabin Service	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Propane	Propane	Propane	Propane
Food Truck	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Propane	Propane	Propane	Propane
Hydrant Truck	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline
Luxury Truck	Propane	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Gasoline	Gasoline	Gasoline	Diesel	Diesel	Gasoline	Propane

	AT7	ATH	DS7	EM2	EMB	F50	S20	S36	SP3	SWM
APU GTCF	All these aircraft are utilize APU GTCF 96 (300HP)									
Narrow Tug	Gasoline	Gasoline	Electric	Diesel	Electric	Electric	Propane	Diesel	Electric	Diesel
Baggage Tug	Propane	Propane	Diesel	Diesel	Propane	Diesel	Electric	Diesel	Electric	Diesel
Belt Loader	Propane	Propane	Electric	Electric	Electric	Propane	Electric	Propane	Propane	Propane
Cabin Service	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Propane	Propane	Propane	Propane
Food Truck	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Propane	Propane	Propane	Propane
Hydrant Truck	Electric	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline
Luxury Truck	Diesel	Diesel	Gasoline	Diesel	Diesel	Diesel	Gasoline	Gasoline	Gasoline	Gasoline

	BEI	CNA	GAI	RI
Narrow Tug	Gasoline	No GSE	Diesel	Electric
Fuel Truck	Gasoline	No GSE	Diesel	Diesel
GPU/ACU	Diesel	No GSE	Diesel	Diesel

Cargo Aircraft

	A300-C4	B747-200	B747-400	B757-200	DC1030	MD11
APU GTCF	All these aircraft are utilize APU GTCF 820 (300HP)					
Narrow Tug	Gasoline	Diesel	Diesel	Diesel	Diesel	Electric
ASU	Gasoline	Diesel	Diesel	Diesel	Diesel	Diesel
Cargo Loader	Propane	Diesel	Diesel	Diesel	Diesel	Diesel
Container Loader	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel
GPU/ACU	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel
Hydrant Truck	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel
Luxury Truck	Diesel	Diesel	Diesel	Diesel	Diesel	Propane

	A310-200	B737-200C	B737-200
APU GTCF	APU GTCF 85 (200HP)		
Narrow Tug	Diesel	Gasoline	Diesel
ASU	Gasoline	Diesel	Diesel
Cargo Loader	Gasoline	Diesel	Gasoline
GPU/ACU	Diesel	Diesel	Diesel
Hydrant Truck	Diesel	Diesel	Diesel
Luxury Truck	Diesel	Gasoline	Diesel

	BH1900	GenAvPro
Narrow Tug	Propane	No GSE
Fuel Truck	Propane	No GSE
GPU/ACU	Diesel	No GSE

**Ground Support Equipment (GSE) Assignments to Aircraft
2005 All Alternatives**

Passenger Aircraft

	340	744	747	74M	763	787	777	AB3	DC10	IL96	L1011	MD-11
APU GTP	All these aircraft are utilize APU GTP 600 (300HP)											
Wide Tug	Gasoline	Diesel	Diesel	Diesel	Diesel	Propane	Propane	Propane	Propane	Propane	Propane	Propane
Baggage Tug	Gasoline	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane
Belt Loader	Gasoline	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane
Cabin Service	Gasoline	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane
Container Loader	Gasoline	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane
Food Truck	Gasoline	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane
Hydrant Truck	Gasoline	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane
Lavatory Truck	Gasoline	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane
Water Truck	Gasoline	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane

	100	310	318	320/325	330	722	733	734	735/736	757	C50	DC9	F70	M80	M87	M90	M95
APU GTP	All these aircraft are utilize APU GTP 85 (250HP)																
Narrow Tug	Gasoline	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane
Baggage Tug	Gasoline	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane
Belt Loader	Gasoline	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane
Cabin Service	Gasoline	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane
Food Truck	Gasoline	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane
Hydrant Truck	Gasoline	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane
Lavatory Truck	Gasoline	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane

	AT7	ATR	DS7	EMB	F50	S20	S36	SF3	SWM
APU GTP	All these aircraft are utilize APU GTP 36 (60HP)								
Narrow Tug	Gasoline	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane
Baggage Tug	Gasoline	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane
Belt Loader	Gasoline	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane
Cabin Service	Gasoline	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane
Food Truck	Gasoline	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane
Hydrant Truck	Gasoline	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane
Lavatory Truck	Gasoline	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane

	BE1	CNA	GAJ	J31
Narrow Tug	Gasoline	No GSE	Gasoline	Gasoline
Fuel Truck	Gasoline	No GSE	Gasoline	Gasoline

Cargo Aircraft

	A300-C4	B747-200	B747-400	B767-300	DC1030	MD11
APU GTP	All these aircraft are utilize APU GTP 850 (300HP)					
Wide Tug	Gasoline	Propane	Propane	Propane	Propane	Propane
Cargo Loader	Gasoline	Propane	Propane	Propane	Propane	Propane
Container Loader	Gasoline	Propane	Propane	Propane	Propane	Propane
GPU/ACU	Gasoline	Propane	Propane	Propane	Propane	Propane
Hydrant Truck	Gasoline	Propane	Propane	Propane	Propane	Propane
Lavatory Truck	Gasoline	Propane	Propane	Propane	Propane	Propane

	A310-200	B727-200	B737-200C	B757-200	DC9
APU GTP	All these aircraft are utilize APU GTP 85 (250HP)				
Narrow Tug	Gasoline	Propane	Propane	Propane	Propane
Cargo Loader	Gasoline	Propane	Propane	Propane	Propane
GPU/ACU	Gasoline	Propane	Propane	Propane	Propane
Hydrant Truck	Gasoline	Propane	Propane	Propane	Propane
Lavatory Truck	Gasoline	Propane	Propane	Propane	Propane

	BE1300	GenAvProp
Narrow Tug	Gasoline	No GSE
Fuel Truck	Gasoline	No GSE
GPU/ACU	Gasoline	No GSE

Ground Support Equipment (GSE) Assignments to Aircraft
2015 No Action/No Project

Passenger Aircraft

	340	744	747	74M	74X	763	767	777	A83	M11
APU GTCF	All these aircraft are utilize APU GTCF 885 (300HP)									
Wide Tug	Electric	Electric	Gasoline	Electric	Propane	Propane	Propane	Propane	Electric	Gasoline
Baggage Tug	Electric	Propane	Propane	Electric	Propane	Gasoline	Propane	Propane	Electric	Gasoline
Belt Loader	Electric	Propane	Propane	Electric	Propane	Gasoline	Propane	Propane	Electric	Gasoline
Cabin Service	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline
Container Loader	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline
Food Truck	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline
Hydrant Truck	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric
Lavatory Truck	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric
Water Truck	Electric	Gasoline	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric

	100	310	319	800/825	330	733	734	735/735	757	C50	C70	F70	M80	M87	M93	M95
APU GTCF	All these aircraft are utilize APU GTCF 85 (200HP)															
Narrow Tug	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric
Baggage Tug	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric
Belt Loader	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric
Cabin Service	Gasoline	Gasoline	Gasoline	Gasoline	Propane	Gasoline	Gasoline	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane
Food Truck	Gasoline	Gasoline	Gasoline	Gasoline	Propane	Gasoline	Gasoline	Propane	Propane	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline
Hydrant Truck	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric
Lavatory Truck	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric

	A77	ATR	D57	E175	E175	E175	E175	E175	E175	E175
APU GTCF	All these aircraft are utilize APU GTCF 35 (80HP)									
Narrow Tug	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric
Baggage Tug	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane
Belt Loader	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline
Cabin Service	Gasoline	Gasoline	Gasoline	Gasoline	Electric	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline
Food Truck	Gasoline	Gasoline	Gasoline	Gasoline	Propane	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline
Hydrant Truck	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline
Lavatory Truck	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric

	BE1	CNA	GAJ	J31
Narrow Tug	Gasoline	No GSE	Gasoline	Gasoline
Fuel Truck	Electric	No GSE	Gasoline	Electric

Cargo Aircraft

	A330-300	B747-200	B747-400	B767-200	DC10-30	MD11
APU GTCF	All these aircraft are utilize APU GTCF 250 (300HP)					
Wide Tug	Electric	Electric	Electric	Electric	Electric	Electric
Air Starter Unit	Electric	Electric	Electric	Electric	Electric	Electric
Cargo Loader	Propane	Propane	Propane	Propane	Propane	Propane
Container Loader	Propane	Propane	Propane	Propane	Propane	Propane
GPU/ACU	Electric	Electric	Electric	Electric	Electric	Electric
Hydrant Truck	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline
Lavatory Truck	Electric	Electric	Electric	Electric	Electric	Electric

	A310-200	B737-200C	B737-200
APU GTCF	APU GTCF 85 (200HP)		
Narrow Tug	Electric	Electric	Electric
Air Starter Unit	Electric	Electric	Electric
Cargo Loader	Electric	Electric	Electric
GPU/ACU	Electric	Electric	Electric
Hydrant Truck	Gasoline	Gasoline	Gasoline
Lavatory Truck	Electric	Electric	Electric

	BH1900	GenAvProp
Narrow Tug	Propane	No GSE
Fuel Truck	Propane	No GSE
GPU/ACU	Electric	No GSE
Hydrant Truck	Electric	No GSE

Ground Support Equipment (GSE) Assignments to Aircraft
2015 Alt A

Passenger Aircraft

	340	744	747	74M	74X	763	767	777	A330	M11
APU GPCP				All these aircraft are utilize APU GPCP 660 (300HP)						
Wide Tug	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric
Baggage Tug	CNG	CNG	CNG	CNG	CNG	CNG	CNG	CNG	CNG	Electric
Belt Loader	CNG	CNG	CNG	CNG	CNG	CNG	CNG	CNG	CNG	Electric
Cabin Service	Gasoline	Gasoline	Hybrid	CNG	CNG	Gasoline	CNG	CNG	CNG	CNG
Container Loader	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric
Food Truck	Gasoline	Gasoline	Hybrid	CNG	CNG	CNG	CNG	CNG	CNG	CNG
Hydrant Truck	Electric	Gasoline	Gasoline	Electric	Electric	CNG	CNG	CNG	CNG	CNG
Lavatory Truck	CNG	CNG	CNG	CNG	CNG	CNG	Gasoline	Gasoline	Gasoline	Hybrid
Water Truck	Electric	Gasoline	Electric	CNG	Electric	Gasoline	Hybrid	CNG	CNG	Gasoline

	100	310	319	320/328	330	733	734	735/735	757	C50	C70	F70	M80	M87	M90	M95
APU GPCP										All these aircraft are utilize APU GPCP 85 (200HP)						
Narrow Tug	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric
Baggage Tug	Gasoline	Gasoline	Gasoline	Gasoline	CNG	CNG	CNG	CNG	Electric	CNG	CNG	Electric	Electric	Electric	Electric	Electric
Belt Loader	Gasoline	Gasoline	Gasoline	Gasoline	CNG	CNG	CNG	CNG	Electric	CNG	CNG	Electric	Electric	Electric	Electric	Electric
Cabin Service	Electric	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Electric	CNG	Hybrid	Hybrid	CNG	CNG	Gasoline	Hybrid
Food Truck	Electric	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Electric	CNG	Hybrid	Hybrid	CNG	CNG	Gasoline	Hybrid
Hydrant Truck	Gasoline	Electric	CNG	CNG	CNG	CNG	CNG	CNG	CNG	CNG	CNG	CNG	CNG	CNG	CNG	CNG
Lavatory Truck	Electric	Electric	CNG	CNG	CNG	CNG	CNG	CNG	Gasoline	Gasoline	Gasoline	Gasoline	Electric	CNG	CNG	CNG

	A17	A18	DS7	EM2	EM2	F50	F50	S36	SP3	SVM
APU GPCP				All these aircraft are utilize APU GPCP 36 (80HP)						
Narrow Tug	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric
Baggage Tug	CNG	CNG	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric
Belt Loader	CNG	CNG	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric
Cabin Service	CNG	CNG	Hybrid	CNG	CNG	CNG	Electric	Hybrid	Hybrid	Hybrid
Food Truck	CNG	CNG	Hybrid	CNG	CNG	CNG	Electric	Hybrid	Hybrid	Hybrid
Hydrant Truck	CNG	CNG	CNG	CNG	CNG	CNG	CNG	CNG	CNG	CNG
Lavatory Truck	Gasoline	Gasoline	Gasoline	Gasoline	CNG	CNG	CNG	CNG	Hybrid	Hybrid

	BE1	CNA	GAI	I31
Narrow Tug	Electric	No GSE	Electric	Electric
Fuel Truck	CNG	No GSE	Electric	Gasoline

Cargo Aircraft

	A300-C4	B747-200	B747-400	B767-200	DC10-30	MD11
APU GPCP		All these aircraft are utilize APU GPCP 660 (300HP)				
Wide Tug	Electric	Electric	Electric	Electric	Electric	Electric
Cargo Loader	Electric	Electric	Electric	Electric	Electric	Electric
Container Loader	Electric	Electric	Electric	Electric	Electric	Electric
Hydrant Truck	Gasoline	CNG	CNG	CNG	CNG	CNG
Lavatory Truck	Electric	Gasoline	Gasoline	CNG	CNG	Hybrid

	A310-200	B737-200C	B757-200
APU GPCP		APU GPCP 85 (200HP)	
Narrow Tug	Electric	Electric	Electric
Cargo Loader	Electric	Electric	Electric
Hydrant Truck	CNG	CNG	CNG
Lavatory Truck	Gasoline	Gasoline	CNG

	BH1900	GenAvProp
Narrow Tug	Electric	No GSE
Fuel Truck	CNG	No GSE

Ground Support Equipment (GSE) Assignments to Aircraft
2015 Alt B

Passenger Aircraft

	340	744	747	74M	74X	763	767	777	A83	M11
APU GPCP	All these aircraft are utilize APU GPCP 680 (300HP)									
Wide Tug	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric
Baggage Tug	CNG	CNG	CNG	CNG	Gasoline	CNG	CNG	CNG	CNG	Electric
Belt Loader	CNG	CNG	CNG	CNG	Gasoline	CNG	CNG	CNG	CNG	Electric
Cabin Service	Electric	Electric	Hybrid	CNG	CNG	Gasoline	CNG	CNG	CNG	CNG
Container Loader	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric
Food Truck	Electric	Electric	Hybrid	CNG	CNG	Gasoline	CNG	CNG	CNG	CNG
Hydrant Truck	Electric	Gasoline	Electric	Gasoline	CNG	CNG	CNG	CNG	CNG	CNG
Lavatory Truck	CNG	Diesel	Electric	Electric	Diesel	Gasoline	Gasoline	Gasoline	Gasoline	Hybrid
Water Truck	Electric	Gasoline	Electric	Electric	CNG	Gasoline	Hybrid	CNG	Gasoline	Diesel

	100	310	319	320/325	330	733	734	735/735	767	C50	C70	F70	M80	M87	M90	M95
APU GPCP	All these aircraft are utilize APU GPCP 85 (200HP)															
Narrow Tug	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric
Baggage Tug	Gasoline	Gasoline	Gasoline	Gasoline	CNG	CNG	CNG	CNG	Electric	CNG	CNG	Electric	Electric	Electric	Electric	Electric
Belt Loader	Gasoline	Gasoline	Gasoline	Gasoline	CNG	CNG	CNG	CNG	Electric	CNG	CNG	Electric	Electric	Electric	Electric	Electric
Cabin Service	Electric	Electric	Gasoline	Electric	Gasoline	Electric	Gasoline	Electric	Gasoline	CNG	Hybrid	Hybrid	CNG	CNG	Electric	Hybrid
Food Truck	Gasoline	Gasoline	Electric	Gasoline	Gasoline	Electric	Gasoline	Electric	Gasoline	CNG	Hybrid	Hybrid	CNG	CNG	Electric	Hybrid
Hydrant Truck	Electric	CNG	CNG	Electric	Electric	Gasoline	Gasoline	Electric	CNG	CNG	CNG	CNG	CNG	CNG	CNG	CNG
Lavatory Truck	Diesel	CNG	CNG	Electric	Diesel	Diesel	Electric	CNG	Gasoline	Gasoline	Gasoline	Gasoline	Electric	Electric	CNG	CNG

	A17	A19	DS7	EM2	EM6	FS0	S20	S36	SF3	SWM
APU GPCP	All these aircraft are utilize APU GPCP 36 (80HP)									
Narrow Tug	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric
Baggage Tug	CNG	CNG	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric
Belt Loader	CNG	CNG	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric
Cabin Service	CNG	CNG	Hybrid	CNG	CNG	CNG	Electric	Hybrid	Hybrid	Hybrid
Food Truck	CNG	CNG	Hybrid	CNG	CNG	CNG	Electric	Hybrid	Hybrid	Hybrid
Hydrant Truck	CNG	CNG	CNG	CNG	CNG	CNG	CNG	CNG	CNG	CNG
Lavatory Truck	Gasoline	Gasoline	Gasoline	Gasoline	CNG	CNG	CNG	Electric	Hybrid	Hybrid

	BS1	CNA	GAI	M1
Narrow Tug	Electric	No GSE	Electric	Electric
Fuel Truck	CNG	No GSE	Gasoline	CNG

Cargo Aircraft

	A300-C4	B747-200	B747-400	B767-200	DC1030	MD11
APU GPCP	All these aircraft are utilize APU GPCP 680 (300HP)					
Wide Tug	Electric	Electric	Electric	Electric	Electric	Electric
Cargo Loader	Electric	Electric	Electric	Electric	Electric	Electric
Container Loader	Electric	Electric	Electric	Electric	Electric	Electric
Hydrant Truck	Gasoline	CNG	CNG	CNG	CNG	Electric
Lavatory Truck	Electric	Gasoline	Gasoline	CNG	CNG	Electric

	A310-200	B737-200C	B757-200
APU GPCP	APU GPCP 85 (200HP)		
Narrow Tug	Electric	Electric	Electric
Cargo Loader	Electric	Electric	Electric
Hydrant Truck	CNG	CNG	CNG
Lavatory Truck	Gasoline	Gasoline	CNG

	BH190J	GenAvProp
Narrow Tug	Electric	No GSE
Fuel Truck	CNG	No GSE

Ground Support Equipment (GSE) Assignments to Aircraft
2015 Alt C

Passenger Aircraft

	340	744	747	74M	74X	763	767	777	A83	M11
APU GTCF	All these aircraft are utilize APU GTCF 650 (300HP)									
Wide Tug	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric
Baggage Tug	CNG	CNG	CNG	Electric	Gasoline	CNG	CNG	CNG	CNG	Electric
Belt Loader	CNG	CNG	CNG	Electric	Gasoline	CNG	CNG	CNG	CNG	Electric
Cabin Service	Electric	Electric	Hybrid	Hybrid	Hybrid	CNG	CNG	Gasoline	CNG	CNG
Container Loader	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric
Food Truck	Gasoline	Gasoline	Gasoline	Gasoline	Hybrid	Gasoline	Electric	Electric	Electric	CNG
Hydrant Truck	Electric	Gasoline	CNG	Gasoline	CNG	Electric	CNG	CNG	CNG	CNG
Lavatory Truck	CNG	Diesel	Electric	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline
Water Truck	CNG	CNG	CNG	CNG	CNG	Electric	Hybrid	Gasoline	Gasoline	Gasoline

	100	310	319	320/325	330	733	734	735/735	737	C90	C70	F70	M80	M87	M90	M95
APU GTCF	All these aircraft are utilize APU GTCF 85 (200HP)															
Narrow Tug	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric
Baggage Tug	CNG	Gasoline	Electric	Gasoline	Electric	CNG	CNG	CNG	Electric	CNG	CNG	Electric	Electric	Electric	Electric	Electric
Belt Loader	CNG	Gasoline	Electric	Gasoline	Electric	CNG	CNG	CNG	Electric	CNG	CNG	Electric	Electric	Electric	Electric	Electric
Cabin Service	Electric	Electric	Electric	Electric	Gasoline	Electric	CNG	CNG	Gasoline	Gasoline	Hybrid	Electric	CNG	Hybrid	Electric	Hybrid
Food Truck	Gasoline	Electric	Electric	Gasoline	Electric	Gasoline	Gasoline	Gasoline	CNG	Electric	Hybrid	Hybrid	CNG	CNG	Electric	Hybrid
Hydrant Truck	Gasoline	CNG	CNG	Electric	Electric	Gasoline	Electric	Electric	CNG	CNG	CNG	CNG	CNG	CNG	CNG	CNG
Lavatory Truck	Diesel	Diesel	CNG	Electric	Electric	Diesel	Electric	Electric	Gasoline	Gasoline	Hybrid	Gasoline	CNG	CNG	CNG	CNG

	AT7	ATR	DS7	EM2	EMB	F50	S20	S36	SF3	SWM
APU GTCF	All these aircraft are utilize APU GTCF 36 (80HP)									
Narrow Tug	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric
Baggage Tug	CNG	CNG	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric
Belt Loader	CNG	CNG	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric
Cabin Service	CNG	CNG	Hybrid	Electric	CNG	CNG	Electric	Hybrid	Hybrid	Hybrid
Food Truck	Electric	Electric	Hybrid	Hybrid	CNG	Hybrid	Electric	Hybrid	Hybrid	Hybrid
Hydrant Truck	CNG	CNG	CNG	CNG	CNG	CNG	CNG	CNG	CNG	CNG
Lavatory Truck	Gasoline	Gasoline	Gasoline	Gasoline	CNG	CNG	CNG	Hybrid	Hybrid	Hybrid

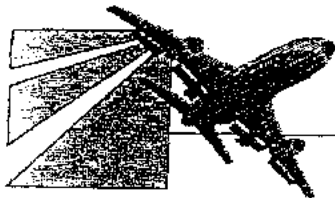
	BE1	CNA	GAY	131
Narrow Tug	Electric	No GSE	Electric	Electric
Fuel Truck	CNG		Gasoline	CNG

Cargo Aircraft

	A300-CA	B747-200	B747-400	B767-200	DC10-30	MD11
APU GTCF	All these aircraft are utilize APU GTCF 650 (300HP)					
Wide Tug	Electric	Electric	Electric	Electric	Electric	Electric
Cargo Loader	Electric	Electric	Electric	Electric	Electric	Electric
Container Loader	Electric	Electric	Electric	Electric	Electric	Electric
Hydrant Truck	Gasoline	CNG	CNG	CNG	CNG	CNG
Lavatory Truck	Diesel	Gasoline	Gasoline	CNG	CNG	Electric

	A310-200	B737-200C	B737-200
APU GTCF	APU GTCF 85 (200HP)		
Narrow Tug	Electric	Electric	Electric
Cargo Loader	Electric	Electric	Electric
Hydrant Truck	CNG	CNG	CNG
Lavatory Truck	Gasoline	Gasoline	CNG

	BH1300	GenAvProp
Narrow Tug	Electric	
Fuel Truck	CNG	No GSE



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- Aircraft Operations Planning
- Airport Site Selection
- Environmental Impact Assessments
- Part 150 Studies
- Impact Mitigation Programs
- Economic Impact Analyses
- Airport Rates & Charges
- Use Agreements
- Financial/Feasibility Studies
- AIP/PFC Administration
- Construction Operations Planning
- Program Advisory Services
- Management & Operational Consulting

Date Sent: 6-2-97
Number of Pages: COVER + 3
To: MIKE SAUNDERS
Fax #: 714 752-1307
From: JOE HUY
AC # _____
Project/Practice #: LAX - AIR QUALITY

Message: MIKE - HERE IS THE INFO
YOU REQUESTED. I HAVE ASSIGNED AN
ENGINE TYPE TO EACH AIRCRAFT IN
THE 2015 FLIGHT SCHEDULE. HOWEVER,
I DO NOT HAVE GSE INFO FOR THE
ENTIRE FLEET, THUS YOU WILL HAVE
TO USE EAMS DEFAULTS FOR THOSE
WITHOUT GSE INFO. I'VE PROVIDED
CLARIFICATION FOR THE RUNWAY UTILIZA-
TION TABLE. THE FLIGHT SCHEDULE
IDENTIFIES 3 CARGO GATE AREAS, USE
SHEET 3 FOR THE GSE FOR THOSE
AIRCRAFT. PLEASE CALL IF YOU HAVE
ANY QUESTIONS. JOE HUY

For confirmation and / or problems with this transmission, please call (310) 342-7400.

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(312) 421-8590
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Average GSE Times For 2015 Flight Schedule
LAX Master Plan/EIR
Interim Air Quality Analysis

Aircraft Name	Aircraft Type	Aircraft Engine Type No., Make, & Model	Diesel Belt Loader	Diesel Cabin Service	Gas Lavatory Truck	Diesel Food Truck	Diesel Aircraft Tractor	Gas Fuel Truck	Gas Baggage Tug	Gas Water Truck	Diesel Container Loader
Fokker 100	100	2 R-R TAY 650									
Airbus A-300 C4	300	2 GE CF6									
Airbus A-310	310	2 GE CF6-80C2									
Airbus A-319	319	2 XCFM56-5									
Airbus A-320	320	2 CFM56-5									
Airbus A-330	330	2 GE CF6-80	(2) 50		12	(2) 43	8	48	(Diesel) (2) 68		
Airbus A-340	340	4 CFM56-5C									
Boeing 737-300	733	2 CFM56-3C	42		7		6	11	(Diesel) 34		
Boeing 737-400	734	2 CFM56-3C	14		6		6	7	14		
Boeing 737-200C	737	2 P&W JT8D-17A	12				9	13	19		
Boeing 737-300	735	2 CFM56-3C									
Boeing 747-400	744	4 P&W PW4056	23		7	(Gas) (2) 152	12	(Diesel) 90	(Propane) (3) 87		(2) 70
Boeing 747-200	747	4 P&W JT9D-7R4G2									
Boeing 747-400	74M	4 P&W PW4056									
New Large Aircraft	74K	4 P&W PW4056									
Boeing 757-200	757	2 P&W PW2037	(2) 70		23	(2) 45	8	25	(Diesel) (3) 54	13	
Boeing 767-300	763	2 P&W JT9D-7R4	(2) 65	24	8	33	8	35	(3) 105	8	(2) 90
Boeing 767-200	767	2 P&W JT9D-7R4	(2) 55	40	22	28	8	40	(3) 120	12	(2) 80
Boeing 777	777	2 P&W PW4000									
Airbus A-300	A83	2 GE CF6									
AIR 72	A17	2 PWC PW127									
ATR 42	ATR	2 PWC PW 127E									
Besch	BEI	2 PWC PT6A-65B									
Canadair Regional Jet 50 - CRJ50	C50	2 GE CF34-3B1						(Diesel) 8	11		
Canadair Regional Jet 70 - CRJ70	C70	2 GE CF34-3B1									
Generic general aviation prop	CNA	1 PWC PT6A-114									
DC-10	D10	3 GE CF6-50C2						(Diesel) 7	10		
Dash 7	D57	4 PWC PT6A-50									
Embraer 120	EM2	2 PWC PW118A									
Embraer 110	EM8	2 PWC PT6A-34						(Diesel) 12	16		
Fokker 50	F50	2 PWC PW125B						(Diesel) 14	12		
Fokker 70	F70	2 R-R TAY 820									
Generic general aviation jet	GAJ	2 VW FJ-44									
Jetstream 31	J31	2 ASE TPE331-12 UAR						(Diesel) 16	12		
MD-11	M11	3 P&W PW4360	(2) 21		8	(Gas) 84	19	(Diesel) 7	6		
MD-80	M80	2 P&W JT8D-217A	(Propane) 20	6			5	(Diesel) 60	(Propane) (2) 118		(2) 67
MD-87	M87	2 P&W JT8D-217C	(Propane) 28	12		28	4	(Diesel) 22	(2) 23		
MD-90	M90	2 IAV V2500-D5	(Propane) 31	11		22	5	(Diesel) 33	(2) 19		
MD-95	M95	2 BMW-RR BR715	(Propane) 27	8		14	5	(Diesel) 27	(2) 29		
Saab 2000	S20	2 AIL AE2100A				19	5	(Diesel) 26	(2) 34		
Shorts 360	S36	2 PWC PT6A-67R						(Diesel) 13	8		
Saab Fairchild 340	SF3	2 GE CT7-982						(Diesel) 10	12		
Svensson Metro	SWM	2 ASE TPE 331-11U-6123						(Diesel) 9	11		
								(Diesel) 11	14		

Note:

These GSE times represent an average of the total observation times per aircraft type.

(X) = The number of equipment that is used to sum up the total minutes per each category.

Engine Abbreviations

AIL - Allison Engines
 ASE - AlliedSignal Engines
 CFM - CFM International

GE - General Electric

IAE - International Aero Engines

P&W - Pratt & Whitney

PWC - Pratt & Whitney Canada

R-R - Rolls-Royce

VW - Lycoming

Source (Engine): Aerospace Source Book, January 1996, Aviation Week & Space Technology

H:\AXEP2\EP2-3\EP2-3-S\GSE-AVE.XLS

RWY UTIL

DAY PCT.					NIGHT PCT.				
FOR OVER OCEAN APPROACH					FOR OVER OCEAN APPROACH				
Pax/	Comm	GA	Cargo		Pax/	Comm	GA	Cargo	Runway
0.157	0.508	0.000	0.002		0.157	0.508	0.000	0.002	24R
0.467	0.065	0.000	0.000		0.467	0.065	0.000	0.000	24C
0.000	0.000	0.000	0.000		0.000	0.000	0.000	0.000	24L
0.308	0.370	0.943	0.496		0.308	0.370	0.943	0.496	25L
0.000	0.000	0.000	0.000		0.000	0.000	0.000	0.000	25R
0.000	0.518	0.497	0.000	D	0.000	0.518	0.497	0.000	24R
0.000	0.000	0.000	0.000	D	0.000	0.000	0.000	0.000	24C
0.611	0.000	0.000	0.000	D	0.611	0.000	0.000	0.000	24L
0.000	0.000	0.000	0.000	D	0.000	0.000	0.000	0.000	25L
0.332	0.425	0.446	0.943	D	0.332	0.425	0.446	0.943	25R
0.010	0.031	0.000	0.001	A	0.027	0.081	0.000	0.002	6L
0.028	0.004	0.000	0.025	A	0.074	0.010	0.000	0.069	6R
0.019	0.022	0.057	0.030	A	0.012	0.059	0.150	0.075	7R
0.000	0.031	0.030	0.000	D	0.000	0.031	0.030	0.000	6L
0.037	0.000	0.000	0.000	D	0.037	0.000	0.000	0.000	6C
0.020	0.026	0.027	0.057	D	0.020	0.026	0.027	0.057	7L
2.000	2.000	2.000	2.000		2.000	2.000	2.000	2.000	

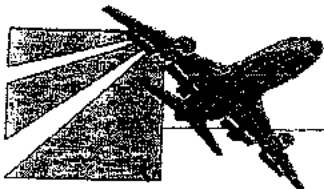
Page 2

GSE Cargo Information for Interim Air Quality Analysis
LAX Master Plan/EIR

Aircraft Type	Diesel Belt Loader	Diesel A/C Tractor	Gas Fuel Truck	Gas Baggage Tug	Diesel Container Loader
300	22	8	40	35	75
310	26	8	48	27	75
737	12	8	13	28	35
744	25	15	50	(2) 70	(2) 110
747	25	15	50	(2) 70	(2) 110
757	32	7	33	40	50
767	26	8	40	20	(2) 80
BE1			(Diesel) 10	(2) 35	
CNA			(Diesel) 10	(2) 35	
D10	(2) 36	13	(Diesel) 45	(2) 48	(2) 80
MD11	(2) 36	13	(Diesel) 45	(2) 48	(2) 80

Note:

(X) = The number of equipment that is used to sum up the total minutes per each category.



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- Financial/Feasibility Studies
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- Construction Operations Planning
- Program Advisory Services
- Management & Operational Consulting

Date Sent: 5/16/97Number of Pages: 3 incl. coverTo: Bruce LockenFax #: 310 451-~~452~~ 5279From: Sid Greenwald

AC # _____

Project/Practice #: _____

Message: Bruce - The attached

68th info. is for passenger
operations only. We are trying
to get together some numbers
for cargo operations.

Please call me as soon
as possible - I have some
questions regarding a couple sub-
tasks in your scope of work,
and the expected completion of
their prerequisites.

Thanks
Sid

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AY-10-97 FRI 10:17

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FAX NO. 13106456447

P. 02

Airline	Aircraft Type	Diesel Bulk Loader	Diesel Cabin Service	Gas Lavatory Truck	Diesel Food Truck	Diesel A/C Tractor	Gas Fuel Truck	Gas Baggage Tug	Gas Water Truck	Diesel Container Loader
Southwest	737-300	(2) 23				3	(Cart) 8	(3) 12		
Southwest	737-300	8				2	5	11		
Southwest	737-300	8					8	12		
Southwest	737-300	11				7	6	12		
Southwest	737-300	18		(2) 7		6	13	12		
Southwest	737-300	13		2		8	7	15		
Southwest	737-300	(2) 17				4		14		
Southwest	737-200	12		8		2	6	15		
USAir	737-300	(2) 46		6	(2) 47	5	16	(3) 48	10	
USAir	757	(2) 85		21	(2) 35	8	28	Diesel (3) 48	11	
USAir	757	(2) 74		24	82	9	22	Diesel (3) 70	14	
USAir	767	(2) 78	(2) 105	8	22	12	16	Diesel (3) 96	10	
Korean Air Lines	MD-11	(2) 21		8	(Gas) 84	19	(Diesel) 88	(Propane) (2) 118		(2) 87
Korean Air Lines	747-400	22		8	(Gas) (2) 142	8	(Diesel) 88	(Propane) (3) 88		(2) 68
Korean Air Lines	747-400	12		6	(Gas) (3) 183	17	(Diesel) 92	(Propane) (3) 85		(2) 91
United	747-400 (A)	22		7	(2) 82	11	40	(Diesel) (4) 97		(2) 62
United	747-400	24	(2) 24	10	(2) 48	12	47	(Diesel) (4) 158		88
United	737-300	(2) 50				6	8	(Diesel) (2) 30		
United	737-300	(2) 48				4	9	(Diesel) (2) 36		
United	737-300	(2) 28				7	11	(Diesel) (2) 36		
United	A320	(2) 50		12	(2) 43	6	48	(Diesel) (2) 88		
United	757	(2) 52		11	(2) 40	7	29	(Diesel) (2) 28		
United	767	41	(2) 8	24	47	9	40	(3) 128		(2) 90
Continental	727	(2) 28	13	(Diesel) 8	23	6	18	(Propane) (2) 42		
Continental	727	(2) 34	11	(Diesel) 12	18	4	22	(Propane) (2) 47		
Continental	757	(2) 70	24	(Diesel) 7	45	8	33	(Propane) (3) 118		
Skywest	Brazilian						8	6		
Skywest	Brazilian						9	7		
Skywest	Brazilian						8	11		
Skywest	Metroliner						6	12		
Skywest	Metroliner						7	11		

* use common fuel truck for ga -- ga no other gas.

Airline	Aircraft Type	Diesel Belt Loader	Diesel Cable Service	Gas Lavatory Truck	Diesel Food Truck	Diesel A/C Tractor	Gas Fuel Truck	Gas Baggage Tug	Gas Water Truck	Diesel Container Lo
American	MD-80	(Propane) 20	6		28	5	(Diesel) 22	(2) 23		
American	MD-80	(Propane) 28	12		22	4	(Diesel) 33	(2) 19		
American	MD-80	(Propane) 31	11		14	5	(Diesel) 27	(2) 29		
American	MD-80	(Propane) 27	8		19	5	(Diesel) 28	(2) 34		
American Eagle	SAAB 340						(Diesel) 13	8		
American Eagle	SAAB 340						(Diesel) 8	11		
American Eagle	Jetstream						(Diesel) 7	8		

Southwest Operational Notes:

Baggage tugs were observed to be operating on a continuous basis. The lavatory trucks only service aircraft that request the service. It takes approximately 40 minutes to dump a full lavatory truck and takes 15 minutes in-transit time to get to the dumping facility. Southwest has 110 flights per day, and the average turn-around time on each flight is approximately 20 minutes. They operate out of six primary and two alternate gates in Terminal One.

USAir Operational Notes:

Observations were made at Terminal 1

Korean Operational Notes:

Ogden Aviation Services performs ground handling services for Korean Airlines. Observations were made at Tom Bradley International Terminal. Water was pumped via a hose from TBIT.

United Operational Notes:

Observation for the 747-400 (A) was made at the Tom Bradley International Terminal, all other observations were made at Terminals 7 and 8. The ramp supervisor informed me that UAL has not purchased gas equipment for the last 15 years, and will continue to pursue alternative fuels to that of gas. The shuttle by United operation utilizes electric carts to pull fuel pumping equipment. The United Express operation busses passengers in natural gas shuttle vehicles for approximately 6 minutes from Terminal 7, Gate 71. Water was pumped via a hose from the respective terminals.

Continental Operational Notes:

Observations were made at Terminal 8.

Skywest Operational Notes:

Observations were made at Terminal 8.

American Operational Notes:

AA has a target turn-around time for MD-80's at 35 minutes, 757/767 at 45 minutes, DC10 at 1 hour for M-class service, if not 45 minutes. Observations were made at Terminal 4.

American Eagle Operational Notes:

Observations were made at Terminal 4.

Observations were conducted between August 15 - 18.

(X) = The number of equipment that is used to sum up the total minutes per each category.

H:\XREP2\REP2-3\GSE-DATA.XLS

Attachment M

EMFAC 2000 Emission Factors

TABLE 1: WINTERTIME RUNNING ENHANCED VM EXHAUST EMISSION FACTORS AT 50 DEG F

POLLUTANT NAME: REACTIVE ORGANIC GASES				UNITS: GRAMS PER MILE														
SPEED MPH	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK URBAN BUS		MCY ALL	
	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL		
5	23.67	2.30	1.94	25.47	2.74	1.76	31.09	3.65	27.77	4.92	1.78	36.88	8.61	2.10	2.53	6.45	3.19	
10	16.82	1.56	1.52	18.11	1.89	1.38	22.07	2.53	18.16	3.19	1.40	25.44	5.61	1.65	1.99	4.68	2.45	
15	12.51	1.13	1.22	13.47	1.36	1.11	16.42	1.84	12.37	2.16	1.12	17.34	3.80	1.32	1.60	3.51	1.98	
16	11.86	1.06	1.17	12.77	1.28	1.08	15.56	1.74	11.51	2.00	1.08	16.14	3.53	1.27	1.53	3.33	1.91	
20	9.74	0.84	1.00	10.48	1.02	0.91	12.78	1.40	8.78	1.51	0.92	12.32	2.68	1.09	1.31	2.73	1.68	
25	7.93	0.66	0.84	8.54	0.80	0.76	10.41	1.11	6.49	1.10	0.77	9.12	1.96	0.91	1.10	2.20	1.49	
30	6.75	0.54	0.72	7.28	0.66	0.65	8.88	0.92	5.00	0.84	0.66	7.03	1.50	0.78	0.94	1.84	1.39	
35	6.03	0.46	0.63	6.49	0.57	0.57	7.92	0.80	4.01	0.68	0.58	5.65	1.19	0.68	0.83	1.59	1.37	
40	5.63	0.41	0.57	6.06	0.51	0.51	7.40	0.73	3.36	0.55	0.52	4.73	0.99	0.61	0.74	1.42	1.42	
45	5.51	0.39	0.52	5.93	0.48	0.47	7.24	0.70	2.93	0.47	0.48	4.14	0.86	0.58	0.68	1.32	1.54	
50	5.64	0.38	0.49	6.08	0.48	0.44	7.42	0.70	2.67	0.43	0.44	3.77	0.78	0.53	0.63	1.26	1.75	
55	6.05	0.40	0.46	6.52	0.49	0.42	7.95	0.74	2.54	0.40	0.43	3.58	0.73	0.50	0.61	1.26	2.10	
60	6.80	0.43	0.45	7.32	0.54	0.41	8.93	0.82	2.51	0.40	0.42	3.55	0.73	0.49	0.59	1.29	2.64	
65	7.99	0.49	0.45	8.61	0.62	0.41	10.50	0.95	2.60	0.42	0.42	3.68	0.76	0.49	0.59	1.38	3.46	

POLLUTANT NAME: CARBON MONOXIDE				UNITS: GRAMS PER MILE														
SPEED MPH	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK URBAN BUS		MCY ALL	
	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL		
5	216.92	29.28	3.43	230.46	43.39	4.10	367.43	50.23	500.33	50.69	10.08	699.96	83.89	11.45	14.05	11.52	23.62	
10	158.11	24.17	2.36	167.98	35.43	2.83	267.80	38.94	332.87	33.73	6.95	465.70	55.81	7.90	9.58	7.25	19.59	
15	121.36	20.52	1.71	128.93	29.82	2.04	205.56	31.52	233.89	23.71	5.02	327.36	39.23	5.70	6.99	4.84	17.04	
16	115.82	19.92	1.61	123.05	28.90	1.92	198.18	30.36	219.50	22.24	4.73	307.09	36.81	5.37	6.58	4.50	16.66	
20	98.10	17.64	1.29	104.22	25.77	1.54	166.16	26.52	173.78	17.81	3.79	243.12	29.14	4.30	5.28	3.44	15.52	
25	83.51	15.86	1.02	88.72	22.80	1.22	141.45	23.13	136.36	13.81	3.00	190.77	22.66	3.40	4.17	2.59	14.81	
30	74.87	14.37	0.84	79.54	20.63	1.01	126.81	20.87	113.04	11.45	2.48	158.15	18.95	2.81	3.45	2.07	14.81	
35	70.68	13.28	0.73	75.09	19.08	0.87	119.72	19.47	99.01	10.03	2.14	136.53	16.60	2.44	2.99	1.76	15.53	
40	70.26	12.53	0.66	74.66	18.05	0.79	119.04	18.80	91.63	9.28	1.94	128.19	15.36	2.21	2.71	1.59	17.11	
45	73.58	12.07	0.63	78.18	17.49	0.75	124.64	18.83	89.59	9.08	1.84	125.34	15.02	2.09	2.57	1.52	19.84	
50	81.14	11.93	0.62	86.20	17.41	0.74	137.43	19.62	92.55	9.38	1.83	129.48	15.52	2.08	2.55	1.55	24.25	
55	94.22	12.12	0.65	100.10	17.90	0.77	159.59	21.56	101.01	10.23	1.90	141.82	16.84	2.16	2.84	1.67	31.26	
60	115.22	12.78	0.70	122.42	19.10	0.84	195.17	24.42	116.49	11.60	2.06	162.97	19.53	2.34	2.87	1.92	42.54	
65	148.39	14.02	0.80	157.65	21.32	0.95	251.35	29.47	141.92	14.36	2.35	198.55	23.80	2.66	3.27	2.33	61.13	

POLLUTANT NAME: OXIDES OF NITROGEN				UNITS: GRAMS PER MILE														
SPEED MPH	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK URBAN BUS		MCY ALL	
	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL		
5	4.37	2.24	3.45	4.41	3.60	3.61	6.75	3.93	6.87	3.64	35.44	10.03	6.77	36.98	51.81	43.50	1.44	
10	4.59	1.93	2.86	4.64	3.06	2.89	7.10	3.47	7.22	3.83	29.41	10.54	7.11	30.68	42.99	33.28	1.46	
15	4.82	1.71	2.48	4.87	2.68	2.57	7.45	3.16	7.58	4.01	25.28	11.05	7.46	26.38	36.95	26.76	1.49	
16	4.87	1.68	2.40	4.92	2.62	2.51	7.53	3.11	7.63	4.05	24.63	11.15	7.53	25.70	36.01	25.77	1.50	
20	5.06	1.56	2.19	5.11	2.42	2.29	7.82	2.95	7.91	4.19	22.92	11.56	7.80	23.49	32.91	22.62	1.53	
25	5.30	1.45	2.02	5.35	2.24	2.12	8.19	2.81	8.26	4.38	20.78	12.07	8.14	21.68	30.38	20.10	1.58	
30	5.54	1.39	1.93	5.59	2.13	2.02	8.56	2.74	8.61	4.56	19.87	12.58	8.49	20.73	29.05	18.78	1.63	
35	5.78	1.35	1.91	5.84	2.07	2.00	8.94	2.71	8.96	4.75	19.69	13.08	8.63	20.54	28.76	18.45	1.66	
40	6.03	1.34	1.87	6.09	2.05	2.06	9.33	2.72	9.31	4.93	20.21	13.59	9.17	21.09	29.54	19.05	1.74	
45	6.28	1.36	2.09	6.35	2.07	2.19	9.71	2.77	9.65	5.12	21.50	14.10	9.52	22.43	31.43	20.67	1.80	
50	6.54	1.40	2.30	6.60	2.14	2.41	10.10	2.87	10.00	5.30	23.69	14.81	9.86	24.72	34.64	23.59	1.86	
55	6.79	1.47	2.63	6.86	2.26	2.75	10.50	3.00	10.35	5.49	27.06	15.12	10.20	28.23	39.55	28.30	1.93	
60	7.04	1.57	3.11	7.11	2.44	3.26	10.89	3.19	10.70	5.67	32.02	15.63	10.55	33.40	46.80	35.69	2.01	
65	7.30	1.72	3.82	7.37	2.69	4.00	11.28	3.45	11.05	5.86	39.25	16.14	10.89	40.95	57.36	47.32	2.09	

TABLE 1 (CONTINUED): WINTERTIME RUNNING ENHANCED IM EXHAUST EMISSION FACTORS AT 50 DEG F

POLLUTANT NAME: CARBON DIOXIDE				UNITS: GRAMS PER MILE													HH TRUCK	URBAN BUS	MCY ALL
SPEED	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			DIESEL	DIESEL			
MPH	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL			
5	1,313.99	1,067.51	433.76	1,317.30	1,178.31	437.88	1,510.44	1,897.12	2,513.51	2,513.51	1,956.39	2,513.51	2,513.51	1,952.63	1,984.20	2,060.74	234.60		
10	992.92	808.67	433.76	995.43	890.40	437.88	1,141.37	1,282.44	1,672.27	1,672.27	1,956.39	1,672.27	1,672.27	1,952.63	1,984.20	2,060.74	199.11		
15	778.74	632.87	433.76	780.71	688.33	437.88	895.17	1,005.81	1,175.49	1,175.49	1,956.39	1,175.49	1,175.48	1,952.63	1,984.20	2,060.74	172.39		
16	745.12	605.35	433.76	747.00	668.18	437.88	856.52	962.39	1,102.72	1,102.72	1,956.39	1,102.72	1,102.72	1,952.63	1,984.20	2,060.74	167.69		
20	633.91	515.00	433.76	635.51	568.46	437.88	726.68	818.75	873.00	873.00	1,956.39	873.00	873.00	1,952.63	1,984.20	2,060.74	152.24		
25	535.57	435.11	433.76	538.92	480.27	437.88	615.64	691.74	685.01	685.01	1,956.39	685.01	685.01	1,952.63	1,984.20	2,060.74	137.14		
30	469.64	381.55	433.76	470.83	421.15	437.88	539.85	606.58	567.89	567.89	1,956.39	567.89	567.89	1,952.63	1,984.20	2,060.74	126.04		
35	427.43	347.25	433.76	428.51	383.30	437.88	491.34	552.06	497.42	497.42	1,956.39	497.42	497.42	1,952.63	1,984.20	2,060.74	118.25		
40	403.76	328.02	433.76	404.78	362.07	437.88	464.13	521.49	460.33	460.33	1,956.39	460.33	460.33	1,952.63	1,984.20	2,060.74	113.35		
45	395.88	321.60	433.76	398.88	354.98	437.88	455.04	511.28	450.08	450.08	1,956.39	450.08	450.08	1,952.63	1,984.20	2,060.74	111.13		
50	402.82	327.26	433.76	403.83	361.22	437.88	493.04	520.27	464.95	464.95	1,956.39	464.95	464.95	1,952.63	1,984.20	2,060.74	111.60		
55	425.43	345.63	433.76	426.51	381.51	437.88	489.04	549.48	507.47	507.47	1,956.39	507.47	507.47	1,952.63	1,984.20	2,060.74	115.04		
60	466.35	378.87	433.76	467.53	418.20	437.88	536.07	602.33	585.19	585.19	1,956.39	585.19	585.19	1,952.63	1,984.20	2,060.74	122.01		
65	530.59	431.05	433.76	531.92	475.79	437.88	609.90	685.28	712.97	712.97	1,956.39	712.97	712.97	1,952.63	1,984.20	2,060.74	133.55		

POLLUTANT NAME: EXHAUST PARTICULATES, PMEX10						UNITS: GRAMS PER MILE													HH TRUCK	URBAN BUS	MCY
SPEED	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			DIESEL	DIESEL	ALL				
MPH	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL							
5	0.17	0.03	0.65	0.17	0.05	0.65	0.18	0.07	0.17	0.03	5.01	0.17	0.02	5.20	6.74	1.55	0.00				
10	0.12	0.02	0.51	0.12	0.04	0.51	0.13	0.05	0.11	0.02	3.93	0.11	0.01	4.08	5.29	1.12	0.00				
15	0.09	0.01	0.41	0.09	0.03	0.41	0.09	0.03	0.08	0.01	3.16	0.08	0.01	3.28	4.25	0.85	0.00				
16	0.09	0.01	0.39	0.09	0.02	0.39	0.09	0.03	0.07	0.01	3.03	0.07	0.01	3.14	4.08	0.80	0.00				
20	0.07	0.01	0.33	0.07	0.02	0.34	0.07	0.03	0.05	0.01	2.59	0.05	0.01	2.69	3.48	0.66	0.00				
25	0.06	0.01	0.28	0.06	0.02	0.28	0.06	0.02	0.04	0.01	2.17	0.04	0.00	2.25	2.82	0.53	0.00				
30	0.05	0.01	0.24	0.05	0.01	0.24	0.05	0.02	0.03	0.01	1.86	0.03	0.00	1.93	2.51	0.44	0.00				
35	0.04	0.01	0.21	0.04	0.01	0.21	0.05	0.01	0.03	0.00	1.63	0.03	0.00	1.69	2.20	0.38	0.00				
40	0.04	0.01	0.19	0.04	0.01	0.19	0.04	0.01	0.02	0.00	1.48	0.02	0.00	1.52	1.97	0.34	0.00				
45	0.04	0.01	0.17	0.04	0.01	0.17	0.04	0.01	0.02	0.00	1.34	0.02	0.00	1.39	1.80	0.32	0.00				
50	0.04	0.01	0.16	0.04	0.01	0.16	0.04	0.01	0.02	0.00	1.25	0.02	0.00	1.30	1.69	0.30	0.00				
55	0.04	0.01	0.15	0.04	0.01	0.15	0.05	0.01	0.02	0.00	1.20	0.02	0.00	1.24	1.61	0.30	0.00				
60	0.05	0.01	0.15	0.05	0.01	0.15	0.05	0.01	0.02	0.00	1.17	0.02	0.00	1.22	1.58	0.31	0.00				
65	0.06	0.01	0.15	0.06	0.01	0.15	0.06	0.02	0.02	0.00	1.17	0.02	0.00	1.22	1.58	0.33	0.01				

POLLUTANT NAME: TIRE WEAR PARTICULATES, PMTW10							UNITS: GRAMS PER MILE											HH TRUCK		URBAN BUS		MCY
SPEED	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK										
MPH	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	DIESEL					
ALL	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.04	0.01	0.00					

POLLUTANT NAME: BRAKE WEAR PARTICULATES, PMBW10							UNITS: GRAMS PER MILE													
SPEED	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS	MCY			
MPH	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	ALL			
ALL	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.03	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01			

TABLE 2: VARIABLE START EMISSION RATES IN GRAMS PER TRIP

POLLUTANT NAME: REACTIVE ORGANIC GASES							UNITS: GRAMS PER TRIP											HH TRUCK	URBAN BUS	MCY
TIMES	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK								
MIN	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL				
5	3.44	0.23	0.00	3.55	0.25	0.00	4.28	0.33	0.28	0.08	0.00	0.29	0.08	0.00	0.00	0.00	0.37			
10	3.41	0.45	0.00	3.52	0.48	0.00	4.24	0.65	0.28	0.15	0.00	0.29	0.15	0.00	0.00	0.00	0.72			
20	3.45	0.85	0.00	3.56	0.92	0.00	4.29	1.23	0.28	0.29	0.00	0.29	0.29	0.00	0.00	0.00	1.37			
30	3.80	1.20	0.00	3.71	1.30	0.00	4.48	1.75	0.29	0.41	0.00	0.30	0.41	0.00	0.00	0.00	1.94			
60	4.45	1.99	0.00	4.59	2.15	0.00	5.53	2.89	0.36	0.68	0.00	0.37	0.67	0.00	0.00	0.00	3.20			
120	4.88	2.43	0.00	5.03	2.63	0.00	6.07	3.52	0.40	0.83	0.00	0.41	0.82	0.00	0.00	0.00	3.91			
180	5.31	2.58	0.00	5.48	2.79	0.00	6.60	3.74	0.43	0.88	0.00	0.44	0.87	0.00	0.00	0.00	4.15			

300	6.18	2.87	0.00	6.37	3.10	0.00	7.66	4.15	0.50	0.97	0.00	0.52	0.98	0.00	0.00	0.00	4.61
360	6.61	3.00	0.00	6.82	3.24	0.00	8.22	4.34	0.54	1.02	0.00	0.55	1.01	0.00	0.00	0.00	4.82
480	7.47	3.26	0.00	7.71	3.52	0.00	9.29	4.71	0.61	1.10	0.00	0.62	1.09	0.00	0.00	0.00	5.23
540	7.90	3.38	0.00	8.15	3.65	0.00	9.83	4.89	0.64	1.14	0.00	0.66	1.13	0.00	0.00	0.00	5.42
1440	9.20	3.71	0.00	9.49	4.01	0.00	11.44	5.37	0.75	1.26	0.00	0.77	1.26	0.00	0.00	0.00	5.96

POLLUTANT NAME: CARBON MONOXIDE				UNITS: GRAMS PER TRIP													
LIGHT DUTY AUTOS				LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK URBAN BUS		MCY ALL
TIMES	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	
MIN																	
5	13.12	2.87	0.00	13.93	3.47	0.00	21.80	4.06	6.69	1.93	0.00	7.04	1.90	0.00	0.00	0.00	2.49
10	11.82	5.62	0.00	12.33	8.81	0.00	19.31	7.95	5.92	3.78	0.00	6.24	3.72	0.00	0.00	0.00	4.87
20	8.97	10.76	0.00	9.52	13.05	0.00	14.91	15.23	4.57	7.25	0.00	4.81	7.14	0.00	0.00	0.00	9.34
30	6.79	15.47	0.00	7.21	18.73	0.00	11.29	21.86	3.46	10.41	0.00	3.65	10.24	0.00	0.00	0.00	13.40
60	3.09	26.74	0.00	3.28	32.39	0.00	5.14	37.79	1.58	17.99	0.00	1.66	17.70	0.00	0.00	0.00	23.17
120	8.34	36.70	0.00	8.85	44.46	0.00	13.86	51.81	4.25	24.66	0.00	4.48	24.27	0.00	0.00	0.00	31.76
180	13.18	37.79	0.00	13.99	45.79	0.00	21.90	53.32	6.71	25.38	0.00	7.07	24.96	0.00	0.00	0.00	32.69
300	21.32	40.07	0.00	22.83	48.56	0.00	35.43	56.50	10.85	28.90	0.00	11.44	28.47	0.00	0.00	0.00	34.64
360	24.62	41.26	0.00	26.13	50.01	0.00	40.91	58.17	12.53	27.69	0.00	13.21	27.25	0.00	0.00	0.00	35.86
480	29.66	43.73	0.00	31.50	53.01	0.00	49.33	61.65	15.11	29.34	0.00	15.93	28.88	0.00	0.00	0.00	37.79
540	31.44	45.02	0.00	33.37	54.56	0.00	52.25	63.46	16.01	30.21	0.00	16.88	29.73	0.00	0.00	0.00	38.91
1440	33.55	49.07	0.00	35.72	59.47	0.00	55.92	69.20	17.13	32.94	0.00	18.06	32.42	0.00	0.00	0.00	42.43

POLLUTANT NAME: OXIDES OF NITROGEN				UNITS: GRAMS PER TRIP													
LIGHT DUTY AUTOS				LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK URBAN BUS		MCY ALL
TIMES	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	
MIN																	
5	0.75	0.15	0.00	0.75	0.22	0.00	1.14	0.24	1.29	0.47	0.00	1.98	0.46	0.00	0.00	0.00	0.04
10	0.81	0.22	0.00	0.82	0.33	0.00	1.24	0.36	1.40	0.71	0.00	1.48	0.69	0.00	0.00	0.00	0.06
20	0.93	0.34	0.00	0.94	0.51	0.00	1.42	0.57	1.61	1.13	0.00	1.70	1.09	0.00	0.00	0.00	0.09
30	1.04	0.44	0.00	1.04	0.66	0.00	1.57	0.74	1.78	1.47	0.00	1.88	1.43	0.00	0.00	0.00	0.12
60	1.25	0.61	0.00	1.26	0.91	0.00	1.80	1.02	2.15	2.03	0.00	2.27	1.97	0.00	0.00	0.00	0.16
120	1.25	0.61	0.00	1.26	0.92	0.00	1.90	1.03	2.15	2.04	0.00	2.28	1.97	0.00	0.00	0.00	0.16
180	1.22	0.61	0.00	1.23	0.91	0.00	1.86	1.02	2.10	2.03	0.00	2.22	1.97	0.00	0.00	0.00	0.16
300	1.13	0.60	0.00	1.14	0.90	0.00	1.72	1.01	1.95	2.00	0.00	2.06	1.94	0.00	0.00	0.00	0.16
360	1.07	0.59	0.00	1.08	0.89	0.00	1.63	1.00	1.85	1.86	0.00	1.95	1.92	0.00	0.00	0.00	0.16
480	0.93	0.58	0.00	0.93	0.87	0.00	1.41	0.97	1.60	1.93	0.00	1.69	1.87	0.00	0.00	0.00	0.16
540	0.84	0.57	0.00	0.84	0.85	0.00	1.28	0.96	1.44	1.90	0.00	1.53	1.84	0.00	0.00	0.00	0.15
1440	0.52	0.53	0.00	0.52	0.80	0.00	0.79	0.80	0.89	1.76	0.00	0.94	1.73	0.00	0.00	0.00	0.14

POLLUTANT NAME: CARBON DIOXIDE				UNITS: GRAMS PER TRIP													
LIGHT DUTY AUTOS				LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK URBAN BUS		MCY ALL
TIMES	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	
MIN																	
5	55.95	2.66	0.00	56.08	3.00	0.00	63.96	4.05	86.71	4.37	0.00	86.71	4.37	0.00	0.00	0.00	0.92
10	60.72	5.20	0.00	60.86	5.75	0.00	69.40	8.08	94.10	8.72	0.00	94.10	8.72	0.00	0.00	0.00	1.93
20	69.96	10.20	0.00	70.13	11.20	0.00	79.97	16.07	108.43	17.33	0.00	108.43	17.33	0.00	0.00	0.00	3.64
30	78.84	15.16	0.00	79.02	16.62	0.00	90.11	23.97	122.18	25.86	0.00	122.18	25.86	0.00	0.00	0.00	5.43
60	103.20	29.75	0.00	103.44	32.59	0.00	117.96	47.12	159.93	50.84	0.00	159.93	50.84	0.00	0.00	0.00	10.88
120	139.65	50.93	0.00	139.87	55.95	0.00	158.62	80.15	216.42	86.47	0.00	216.42	86.47	0.00	0.00	0.00	18.17
180	139.76	60.11	0.00	140.08	66.01	0.00	159.75	94.69	216.59	102.16	0.00	216.59	102.16	0.00	0.00	0.00	21.47
300	139.97	76.86	0.00	140.30	84.39	0.00	160.00	121.20	216.93	130.76	0.00	216.93	130.76	0.00	0.00	0.00	27.48
360	140.08	84.47	0.00	140.41	92.72	0.00	160.12	133.17	217.10	143.67	0.00	217.10	143.67	0.00	0.00	0.00	30.19
480	140.30	98.04	0.00	140.63	107.63	0.00	160.37	154.52	217.44	166.71	0.00	217.44	166.71	0.00	0.00	0.00	35.03
540	140.41	104.03	0.00	140.74	114.22	0.00	160.50	163.92	217.61	176.85	0.00	217.61	176.85	0.00	0.00	0.00	37.16
1440	140.74	118.80	0.00	141.07	130.51	0.00	160.88	186.94	218.12	201.69	0.00	218.12	201.69	0.00	0.00	0.00	42.38

TABLE 4: HOT SOAK EMISSION RATES IN GRAMS PER TRIP

LIGHT DUTY AUTOS				LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK URBAN BUS		MCY ALL
TIMES	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	
MIN																	
TOG	7.63	2.26	0.00	10.41	1.86	0.00	8.46	1.74	2.40	1.31	0.00	3.34	2.22	0.00	0.00	0.00	37.69

TIMES MIN	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS	MGT ALL
	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	
TOG	0.07	0.02	0.00	0.09	0.01	0.00	0.08	0.01	0.03	0.01	0.00	0.05	0.03	0.00	0.00	0.00	0.21

[illegible]

	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS	MCY
	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	ALL
% VMT	4.99	94.21	0.81	8.09	91.40	0.51	19.55	77.66	12.69	67.13	20.18	10.50	13.40	76.10	69.79	100.00	3.00
% TRIP	8.37	90.72	0.91	9.39	90.09	0.53	21.90	75.34	23.77	67.34	8.91	39.05	17.79	43.16	52.82	100.00	1.98
% VEH	8.37	90.72	0.91	9.39	90.09	0.53	21.90	75.34	22.36	59.02	18.63	30.72	13.99	55.29	83.19	100.00	1.98

[illegible][illegible]

[illegible]

LIGHT DUTY TRUCK NON-CATALYST
TEMPERATURE IN DEG F

[illegible]

TABLE 8 (CONTINUED): EVAPORATED RUNNING LOSSES IN GRAMS PER MILE

LIGHT DUTY TRUCKS CATALYST EQUIPPED
TEMPERATURE IN DEG F

[illegible]

**MEDIUM DUTY TRUCKS NON-CATALYST
TEMPERATURE IN DEG F**

[illegible]

[illegible]

MEDIUM DUTY TRUCKS CATALYST EQUIPPED
TEMPERATURE IN DEG F

[illegible]

TABLE 1: SUMMERTIME RUNNING ENHANCED I/M EXHAUST EMISSION FACTORS AT 75 DEG F

POLLUTANT NAME: REACTIVE ORGANIC GASES				UNITS: GRAMS PER MILE													HH TRUCK	URBAN BUS	MCY ALL
SPEED	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK							
MPH	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL			
5	18.44	2.38	1.94	19.57	2.77	1.76	23.47	3.37	26.32	4.10	1.78	34.57	7.18	2.10	2.53	6.45	3.74		
10	13.10	1.62	1.52	13.91	1.90	1.38	16.68	2.33	16.55	2.66	1.40	22.61	4.67	1.65	1.99	4.68	2.88		
15	9.74	1.16	1.22	10.34	1.37	1.11	12.41	1.69	11.27	1.79	1.12	15.41	3.16	1.32	1.60	3.51	2.33		
16	9.23	1.09	1.17	9.80	1.29	1.06	11.76	1.59	10.49	1.66	1.08	14.35	2.94	1.27	1.53	3.33	2.24		
20	7.57	0.86	1.00	8.04	1.03	0.91	9.65	1.28	8.00	1.25	0.92	10.95	2.22	1.09	1.31	2.73	1.98		
25	6.16	0.67	0.84	6.55	0.80	0.76	7.88	1.01	5.91	0.91	0.77	8.10	1.63	0.91	1.10	2.20	1.76		
30	5.25	0.55	0.72	5.58	0.66	0.65	6.70	0.84	4.55	0.69	0.66	6.24	1.24	0.78	0.94	1.84	1.65		
35	4.68	0.47	0.63	4.97	0.56	0.57	5.97	0.72	3.65	0.54	0.58	5.01	0.98	0.68	0.83	1.59	1.62		
40	4.37	0.42	0.57	4.64	0.50	0.51	5.58	0.66	3.05	0.45	0.52	4.20	0.81	0.61	0.74	1.42	1.68		
45	4.27	0.39	0.52	4.54	0.47	0.47	5.46	0.63	2.66	0.39	0.48	3.67	0.70	0.56	0.68	1.32	1.82		
50	4.38	0.38	0.49	4.65	0.47	0.44	5.59	0.63	2.42	0.35	0.44	3.34	0.64	0.53	0.63	1.26	2.07		
55	4.70	0.40	0.46	4.99	0.48	0.42	6.00	0.66	2.30	0.33	0.43	3.18	0.60	0.50	0.61	1.26	2.48		
60	5.28	0.43	0.45	5.61	0.52	0.41	6.74	0.73	2.29	0.33	0.42	3.15	0.60	0.49	0.59	1.29	3.11		
65	6.21	0.49	0.45	6.60	0.60	0.41	7.92	0.84	2.37	0.34	0.42	3.26	0.62	0.49	0.59	1.38	4.08		

POLLUTANT NAME: CARBON MONOXIDE				UNITS: GRAMS PER MILE													HH TRUCK	URBAN BUS	MCY ALL
SPEED	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK							
MPH	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL			
5	161.04	31.38	3.43	166.00	45.19	4.10	255.17	47.16	476.34	43.21	10.08	654.12	71.22	11.45	14.05	11.52	28.41		
10	117.38	26.04	2.36	120.99	37.14	2.83	185.98	36.78	316.92	28.75	6.95	435.19	47.38	7.90	9.68	7.25	23.55		
15	90.10	22.19	1.71	92.87	31.41	2.04	142.76	29.91	222.77	20.21	5.02	305.91	33.31	5.70	6.99	4.84	20.48		
16	85.99	21.55	1.61	88.63	30.46	1.92	136.24	28.83	208.98	18.98	4.73	288.97	31.24	5.37	6.58	4.50	20.03		
20	72.83	19.35	1.29	75.07	27.23	1.54	115.40	25.26	165.45	15.01	3.79	227.19	24.74	4.30	5.28	3.44	18.66		
25	62.00	17.22	1.02	63.91	24.14	1.22	98.24	22.07	129.82	11.78	3.00	178.27	19.41	3.40	4.17	2.59	17.80		
30	55.58	15.61	0.84	57.29	21.85	1.01	88.07	19.93	107.62	9.76	2.48	147.79	16.09	2.81	3.45	2.07	17.81		
35	52.48	14.42	0.73	54.09	20.19	0.87	83.14	18.58	94.27	8.55	2.14	129.45	14.09	2.44	2.99	1.76	18.68		
40	52.17	13.58	0.66	53.78	19.06	0.79	82.67	17.89	87.24	7.91	1.94	119.80	13.04	2.21	2.71	1.59	20.60		
45	54.63	13.05	0.63	56.31	18.40	0.75	86.56	17.65	85.30	7.74	1.84	117.13	12.75	2.09	2.57	1.52	23.90		
50	60.24	12.84	0.62	62.09	18.22	0.74	95.44	18.50	88.11	7.99	1.83	121.00	13.17	2.08	2.55	1.55	29.23		
55	69.95	12.97	0.65	72.10	18.59	0.77	110.83	20.02	98.17	8.72	1.90	132.06	14.38	2.16	2.64	1.67	37.70		
60	85.54	13.53	0.70	88.17	19.66	0.84	135.54	22.73	110.90	10.06	2.06	152.29	16.58	2.34	2.87	1.92	51.34		
65	110.17	14.76	0.80	113.55	21.71	0.95	174.58	27.22	135.12	12.26	2.35	185.54	20.20	2.66	3.27	2.33	73.61		

POLLUTANT NAME: OXIDES OF NITROGEN				UNITS: GRAMS PER MILE													HH TRUCK	URBAN BUS	MCY ALL
SPEED	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK							
MPH	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL			
5	2.96	1.43	3.00	2.88	2.30	3.14	4.55	2.49	5.17	2.46	30.81	7.33	4.57	32.15	45.04	37.82	0.97		
10	3.11	1.23	2.49	3.13	1.96	2.60	4.78	2.19	5.43	2.58	25.58	7.70	4.80	26.67	37.37	28.93	0.98		
15	3.27	1.09	2.14	3.29	1.71	2.24	5.02	1.99	5.69	2.71	21.97	8.07	5.04	22.93	32.12	23.26	1.00		
16	3.30	1.07	2.08	3.32	1.68	2.18	5.07	1.96	5.75	2.73	21.41	8.15	5.08	22.34	31.30	22.40	1.01		
20	3.42	0.99	1.90	3.45	1.54	1.99	5.26	1.85	5.96	2.83	19.57	8.44	5.27	20.42	28.61	19.66	1.03		
25	3.59	0.93	1.76	3.61	1.43	1.84	5.51	1.76	6.22	2.96	18.06	8.81	5.50	18.85	26.40	17.47	1.06		
30	3.75	0.88	1.68	3.78	1.35	1.76	5.77	1.71	6.48	3.08	17.27	9.19	5.73	18.02	25.25	16.33	1.09		
35	3.92	0.86	1.66	3.95	1.31	1.74	6.02	1.69	6.74	3.21	17.11	9.58	5.98	17.86	25.02	16.03	1.13		
40	4.09	0.85	1.71	4.11	1.30	1.79	6.28	1.70	7.00	3.33	17.57	9.93	6.19	18.33	25.68	16.56	1.16		
45	4.26	0.86	1.82	4.29	1.32	1.90	6.54	1.73	7.27	3.46	18.69	10.30	6.43	19.50	27.32	17.97	1.21		
50	4.43	0.89	2.00	4.46	1.36	2.10	6.80	1.79	7.53	3.58	20.60	10.67	6.66	21.49	30.11	20.51	1.25		
55	4.60	0.93	2.29	4.63	1.44	2.39	7.07	1.88	7.79	3.70	23.52	11.04	6.89	24.54	34.38	24.60	1.30		
60	4.77	1.00	2.71	4.80	1.55	2.63	7.33	2.00	8.05	3.83	27.83	11.42	7.12	29.04	40.68	31.02	1.35		
65	4.94	1.09	3.32	4.98	1.71	3.47	7.60	2.18	8.31	3.95	34.12	11.79	7.35	35.60	49.68	41.13	1.40		

TABLE 1 (CONTINUED): SUMMERTIME RUNNING ENHANCED I/M EXHAUST EMISSION FACTORS AT 75 DEG F

POLLUTANT NAME: CARBON DIOXIDE				UNITS: GRAMS PER MILE													HH TRUCK	URBAN BUS	MCY ALL
SPEED	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			DIESEL				
MPH	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL		DIESEL			
5	1,278.74	1,023.98	433.76	1,298.57	1,137.07	437.88	1,510.44	1,697.12	2,513.51	2,513.51	1,956.39	2,513.51	2,513.51	1,952.63	1,984.20	2,060.74	234.60		
10	968.29	773.78	433.76	981.27	859.68	437.88	1,141.37	1,282.44	1,672.27	1,672.27	1,956.39	1,672.27	1,672.27	1,952.63	1,984.20	2,060.74	189.11		
15	757.85	606.87	433.76	769.61	674.24	437.88	895.17	1,005.81	1,175.49	1,175.49	1,956.39	1,175.49	1,175.49	1,952.63	1,984.20	2,060.74	172.39		
18	725.14	580.67	433.76	736.38	645.14	437.88	856.52	962.39	1,102.72	1,102.72	1,956.39	1,102.72	1,102.72	1,952.63	1,984.20	2,060.74	167.89		
20	616.91	484.00	433.76	626.47	548.95	437.88	728.88	818.75	873.00	873.00	1,956.39	873.00	873.00	1,952.63	1,984.20	2,060.74	152.24		
25	521.21	417.37	433.76	529.29	463.71	437.88	615.64	691.74	685.01	685.01	1,956.39	685.01	685.01	1,952.63	1,984.20	2,060.74	137.14		
30	457.04	365.99	433.76	464.13	406.62	437.88	539.85	608.58	567.89	567.89	1,956.39	567.89	567.89	1,952.63	1,984.20	2,060.74	126.04		
35	415.97	333.10	433.76	422.42	370.09	437.88	491.34	552.06	497.42	497.42	1,956.39	497.42	497.42	1,952.63	1,984.20	2,060.74	118.25		
40	392.93	314.65	433.76	399.02	349.58	437.88	464.13	521.49	460.33	460.33	1,956.39	460.33	460.33	1,952.63	1,984.20	2,060.74	113.35		
45	385.24	308.49	433.76	391.21	342.74	437.88	455.04	511.28	450.08	450.08	1,956.39	450.08	450.08	1,952.63	1,984.20	2,060.74	111.13		
50	392.01	313.91	433.76	398.09	348.76	437.88	463.04	520.27	464.95	464.95	1,956.39	464.95	464.95	1,952.63	1,984.20	2,060.74	111.60		
55	414.02	331.54	433.76	420.44	368.35	437.88	489.04	549.48	507.47	507.47	1,956.39	507.47	507.47	1,952.63	1,984.20	2,060.74	115.04		
60	453.84	363.43	433.76	460.88	403.77	437.88	536.07	602.33	585.19	585.19	1,956.39	585.19	585.19	1,952.63	1,984.20	2,060.74	122.01		
65	516.35	413.48	433.76	524.35	459.38	437.88	609.90	685.29	712.97	712.97	1,956.39	712.97	712.97	1,952.63	1,984.20	2,060.74	133.55		

POLLUTANT NAME: EXHAUST PARTICULATES, PMEX10						UNITS: GRAMS PER MILE													HH TRUCK	URBAN BUS	MCY
SPEED			LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS			LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK						
MPH	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	DIESEL				
5	0.17	0.03	0.05	0.17	0.06	0.05	0.18	0.07	0.17	0.03	5.01	0.17	0.02	5.20	6.74	1.55	0.00				
10	0.12	0.02	0.51	0.12	0.04	0.51	0.13	0.05	0.11	0.02	3.93	0.11	0.01	4.08	5.29	1.12	0.00				
15	0.09	0.01	0.41	0.09	0.03	0.41	0.09	0.03	0.08	0.01	3.18	0.08	0.01	3.28	4.25	0.85	0.00				
16	0.09	0.01	0.39	0.09	0.02	0.39	0.08	0.03	0.07	0.01	3.03	0.07	0.01	3.14	4.08	0.80	0.00				
20	0.07	0.01	0.33	0.07	0.02	0.34	0.07	0.03	0.05	0.01	2.59	0.05	0.01	2.69	3.48	0.66	0.00				
25	0.06	0.01	0.28	0.06	0.02	0.28	0.06	0.02	0.04	0.01	2.17	0.04	0.00	2.25	2.92	0.53	0.00				
30	0.05	0.01	0.24	0.05	0.01	0.24	0.05	0.02	0.03	0.01	1.88	0.03	0.00	1.93	2.51	0.44	0.00				
35	0.04	0.01	0.21	0.04	0.01	0.21	0.05	0.01	0.03	0.00	1.63	0.03	0.00	1.69	2.20	0.38	0.00				
40	0.04	0.01	0.19	0.04	0.01	0.19	0.04	0.01	0.02	0.00	1.46	0.02	0.00	1.52	1.97	0.34	0.00				
45	0.04	0.01	0.17	0.04	0.01	0.17	0.04	0.01	0.02	0.00	1.34	0.02	0.00	1.39	1.80	0.32	0.00				
50	0.04	0.01	0.16	0.04	0.01	0.16	0.04	0.01	0.02	0.00	1.25	0.02	0.00	1.30	1.69	0.30	0.00				
55	0.04	0.01	0.15	0.04	0.01	0.16	0.05	0.01	0.02	0.00	1.20	0.02	0.00	1.24	1.61	0.30	0.00				
60	0.05	0.01	0.15	0.05	0.01	0.15	0.05	0.01	0.02	0.00	1.17	0.02	0.00	1.22	1.58	0.31	0.00				
65	0.06	0.01	0.15	0.06	0.01	0.15	0.06	0.02	0.02	0.00	1.17	0.02	0.00	1.22	1.58	0.33	0.00				

POLLUTANT NAME: TIRE WEAR PARTICULATES, PMTW10							UNITS: GRAMS PER MILE											HH TRUCK	URBAN BUS	MCY
SPEED	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			DIESEL	DIESEL				
MPH	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL						
ALL	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.04	0.01	0.00			

POLLUTANT NAME: BRAKE WEAR PARTICULATES, PMBW10							UNITS: GRAMS PER MILE											HH TRUCK	URBAN BUS	MCY ALL
SPEED	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK								
MPH	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL				
ALL	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.03	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01				

TABLE 2: VARIABLE START EMISSION RATES IN GRAMS PER TRIP

POLLUTANT NAME: REACTIVE ORGANIC GASES				UNITS: GRAMS PER TRIP													HH TRUCK	URBAN BUS	MCY
TIMES	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			DIESEL	DIESEL			
MIN	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	ALL		
5	1.63	0.11	0.00	1.69	0.12	0.00	2.03	0.15	0.28	0.08	0.00	0.29	0.08	0.00	0.00	0.00	0.14		
10	1.62	0.21	0.00	1.67	0.23	0.00	2.02	0.28	0.28	0.15	0.00	0.29	0.15	0.00	0.00	0.00	0.26		
20	1.84	0.40	0.00	1.89	0.43	0.00	2.03	0.54	0.28	0.29	0.00	0.29	0.29	0.00	0.00	0.00	0.50		
30	1.71	0.58	0.00	1.76	0.61	0.00	2.13	0.76	0.29	0.41	0.00	0.30	0.41	0.00	0.00	0.00	0.71		
60	2.11	0.93	0.00	2.18	1.00	0.00	2.83	1.26	0.36	0.88	0.00	0.37	0.67	0.00	0.00	0.00	1.17		
120	2.32	1.14	0.00	2.39	1.23	0.00	2.88	1.53	0.40	0.83	0.00	0.41	0.82	0.00	0.00	0.00	1.43		
180	2.52	1.21	0.00	2.80	1.30	0.00	3.14	1.63	0.43	0.88	0.00	0.44	0.87	0.00	0.00	0.00	1.52		

300	2.93	1.34	0.00	3.02	1.44	0.00	3.65	1.80	0.50	0.97	0.00	0.52	0.86	0.00	0.00	0.00	1.88
360	3.14	1.41	0.00	3.24	1.51	0.00	3.90	1.89	0.54	1.02	0.00	0.55	1.01	0.00	0.00	0.00	1.76
480	3.55	1.53	0.00	3.66	1.64	0.00	4.41	2.05	0.61	1.10	0.00	0.62	1.09	0.00	0.00	0.00	1.91
540	3.75	1.58	0.00	3.87	1.70	0.00	4.67	2.13	0.64	1.14	0.00	0.66	1.13	0.00	0.00	0.00	1.98
1440	4.37	1.74	0.00	4.51	1.87	0.00	5.43	2.33	0.75	1.28	0.00	0.77	1.25	0.00	0.00	0.00	2.18

POLLUTANT NAME: CARBON MONOXIDE				UNITS: GRAMS PER TRIP													
TIMES MIN	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS	MCY
	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	ALL
5	13.12	1.22	0.00	13.93	1.47	0.00	21.80	1.85	6.68	1.93	0.00	7.04	1.90	0.00	0.00	0.00	0.79
10	11.62	2.39	0.00	12.33	2.88	0.00	19.31	3.24	5.92	3.78	0.00	6.24	3.72	0.00	0.00	0.00	1.54
20	8.97	4.58	0.00	9.52	5.53	0.00	14.91	6.21	4.57	7.25	0.00	4.81	7.14	0.00	0.00	0.00	2.95
30	6.79	6.57	0.00	7.21	7.93	0.00	11.29	8.91	3.48	10.41	0.00	3.65	10.24	0.00	0.00	0.00	4.23
60	3.09	11.35	0.00	3.28	13.72	0.00	5.14	15.41	1.58	17.99	0.00	1.66	17.70	0.00	0.00	0.00	7.31
120	8.34	15.58	0.00	8.85	18.83	0.00	13.86	21.12	4.25	24.66	0.00	4.48	24.27	0.00	0.00	0.00	10.02
180	13.18	16.05	0.00	13.99	19.40	0.00	21.90	21.74	6.71	25.38	0.00	7.07	24.88	0.00	0.00	0.00	10.32
300	21.32	17.02	0.00	22.83	20.57	0.00	35.43	23.03	10.85	28.90	0.00	11.44	28.47	0.00	0.00	0.00	10.93
360	24.62	17.52	0.00	26.13	21.18	0.00	40.91	23.71	12.53	27.89	0.00	13.21	27.25	0.00	0.00	0.00	11.25
480	29.88	18.57	0.00	31.50	22.46	0.00	49.33	25.13	15.11	29.34	0.00	15.93	28.88	0.00	0.00	0.00	11.93
540	31.44	19.12	0.00	33.37	23.12	0.00	52.25	25.87	16.01	30.21	0.00	16.88	29.73	0.00	0.00	0.00	12.28
1440	33.65	20.84	0.00	35.72	25.19	0.00	55.92	28.21	17.13	32.94	0.00	18.06	32.42	0.00	0.00	0.00	13.39

POLLUTANT NAME: OXIDES OF NITROGEN				UNITS: GRAMS PER TRIP													
TIMES MIN	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS	MCY
	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	ALL
5	0.82	0.12	0.00	0.82	0.18	0.00	0.84	0.20	1.29	0.47	0.00	1.36	0.46	0.00	0.00	0.00	0.03
10	0.87	0.18	0.00	0.88	0.27	0.00	1.02	0.30	1.40	0.71	0.00	1.48	0.69	0.00	0.00	0.00	0.05
20	0.77	0.28	0.00	0.78	0.43	0.00	1.17	0.47	1.61	1.13	0.00	1.70	1.09	0.00	0.00	0.00	0.08
30	0.85	0.37	0.00	0.86	0.55	0.00	1.30	0.61	1.78	1.47	0.00	1.88	1.43	0.00	0.00	0.00	0.10
60	1.03	0.50	0.00	1.04	0.76	0.00	1.57	0.85	2.15	2.03	0.00	2.27	1.97	0.00	0.00	0.00	0.14
120	1.03	0.51	0.00	1.04	0.76	0.00	1.57	0.85	2.15	2.04	0.00	2.28	1.97	0.00	0.00	0.00	0.14
180	1.01	0.50	0.00	1.02	0.76	0.00	1.53	0.85	2.10	2.03	0.00	2.22	1.97	0.00	0.00	0.00	0.14
300	0.93	0.50	0.00	0.94	0.75	0.00	1.42	0.84	1.95	2.00	0.00	2.06	1.94	0.00	0.00	0.00	0.14
360	0.89	0.49	0.00	0.89	0.74	0.00	1.35	0.83	1.85	1.98	0.00	1.95	1.92	0.00	0.00	0.00	0.14
480	0.76	0.48	0.00	0.77	0.72	0.00	1.16	0.81	1.60	1.93	0.00	1.69	1.87	0.00	0.00	0.00	0.13
540	0.69	0.47	0.00	0.70	0.71	0.00	1.05	0.79	1.44	1.90	0.00	1.53	1.84	0.00	0.00	0.00	0.13
1440	0.43	0.44	0.00	0.43	0.66	0.00	0.95	0.75	0.99	1.78	0.00	0.94	1.73	0.00	0.00	0.00	0.12

POLLUTANT NAME: CARBON DIOXIDE				UNITS: GRAMS PER TRIP													
TIMES MIN	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS	MCY
	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	ALL
5	55.95	2.88	0.00	56.08	3.00	0.00	63.96	4.05	88.71	4.37	0.00	86.71	4.37	0.00	0.00	0.00	0.92
10	60.72	5.20	0.00	60.86	5.75	0.00	69.40	8.08	94.10	8.72	0.00	94.10	8.72	0.00	0.00	0.00	1.83
20	69.98	10.20	0.00	70.13	11.20	0.00	79.97	16.07	108.43	17.33	0.00	108.43	17.33	0.00	0.00	0.00	3.64
30	78.84	15.16	0.00	79.02	16.82	0.00	90.11	23.97	122.18	25.86	0.00	122.18	25.86	0.00	0.00	0.00	5.43
60	103.20	29.75	0.00	103.44	32.59	0.00	117.96	47.12	159.93	50.84	0.00	159.93	50.84	0.00	0.00	0.00	10.68
120	139.65	59.93	0.00	139.97	55.85	0.00	159.62	80.15	218.42	86.47	0.00	218.42	86.47	0.00	0.00	0.00	18.17
180	139.76	60.11	0.00	140.08	66.01	0.00	159.75	94.89	216.59	102.16	0.00	216.59	102.16	0.00	0.00	0.00	21.47
300	139.97	76.88	0.00	140.30	84.39	0.00	160.00	121.20	216.93	130.78	0.00	216.93	130.78	0.00	0.00	0.00	27.48
360	140.08	84.47	0.00	140.41	92.72	0.00	160.12	133.17	217.10	143.67	0.00	217.10	143.67	0.00	0.00	0.00	30.19
480	140.30	98.04	0.00	140.63	107.63	0.00	160.37	154.52	217.44	168.71	0.00	217.44	166.71	0.00	0.00	0.00	35.03
540	140.41	104.03	0.00	140.74	114.22	0.00	160.50	163.92	217.61	176.85	0.00	217.61	176.85	0.00	0.00	0.00	37.16
1440	140.74	118.80	0.00	141.07	130.51	0.00	160.88	186.94	218.12	201.69	0.00	218.12	201.69	0.00	0.00	0.00	42.38

TABLE 4: HOT SOAK EMISSION RATES IN GRAMS PER TRIP

TIMES MIN	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS	MCY
	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	ALL
TOG	3.76	1.35	0.00	5.19	1.02	0.00	4.23	0.99	1.24	0.88	0.00	1.73	1.43	0.00	0.00	0.00	29.12

TABLE 5: JOURNAL EMISSION RATES IN GRAMS PER HOUR

TIMES MIN	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS	MCY ALL
	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	
TOG	1.26	0.43	0.00	1.67	0.36	0.00	1.34	0.35	0.57	0.48	0.00	0.88	0.75	0.00	0.00	0.00	10.20

TABLE 6: RESTING LOSSES IN GRAMS PER HOUR

POLLUTANT NAME: REACTIVE ORGANIC GASES

TEMP DEG F	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS	MCY ALL
	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	
30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
75	0.62	0.13	0.00	0.83	0.11	0.00	0.67	0.10	0.28	0.15	0.00	0.42	0.25	0.00	0.00	0.00	0.00
85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
110	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 7: ESTIMATED TRAVEL FRACTIONS

	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS	MCY ALL
	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	
% VMT	4.99	94.21	0.81	8.09	91.40	0.51	19.55	77.86	12.69	67.13	20.18	10.50	13.40	78.10	89.79	100.00	3.00
% TRIP	8.37	90.72	0.91	9.39	90.09	0.53	21.90	75.34	23.77	67.34	8.91	39.05	17.79	43.16	52.62	100.00	1.98
% VEH	8.37	90.72	0.91	9.39	90.09	0.53	21.90	75.34	22.36	59.02	18.63	30.72	13.99	55.29	83.19	100.00	1.98

100.00

TABLE 8: EVAPORATED RUNNING LOSSES IN GRAMS PER MILE

LIGHT DUTY AUTOS NON-CATALYST TEMPERATURE IN DEG F												
SPEED MPH	30	40	50	60	70	75	85	90	95	100	105	110
5	0.000	0.000	0.000	0.000	0.000	4.655	0.000	0.000	0.000	0.000	0.000	0.000
10	0.000	0.000	0.000	0.000	0.000	4.625	0.000	0.000	0.000	0.000	0.000	0.000
15	0.000	0.000	0.000	0.000	0.000	4.596	0.000	0.000	0.000	0.000	0.000	0.000
18	0.000	0.000	0.000	0.000	0.000	5.709	0.000	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000	5.673	0.000	0.000	0.000	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000	0.000	8.798	0.000	0.000	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	0.000	10.670	0.000	0.000	0.000	0.000	0.000	0.000
35	0.000	0.000	0.000	0.000	0.000	11.840	0.000	0.000	0.000	0.000	0.000	0.000
40	0.000	0.000	0.000	0.000	0.000	12.582	0.000	0.000	0.000	0.000	0.000	0.000
45	0.000	0.000	0.000	0.000	0.000	13.048	0.000	0.000	0.000	0.000	0.000	0.000
50	0.000	0.000	0.000	0.000	0.000	13.329	0.000	0.000	0.000	0.000	0.000	0.000
55	0.000	0.000	0.000	0.000	0.000	13.480	0.000	0.000	0.000	0.000	0.000	0.000
60	0.000	0.000	0.000	0.000	0.000	13.541	0.000	0.000	0.000	0.000	0.000	0.000
65	0.000	0.000	0.000	0.000	0.000	13.534	0.000	0.000	0.000	0.000	0.000	0.000
LIGHT DUTY AUTOS CATALYST EQUIPPED TEMPERATURE IN DEG F												
SPEED MPH	30	40	50	60	70	75	85	90	95	100	105	110
5	0.000	0.000	0.000	0.000	0.000	1.396	0.000	0.000	0.000	0.000	0.000	0.000

10	0.000	0.000	0.000	0.000	0.000	0.952	0.000	0.000	0.000	0.000	0.000	0.000
15	0.000	0.000	0.000	0.000	0.000	0.823	0.000	0.000	0.000	0.000	0.000	0.000
16	0.000	0.000	0.000	0.000	0.000	0.985	0.000	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000	0.970	0.000	0.000	0.000	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000	0.000	1.594	0.000	0.000	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	0.000	2.119	0.000	0.000	0.000	0.000	0.000	0.000
35	0.000	0.000	0.000	0.000	0.000	2.580	0.000	0.000	0.000	0.000	0.000	0.000
40	0.000	0.000	0.000	0.000	0.000	2.988	0.000	0.000	0.000	0.000	0.000	0.000
45	0.000	0.000	0.000	0.000	0.000	3.346	0.000	0.000	0.000	0.000	0.000	0.000
50	0.000	0.000	0.000	0.000	0.000	3.618	0.000	0.000	0.000	0.000	0.000	0.000
55	0.000	0.000	0.000	0.000	0.000	3.744	0.000	0.000	0.000	0.000	0.000	0.000
60	0.000	0.000	0.000	0.000	0.000	3.768	0.000	0.000	0.000	0.000	0.000	0.000
65	0.000	0.000	0.000	0.000	0.000	3.746	0.000	0.000	0.000	0.000	0.000	0.000

LIGHT DUTY TRUCK NON-CATALYST
TEMPERATURE IN DEG F

SPEED MPH	30	40	50	60	70	75	85	90	95	100	105	110
5	0.000	0.000	0.000	0.000	0.000	10.031	0.000	0.000	0.000	0.000	0.000	0.000
10	0.000	0.000	0.000	0.000	0.000	8.719	0.000	0.000	0.000	0.000	0.000	0.000
15	0.000	0.000	0.000	0.000	0.000	5.772	0.000	0.000	0.000	0.000	0.000	0.000
16	0.000	0.000	0.000	0.000	0.000	6.814	0.000	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000	6.755	0.000	0.000	0.000	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000	0.000	10.493	0.000	0.000	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	0.000	12.732	0.000	0.000	0.000	0.000	0.000	0.000
35	0.000	0.000	0.000	0.000	0.000	14.131	0.000	0.000	0.000	0.000	0.000	0.000
40	0.000	0.000	0.000	0.000	0.000	15.018	0.000	0.000	0.000	0.000	0.000	0.000
45	0.000	0.000	0.000	0.000	0.000	15.677	0.000	0.000	0.000	0.000	0.000	0.000
50	0.000	0.000	0.000	0.000	0.000	15.872	0.000	0.000	0.000	0.000	0.000	0.000
55	0.000	0.000	0.000	0.000	0.000	15.989	0.000	0.000	0.000	0.000	0.000	0.000
60	0.000	0.000	0.000	0.000	0.000	16.011	0.000	0.000	0.000	0.000	0.000	0.000
65	0.000	0.000	0.000	0.000	0.000	15.963	0.000	0.000	0.000	0.000	0.000	0.000

TABLE 8 (CONTINUED): EVAPORATED RUNNING LOSSES IN GRAMS PER MILE

LIGHT DUTY TRUCKS CATALYST EQUIPPED
TEMPERATURE IN DEG F

SPEED MPH	30	40	50	60	70	75	85	90	95	100	105	110
5	0.000	0.000	0.000	0.000	0.000	3.805	0.000	0.000	0.000	0.000	0.000	0.000
10	0.000	0.000	0.000	0.000	0.000	2.011	0.000	0.000	0.000	0.000	0.000	0.000
15	0.000	0.000	0.000	0.000	0.000	1.441	0.000	0.000	0.000	0.000	0.000	0.000
16	0.000	0.000	0.000	0.000	0.000	1.487	0.000	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000	1.301	0.000	0.000	0.000	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000	0.000	1.611	0.000	0.000	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	0.000	1.991	0.000	0.000	0.000	0.000	0.000	0.000
35	0.000	0.000	0.000	0.000	0.000	2.372	0.000	0.000	0.000	0.000	0.000	0.000
40	0.000	0.000	0.000	0.000	0.000	2.682	0.000	0.000	0.000	0.000	0.000	0.000
45	0.000	0.000	0.000	0.000	0.000	2.829	0.000	0.000	0.000	0.000	0.000	0.000
50	0.000	0.000	0.000	0.000	0.000	2.821	0.000	0.000	0.000	0.000	0.000	0.000
55	0.000	0.000	0.000	0.000	0.000	2.791	0.000	0.000	0.000	0.000	0.000	0.000
60	0.000	0.000	0.000	0.000	0.000	2.745	0.000	0.000	0.000	0.000	0.000	0.000
65	0.000	0.000	0.000	0.000	0.000	2.688	0.000	0.000	0.000	0.000	0.000	0.000

MEDIUM DUTY TRUCKS NON-CATALYST
TEMPERATURE IN DEG F

SPEED MPH	30	40	50	60	70	75	85	90	95	100	105	110
5	0.000	0.000	0.000	0.000	0.000	8.341	0.000	0.000	0.000	0.000	0.000	0.000
10	0.000	0.000	0.000	0.000	0.000	5.335	0.000	0.000	0.000	0.000	0.000	0.000
15	0.000	0.000	0.000	0.000	0.000	4.439	0.000	0.000	0.000	0.000	0.000	0.000
16	0.000	0.000	0.000	0.000	0.000	5.159	0.000	0.000	0.000	0.000	0.000	0.000

20	0.000	0.000	0.000	0.000	0.000	5.118	0.000	0.000	0.000	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000	0.000	7.972	0.000	0.000	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	0.000	9.682	0.000	0.000	0.000	0.000	0.000	0.000
35	0.000	0.000	0.000	0.000	0.000	10.750	0.000	0.000	0.000	0.000	0.000	0.000
40	0.000	0.000	0.000	0.000	0.000	11.429	0.000	0.000	0.000	0.000	0.000	0.000
45	0.000	0.000	0.000	0.000	0.000	11.956	0.000	0.000	0.000	0.000	0.000	0.000
50	0.000	0.000	0.000	0.000	0.000	12.075	0.000	0.000	0.000	0.000	0.000	0.000
55	0.000	0.000	0.000	0.000	0.000	12.154	0.000	0.000	0.000	0.000	0.000	0.000
60	0.000	0.000	0.000	0.000	0.000	12.163	0.000	0.000	0.000	0.000	0.000	0.000
65	0.000	0.000	0.000	0.000	0.000	12.121	0.000	0.000	0.000	0.000	0.000	0.000

MEDIUM DUTY TRUCKS CATALYST EQUIPPED
TEMPERATURE IN DEG F

SPEED MPH	30	40	50	60	70	75	85	90	95	100	105	110
5	0.000	0.000	0.000	0.000	0.000	4.639	0.000	0.000	0.000	0.000	0.000	0.000
10	0.000	0.000	0.000	0.000	0.000	2.168	0.000	0.000	0.000	0.000	0.000	0.000
15	0.000	0.000	0.000	0.000	0.000	1.569	0.000	0.000	0.000	0.000	0.000	0.000
16	0.000	0.000	0.000	0.000	0.000	1.623	0.000	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000	1.421	0.000	0.000	0.000	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000	0.000	1.723	0.000	0.000	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	0.000	2.062	0.000	0.000	0.000	0.000	0.000	0.000
35	0.000	0.000	0.000	0.000	0.000	2.427	0.000	0.000	0.000	0.000	0.000	0.000
40	0.000	0.000	0.000	0.000	0.000	2.719	0.000	0.000	0.000	0.000	0.000	0.000
45	0.000	0.000	0.000	0.000	0.000	2.847	0.000	0.000	0.000	0.000	0.000	0.000
50	0.000	0.000	0.000	0.000	0.000	2.641	0.000	0.000	0.000	0.000	0.000	0.000
55	0.000	0.000	0.000	0.000	0.000	2.615	0.000	0.000	0.000	0.000	0.000	0.000
60	0.000	0.000	0.000	0.000	0.000	2.774	0.000	0.000	0.000	0.000	0.000	0.000
65	0.000	0.000	0.000	0.000	0.000	2.722	0.000	0.000	0.000	0.000	0.000	0.000

TABLE 1: SUMMERTIME RUNNING ENHANCED I/M EXHAUST EMISSION FACTORS AT 75 DEG F

POLLUTANT NAME: REACTIVE ORGANIC GASES							UNITS: GRAMS PER MILE													
SPEED	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS	MCV			
MPH	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	ALL			
5	20.24	0.77	2.28	21.45	1.15	1.88	25.01	1.54	26.70	2.44	0.58	34.69	6.43	1.66	2.21	6.18	3.42			
10	14.38	0.50	1.78	15.25	0.77	1.48	17.78	1.03	17.48	1.57	0.46	22.70	4.18	1.30	1.73	4.49	2.62			
15	10.69	0.35	1.43	11.34	0.54	1.19	13.23	0.72	11.89	1.05	0.37	15.47	2.83	1.04	1.39	3.37	2.12			
16	10.13	0.32	1.37	10.74	0.50	1.14	12.53	0.68	11.07	0.97	0.35	14.40	2.83	1.00	1.33	3.20	2.04			
20	8.32	0.25	1.17	8.82	0.40	0.97	10.29	0.53	8.44	0.73	0.30	10.99	1.99	0.86	1.14	2.62	1.79			
25	6.77	0.19	0.98	7.18	0.31	0.82	8.38	0.41	6.24	0.52	0.25	8.13	1.45	0.72	0.96	2.11	1.59			
30	5.77	0.15	0.84	6.12	0.25	0.70	7.14	0.33	4.80	0.39	0.22	6.27	1.10	0.62	0.82	1.76	1.49			
35	5.14	0.13	0.74	5.45	0.21	0.61	6.37	0.28	3.85	0.31	0.19	5.03	0.87	0.54	0.72	1.52	1.46			
40	4.80	0.11	0.68	5.09	0.19	0.55	5.85	0.25	3.22	0.25	0.17	4.22	0.72	0.48	0.64	1.38	1.51			
45	4.70	0.11	0.60	4.98	0.17	0.50	5.82	0.24	2.81	0.22	0.15	3.68	0.62	0.44	0.59	1.28	1.64			
50	4.81	0.11	0.57	5.10	0.17	0.47	5.96	0.24	2.58	0.20	0.14	3.35	0.58	0.41	0.55	1.21	1.87			
55	5.16	0.11	0.54	5.48	0.18	0.45	6.40	0.25	2.43	0.19	0.14	3.19	0.53	0.40	0.53	1.21	2.24			
60	5.80	0.12	0.53	6.15	0.19	0.44	7.19	0.27	2.41	0.18	0.14	3.16	0.53	0.39	0.52	1.24	2.81			
65	6.82	0.14	0.53	7.24	0.22	0.44	8.45	0.31	2.50	0.19	0.14	3.27	0.55	0.39	0.52	1.32	3.89			

POLLUTANT NAME: CARBON MONOXIDE							UNITS: GRAMS PER MILE													
SPEED	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS	MCV			
MPH	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	ALL			
5	169.44	9.96	3.52	169.17	17.78	4.06	252.89	18.20	480.41	36.77	7.88	632.21	65.65	8.32	11.25	8.84	25.90			
10	123.50	6.83	2.42	123.30	15.05	2.80	184.18	14.97	319.62	24.46	5.43	420.62	43.81	5.74	7.75	5.58	21.50			
15	94.80	7.81	1.75	94.65	13.02	2.02	141.37	12.70	224.67	17.20	3.92	295.67	30.79	4.14	5.60	3.72	18.71			
16	90.47	7.43	1.65	90.33	12.68	1.90	134.92	12.33	210.76	15.13	3.89	277.36	28.89	3.90	5.27	3.48	18.30			
20	76.63	6.79	1.32	76.51	11.48	1.52	114.28	11.06	166.86	12.77	2.96	219.58	22.87	3.13	4.23	2.64	17.05			
25	65.23	6.14	1.04	65.13	10.29	1.20	97.28	9.85	130.93	10.02	2.34	172.30	17.94	2.47	3.34	1.99	16.26			
30	58.48	5.81	0.86	58.39	9.36	1.00	87.21	8.95	108.54	8.31	1.94	142.84	14.66	2.04	2.76	1.59	16.25			
35	55.21	5.18	0.75	55.12	8.64	0.86	82.34	8.30	95.07	7.28	1.68	125.11	13.03	1.77	2.39	1.35	17.03			
40	54.89	4.84	0.68	54.81	8.10	0.78	81.88	7.86	87.98	6.73	1.52	115.78	12.06	1.60	2.17	1.22	18.74			
45	57.48	4.57	0.64	57.39	7.72	0.74	85.72	7.60	86.02	6.58	1.44	113.21	11.79	1.52	2.05	1.17	21.71			
50	63.38	4.37	0.64	63.28	7.49	0.74	94.52	7.55	88.87	6.80	1.43	118.95	12.18	1.51	2.04	1.19	26.50			
55	73.60	4.25	0.68	73.48	7.43	0.78	109.76	7.74	96.99	7.42	1.48	127.64	13.29	1.57	2.12	1.28	34.14			
60	90.00	4.21	0.72	89.88	7.57	0.83	134.22	8.24	111.85	8.56	1.61	147.19	15.33	1.70	2.30	1.47	46.43			
65	115.91	4.29	0.82	115.73	7.99	0.94	172.86	9.19	136.27	10.43	1.83	179.33	18.68	1.94	2.62	1.79	66.68			

POLLUTANT NAME: OXIDES OF NITROGEN							UNITS: GRAMS PER MILE													
SPEED	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS	MCV			
MPH	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	ALL			
5	2.87	0.47	3.16	2.93	0.99	3.25	4.27	1.40	5.11	1.61	18.80	7.10	4.31	17.81	23.17	29.39	0.89			
10	3.12	0.40	2.62	3.08	0.84	2.70	4.49	1.21	5.37	1.69	15.68	7.46	4.53	14.78	19.23	22.48	0.90			
15	3.28	0.36	2.25	3.24	0.73	2.32	4.72	1.06	5.62	1.77	13.48	7.82	4.76	12.70	16.53	18.07	0.92			
16	3.31	0.35	2.20	3.27	0.71	2.26	4.78	1.04	5.68	1.79	13.13	7.89	4.79	12.38	16.10	17.41	0.92			
20	3.44	0.32	2.01	3.40	0.68	2.07	4.95	0.96	5.88	1.85	12.00	8.18	4.98	11.31	14.72	15.28	0.94			
25	3.60	0.30	1.85	3.56	0.60	1.91	5.18	0.89	6.14	1.94	11.08	8.54	5.18	10.44	13.59	13.58	0.97			
30	3.76	0.28	1.77	3.72	0.57	1.82	5.42	0.85	6.40	2.02	10.59	8.90	5.40	9.98	12.99	12.69	1.00			
35	3.93	0.27	1.76	3.88	0.54	1.81	5.66	0.82	6.68	2.10	10.50	9.26	5.62	9.88	12.87	12.46	1.03			
40	4.10	0.26	1.80	4.05	0.53	1.85	5.90	0.81	6.92	2.18	10.78	9.62	5.84	10.15	13.21	12.87	1.06			
45	4.27	0.28	1.92	4.22	0.54	1.97	6.15	0.81	7.18	2.26	11.46	9.98	6.06	10.80	14.08	13.96	1.10			
50	4.44	0.27	2.11	4.39	0.55	2.17	6.39	0.83	7.44	2.34	12.63	10.34	6.27	11.90	15.48	15.94	1.14			
55	4.81	0.28	2.41	4.56	0.58	2.48	6.84	0.87	7.70	2.43	14.43	10.70	6.49	13.59	17.69	19.12	1.18			
60	4.79	0.29	2.85	4.73	0.62	2.94	6.89	0.93	7.95	2.51	17.07	11.06	6.71	16.09	20.93	24.11	1.23			
65	4.96	0.32	3.50	4.90	0.68	3.80	7.14	1.02	8.21	2.59	20.93	11.42	6.93	19.72	25.66	31.96	1.28			

TABLE 1 (CONTINUED): SUMMERTIME RUNNING ENHANCED /M EXHAUST EMISSION FACTORS AT 75 DEG F

POLLUTANT NAME: CARBON DIOXIDE				UNITS: GRAMS PER MILE														
SPEED MPH	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS	MCY ALL	
	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL		
5	1279.76	928.57	427.77	1290.13	1133.51	423.13	1525.04	1646.74	2513.51	2513.51	1764.71	2513.51	2513.51	1744.35	1775.38	1837.78	236.08	
10	967.05	700.16	427.77	980.93	856.54	423.13	1152.40	1244.36	1672.27	1672.27	1784.71	1672.27	1672.27	1744.35	1775.38	1837.78	200.15	
15	758.45	549.13	427.77	769.34	671.78	423.13	903.82	975.95	1175.49	1175.49	1764.71	1175.49	1175.49	1744.35	1775.38	1837.78	173.22	
16	725.71	525.43	427.77	736.13	642.78	423.13	864.80	933.82	1102.72	1102.72	1784.71	1102.72	1102.72	1744.35	1775.38	1837.78	168.89	
20	617.40	447.01	427.77	626.26	546.84	423.13	735.73	794.44	873.00	873.00	1764.71	873.00	873.00	1744.35	1775.38	1837.78	152.99	
25	521.62	377.66	427.77	529.11	462.01	423.13	621.80	671.20	685.01	685.01	1764.71	685.01	685.01	1744.35	1775.38	1837.78	137.90	
30	457.41	331.17	427.77	463.97	405.13	423.13	545.07	588.57	567.89	567.89	1764.71	567.89	567.89	1744.35	1775.38	1837.78	126.91	
35	416.30	301.41	427.77	422.27	368.72	423.13	496.09	535.67	497.42	497.42	1764.71	497.42	497.42	1744.35	1775.38	1837.78	119.29	
40	393.24	284.71	427.77	398.89	348.30	423.13	468.61	506.01	460.33	460.33	1764.71	460.33	460.33	1744.35	1775.38	1837.78	114.65	
45	385.54	279.14	427.77	391.08	341.48	423.13	459.44	496.10	450.09	450.09	1784.71	450.09	450.09	1744.35	1775.38	1837.78	112.78	
50	392.32	284.05	427.77	397.95	347.49	423.13	467.52	504.83	464.95	464.95	1764.71	464.95	464.95	1744.35	1775.38	1837.78	113.75	
55	414.35	300.00	427.77	420.30	367.00	423.13	493.77	533.17	507.47	507.47	1764.71	507.47	507.47	1744.35	1775.38	1837.78	117.68	
60	454.20	328.85	427.77	460.72	402.30	423.13	541.26	584.45	585.19	585.19	1764.71	585.19	585.19	1744.35	1775.38	1837.78	125.82	
65	516.76	374.14	427.77	524.17	457.70	423.13	615.80	664.94	712.97	712.97	1764.71	712.97	712.97	1744.35	1775.38	1837.78	138.74	

POLLUTANT NAME: EXHAUST PARTICULATES, PMEX10						UNITS: GRAMS PER MILE												
SPEED MPH	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS	MCY ALL	
	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL		
5	0.17	0.03	0.56	0.17	0.07	0.49	0.18	0.09	0.17	0.05	1.57	0.17	0.02	1.16	2.14	0.57	0.01	
10	0.12	0.02	0.44	0.12	0.05	0.39	0.13	0.06	0.11	0.03	1.23	0.11	0.01	0.91	1.68	0.42	0.00	
15	0.09	0.02	0.36	0.09	0.03	0.31	0.09	0.04	0.08	0.02	0.99	0.08	0.01	0.73	1.35	0.31	0.00	
16	0.09	0.01	0.34	0.09	0.03	0.29	0.09	0.04	0.07	0.02	0.95	0.07	0.01	0.70	1.30	0.30	0.00	
20	0.07	0.01	0.29	0.07	0.03	0.25	0.07	0.03	0.05	0.01	0.81	0.05	0.01	0.60	1.11	0.24	0.00	
25	0.06	0.01	0.24	0.06	0.02	0.21	0.06	0.03	0.04	0.01	0.68	0.04	0.01	0.50	0.93	0.20	0.00	
30	0.05	0.01	0.21	0.05	0.02	0.18	0.05	0.02	0.03	0.01	0.58	0.03	0.00	0.43	0.80	0.16	0.00	
35	0.04	0.01	0.18	0.04	0.01	0.16	0.05	0.02	0.03	0.01	0.51	0.03	0.00	0.38	0.70	0.14	0.00	
40	0.04	0.01	0.16	0.04	0.01	0.14	0.04	0.02	0.02	0.01	0.46	0.02	0.00	0.34	0.63	0.13	0.00	
45	0.04	0.00	0.15	0.04	0.01	0.13	0.04	0.02	0.02	0.00	0.42	0.02	0.00	0.31	0.57	0.12	0.00	
50	0.04	0.00	0.14	0.04	0.01	0.12	0.04	0.02	0.02	0.00	0.39	0.02	0.00	0.29	0.54	0.11	0.00	
55	0.04	0.01	0.14	0.04	0.01	0.12	0.05	0.02	0.02	0.00	0.38	0.02	0.00	0.28	0.51	0.11	0.00	
60	0.05	0.01	0.13	0.05	0.01	0.11	0.05	0.02	0.02	0.00	0.37	0.02	0.00	0.27	0.50	0.12	0.00	
65	0.06	0.01	0.13	0.06	0.01	0.11	0.06	0.02	0.02	0.00	0.37	0.02	0.00	0.27	0.50	0.12	0.01	

POLLUTANT NAME: TIRE WEAR PARTICULATES, PMTW10							UNITS: GRAMS PER MILE										
SPEED	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS	MCY
MPH	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	ALL
ALL	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.04	0.01	0.00

POLLUTANT NAME: BRAKE WEAR PARTICULATES, PMBW10							UNITS: GRAMS PER MILE										
SPEED	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS	MCY
MPH	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	ALL
ALL	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.03	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01

TABLE 2: VARIABLE START EMISSION RATES IN GRAMS PER TRIP

POLLUTANT NAME: REACTIVE ORGANIC GASES							UNITS: GRAMS PER TRIP										
TIMES	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS	MCY
MIN	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	ALL
5	1.74	0.05	0.00	1.80	0.05	0.00	2.09	0.08	0.26	0.07	0.00	0.27	0.08	0.00	0.00	0.00	0.12
10	1.73	0.09	0.00	1.79	0.11	0.00	2.07	0.16	0.26	0.15	0.00	0.27	0.15	0.00	0.00	0.00	0.24
20	1.74	0.17	0.00	1.81	0.20	0.00	2.09	0.30	0.26	0.28	0.00	0.27	0.28	0.00	0.00	0.00	0.46
30	1.82	0.24	0.00	1.89	0.29	0.00	2.18	0.42	0.27	0.39	0.00	0.28	0.40	0.00	0.00	0.00	0.65
60	2.25	0.41	0.00	2.33	0.49	0.00	2.69	0.70	0.34	0.65	0.00	0.35	0.66	0.00	0.00	0.00	1.07
120	2.47	0.52	0.00	2.56	0.62	0.00	2.96	0.90	0.37	0.79	0.00	0.38	0.80	0.00	0.00	0.00	1.31
180	2.68	0.55	0.00	2.76	0.66	0.00	3.22	0.96	0.41	0.84	0.00	0.42	0.85	0.00	0.00	0.00	1.39

300	3.12	0.62	0.00	3.23	0.73	0.00	3.74	1.06	0.47	0.93	0.00	0.48	0.95	0.00	0.00	0.00	1.54
360	3.34	0.65	0.00	3.46	0.77	0.00	4.00	1.11	0.50	0.97	0.00	0.52	0.99	0.00	0.00	0.00	1.61
480	3.78	0.70	0.00	3.91	0.83	0.00	4.53	1.21	0.57	1.06	0.00	0.59	1.07	0.00	0.00	0.00	1.75
540	4.00	0.73	0.00	4.14	0.87	0.00	4.79	1.29	0.60	1.09	0.00	0.62	1.11	0.00	0.00	0.00	1.81
1440	4.65	0.81	0.00	4.82	0.96	0.00	5.57	1.39	0.70	1.20	0.00	0.72	1.22	0.00	0.00	0.00	1.99

POLLUTANT NAME: CARBON MONOXIDE				UNITS: GRAMS PER TRIP													
TIMES MIN	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS	MCY
	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	ALL
5	13.77	0.49	0.00	14.33	0.68	0.00	22.27	0.85	5.92	1.90	0.00	6.24	1.88	0.00	0.00	0.00	0.72
10	12.19	0.96	0.00	12.69	1.33	0.00	19.72	1.68	5.25	3.72	0.00	5.52	3.67	0.00	0.00	0.00	1.42
20	9.41	1.83	0.00	9.80	2.55	0.00	15.22	3.22	4.05	7.13	0.00	4.26	7.04	0.00	0.00	0.00	2.72
30	7.13	2.84	0.00	7.42	3.67	0.00	11.53	4.83	3.07	10.23	0.00	3.23	10.11	0.00	0.00	0.00	3.91
60	3.25	4.63	0.00	3.38	6.42	0.00	5.25	8.07	1.40	17.68	0.00	1.47	17.48	0.00	0.00	0.00	6.75
120	8.75	6.58	0.00	9.11	9.08	0.00	14.16	11.28	3.77	24.24	0.00	3.96	23.96	0.00	0.00	0.00	9.26
180	13.93	6.89	0.00	14.39	9.50	0.00	22.37	11.73	5.95	24.95	0.00	6.26	24.66	0.00	0.00	0.00	9.53
300	22.37	7.48	0.00	23.28	10.28	0.00	36.18	12.61	9.62	28.44	0.00	10.13	28.13	0.00	0.00	0.00	10.09
360	25.83	7.78	0.00	26.89	10.65	0.00	41.78	13.04	11.11	27.22	0.00	11.70	26.90	0.00	0.00	0.00	10.39
480	31.14	8.27	0.00	32.42	11.34	0.00	50.38	13.66	13.40	28.85	0.00	14.10	28.51	0.00	0.00	0.00	11.01
540	32.99	8.50	0.00	34.34	11.67	0.00	53.37	14.26	14.19	29.70	0.00	14.94	29.35	0.00	0.00	0.00	11.34
1440	35.31	9.14	0.00	36.75	12.56	0.00	57.11	15.42	15.19	32.36	0.00	15.99	32.00	0.00	0.00	0.00	12.36

POLLUTANT NAME: OXIDES OF NITROGEN				UNITS: GRAMS PER TRIP													
TIMES MIN	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS	MCY
	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	ALL
5	0.62	0.10	0.00	0.61	0.15	0.00	0.89	0.19	1.21	0.48	0.00	1.26	0.45	0.00	0.00	0.00	0.03
10	0.67	0.13	0.00	0.67	0.19	0.00	0.96	0.25	1.31	0.69	0.00	1.37	0.68	0.00	0.00	0.00	0.05
20	0.77	0.17	0.00	0.76	0.27	0.00	1.10	0.38	1.50	1.09	0.00	1.57	1.09	0.00	0.00	0.00	0.07
30	0.86	0.21	0.00	0.85	0.32	0.00	1.23	0.45	1.67	1.42	0.00	1.74	1.42	0.00	0.00	0.00	0.10
60	1.03	0.28	0.00	1.02	0.42	0.00	1.48	0.60	2.01	1.97	0.00	2.10	1.95	0.00	0.00	0.00	0.13
120	1.04	0.28	0.00	1.02	0.43	0.00	1.48	0.61	2.01	1.97	0.00	2.10	1.96	0.00	0.00	0.00	0.13
180	1.01	0.28	0.00	1.00	0.43	0.00	1.45	0.61	1.97	1.97	0.00	2.05	1.95	0.00	0.00	0.00	0.13
300	0.94	0.28	0.00	0.93	0.43	0.00	1.34	0.60	1.82	1.94	0.00	1.90	1.93	0.00	0.00	0.00	0.13
360	0.89	0.27	0.00	0.88	0.42	0.00	1.27	0.59	1.73	1.92	0.00	1.81	1.91	0.00	0.00	0.00	0.13
480	0.77	0.26	0.00	0.76	0.41	0.00	1.10	0.57	1.49	1.87	0.00	1.56	1.86	0.00	0.00	0.00	0.13
540	0.69	0.26	0.00	0.69	0.40	0.00	0.89	0.56	1.35	1.84	0.00	1.41	1.83	0.00	0.00	0.00	0.12
1440	0.43	0.24	0.00	0.42	0.36	0.00	0.61	0.52	0.83	1.73	0.00	0.87	1.72	0.00	0.00	0.00	0.12

POLLUTANT NAME: CARBON DIOXIDE				UNITS: GRAMS PER TRIP													
TIMES MIN	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS	MCY
	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	ALL
5	55.95	4.58	0.00	56.06	5.57	0.00	64.68	6.88	88.71	4.37	0.00	86.71	4.37	0.00	0.00	0.00	0.92
10	60.72	6.04	0.00	60.84	7.33	0.00	70.19	9.65	94.10	6.72	0.00	94.10	6.72	0.00	0.00	0.00	1.83
20	89.96	9.10	0.00	70.11	11.00	0.00	80.88	15.35	108.43	17.33	0.00	108.43	17.33	0.00	0.00	0.00	3.64
30	78.84	12.33	0.00	78.99	14.86	0.00	91.13	21.25	122.18	25.86	0.00	122.18	25.86	0.00	0.00	0.00	5.43
60	103.20	23.03	0.00	103.40	27.77	0.00	119.29	40.21	159.93	50.84	0.00	159.93	50.84	0.00	0.00	0.00	10.67
120	139.65	46.09	0.00	139.93	55.70	0.00	161.43	77.50	216.42	86.47	0.00	216.42	86.47	0.00	0.00	0.00	18.15
180	139.78	53.27	0.00	140.04	84.36	0.00	161.55	89.99	216.59	102.16	0.00	216.59	102.16	0.00	0.00	0.00	21.45
300	139.97	86.84	0.00	140.26	80.86	0.00	161.81	113.56	216.93	130.76	0.00	216.93	130.76	0.00	0.00	0.00	27.45
360	140.08	73.44	0.00	140.37	88.71	0.00	161.94	124.63	217.10	143.67	0.00	217.10	143.67	0.00	0.00	0.00	30.16
480	140.30	85.77	0.00	140.59	103.61	0.00	162.19	145.34	217.44	166.71	0.00	217.44	166.71	0.00	0.00	0.00	35.00
540	140.41	91.80	0.00	140.70	110.66	0.00	162.32	154.98	217.61	176.85	0.00	217.61	176.85	0.00	0.00	0.00	37.13
1440	140.74	107.73	0.00	141.03	130.20	0.00	162.70	181.05	218.12	201.69	0.00	218.12	201.69	0.00	0.00	0.00	42.34

TABLE 4: HOT SOAK EMISSION RATES IN GRAMS PER TRIP

TIMES MIN	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS	MCY
	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	ALL
TOG	3.36	1.17	0.00	4.02	0.92	0.00	3.23	0.89	1.31	0.96	0.00	1.59	1.05	0.00	0.00	0.00	3.67

TABLE 5: DIURNAL EMISSION RATES IN GRAMS PER HOUR

TIMES MIN	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS	MCY ALL
	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	
TOG	1.28	0.23	0.00	1.78	0.23	0.00	1.55	0.23	0.66	0.31	0.00	0.83	0.39	0.00	0.00	0.00	1.90

TABLE 6: RESTING LOSSES IN GRAMS PER HOUR

POLLUTANT NAME: REACTIVE ORGANIC GASES																	
TEMP DEG F	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS	MCY ALL
	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	
30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
75	0.62	0.07	0.00	0.85	0.08	0.00	0.75	0.08	0.32	0.10	0.00	0.40	0.13	0.00	0.00	0.00	0.53
85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
110	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 7: ESTIMATED TRAVEL FRACTIONS

	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS	MCY ALL
	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	
% VMT	2.11	97.54	0.35	2.97	98.65	0.39	5.55	91.70	2.13	77.00	20.88	1.51	13.41	84.98	96.79	100.00	18.30
% TRIP	4.68	94.83	0.49	3.63	95.97	0.41	6.67	90.80	7.76	83.36	8.90	13.25	29.13	57.62	70.97	100.00	14.98
% VEH	4.68	94.83	0.49	3.63	95.97	0.41	6.67	90.80	7.02	73.88	19.12	9.73	21.38	68.89	91.53	100.00	14.98

TABLE 8: EVAPORATED RUNNING LOSSES IN GRAMS PER MILE

LIGHT DUTY AUTOS NON-CATALYST TEMPERATURE IN DEG F												
SPEED MPH	30	40	50	60	70	75	85	90	95	100	105	110
5	0.000	0.000	0.000	0.000	0.000	3.350	0.000	0.000	0.000	0.000	0.000	0.000
10	0.000	0.000	0.000	0.000	0.000	3.328	0.000	0.000	0.000	0.000	0.000	0.000
15	0.000	0.000	0.000	0.000	0.000	3.307	0.000	0.000	0.000	0.000	0.000	0.000
16	0.000	0.000	0.000	0.000	0.000	4.108	0.000	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000	4.082	0.000	0.000	0.000	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000	0.000	8.331	0.000	0.000	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	0.000	7.677	0.000	0.000	0.000	0.000	0.000	0.000
35	0.000	0.000	0.000	0.000	0.000	8.519	0.000	0.000	0.000	0.000	0.000	0.000
40	0.000	0.000	0.000	0.000	0.000	9.052	0.000	0.000	0.000	0.000	0.000	0.000
45	0.000	0.000	0.000	0.000	0.000	9.387	0.000	0.000	0.000	0.000	0.000	0.000
50	0.000	0.000	0.000	0.000	0.000	9.589	0.000	0.000	0.000	0.000	0.000	0.000
55	0.000	0.000	0.000	0.000	0.000	9.698	0.000	0.000	0.000	0.000	0.000	0.000
60	0.000	0.000	0.000	0.000	0.000	9.741	0.000	0.000	0.000	0.000	0.000	0.000
65	0.000	0.000	0.000	0.000	0.000	9.737	0.000	0.000	0.000	0.000	0.000	0.000
LIGHT DUTY AUTOS CATALYST EQUIPPED TEMPERATURE IN DEG F												
SPEED MPH	30	40	50	60	70	75	85	90	95	100	105	110
5	0.000	0.000	0.000	0.000	0.000	0.918	0.000	0.000	0.000	0.000	0.000	0.000

10	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000
15	0.000	0.000	0.000	0.000	0.000	0.375	0.000	0.000	0.000	0.000	0.000	0.000
16	0.000	0.000	0.000	0.000	0.000	0.425	0.000	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000	0.467	0.000	0.000	0.000	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000	0.000	0.601	0.000	0.000	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	0.000	0.734	0.000	0.000	0.000	0.000	0.000	0.000
35	0.000	0.000	0.000	0.000	0.000	0.831	0.000	0.000	0.000	0.000	0.000	0.000
40	0.000	0.000	0.000	0.000	0.000	0.805	0.000	0.000	0.000	0.000	0.000	0.000
45	0.000	0.000	0.000	0.000	0.000	0.957	0.000	0.000	0.000	0.000	0.000	0.000
50	0.000	0.000	0.000	0.000	0.000	0.994	0.000	0.000	0.000	0.000	0.000	0.000
55	0.000	0.000	0.000	0.000	0.000	1.022	0.000	0.000	0.000	0.000	0.000	0.000
60	0.000	0.000	0.000	0.000	0.000	1.036	0.000	0.000	0.000	0.000	0.000	0.000
65	0.000	0.000	0.000	0.000	0.000	1.033	0.000	0.000	0.000	0.000	0.000	0.000

LIGHT DUTY TRUCK NON-CATALYST
TEMPERATURE IN DEG F

SPEED MPH	30	40	50	60	70	75	85	90	95	100	105	110
5	0.000	0.000	0.000	0.000	0.000	4.997	0.000	0.000	0.000	0.000	0.000	0.000
10	0.000	0.000	0.000	0.000	0.000	4.919	0.000	0.000	0.000	0.000	0.000	0.000
15	0.000	0.000	0.000	0.000	0.000	4.885	0.000	0.000	0.000	0.000	0.000	0.000
16	0.000	0.000	0.000	0.000	0.000	6.066	0.000	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000	6.027	0.000	0.000	0.000	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000	0.000	9.345	0.000	0.000	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	0.000	11.331	0.000	0.000	0.000	0.000	0.000	0.000
35	0.000	0.000	0.000	0.000	0.000	12.572	0.000	0.000	0.000	0.000	0.000	0.000
40	0.000	0.000	0.000	0.000	0.000	13.360	0.000	0.000	0.000	0.000	0.000	0.000
45	0.000	0.000	0.000	0.000	0.000	13.854	0.000	0.000	0.000	0.000	0.000	0.000
50	0.000	0.000	0.000	0.000	0.000	14.151	0.000	0.000	0.000	0.000	0.000	0.000
55	0.000	0.000	0.000	0.000	0.000	14.326	0.000	0.000	0.000	0.000	0.000	0.000
60	0.000	0.000	0.000	0.000	0.000	14.404	0.000	0.000	0.000	0.000	0.000	0.000
65	0.000	0.000	0.000	0.000	0.000	14.409	0.000	0.000	0.000	0.000	0.000	0.000

TABLE 8 (CONTINUED): EVAPORATED RUNNING LOSSES IN GRAMS PER MILE

LIGHT DUTY TRUCKS CATALYST EQUIPPED
TEMPERATURE IN DEG F

SPEED MPH	30	40	50	60	70	75	85	90	95	100	105	110
5	0.000	0.000	0.000	0.000	0.000	0.697	0.000	0.000	0.000	0.000	0.000	0.000
10	0.000	0.000	0.000	0.000	0.000	0.536	0.000	0.000	0.000	0.000	0.000	0.000
15	0.000	0.000	0.000	0.000	0.000	0.435	0.000	0.000	0.000	0.000	0.000	0.000
16	0.000	0.000	0.000	0.000	0.000	0.520	0.000	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000	0.508	0.000	0.000	0.000	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000	0.000	0.792	0.000	0.000	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	0.000	1.001	0.000	0.000	0.000	0.000	0.000	0.000
35	0.000	0.000	0.000	0.000	0.000	1.162	0.000	0.000	0.000	0.000	0.000	0.000
40	0.000	0.000	0.000	0.000	0.000	1.288	0.000	0.000	0.000	0.000	0.000	0.000
45	0.000	0.000	0.000	0.000	0.000	1.375	0.000	0.000	0.000	0.000	0.000	0.000
50	0.000	0.000	0.000	0.000	0.000	1.421	0.000	0.000	0.000	0.000	0.000	0.000
55	0.000	0.000	0.000	0.000	0.000	1.452	0.000	0.000	0.000	0.000	0.000	0.000
60	0.000	0.000	0.000	0.000	0.000	1.482	0.000	0.000	0.000	0.000	0.000	0.000
65	0.000	0.000	0.000	0.000	0.000	1.457	0.000	0.000	0.000	0.000	0.000	0.000

MEDIUM DUTY TRUCKS NON-CATALYST
TEMPERATURE IN DEG F

SPEED MPH	30	40	50	60	70	75	85	90	95	100	105	110
5	0.000	0.000	0.000	0.000	0.000	3.920	0.000	0.000	0.000	0.000	0.000	0.000
10	0.000	0.000	0.000	0.000	0.000	3.829	0.000	0.000	0.000	0.000	0.000	0.000
15	0.000	0.000	0.000	0.000	0.000	3.798	0.000	0.000	0.000	0.000	0.000	0.000
16	0.000	0.000	0.000	0.000	0.000	4.713	0.000	0.000	0.000	0.000	0.000	0.000

20	0.000	0.000	0.000	0.000	0.000	4.681	0.000	0.000	0.000	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000	0.000	7.253	0.000	0.000	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	0.000	8.793	0.000	0.000	0.000	0.000	0.000	0.000
35	0.000	0.000	0.000	0.000	0.000	9.755	0.000	0.000	0.000	0.000	0.000	0.000
40	0.000	0.000	0.000	0.000	0.000	10.385	0.000	0.000	0.000	0.000	0.000	0.000
45	0.000	0.000	0.000	0.000	0.000	10.749	0.000	0.000	0.000	0.000	0.000	0.000
50	0.000	0.000	0.000	0.000	0.000	10.979	0.000	0.000	0.000	0.000	0.000	0.000
55	0.000	0.000	0.000	0.000	0.000	11.112	0.000	0.000	0.000	0.000	0.000	0.000
60	0.000	0.000	0.000	0.000	0.000	11.170	0.000	0.000	0.000	0.000	0.000	0.000
65	0.000	0.000	0.000	0.000	0.000	11.172	0.000	0.000	0.000	0.000	0.000	0.000

MEDIUM DUTY TRUCKS CATALYST EQUIPPED
TEMPERATURE IN DEG F

SPEED MPH	30	40	50	60	70	75	85	90	95	100	105	110
5	0.000	0.000	0.000	0.000	0.000	0.897	0.000	0.000	0.000	0.000	0.000	0.000
10	0.000	0.000	0.000	0.000	0.000	0.547	0.000	0.000	0.000	0.000	0.000	0.000
15	0.000	0.000	0.000	0.000	0.000	0.448	0.000	0.000	0.000	0.000	0.000	0.000
16	0.000	0.000	0.000	0.000	0.000	0.536	0.000	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000	0.524	0.000	0.000	0.000	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000	0.000	0.813	0.000	0.000	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	0.000	1.023	0.000	0.000	0.000	0.000	0.000	0.000
35	0.000	0.000	0.000	0.000	0.000	1.183	0.000	0.000	0.000	0.000	0.000	0.000
40	0.000	0.000	0.000	0.000	0.000	1.305	0.000	0.000	0.000	0.000	0.000	0.000
45	0.000	0.000	0.000	0.000	0.000	1.390	0.000	0.000	0.000	0.000	0.000	0.000
50	0.000	0.000	0.000	0.000	0.000	1.434	0.000	0.000	0.000	0.000	0.000	0.000
55	0.000	0.000	0.000	0.000	0.000	1.467	0.000	0.000	0.000	0.000	0.000	0.000
60	0.000	0.000	0.000	0.000	0.000	1.479	0.000	0.000	0.000	0.000	0.000	0.000
65	0.000	0.000	0.000	0.000	0.000	1.475	0.000	0.000	0.000	0.000	0.000	0.000

TABLE 1: WINTERTIME RUNNING ENHANCED I/M EXHAUST EMISSION FACTORS AT 50 DEG F

POLLUTANT NAME: REACTIVE ORGANIC GASES				UNITS: GRAMS PER MILE													
SPEED MPH	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS	MCY
	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	ALL
5	25.98	0.71	2.26	27.91	1.09	1.88	33.07	1.55	29.42	2.93	0.58	39.01	7.74	1.66	2.21	6.18	2.98
10	18.48	0.47	1.78	19.85	0.73	1.48	23.52	1.04	19.24	1.89	0.46	25.52	5.04	1.30	1.73	4.49	2.28
15	13.74	0.32	1.43	14.76	0.51	1.19	17.50	0.73	13.11	1.27	0.37	17.40	3.41	1.04	1.39	3.37	1.84
16	13.02	0.30	1.37	13.99	0.48	1.14	16.59	0.69	12.20	1.18	0.35	16.20	3.17	1.00	1.33	3.20	1.77
20	10.70	0.24	1.17	11.49	0.38	0.97	13.63	0.54	9.31	0.88	0.30	12.38	2.40	0.88	1.14	2.82	1.55
25	8.71	0.18	0.98	9.36	0.29	0.82	11.10	0.42	6.88	0.64	0.25	9.15	1.76	0.72	0.96	2.11	1.38
30	7.42	0.14	0.84	7.98	0.24	0.70	9.46	0.34	5.30	0.48	0.22	7.05	1.34	0.62	0.82	1.76	1.29
35	6.62	0.12	0.74	7.12	0.20	0.61	8.45	0.29	4.26	0.38	0.19	5.67	1.07	0.54	0.72	1.52	1.26
40	6.19	0.11	0.68	6.65	0.18	0.55	7.89	0.26	3.56	0.31	0.17	4.75	0.88	0.48	0.64	1.38	1.31
45	6.05	0.10	0.60	6.51	0.17	0.50	7.72	0.25	3.11	0.27	0.15	4.15	0.76	0.44	0.59	1.26	1.42
50	6.20	0.10	0.57	6.66	0.17	0.47	7.91	0.25	2.83	0.24	0.14	3.78	0.69	0.41	0.55	1.21	1.62
55	6.65	0.10	0.54	7.15	0.17	0.45	8.48	0.26	2.69	0.23	0.14	3.60	0.65	0.40	0.53	1.21	1.84
60	7.47	0.11	0.53	8.03	0.19	0.44	9.52	0.28	2.67	0.23	0.14	3.57	0.65	0.39	0.52	1.24	2.43
65	8.78	0.13	0.53	9.43	0.22	0.44	11.19	0.33	2.76	0.24	0.14	3.69	0.67	0.39	0.52	1.32	3.20

POLLUTANT NAME: CARBON MONOXIDE				UNITS: GRAMS PER MILE													
SPEED MPH	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS	MCY
	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	ALL
5	228.58	8.95	3.52	234.91	18.80	4.08	363.86	18.75	508.88	43.81	7.88	676.96	78.98	8.32	11.25	8.84	23.14
10	166.61	7.72	2.42	171.22	13.97	2.80	265.21	15.32	337.22	29.15	5.43	450.39	52.55	5.74	7.75	5.58	19.22
15	127.88	6.79	1.75	131.42	12.03	2.02	203.57	12.93	237.04	20.49	3.92	316.59	36.94	4.14	5.60	3.72	16.73
16	122.05	6.63	1.65	125.43	11.71	1.90	194.28	12.55	222.37	18.22	3.69	296.99	34.65	3.90	5.27	3.48	16.36
20	103.37	6.05	1.32	106.23	10.58	1.52	164.55	11.22	176.04	15.22	2.96	235.12	27.43	3.13	4.23	2.64	15.24
25	88.00	5.46	1.04	90.43	9.46	1.20	140.08	9.98	138.13	11.34	2.34	184.49	21.52	2.47	3.34	1.99	14.54
30	78.89	4.99	0.86	81.07	8.61	1.00	125.58	9.06	114.52	9.90	1.84	152.95	17.84	2.04	2.76	1.59	14.52
35	74.48	4.81	0.75	76.54	7.95	0.88	118.56	8.41	100.31	8.67	1.68	133.97	15.63	1.77	2.39	1.35	15.21
40	74.05	4.31	0.68	76.10	7.46	0.78	117.88	7.98	92.83	8.02	1.52	123.98	14.46	1.60	2.17	1.22	16.73
45	77.54	4.07	0.64	79.68	7.13	0.74	123.43	7.75	90.76	7.84	1.44	121.22	14.14	1.52	2.05	1.17	19.36
50	85.50	3.91	0.64	87.87	6.95	0.74	138.10	7.74	93.76	8.10	1.43	125.23	14.61	1.51	2.04	1.19	23.82
55	99.28	3.82	0.65	102.03	6.94	0.76	158.04	7.98	102.33	8.84	1.48	136.69	15.95	1.57	2.12	1.28	30.40
60	121.42	3.81	0.72	124.78	7.13	0.83	193.27	8.57	118.01	10.20	1.61	157.61	18.39	1.70	2.30	1.47	41.33
65	156.37	3.91	0.82	160.70	7.61	0.94	248.91	9.66	143.77	12.43	1.83	192.02	22.40	1.94	2.62	1.79	59.33

POLLUTANT NAME: OXIDES OF NITROGEN				UNITS: GRAMS PER MILE													
SPEED MPH	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS	MCY
	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	ALL
5	4.38	0.73	3.64	4.34	1.54	3.74	6.34	2.21	6.84	2.38	21.74	8.73	6.38	20.49	26.66	33.81	1.32
10	4.61	0.63	3.02	4.57	1.31	3.10	6.67	1.90	7.18	2.50	18.04	10.23	6.70	17.00	22.12	25.86	1.34
15	4.84	0.55	2.59	4.80	1.14	2.67	7.00	1.67	7.53	2.63	15.50	10.72	7.03	14.61	19.01	20.79	1.37
16	4.89	0.54	2.53	4.84	1.11	2.60	7.07	1.64	7.60	2.65	15.11	10.82	7.09	14.24	18.53	20.03	1.38
20	5.08	0.50	2.31	5.03	1.02	2.38	7.35	1.52	7.88	2.75	13.81	11.21	7.36	13.01	16.83	17.58	1.40
25	5.32	0.46	2.13	5.27	0.94	2.19	7.69	1.41	8.22	2.87	12.75	11.71	7.67	12.01	15.63	15.62	1.44
30	5.56	0.44	2.04	5.51	0.88	2.10	8.04	1.34	8.57	2.99	12.19	12.20	8.00	11.49	14.95	14.59	1.48
35	5.81	0.42	2.02	5.75	0.85	2.08	8.40	1.29	8.91	3.11	12.08	12.69	8.32	11.38	14.81	14.33	1.53
40	6.06	0.41	2.07	6.00	0.84	2.13	8.76	1.28	9.26	3.23	12.40	13.19	8.64	11.89	15.20	14.80	1.58
45	6.31	0.41	2.20	6.25	0.84	2.27	9.13	1.29	9.61	3.35	13.19	13.68	8.97	12.43	16.17	16.07	1.64
50	6.56	0.42	2.43	6.50	0.86	2.50	9.50	1.32	9.95	3.47	14.53	14.17	9.29	13.70	17.82	18.33	1.70
55	6.82	0.43	2.77	6.75	0.90	2.86	9.86	1.38	10.30	3.59	16.60	14.67	9.61	15.64	20.35	21.99	1.78
60	7.07	0.46	3.28	7.00	0.97	3.38	10.23	1.47	10.65	3.71	19.64	15.16	9.94	18.51	24.08	27.73	1.83
65	7.33	0.50	4.03	7.26	1.06	4.14	10.60	1.61	10.99	3.83	24.07	15.65	10.26	22.69	28.52	36.77	1.91

TABLE 1 (CONTINUED): WINTERTIME RUNNING ENHANCED I/M EXHAUST EMISSION FACTORS AT 50 DEG F

POLLUTANT NAME: CARBON DIOXIDE				UNITS: GRAMS PER MILE														
SPEED MPH	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS	MCY	
	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	ALL	
5	1313.99	972.06	427.77	1316.79	1185.02	423.13	1525.04	1646.74	2513.51	2513.51	1764.71	2513.51	2513.51	1744.35	1775.38	1837.78	236.08	
10	992.92	734.99	427.77	995.04	895.47	423.13	1152.40	1244.36	1672.27	1672.27	1764.71	1672.27	1672.27	1744.35	1775.38	1837.78	200.15	
15	778.74	576.45	427.77	780.40	702.31	423.13	903.82	975.95	1175.49	1175.49	1764.71	1175.49	1175.49	1744.35	1775.38	1837.78	173.22	
16	745.12	551.56	427.77	746.71	671.99	423.13	864.80	933.82	1102.72	1102.72	1764.71	1102.72	1102.72	1744.35	1775.38	1837.78	168.69	
20	633.91	469.24	427.77	635.26	571.69	423.13	735.73	794.44	873.00	873.00	1764.71	873.00	873.00	1744.35	1775.38	1837.78	152.99	
25	535.57	396.46	427.77	536.72	483.01	423.13	621.60	671.20	685.01	685.01	1764.71	685.01	685.01	1744.35	1775.38	1837.78	137.90	
30	469.64	347.64	427.77	470.64	423.55	423.13	545.07	588.57	567.89	567.89	1764.71	567.89	567.89	1744.35	1775.38	1837.78	128.91	
35	427.43	316.40	427.77	428.34	385.46	423.13	498.09	535.67	497.42	497.42	1764.71	497.42	497.42	1744.35	1775.38	1837.78	119.29	
40	403.76	298.88	427.77	404.62	364.13	423.13	468.61	506.01	460.33	460.33	1764.71	460.33	460.33	1744.35	1775.38	1837.78	114.65	
45	395.86	293.03	427.77	398.70	357.00	423.13	459.44	496.10	450.09	450.09	1764.71	450.09	450.09	1744.35	1775.38	1837.78	112.78	
50	402.82	298.18	427.77	403.68	363.28	423.13	487.52	504.83	464.95	464.95	1764.71	464.95	464.95	1744.35	1775.38	1837.78	113.75	
55	425.43	314.92	427.77	426.34	383.68	423.13	493.77	533.17	507.47	507.47	1764.71	507.47	507.47	1744.35	1775.38	1837.78	117.88	
60	466.35	345.21	427.77	467.35	420.58	423.13	541.26	584.45	585.19	585.19	1764.71	585.19	585.19	1744.35	1775.38	1837.78	125.82	
65	530.58	392.75	427.77	531.71	478.50	423.13	615.80	664.94	712.97	712.97	1764.71	712.97	712.97	1744.35	1775.38	1837.78	138.74	

POLLUTANT NAME: EXHAUST PARTICULATES, PMEX10				UNITS: GRAMS PER MILE														
SPEED MPH	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS	MCY	
	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	ALL	
5	0.17	0.03	0.56	0.17	0.07	0.49	0.18	0.09	0.17	0.08	1.57	0.17	0.02	1.16	2.14	0.57	0.01	
10	0.12	0.02	0.44	0.12	0.05	0.38	0.13	0.06	0.11	0.03	1.23	0.11	0.01	0.91	1.68	0.42	0.00	
15	0.09	0.02	0.36	0.09	0.03	0.31	0.09	0.04	0.08	0.02	0.99	0.08	0.01	0.73	1.35	0.31	0.00	
16	0.09	0.01	0.34	0.09	0.03	0.29	0.09	0.04	0.07	0.02	0.95	0.07	0.01	0.70	1.30	0.30	0.00	
20	0.07	0.01	0.29	0.07	0.03	0.25	0.07	0.03	0.05	0.01	0.81	0.05	0.01	0.60	1.11	0.24	0.00	
25	0.06	0.01	0.24	0.06	0.02	0.21	0.06	0.03	0.04	0.01	0.68	0.04	0.01	0.50	0.93	0.20	0.00	
30	0.05	0.01	0.21	0.05	0.02	0.18	0.05	0.02	0.03	0.01	0.58	0.03	0.00	0.43	0.80	0.16	0.00	
35	0.04	0.01	0.18	0.04	0.01	0.16	0.05	0.02	0.03	0.01	0.51	0.03	0.00	0.38	0.70	0.14	0.00	
40	0.04	0.01	0.16	0.04	0.01	0.14	0.04	0.02	0.02	0.01	0.46	0.02	0.00	0.34	0.63	0.13	0.00	
45	0.04	0.00	0.15	0.04	0.01	0.13	0.04	0.02	0.02	0.00	0.42	0.02	0.00	0.31	0.57	0.12	0.00	
50	0.04	0.00	0.14	0.04	0.01	0.12	0.04	0.02	0.02	0.00	0.39	0.02	0.00	0.29	0.54	0.11	0.00	
55	0.04	0.01	0.14	0.04	0.01	0.12	0.05	0.02	0.02	0.00	0.38	0.02	0.00	0.28	0.51	0.11	0.00	
60	0.05	0.01	0.13	0.05	0.01	0.11	0.05	0.02	0.02	0.00	0.37	0.02	0.00	0.27	0.50	0.12	0.00	
65	0.06	0.01	0.13	0.06	0.01	0.11	0.06	0.02	0.02	0.00	0.37	0.02	0.00	0.27	0.50	0.12	0.01	

POLLUTANT NAME: TIRE WEAR PARTICULATES, PMTW10							UNITS: GRAMS PER MILE										
SPEED	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS	MCY
MPH	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	ALL
ALL	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.04	0.01	0.00

POLLUTANT NAME: BRAKE WEAR PARTICULATES, PMBW10							UNITS: GRAMS PER MILE										
SPEED	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS	MCY
MPH	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	ALL
ALL	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.03	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01

TABLE 2: VARIABLE START EMISSION RATES IN GRAMS PER TRIP

POLLUTANT NAME: REACTIVE ORGANIC GASES				UNITS: GRAMS PER TRIP														
TIMES MIN	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS	MCY ALL	
	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL		
5	3.67	0.09	0.00	3.80	0.11	0.00	4.39	0.17	0.26	0.07	0.00	0.27	0.08	0.00	0.00	0.00	0.34	
10	3.63	0.18	0.00	3.77	0.22	0.00	4.36	0.32	0.26	0.15	0.00	0.27	0.15	0.00	0.00	0.00	0.67	
20	3.67	0.34	0.00	3.80	0.41	0.00	4.40	0.62	0.26	0.28	0.00	0.27	0.28	0.00	0.00	0.00	1.27	
30	3.83	0.49	0.00	3.97	0.59	0.00	4.60	0.88	0.27	0.39	0.00	0.28	0.40	0.00	0.00	0.00	1.79	
60	4.73	0.82	0.00	4.91	0.98	0.00	5.68	1.47	0.34	0.85	0.00	0.35	0.66	0.00	0.00	0.00	2.96	
120	5.19	1.05	0.00	5.38	1.26	0.00	6.23	1.87	0.37	0.79	0.00	0.38	0.80	0.00	0.00	0.00	3.62	
180	5.65	1.12	0.00	5.86	1.34	0.00	6.78	1.98	0.41	0.84	0.00	0.42	0.85	0.00	0.00	0.00	3.64	
300	6.57	1.24	0.00	6.81	1.49	0.00	7.88	2.21	0.47	0.93	0.00	0.48	0.85	0.00	0.00	0.00	4.26	
360	7.03	1.30	0.00	7.29	1.56	0.00	8.43	2.31	0.50	0.97	0.00	0.52	0.99	0.00	0.00	0.00	4.46	

480	7.95	1.42	0.00	8.24	1.70	0.00	9.54	2.52	0.57	1.06	0.00	0.59	1.07	0.00	0.00	0.00	4.84
540	6.41	1.47	0.00	8.72	1.78	0.00	10.09	2.61	0.60	1.09	0.00	0.82	1.11	0.00	0.00	0.00	5.01
1440	9.79	1.62	0.00	10.15	1.95	0.00	11.74	2.88	0.70	1.20	0.00	0.72	1.22	0.00	0.00	0.00	5.51

POLLUTANT NAME: CARBON MONOXIDE				UNITS: GRAMS PER TRIP														
TIMES	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS	MCY	
	MIN	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	ALL
5	13.77	1.11	0.00	14.33	1.56	0.00	22.27	2.00	5.92	1.90	0.00	6.24	1.88	0.00	0.00	0.00	0.00	2.42
10	12.19	2.18	0.00	12.69	3.06	0.00	19.72	3.91	5.25	3.72	0.00	5.52	3.67	0.00	0.00	0.00	0.00	4.75
20	9.41	4.18	0.00	9.80	5.88	0.00	15.22	7.52	4.05	7.13	0.00	4.26	7.04	0.00	0.00	0.00	0.00	9.10
30	7.13	6.03	0.00	7.42	8.46	0.00	11.53	10.81	3.07	10.23	0.00	3.23	10.11	0.00	0.00	0.00	0.00	13.06
60	3.25	10.57	0.00	3.39	14.81	0.00	5.25	18.63	1.40	17.68	0.00	1.47	17.48	0.00	0.00	0.00	0.00	22.57
120	8.75	15.00	0.00	9.11	20.93	0.00	14.16	26.33	3.77	24.24	0.00	3.96	23.96	0.00	0.00	0.00	0.00	30.95
180	13.83	15.72	0.00	14.39	21.88	0.00	22.37	27.38	5.95	24.95	0.00	6.26	24.66	0.00	0.00	0.00	0.00	31.85
300	22.37	17.06	0.00	23.28	23.68	0.00	36.18	29.41	9.62	26.44	0.00	10.13	26.13	0.00	0.00	0.00	0.00	33.75
360	25.83	17.68	0.00	26.89	24.53	0.00	41.78	30.40	11.11	27.22	0.00	11.70	26.90	0.00	0.00	0.00	0.00	34.75
480	31.14	18.85	0.00	32.42	26.13	0.00	50.38	32.32	13.40	28.85	0.00	14.10	28.51	0.00	0.00	0.00	0.00	36.82
540	32.99	19.39	0.00	34.34	26.88	0.00	53.37	33.26	14.19	29.70	0.00	14.94	29.35	0.00	0.00	0.00	0.00	37.91
1440	35.31	20.83	0.00	36.75	28.93	0.00	57.11	35.96	15.19	32.36	0.00	15.99	32.00	0.00	0.00	0.00	0.00	41.34

POLLUTANT NAME: OXIDES OF NITROGEN				UNITS: GRAMS PER TRIP														
TIMES	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS	MCY	
	MIN	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	ALL
5	0.75	0.12	0.00	0.74	0.18	0.00	1.07	0.23	1.21	0.46	0.00	1.26	0.45	0.00	0.00	0.00	0.00	0.04
10	0.82	0.15	0.00	0.81	0.23	0.00	1.17	0.30	1.31	0.69	0.00	1.37	0.68	0.00	0.00	0.00	0.00	0.05
20	0.94	0.21	0.00	0.93	0.32	0.00	1.34	0.43	1.50	1.09	0.00	1.57	1.09	0.00	0.00	0.00	0.00	0.09
30	1.04	0.25	0.00	1.03	0.39	0.00	1.49	0.54	1.67	1.42	0.00	1.74	1.42	0.00	0.00	0.00	0.00	0.11
60	1.25	0.33	0.00	1.24	0.51	0.00	1.79	0.72	2.01	1.97	0.00	2.10	1.95	0.00	0.00	0.00	0.00	0.15
120	1.25	0.34	0.00	1.24	0.52	0.00	1.80	0.73	2.01	1.97	0.00	2.10	1.96	0.00	0.00	0.00	0.00	0.15
180	1.22	0.34	0.00	1.21	0.52	0.00	1.75	0.73	1.97	1.97	0.00	2.05	1.95	0.00	0.00	0.00	0.00	0.15
300	1.14	0.33	0.00	1.12	0.51	0.00	1.62	0.72	1.82	1.94	0.00	1.90	1.93	0.00	0.00	0.00	0.00	0.15
360	1.08	0.33	0.00	1.06	0.51	0.00	1.54	0.71	1.73	1.92	0.00	1.81	1.91	0.00	0.00	0.00	0.00	0.15
480	0.93	0.32	0.00	0.92	0.49	0.00	1.33	0.69	1.49	1.87	0.00	1.56	1.86	0.00	0.00	0.00	0.00	0.15
540	0.84	0.31	0.00	0.83	0.48	0.00	1.20	0.67	1.35	1.84	0.00	1.41	1.83	0.00	0.00	0.00	0.00	0.14
1440	0.52	0.29	0.00	0.51	0.44	0.00	0.74	0.62	0.83	1.73	0.00	0.87	1.72	0.00	0.00	0.00	0.00	0.13

POLLUTANT NAME: CARBON DIOXIDE				UNITS: GRAMS PER TRIP													
TIMES	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS	MCY ALL
	MIN	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	
5	55.95	4.58	0.00	56.08	5.57	0.00	64.68	6.98	86.71	4.37	0.00	86.71	4.37	0.00	0.00	0.00	0.92
10	60.72	6.04	0.00	60.84	7.33	0.00	70.19	9.65	94.10	8.72	0.00	94.10	8.72	0.00	0.00	0.00	1.83
20	69.98	9.10	0.00	70.11	11.00	0.00	80.88	15.35	108.43	17.33	0.00	108.43	17.33	0.00	0.00	0.00	3.64
30	78.64	12.33	0.00	78.99	14.88	0.00	91.13	21.26	122.18	25.86	0.00	122.18	25.86	0.00	0.00	0.00	5.43
60	103.20	23.03	0.00	103.40	27.77	0.00	119.29	40.21	159.93	50.84	0.00	159.93	50.84	0.00	0.00	0.00	10.67
120	139.85	48.09	0.00	139.93	55.70	0.00	161.43	77.50	216.42	86.47	0.00	216.42	86.47	0.00	0.00	0.00	18.15
180	139.76	53.27	0.00	140.04	64.36	0.00	161.55	89.89	216.59	102.16	0.00	216.59	102.16	0.00	0.00	0.00	21.45
300	139.97	66.94	0.00	140.28	80.88	0.00	161.81	113.56	216.93	130.76	0.00	216.93	130.76	0.00	0.00	0.00	27.46
360	140.08	73.44	0.00	140.37	88.71	0.00	161.94	124.63	217.10	143.67	0.00	217.10	143.67	0.00	0.00	0.00	30.18
480	140.30	85.77	0.00	140.59	103.61	0.00	162.19	145.34	217.44	166.71	0.00	217.44	166.71	0.00	0.00	0.00	35.00
540	140.41	91.60	0.00	140.70	110.66	0.00	162.32	154.98	217.61	176.85	0.00	217.61	176.85	0.00	0.00	0.00	37.13
1440	140.74	107.73	0.00	141.03	130.20	0.00	162.70	181.05	218.12	201.69	0.00	218.12	201.69	0.00	0.00	0.00	42.34

TABLE 4: HOT SOAK EMISSION RATES IN GRAMS PER TRIP

TIMES MIN	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS	MCY
	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	ALL
TOG	6.38	1.04	0.00	6.40	1.37	0.00	4.52	1.32	2.56	1.69	0.00	3.08	1.88	0.00	0.00	0.00	8.66

TABLE 5: DIURNAL EMISSION RATES IN GRAMS PER HOUR

TIMES	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS	MCY
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MIN	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	ALL
TOG	0.07	0.02	0.00	0.09	0.02	0.00	0.08	0.02	0.03	0.02	0.00	0.04	0.03	0.00	0.00	0.00	0.05

TABLE 6: RESTING LOSSES IN GRAMS PER HOUR

[illegible]

TABLE 7: ESTIMATED TRAVEL FRACTIONS

	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS	MCV
	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	ALL
% VMT	2.11	97.54	0.35	2.97	96.65	0.39	5.55	91.70	2.13	77.00	20.86	1.61	13.41	84.98	96.79	100.00	15.30
% TRIP	4.66	94.83	0.49	3.83	95.97	0.41	6.67	90.80	7.75	83.36	8.90	13.25	29.13	57.62	70.97	100.00	14.98
% VEH	4.68	94.83	0.49	3.83	95.97	0.41	6.67	90.80	7.02	73.86	18.12	9.73	21.39	66.89	91.53	100.00	14.98

TABLE 8: EVAPORATED RUNNING LOSSES IN GRAMS PER MILE

[illegible][illegible]

[illegible]

TEMPERATURE IN DEG F

[illegible]

TABLE 8 (CONTINUED): EVAPORATED RUNNING LOSSES IN GRAMS PER MILE

LIGHT DUTY TRUCKS CATALYST EQUIPPED
TEMPERATURE IN DEG F

[illegible]

MEDIUM DUTY TRUCKS NON-CATALYST
TEMPERATURE IN DEG F

[illegible]

[illegible]

MEDIUM DUTY TRUCKS CATALYST EQUIPPED
TEMPERATURE IN DEG F

[illegible]

TABLE 1: SUMMERTIME RUNNING ENHANCED I/M EXHAUST EMISSION FACTORS AT 75 DEG F

POLLUTANT NAME: REACTIVE ORGANIC GASES				UNITS: GRAMS PER MILE														
SPEED MPH	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS	MCY	
	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	ALL	
5	20.20	0.31	2.63	22.80	0.50	2.68	28.96	0.56	27.84	1.81	0.25	35.92	6.47	1.69	2.27	6.08	4.24	
10	14.35	0.20	2.08	16.20	0.33	2.10	20.60	0.37	18.20	1.03	0.20	23.50	4.21	1.33	1.79	4.41	3.10	
15	10.67	0.14	1.68	12.05	0.23	1.69	15.32	0.25	12.40	0.68	0.16	16.02	2.84	1.06	1.43	3.31	2.39	
16	10.11	0.13	1.59	11.42	0.21	1.62	14.52	0.24	11.54	0.63	0.15	14.91	2.64	1.02	1.37	3.14	2.28	
20	8.30	0.10	1.36	9.38	0.17	1.38	11.93	0.18	8.60	0.48	0.13	11.38	2.00	0.87	1.17	2.58	1.94	
25	6.78	0.08	1.14	7.63	0.13	1.18	9.72	0.14	6.51	0.33	0.11	8.42	1.48	0.73	0.98	2.08	1.67	
30	5.75	0.06	0.98	6.50	0.10	0.99	8.28	0.11	5.01	0.25	0.09	6.49	1.11	0.63	0.84	1.73	1.51	
35	5.13	0.05	0.86	5.80	0.09	0.87	7.39	0.09	4.02	0.19	0.08	5.21	0.88	0.55	0.74	1.50	1.44	
40	4.79	0.05	0.77	5.42	0.08	0.78	6.90	0.08	3.37	0.18	0.07	4.37	0.73	0.49	0.66	1.34	1.46	
45	4.69	0.05	0.70	5.30	0.07	0.71	6.75	0.08	2.94	0.13	0.07	3.82	0.63	0.45	0.61	1.24	1.58	
50	4.80	0.05	0.66	5.43	0.07	0.67	6.92	0.08	2.67	0.12	0.06	3.48	0.57	0.42	0.57	1.19	1.77	
55	5.15	0.05	0.63	5.83	0.08	0.64	7.42	0.08	2.54	0.11	0.06	3.30	0.54	0.40	0.54	1.19	2.11	
60	5.79	0.05	0.62	6.54	0.08	0.63	8.33	0.09	2.52	0.11	0.08	3.28	0.53	0.40	0.53	1.22	2.65	
65	6.81	0.06	0.62	7.69	0.10	0.63	9.79	0.10	2.61	0.12	0.08	3.39	0.55	0.40	0.53	1.30	3.50	

POLLUTANT NAME: CARBON MONOXIDE				UNITS: GRAMS PER MILE														
SPEED MPH	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS	MCY	
	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	ALL	
5	183.59	5.23	3.78	189.20	6.81	5.48	284.52	6.99	497.56	34.11	7.67	654.28	65.79	8.40	11.31	7.77	15.00	
10	118.24	4.52	2.61	123.32	7.49	3.78	207.36	5.96	331.04	22.70	5.29	435.30	43.77	5.79	7.80	4.89	13.33	
15	91.52	3.98	1.88	94.66	6.50	2.73	159.18	5.20	232.69	15.95	3.82	305.98	30.77	4.18	5.63	3.27	12.06	
16	87.36	3.88	1.77	90.34	6.34	2.57	151.92	5.07	218.29	14.97	3.59	287.04	28.86	3.94	5.30	3.04	11.84	
20	73.98	3.55	1.42	76.52	5.78	2.08	128.67	4.61	172.82	11.85	2.89	227.24	22.85	3.16	4.25	2.32	11.06	
25	62.98	3.22	1.12	65.14	5.18	1.63	109.54	4.16	135.60	9.30	2.28	178.31	17.93	2.49	3.38	1.75	10.35	
30	56.46	2.95	0.93	58.40	4.73	1.35	98.20	3.80	112.42	7.71	1.89	147.82	14.86	2.06	2.78	1.40	9.82	
35	53.31	2.73	0.80	55.13	4.37	1.16	92.71	3.52	98.47	6.75	1.63	129.48	13.02	1.79	2.41	1.19	9.50	
40	53.00	2.55	0.73	54.82	4.10	1.06	92.16	3.30	91.12	6.25	1.48	119.82	12.05	1.62	2.18	1.07	9.41	
45	55.49	2.42	0.69	57.39	3.91	1.00	96.52	3.14	89.10	6.11	1.40	117.16	11.78	1.53	2.07	1.03	9.61	
50	61.19	2.33	0.68	63.29	3.80	0.99	106.42	3.05	92.04	6.31	1.39	121.03	12.17	1.52	2.05	1.04	10.19	
55	71.06	2.28	0.71	73.49	3.77	1.03	123.58	3.02	100.46	6.89	1.44	132.10	13.28	1.58	2.13	1.13	11.35	
60	86.90	2.29	0.77	89.87	3.88	1.12	151.13	3.08	115.84	7.94	1.57	152.33	15.32	1.72	2.31	1.29	13.44	
65	111.91	2.38	0.88	115.74	4.09	1.27	194.64	3.26	141.14	9.68	1.78	185.59	18.66	1.95	2.63	1.58	17.09	

POLLUTANT NAME: OXIDES OF NITROGEN				UNITS: GRAMS PER MILE														
SPEED MPH	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS	MCY	
	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	ALL	
5	2.91	0.19	3.44	2.92	0.40	4.41	4.78	0.49	5.23	1.39	14.27	7.23	4.26	11.89	12.74	25.87	0.98	
10	3.08	0.17	2.86	3.07	0.34	3.66	5.03	0.43	5.49	1.48	11.84	7.80	4.48	9.87	10.57	19.79	0.91	
15	3.22	0.15	2.46	3.22	0.30	3.15	5.28	0.38	5.76	1.54	10.18	7.96	4.69	8.48	9.09	15.91	0.85	
16	3.25	0.15	2.39	3.25	0.30	3.07	5.33	0.37	5.81	1.55	9.92	8.04	4.74	8.27	8.85	15.32	0.85	
20	3.37	0.14	2.19	3.38	0.27	2.80	5.53	0.34	6.02	1.61	9.06	8.33	4.91	7.56	8.99	13.45	0.82	
25	3.53	0.13	2.02	3.53	0.25	2.59	5.80	0.31	6.29	1.68	8.37	8.70	5.12	6.97	7.47	11.95	0.79	
30	3.70	0.12	1.93	3.70	0.24	2.47	6.06	0.29	6.55	1.75	8.00	9.06	5.34	6.67	7.14	11.17	0.78	
35	3.88	0.12	1.91	3.88	0.23	2.45	6.33	0.28	6.82	1.82	7.93	9.43	5.56	6.61	7.08	10.97	0.77	
40	4.03	0.12	1.96	4.03	0.23	2.52	6.60	0.28	7.09	1.89	8.14	9.80	5.77	6.78	7.26	11.32	0.78	
45	4.19	0.12	2.09	4.19	0.23	2.68	6.89	0.28	7.35	1.96	8.65	10.16	5.99	7.21	7.73	12.29	0.80	
50	4.36	0.12	2.30	4.36	0.23	2.95	7.15	0.28	7.61	2.03	9.54	10.53	6.20	7.95	8.52	14.03	0.82	
55	4.53	0.12	2.63	4.53	0.24	3.37	7.43	0.30	7.88	2.10	10.89	10.90	6.42	9.08	9.73	16.83	0.86	
60	4.70	0.13	3.11	4.70	0.26	3.99	7.71	0.31	8.14	2.17	12.89	11.26	6.64	10.74	11.51	21.22	0.91	
65	4.87	0.14	3.81	4.87	0.28	4.89	7.99	0.34	8.41	2.24	15.80	11.63	6.85	13.17	14.11	28.13	0.98	

TABLE 1 (CONTINUED): SUMMERTIME RUNNING ENHANCED I/M EXHAUST EMISSION FACTORS AT 75 DEG F

POLLUTANT NAME: CARBON DIOXIDE				UNITS: GRAMS PER MILE														
SPEED MPH	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK DIESEL	URBAN BUS DIESEL	MCY ALL	
	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL				
5	1,276.31	905.97	426.33	1,299.06	1,135.70	430.75	1,547.63	1,625.89	2,513.51	2,513.51	1,725.97	2,513.51	2,513.51	1,720.59	1,724.74	1,745.37	278.20	
10	864.45	684.80	426.33	881.84	858.20	430.75	1,169.47	1,228.80	1,872.27	1,672.27	1,725.97	1,872.27	1,672.27	1,720.59	1,724.74	1,745.37	228.98	
15	756.41	536.93	426.33	789.90	673.08	430.75	917.21	963.58	1,175.48	1,175.48	1,725.97	1,175.48	1,175.48	1,720.59	1,724.74	1,745.37	196.79	
16	723.76	513.75	426.33	736.68	644.02	430.75	877.61	921.99	1,102.72	1,102.72	1,725.97	1,102.72	1,102.72	1,720.59	1,724.74	1,745.37	191.54	
20	615.74	437.07	426.33	626.71	547.90	430.75	746.63	784.38	873.00	873.00	1,725.97	873.00	873.00	1,720.59	1,724.74	1,745.37	174.28	
25	520.22	369.27	426.33	529.49	462.90	430.75	630.80	662.70	685.01	685.01	1,725.97	685.01	685.01	1,720.59	1,724.74	1,745.37	159.74	
30	456.17	323.81	426.33	464.31	405.82	430.75	553.15	581.11	567.89	567.89	1,725.97	567.89	567.89	1,720.59	1,724.74	1,745.37	151.58	
35	415.18	294.71	426.33	422.58	369.44	430.75	503.43	528.89	497.42	497.42	1,725.97	497.42	497.42	1,720.59	1,724.74	1,745.37	148.91	
40	392.19	278.39	426.33	399.19	348.98	430.75	475.55	499.60	460.33	460.33	1,725.97	460.33	460.33	1,720.59	1,724.74	1,745.37	151.57	
45	384.51	272.94	426.33	391.38	342.15	430.75	466.24	489.82	450.08	450.08	1,725.97	450.08	450.08	1,720.59	1,724.74	1,745.37	159.91	
50	391.27	277.74	426.33	398.24	348.16	430.75	474.44	498.43	464.95	464.95	1,725.97	464.95	464.95	1,720.59	1,724.74	1,745.37	174.97	
55	413.24	293.33	426.33	420.80	367.71	430.75	501.08	526.42	507.47	507.47	1,725.97	507.47	507.47	1,720.59	1,724.74	1,745.37	198.66	
60	452.98	321.54	426.33	461.06	403.08	430.75	549.27	577.05	585.19	585.19	1,725.97	585.19	585.19	1,720.59	1,724.74	1,745.37	234.19	
65	515.37	365.82	426.33	524.55	458.59	430.75	624.92	656.52	712.97	712.97	1,725.97	712.97	712.97	1,720.59	1,724.74	1,745.37	286.73	

POLLUTANT NAME: EXHAUST PARTICULATES, PMEX10				UNITS: GRAMS PER MILE														
SPEED MPH	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK DIESEL	URBAN BUS DIESEL	MCY ALL	
	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL				
5	0.17	0.04	0.56	0.17	0.09	0.55	0.18	0.11	0.17	0.05	0.85	0.17	0.02	0.75	1.12	0.18	0.01	
10	0.12	0.03	0.44	0.12	0.06	0.43	0.13	0.07	0.11	0.03	0.67	0.11	0.02	0.59	0.88	0.13	0.00	
15	0.09	0.02	0.35	0.09	0.04	0.35	0.09	0.05	0.08	0.02	0.53	0.08	0.01	0.47	0.71	0.10	0.00	
16	0.09	0.02	0.34	0.09	0.04	0.33	0.09	0.05	0.07	0.02	0.51	0.07	0.01	0.45	0.68	0.09	0.00	
20	0.07	0.01	0.29	0.07	0.03	0.29	0.07	0.04	0.05	0.02	0.44	0.05	0.01	0.39	0.58	0.08	0.00	
25	0.06	0.01	0.24	0.06	0.02	0.24	0.06	0.03	0.04	0.01	0.37	0.04	0.01	0.33	0.49	0.06	0.00	
30	0.05	0.01	0.21	0.05	0.02	0.21	0.05	0.02	0.03	0.01	0.32	0.03	0.00	0.28	0.42	0.05	0.00	
35	0.04	0.01	0.18	0.04	0.02	0.18	0.05	0.02	0.03	0.01	0.28	0.03	0.00	0.25	0.37	0.04	0.00	
40	0.04	0.01	0.16	0.04	0.01	0.16	0.04	0.02	0.02	0.01	0.25	0.02	0.00	0.22	0.33	0.04	0.00	
45	0.04	0.01	0.15	0.04	0.01	0.15	0.04	0.02	0.02	0.01	0.23	0.02	0.00	0.20	0.30	0.04	0.00	
50	0.04	0.01	0.14	0.04	0.01	0.14	0.04	0.02	0.02	0.00	0.21	0.02	0.00	0.19	0.28	0.04	0.00	
55	0.04	0.01	0.13	0.04	0.01	0.13	0.05	0.02	0.02	0.00	0.20	0.02	0.00	0.18	0.27	0.04	0.00	
60	0.05	0.01	0.13	0.05	0.01	0.13	0.05	0.02	0.02	0.00	0.20	0.02	0.00	0.18	0.26	0.04	0.00	
65	0.06	0.01	0.13	0.06	0.02	0.13	0.06	0.02	0.02	0.00	0.20	0.02	0.00	0.18	0.26	0.04	0.00	

POLLUTANT NAME: TIRE WEAR PARTICULATES, PMTW10							UNITS: GRAMS PER MILE										
SPEED	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS	MCY
MPH	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	ALL
ALL	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.04	0.01	0.00

POLLUTANT NAME: BRAKE WEAR PARTICULATES, PMBW10							UNITS: GRAMS PER MILE										
SPEED	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS	MCY
MPH	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	ALL
ALL	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.03	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01

TABLE 2: VARIABLE START EMISSION RATES IN GRAMS PER TRIP

POLLUTANT NAME: REACTIVE ORGANIC GASES				UNITS: GRAMS PER TRIP														
TIMES MIN	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK DIESEL	URBAN BUS DIESEL	MCY ALL	
	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL				
5	1.67	0.02	0.00	1.85	0.02	0.00	2.37	0.03	0.25	0.07	0.00	0.26	0.08	0.00	0.00	0.00	0.11	
10	1.65	0.04	0.00	1.84	0.04	0.00	2.35	0.06	0.25	0.14	0.00	0.26	0.15	0.00	0.00	0.00	0.22	
20	1.67	0.07	0.00	1.86	0.09	0.00	2.38	0.11	0.25	0.27	0.00	0.26	0.28	0.00	0.00	0.00	0.41	
30	1.74	0.10	0.00	1.94	0.12	0.00	2.48	0.16	0.26	0.39	0.00	0.27	0.39	0.00	0.00	0.00	0.58	
60	2.15	0.18	0.00	2.40	0.21	0.00	3.07	0.27	0.32	0.64	0.00	0.34	0.65	0.00	0.00	0.00	0.96	
120	2.36	0.24	0.00	2.63	0.29	0.00	3.36	0.37	0.35	0.78	0.00	0.37	0.79	0.00	0.00	0.00	1.17	
180	2.57	0.26	0.00	2.86	0.31	0.00	3.66	0.39	0.38	0.83	0.00	0.40	0.84	0.00	0.00	0.00	1.25	
300	2.99	0.29	0.00	3.33	0.34	0.00	4.26	0.43	0.45	0.92	0.00	0.47	0.93	0.00	0.00	0.00	1.38	
360	3.20	0.30	0.00	3.56	0.36	0.00	4.55	0.46	0.48	0.96	0.00	0.50	0.98	0.00	0.00	0.00	1.45	

480	3.61	0.33	0.00	4.03	0.39	0.00	5.15	0.50	0.54	1.04	0.00	0.58	1.06	0.00	0.00	0.00	1.57
540	3.82	0.34	0.00	4.26	0.41	0.00	5.45	0.52	0.57	1.08	0.00	0.60	1.10	0.00	0.00	0.00	1.63
1440	4.45	0.38	0.00	4.96	0.45	0.00	6.34	0.58	0.66	1.19	0.00	0.69	1.21	0.00	0.00	0.00	1.79

POLLUTANT NAME: CARBON MONOXIDE				UNITS: GRAMS PER TRIP													
TIMES	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS	MCY ALL
	MIN	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	
5	13.27	0.25	0.00	14.35	0.33	0.00	25.38	0.35	5.36	1.92	0.00	5.83	1.85	0.00	0.00	0.00	0.57
10	11.75	0.50	0.00	12.71	0.66	0.00	22.48	0.69	4.74	3.76	0.00	5.17	3.83	0.00	0.00	0.00	1.12
20	9.07	0.98	0.00	9.81	1.27	0.00	17.35	1.32	3.66	7.21	0.00	3.99	6.95	0.00	0.00	0.00	2.14
30	6.87	1.39	0.00	7.43	1.83	0.00	13.14	1.91	2.77	10.35	0.00	3.02	9.97	0.00	0.00	0.00	3.08
60	3.13	2.50	0.00	3.38	3.27	0.00	5.99	3.39	1.26	17.89	0.00	1.38	17.24	0.00	0.00	0.00	5.32
120	8.44	3.73	0.00	9.12	4.84	0.00	16.14	4.96	3.41	24.52	0.00	3.71	23.64	0.00	0.00	0.00	7.29
180	13.33	4.00	0.00	14.42	5.17	0.00	26.50	5.27	5.38	25.24	0.00	5.88	24.33	0.00	0.00	0.00	7.51
300	21.56	4.47	0.00	23.32	5.75	0.00	41.24	5.83	8.70	26.75	0.00	9.48	25.78	0.00	0.00	0.00	7.95
360	24.90	4.68	0.00	26.93	6.00	0.00	47.63	6.07	10.05	27.53	0.00	10.95	26.54	0.00	0.00	0.00	8.19
480	30.01	5.02	0.00	32.46	6.43	0.00	57.42	6.50	12.12	29.18	0.00	13.20	28.12	0.00	0.00	0.00	8.68
540	31.80	5.16	0.00	34.39	6.61	0.00	60.83	6.68	12.84	30.04	0.00	13.98	28.95	0.00	0.00	0.00	8.93
1440	34.03	5.44	0.00	36.81	7.00	0.00	65.10	7.10	13.74	32.76	0.00	14.96	31.57	0.00	0.00	0.00	9.74

POLLUTANT NAME: OXIDES OF NITROGEN				UNITS: GRAMS PER TRIP													
TIMES	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS	MCY ALL
	MIN	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	
5	0.62	0.07	0.00	0.62	0.11	0.00	1.00	0.12	1.13	0.46	0.00	1.21	0.44	0.00	0.00	0.00	0.04
10	0.67	0.08	0.00	0.67	0.12	0.00	1.09	0.14	1.23	0.70	0.00	1.32	0.67	0.00	0.00	0.00	0.07
20	0.77	0.09	0.00	0.77	0.15	0.00	1.25	0.18	1.41	1.11	0.00	1.51	1.06	0.00	0.00	0.00	0.10
30	0.85	0.10	0.00	0.85	0.17	0.00	1.38	0.21	1.56	1.45	0.00	1.68	1.38	0.00	0.00	0.00	0.13
60	1.02	0.13	0.00	1.03	0.21	0.00	1.67	0.26	1.88	2.00	0.00	2.02	1.91	0.00	0.00	0.00	0.19
120	1.03	0.13	0.00	1.03	0.22	0.00	1.67	0.27	1.89	2.01	0.00	2.02	1.91	0.00	0.00	0.00	0.19
180	1.00	0.13	0.00	1.01	0.22	0.00	1.63	0.27	1.84	2.00	0.00	1.98	1.91	0.00	0.00	0.00	0.19
300	0.93	0.13	0.00	0.93	0.21	0.00	1.51	0.27	1.71	1.97	0.00	1.83	1.88	0.00	0.00	0.00	0.18
360	0.88	0.13	0.00	0.88	0.21	0.00	1.44	0.27	1.62	1.95	0.00	1.74	1.86	0.00	0.00	0.00	0.18
480	0.76	0.12	0.00	0.76	0.20	0.00	1.24	0.26	1.40	1.90	0.00	1.50	1.82	0.00	0.00	0.00	0.18
540	0.69	0.12	0.00	0.69	0.20	0.00	1.12	0.25	1.27	1.87	0.00	1.36	1.79	0.00	0.00	0.00	0.17
1440	0.42	0.11	0.00	0.43	0.17	0.00	0.69	0.22	0.78	1.76	0.00	0.84	1.68	0.00	0.00	0.00	0.16

POLLUTANT NAME: CARBON DIOXIDE				UNITS: GRAMS PER TRIP														
TIMES	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS	MCY ALL	
	MIN	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL		DIESEL
5	55.05		5.75	0.00	56.11	7.05	0.00	65.75	9.47	86.71	4.37	0.00	86.71	4.37	0.00	0.00	0.00	0.89
10	60.72		6.69	0.00	60.89	8.25	0.00	71.35	11.17	94.10	8.72	0.00	94.10	8.72	0.00	0.00	0.00	1.77
20	69.96		8.80	0.00	70.16	10.91	0.00	82.22	14.92	108.43	17.33	0.00	108.43	17.33	0.00	0.00	0.00	3.53
30	78.84		11.20	0.00	79.06	13.93	0.00	92.64	19.14	122.18	25.86	0.00	122.18	25.86	0.00	0.00	0.00	5.26
60	103.20		20.16	0.00	103.49	25.13	0.00	121.27	34.61	159.93	50.84	0.00	159.93	50.84	0.00	0.00	0.00	10.35
120	139.65		44.67	0.00	140.04	55.74	0.00	164.10	76.15	216.42	86.47	0.00	216.42	86.47	0.00	0.00	0.00	17.60
180	139.76		51.30	0.00	140.15	63.62	0.00	164.23	87.00	216.59	102.16	0.00	216.59	102.16	0.00	0.00	0.00	20.79
300	139.97		63.76	0.00	140.37	79.11	0.00	164.49	108.27	218.93	130.76	0.00	216.93	130.76	0.00	0.00	0.00	26.61
360	140.08		69.68	0.00	140.48	86.72	0.00	164.62	118.69	217.10	143.67	0.00	217.10	143.67	0.00	0.00	0.00	29.23
480	140.30		81.94	0.00	140.70	101.66	0.00	164.88	139.09	217.44	166.71	0.00	217.44	166.71	0.00	0.00	0.00	33.92
540	140.41		87.86	0.00	140.81	108.99	0.00	165.01	149.08	217.61	176.85	0.00	217.61	176.85	0.00	0.00	0.00	35.98
1440	140.74		105.24	0.00	141.14	130.43	0.00	165.39	178.17	218.12	201.69	0.00	218.12	201.69	0.00	0.00	0.00	41.04

TABLE 4: HOT SOAK EMISSION RATES IN GRAMS PER TRIP

TIMES MIN	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS	MCY ALL
	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	
TOG	3.45	0.71	0.00	3.92	0.93	0.00	2.75	1.21	1.40	1.31	0.00	1.82	1.26	0.00	0.00	0.00	1.89

TABLE 5: DIURNAL EMISSION RATES IN GRAMS PER HOUR

TIMES	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS	MCY
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MIN	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	ALL
TOG	1.46	0.13	0.00	2.04	0.14	0.00	1.57	0.14	0.71	0.20	0.00	0.85	0.21	0.00	0.00	0.00	0.70

TABLE 6: RESTING LOSSES IN GRAMS PER HOUR

POLLUTANT NAME: REACTIVE ORGANIC GASES

TEMP DEG F	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS	MCY
	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	ALL
30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
75	0.71	0.06	0.00	0.98	0.08	0.00	0.76	0.06	0.34	0.08	0.00	0.41	0.09	0.00	0.00	0.00	0.19
85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
110	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 7: ESTIMATED TRAVEL FRACTIONS

	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS	MCY
	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	ALL
% VMT	0.72	99.16	0.12	1.16	98.60	0.24	1.26	97.18	0.60	75.15	24.26	0.41	11.98	87.61	99.62	100.00	52.98
% TRIP	1.89	97.89	0.22	1.48	98.24	0.29	1.62	96.64	3.96	86.04	10.01	4.56	30.78	64.65	88.05	100.00	45.80
% VEH	1.89	97.89	0.22	1.48	98.24	0.29	1.62	96.64	3.34	75.45	21.21	3.24	21.89	74.87	97.03	100.00	45.80

TABLE 8: EVAPORATED RUNNING LOSSES IN GRAMS PER MILE

LIGHT DUTY AUTOS NON-CATALYST TEMPERATURE IN DEG F												
SPEED MPH	30	40	50	60	70	75	85	90	95	100	105	110
5	0.000	0.000	0.000	0.000	0.000	3.001	0.000	0.000	0.000	0.000	0.000	0.000
10	0.000	0.000	0.000	0.000	0.000	2.981	0.000	0.000	0.000	0.000	0.000	0.000
15	0.000	0.000	0.000	0.000	0.000	2.961	0.000	0.000	0.000	0.000	0.000	0.000
16	0.000	0.000	0.000	0.000	0.000	3.678	0.000	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000	3.655	0.000	0.000	0.000	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000	0.000	5.668	0.000	0.000	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	0.000	6.873	0.000	0.000	0.000	0.000	0.000	0.000
35	0.000	0.000	0.000	0.000	0.000	7.626	0.000	0.000	0.000	0.000	0.000	0.000
40	0.000	0.000	0.000	0.000	0.000	8.104	0.000	0.000	0.000	0.000	0.000	0.000
45	0.000	0.000	0.000	0.000	0.000	8.404	0.000	0.000	0.000	0.000	0.000	0.000
50	0.000	0.000	0.000	0.000	0.000	8.584	0.000	0.000	0.000	0.000	0.000	0.000
55	0.000	0.000	0.000	0.000	0.000	8.682	0.000	0.000	0.000	0.000	0.000	0.000
60	0.000	0.000	0.000	0.000	0.000	8.720	0.000	0.000	0.000	0.000	0.000	0.000
65	0.000	0.000	0.000	0.000	0.000	8.716	0.000	0.000	0.000	0.000	0.000	0.000

LIGHT DUTY AUTOS CATALYST EQUIPPED TEMPERATURE IN DEG F												
SPEED MPH	30	40	50	60	70	75	85	90	95	100	105	110
5	0.00	0.00	0.00	0.00	0.00	0.380	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.211	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.157	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.174	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.168	0.00	0.00	0.00	0.00	0.00	0.00

25	0.00	0.00	0.00	0.00	0.00	0.250	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	0.00	0.302	0.00	0.00	0.00	0.00	0.00	0.00
35	0.00	0.00	0.00	0.00	0.00	0.335	0.00	0.00	0.00	0.00	0.00	0.00
40	0.00	0.00	0.00	0.00	0.00	0.358	0.00	0.00	0.00	0.00	0.00	0.00
45	0.00	0.00	0.00	0.00	0.00	0.374	0.00	0.00	0.00	0.00	0.00	0.00
50	0.00	0.00	0.00	0.00	0.00	0.385	0.00	0.00	0.00	0.00	0.00	0.00
55	0.00	0.00	0.00	0.00	0.00	0.391	0.00	0.00	0.00	0.00	0.00	0.00
60	0.00	0.00	0.00	0.00	0.00	0.394	0.00	0.00	0.00	0.00	0.00	0.00
65	0.00	0.00	0.00	0.00	0.00	0.395	0.00	0.00	0.00	0.00	0.00	0.00

LIGHT DUTY TRUCK NON-CATALYST
TEMPERATURE IN DEG F

SPEED MPH	30	40	50	60	70	75	85	90	95	100	105	110
5	0.00	0.00	0.00	0.00	0.00	3.719	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	3.678	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	3.648	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	4.528	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	4.497	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	6.968	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	0.00	8.447	0.00	0.00	0.00	0.00	0.00	0.00
35	0.00	0.00	0.00	0.00	0.00	9.371	0.00	0.00	0.00	0.00	0.00	0.00
40	0.00	0.00	0.00	0.00	0.00	9.957	0.00	0.00	0.00	0.00	0.00	0.00
45	0.00	0.00	0.00	0.00	0.00	10.325	0.00	0.00	0.00	0.00	0.00	0.00
50	0.00	0.00	0.00	0.00	0.00	10.546	0.00	0.00	0.00	0.00	0.00	0.00
55	0.00	0.00	0.00	0.00	0.00	10.722	0.00	0.00	0.00	0.00	0.00	0.00
60	0.00	0.00	0.00	0.00	0.00	10.887	0.00	0.00	0.00	0.00	0.00	0.00
65	0.00	0.00	0.00	0.00	0.00	10.994	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 8 (CONTINUED): EVAPORATED RUNNING LOSSES IN GRAMS PER MILE

LIGHT DUTY TRUCKS CATALYST EQUIPPED
TEMPERATURE IN DEG F

SPEED MPH	30	40	50	60	70	75	85	90	95	100	105	110
5	0.00	0.00	0.00	0.00	0.00	0.559	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.314	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.242	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.292	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.287	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.448	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	0.00	0.561	0.00	0.00	0.00	0.00	0.00	0.00
35	0.00	0.00	0.00	0.00	0.00	0.643	0.00	0.00	0.00	0.00	0.00	0.00
40	0.00	0.00	0.00	0.00	0.00	0.704	0.00	0.00	0.00	0.00	0.00	0.00
45	0.00	0.00	0.00	0.00	0.00	0.744	0.00	0.00	0.00	0.00	0.00	0.00
50	0.00	0.00	0.00	0.00	0.00	0.765	0.00	0.00	0.00	0.00	0.00	0.00
55	0.00	0.00	0.00	0.00	0.00	0.793	0.00	0.00	0.00	0.00	0.00	0.00
60	0.00	0.00	0.00	0.00	0.00	0.808	0.00	0.00	0.00	0.00	0.00	0.00
65	0.00	0.00	0.00	0.00	0.00	0.812	0.00	0.00	0.00	0.00	0.00	0.00

MEDIUM DUTY TRUCKS NON-CATALYST
TEMPERATURE IN DEG F

SPEED MPH	30	40	50	60	70	75	85	90	95	100	105	110
5	0.00	0.00	0.00	0.00	0.00	2.864	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	2.832	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	2.809	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	3.487	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	3.483	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	5.386	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	0.00	6.505	0.00	0.00	0.00	0.00	0.00	0.00
35	0.00	0.00	0.00	0.00	0.00	7.217	0.00	0.00	0.00	0.00	0.00	0.00
40	0.00	0.00	0.00	0.00	0.00	7.668	0.00	0.00	0.00	0.00	0.00	0.00

45	0.00	0.00	0.00	0.00	0.00	7.952	0.00	0.00	0.00	0.00	0.00	0.00
50	0.00	0.00	0.00	0.00	0.00	8.122	0.00	0.00	0.00	0.00	0.00	0.00
55	0.00	0.00	0.00	0.00	0.00	8.259	0.00	0.00	0.00	0.00	0.00	0.00
60	0.00	0.00	0.00	0.00	0.00	8.388	0.00	0.00	0.00	0.00	0.00	0.00
65	0.00	0.00	0.00	0.00	0.00	8.458	0.00	0.00	0.00	0.00	0.00	0.00

MEDIUM DUTY TRUCKS CATALYST EQUIPPED
TEMPERATURE IN DEG F

SPEED MPH	30	40	50	60	70	75	85	90	95	100	105	110
5	0.00	0.00	0.00	0.00	0.00	0.751	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.403	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.304	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.358	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.347	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.520	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	0.00	0.638	0.00	0.00	0.00	0.00	0.00	0.00
35	0.00	0.00	0.00	0.00	0.00	0.722	0.00	0.00	0.00	0.00	0.00	0.00
40	0.00	0.00	0.00	0.00	0.00	0.791	0.00	0.00	0.00	0.00	0.00	0.00
45	0.00	0.00	0.00	0.00	0.00	0.814	0.00	0.00	0.00	0.00	0.00	0.00
50	0.00	0.00	0.00	0.00	0.00	0.827	0.00	0.00	0.00	0.00	0.00	0.00
55	0.00	0.00	0.00	0.00	0.00	0.842	0.00	0.00	0.00	0.00	0.00	0.00
60	0.00	0.00	0.00	0.00	0.00	0.846	0.00	0.00	0.00	0.00	0.00	0.00
65	0.00	0.00	0.00	0.00	0.00	0.841	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 1: WINTERTIME RUNNING ENHANCED I/M EXHAUST EMISSION FACTORS AT 50 DEG F

POLLUTANT NAME: REACTIVE ORGANIC GASES			UNITS: GRAMS PER MILE														
SPEED MPH	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS	MCY
	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	ALL
5	25.85	0.29	2.63	29.66	0.48	2.68	38.29	0.55	30.81	1.95	0.25	40.60	7.80	1.69	2.27	6.08	3.91
10	18.38	0.19	2.06	21.09	0.32	2.10	27.24	0.36	20.16	1.25	0.20	26.57	5.08	1.33	1.78	4.41	2.85
15	13.67	0.13	1.66	15.69	0.22	1.69	20.27	0.25	13.73	0.83	0.16	18.11	3.44	1.06	1.43	3.31	2.20
18	12.96	0.13	1.59	14.87	0.21	1.62	19.21	0.23	12.78	0.77	0.15	16.86	3.20	1.02	1.37	3.14	2.10
20	10.64	0.10	1.36	12.21	0.16	1.38	15.79	0.18	9.75	0.57	0.13	12.67	2.42	0.87	1.17	2.58	1.78
25	8.67	0.08	1.14	9.95	0.13	1.16	12.88	0.14	7.21	0.41	0.11	9.52	1.77	0.73	0.98	2.08	1.53
30	7.39	0.06	0.98	8.48	0.10	0.99	10.97	0.11	5.56	0.30	0.09	7.35	1.35	0.63	0.84	1.73	1.38
35	6.59	0.05	0.86	7.57	0.09	0.87	9.79	0.09	4.46	0.24	0.08	5.90	1.07	0.55	0.74	1.50	1.32
40	6.16	0.05	0.77	7.07	0.08	0.78	9.15	0.08	3.73	0.19	0.07	4.95	0.89	0.49	0.66	1.34	1.34
45	6.02	0.05	0.70	6.92	0.07	0.71	8.65	0.08	3.26	0.17	0.07	4.32	0.77	0.45	0.61	1.24	1.43
50	6.17	0.05	0.66	7.09	0.07	0.67	9.17	0.08	2.97	0.15	0.06	3.94	0.70	0.42	0.57	1.19	1.62
55	6.62	0.05	0.63	7.60	0.08	0.64	9.83	0.08	2.82	0.14	0.06	3.75	0.66	0.40	0.54	1.19	1.93
60	7.43	0.05	0.62	8.53	0.08	0.63	11.04	0.09	2.80	0.14	0.06	3.72	0.65	0.40	0.53	1.22	2.42
65	8.74	0.06	0.82	10.03	0.10	0.63	12.97	0.11	2.80	0.15	0.06	3.85	0.68	0.40	0.53	1.30	3.21

POLLUTANT NAME: CARBON MONOXIDE			UNITS: GRAMS PER MILE														
SPEED MPH	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS	MCY
	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	ALL
5	219.26	4.80	3.78	234.88	8.29	5.48	409.70	7.12	526.63	41.17	7.87	703.12	79.62	8.40	11.31	7.77	13.82
10	159.81	4.12	2.61	171.19	6.99	3.78	299.61	6.04	350.37	27.39	5.29	467.80	52.97	5.79	7.80	4.89	12.29
15	122.67	3.61	1.88	131.41	6.04	2.73	229.21	5.25	246.29	19.25	3.82	328.83	37.23	4.18	5.83	3.27	11.13
16	117.07	3.53	1.77	125.41	5.88	2.57	218.75	5.11	231.04	18.06	3.59	308.47	34.93	3.84	5.30	3.04	10.93
20	99.16	3.22	1.42	106.22	5.33	2.06	185.28	4.65	182.81	14.30	2.88	244.21	27.65	3.16	4.25	2.32	10.23
25	84.41	2.91	1.12	90.42	4.78	1.63	157.73	4.18	143.52	11.22	2.28	191.62	21.70	2.49	3.36	1.75	9.55
30	75.87	2.67	0.93	81.08	4.36	1.35	141.40	3.82	118.99	9.30	1.88	158.86	17.99	2.08	2.78	1.40	9.05
35	71.45	2.47	0.80	76.53	4.04	1.16	133.50	3.54	104.22	8.15	1.63	139.15	15.76	1.79	2.41	1.19	8.75
40	71.03	2.31	0.73	76.09	3.80	1.06	132.73	3.33	96.45	7.54	1.48	128.77	14.58	1.62	2.18	1.07	8.65
45	74.38	2.20	0.69	79.67	3.63	1.00	138.98	3.18	94.30	7.37	1.40	125.91	14.26	1.53	2.07	1.03	8.81
50	82.01	2.12	0.68	87.85	3.55	0.99	153.24	3.09	97.42	7.62	1.39	130.07	14.73	1.52	2.05	1.04	9.31
55	95.24	2.09	0.71	102.02	3.55	1.03	177.95	3.06	106.32	8.31	1.44	141.96	16.07	1.58	2.13	1.13	10.33
60	116.47	2.12	0.77	124.76	3.66	1.12	217.62	3.16	122.61	9.58	1.57	163.70	18.54	1.72	2.31	1.29	12.18
65	149.99	2.22	0.89	160.68	3.93	1.27	280.27	3.37	149.38	11.68	1.78	199.44	22.58	1.95	2.63	1.58	15.42

POLLUTANT NAME: OXIDES OF NITROGEN			UNITS: GRAMS PER MILE														
SPEED MPH	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS	MCY
	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	ALL
5	4.30	0.30	3.96	4.32	0.62	5.08	7.10	0.78	7.04	2.08	18.42	9.98	6.31	13.68	14.68	29.76	1.41
10	4.52	0.26	3.29	4.54	0.53	4.21	7.46	0.67	7.40	2.17	13.62	10.49	6.83	11.35	12.16	22.76	1.30
15	4.75	0.24	2.82	4.77	0.47	3.62	7.84	0.59	7.75	2.27	11.71	10.99	6.95	9.76	10.45	18.30	1.23
16	4.80	0.23	2.75	4.81	0.46	3.53	7.81	0.58	7.83	2.29	11.41	11.10	7.01	9.51	10.18	17.63	1.22
20	4.88	0.22	2.52	5.00	0.43	3.23	8.22	0.53	8.11	2.38	10.43	11.50	7.27	8.69	9.31	15.47	1.18
25	5.22	0.20	2.32	5.23	0.40	2.98	8.60	0.49	8.47	2.48	9.62	12.01	7.59	8.02	8.59	13.75	1.14
30	5.46	0.20	2.22	5.47	0.38	2.85	8.00	0.46	8.83	2.58	9.20	12.51	7.91	7.67	8.22	12.85	1.12
35	5.70	0.19	2.20	5.72	0.36	2.82	9.40	0.45	9.18	2.69	9.12	13.02	8.23	7.80	8.14	12.62	1.12
40	5.94	0.19	2.26	5.96	0.36	2.90	9.80	0.44	9.54	2.80	9.36	13.52	8.55	7.80	8.36	13.03	1.13
45	6.19	0.19	2.40	6.21	0.36	3.08	10.21	0.44	9.90	2.90	9.96	14.03	8.87	8.30	8.69	14.14	1.15
50	6.44	0.19	2.65	6.46	0.37	3.39	10.62	0.45	10.25	3.01	10.97	14.54	9.19	9.15	9.80	16.14	1.19
55	6.69	0.20	3.02	6.71	0.38	3.88	11.03	0.47	10.61	3.11	12.53	15.04	9.51	10.45	11.19	19.36	1.25
60	6.94	0.20	3.56	6.96	0.40	4.59	11.45	0.49	10.97	3.22	14.83	15.55	9.83	12.36	13.24	24.41	1.32
65	7.19	0.22	4.39	7.21	0.44	5.62	11.86	0.54	11.32	3.32	18.18	16.05	10.15	15.15	16.23	32.37	1.41

TABLE 1 (CONTINUED): WINTERTIME RUNNING ENHANCED I/M EXHAUST EMISSION FACTORS AT 50 DEG F

POLLUTANT NAME: CARBON DIOXIDE				UNITS: GRAMS PER MILE														MCY ALL	
SPEED MPH	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK		URBAN BUS		
	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	DIESEL		
5	1,313.99	952.17	426.33	1,317.85	1,190.36	430.75	1,547.63	1,625.88	2,513.51	2,513.51	1,725.97	2,513.51	2,513.51	1,720.59	1,724.74	1,745.37	278.20		
10	982.92	719.51	426.33	995.84	899.50	430.75	1,169.47	1,228.60	1,672.27	1,672.27	1,725.97	1,672.27	1,672.27	1,720.59	1,724.74	1,745.37	229.98		
15	778.74	564.31	426.33	781.03	705.46	430.75	917.21	963.59	1,175.48	1,175.49	1,725.97	1,175.48	1,175.49	1,720.59	1,724.74	1,745.37	198.79		
16	745.12	539.95	426.33	747.31	675.02	430.75	877.61	921.99	1,102.72	1,102.72	1,725.97	1,102.72	1,102.72	1,720.59	1,724.74	1,745.37	191.54		
20	633.91	459.36	426.33	635.77	574.27	430.75	748.63	784.38	873.00	873.00	1,725.97	873.00	873.00	1,720.59	1,724.74	1,745.37	174.28		
25	535.57	388.10	426.33	537.15	485.19	430.75	630.80	662.70	695.01	695.01	1,725.97	695.01	695.01	1,720.59	1,724.74	1,745.37	158.74		
30	469.64	340.32	426.33	471.02	425.46	430.75	553.15	581.11	587.89	587.89	1,725.97	587.89	587.89	1,720.59	1,724.74	1,745.37	151.56		
35	427.43	309.74	426.33	428.68	387.22	430.75	503.43	528.86	497.42	497.42	1,725.97	497.42	497.42	1,720.59	1,724.74	1,745.37	148.81		
40	403.76	292.58	426.33	404.95	365.77	430.75	475.55	499.80	460.33	460.33	1,725.97	460.33	460.33	1,720.59	1,724.74	1,745.37	151.57		
45	395.86	286.85	426.33	397.02	358.61	430.75	466.24	489.82	450.08	450.08	1,725.97	450.08	450.08	1,720.59	1,724.74	1,745.37	159.91		
50	402.82	291.90	426.33	404.00	364.92	430.75	474.44	498.43	464.95	464.95	1,725.97	464.95	464.95	1,720.59	1,724.74	1,745.37	174.97		
55	425.43	308.29	426.33	428.68	385.41	430.75	501.08	526.42	507.47	507.47	1,725.97	507.47	507.47	1,720.59	1,724.74	1,745.37	198.68		
60	466.35	337.94	426.33	467.72	422.48	430.75	548.27	577.05	585.19	585.19	1,725.97	585.19	585.19	1,720.59	1,724.74	1,745.37	234.19		
65	530.58	384.48	426.33	532.14	480.66	430.75	624.92	656.52	712.97	712.97	1,725.97	712.97	712.97	1,720.59	1,724.74	1,745.37	286.73		

POLLUTANT NAME: EXHAUST PARTICULATES, PMEX10				UNITS: GRAMS PER MILE														MCY ALL
SPEED MPH	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS		
	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL		
5	0.17	0.04	0.56	0.17	0.09	0.55	0.18	0.11	0.17	0.05	0.85	0.17	0.02	0.75	1.12	0.18	0.01	
10	0.12	0.03	0.44	0.12	0.08	0.43	0.13	0.07	0.11	0.03	0.67	0.11	0.02	0.59	0.88	0.13	0.00	
15	0.09	0.02	0.35	0.09	0.04	0.35	0.09	0.05	0.08	0.02	0.53	0.08	0.01	0.47	0.71	0.10	0.00	
16	0.09	0.02	0.34	0.09	0.04	0.33	0.09	0.05	0.07	0.02	0.51	0.07	0.01	0.45	0.68	0.09	0.00	
20	0.07	0.01	0.29	0.07	0.03	0.29	0.07	0.04	0.05	0.02	0.44	0.05	0.01	0.39	0.58	0.08	0.00	
25	0.06	0.01	0.24	0.06	0.02	0.24	0.06	0.03	0.04	0.01	0.37	0.04	0.01	0.33	0.49	0.06	0.00	
30	0.05	0.01	0.21	0.05	0.02	0.21	0.05	0.02	0.03	0.01	0.32	0.03	0.00	0.28	0.42	0.05	0.00	
35	0.04	0.01	0.18	0.04	0.02	0.18	0.05	0.02	0.03	0.01	0.28	0.03	0.00	0.25	0.37	0.04	0.00	
40	0.04	0.01	0.16	0.04	0.01	0.16	0.04	0.02	0.02	0.01	0.25	0.02	0.00	0.22	0.33	0.04	0.00	
45	0.04	0.01	0.15	0.04	0.01	0.15	0.04	0.02	0.02	0.01	0.23	0.02	0.00	0.20	0.30	0.04	0.00	
50	0.04	0.01	0.14	0.04	0.01	0.14	0.04	0.02	0.02	0.00	0.21	0.02	0.00	0.19	0.28	0.04	0.00	
55	0.04	0.01	0.13	0.04	0.01	0.13	0.05	0.02	0.02	0.00	0.20	0.02	0.00	0.18	0.27	0.04	0.00	
60	0.05	0.01	0.13	0.05	0.01	0.13	0.05	0.02	0.02	0.00	0.20	0.02	0.00	0.18	0.26	0.04	0.00	
65	0.06	0.01	0.13	0.06	0.02	0.13	0.06	0.02	0.02	0.00	0.20	0.02	0.00	0.18	0.26	0.04	0.00	

POLLUTANT NAME: TIRE WEAR PARTICULATES, PMTW10							UNITS: GRAMS PER MILE											MCY ALL
SPEED	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS		
MPH	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL		
ALL	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.04	0.01	0.00	

POLLUTANT NAME: BRAKE WEAR PARTICULATES, PMBW10							UNITS: GRAMS PER MILE											MCY ALL
SPEED	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK		URBAN BUS	
MPH	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL		
ALL	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.03	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01		

TABLE 2: VARIABLE START EMISSION RATES IN GRAMS PER TRIP

POLLUTANT NAME: REACTIVE ORGANIC GASES				UNITS: GRAMS PER TRIP														MCY ALL	
TIMES MIN	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK		URBAN BUS		
	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	DIESEL		
5	3.51	0.04	0.00	3.91	0.05	0.00	5.00	0.06	0.25	0.07	0.00	0.26	0.08	0.00	0.00	0.00	0.21		
10	3.48	0.08	0.00	3.87	0.09	0.00	4.96	0.12	0.25	0.14	0.00	0.26	0.15	0.00	0.00	0.00	0.42		
20	3.51	0.18	0.00	3.91	0.18	0.00	5.00	0.22	0.25	0.27	0.00	0.26	0.28	0.00	0.00	0.00	0.79		
30	3.67	0.22	0.00	4.09	0.26	0.00	5.23	0.32	0.26	0.39	0.00	0.27	0.39	0.00	0.00	0.00	1.12		
60	4.53	0.38	0.00	5.05	0.44	0.00	6.46	0.54	0.32	0.64	0.00	0.34	0.65	0.00	0.00	0.00	1.84		
120	4.97	0.52	0.00	5.54	0.60	0.00	7.08	0.74	0.35	0.78	0.00	0.37	0.79	0.00	0.00	0.00	2.25		
180	5.41	0.55	0.00	6.03	0.63	0.00	7.71	0.79	0.38	0.83	0.00	0.40	0.84	0.00	0.00	0.00	2.38		
300	6.29	0.62	0.00	7.01	0.71	0.00	8.97	0.88	0.45	0.92	0.00	0.47	0.93	0.00	0.00	0.00	2.65		
360	6.73	0.65	0.00	7.50	0.74	0.00	9.59	0.92	0.48	0.98	0.00	0.50	0.98	0.00	0.00	0.00	2.77		

480	7.61	0.71	0.00	8.48	0.81	0.00	10.85	1.01	0.54	1.04	0.00	0.56	1.06	0.00	0.00	0.00	3.01
540	8.05	0.73	0.00	8.97	0.84	0.00	11.47	1.05	0.57	1.08	0.00	0.60	1.10	0.00	0.00	0.00	3.12
1440	9.37	0.82	0.00	10.44	0.94	0.00	13.36	1.16	0.66	1.19	0.00	0.69	1.21	0.00	0.00	0.00	3.42

POLLUTANT NAME: CARBON MONOXIDE				UNITS: GRAMS PER TRIP													
TIMES MIN	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS	MCY
	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	ALL
5	13.27	0.80	0.00	14.35	0.78	0.00	25.38	0.80	5.38	1.92	0.00	5.83	1.86	0.00	0.00	0.00	1.48
10	11.75	1.18	0.00	12.71	1.53	0.00	22.48	1.58	4.74	3.76	0.00	5.17	3.63	0.00	0.00	0.00	2.90
20	9.07	2.28	0.00	9.81	2.96	0.00	17.36	3.05	3.66	7.21	0.00	3.99	6.95	0.00	0.00	0.00	5.56
30	6.87	3.30	0.00	7.43	4.29	0.00	13.14	4.41	2.77	10.35	0.00	3.02	9.97	0.00	0.00	0.00	7.96
60	3.13	5.89	0.00	3.38	7.64	0.00	5.99	7.82	1.26	17.89	0.00	1.38	17.24	0.00	0.00	0.00	13.80
120	8.44	8.77	0.00	9.12	11.28	0.00	16.14	11.43	3.41	24.52	0.00	3.71	23.64	0.00	0.00	0.00	18.82
180	13.33	9.39	0.00	14.42	12.03	0.00	25.50	12.14	5.36	25.24	0.00	5.86	24.33	0.00	0.00	0.00	19.47
300	21.56	10.49	0.00	23.32	13.37	0.00	41.24	13.42	8.70	26.75	0.00	9.48	25.78	0.00	0.00	0.00	20.63
360	24.90	10.97	0.00	26.93	13.86	0.00	47.63	13.98	10.05	27.53	0.00	10.95	26.54	0.00	0.00	0.00	21.24
480	30.01	11.77	0.00	32.46	14.96	0.00	57.42	14.97	12.12	29.18	0.00	13.20	28.12	0.00	0.00	0.00	22.51
540	31.80	12.09	0.00	34.39	15.38	0.00	60.83	15.39	12.84	30.04	0.00	13.98	28.85	0.00	0.00	0.00	23.17
1440	34.03	12.77	0.00	36.81	16.29	0.00	65.10	16.36	13.74	32.76	0.00	14.96	31.57	0.00	0.00	0.00	25.27

POLLUTANT NAME: OXIDES OF NITROGEN				UNITS: GRAMS PER TRIP													
TIMES MIN	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS	MCY
	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	ALL
5	0.75	0.08	0.00	0.75	0.13	0.00	1.21	0.14	1.13	0.46	0.00	1.21	0.44	0.00	0.00	0.00	0.05
10	0.81	0.09	0.00	0.81	0.14	0.00	1.32	0.17	1.23	0.70	0.00	1.32	0.67	0.00	0.00	0.00	0.08
20	0.83	0.11	0.00	0.83	0.18	0.00	1.51	0.22	1.41	1.11	0.00	1.51	1.06	0.00	0.00	0.00	0.12
30	1.03	0.13	0.00	1.03	0.20	0.00	1.68	0.25	1.56	1.45	0.00	1.68	1.38	0.00	0.00	0.00	0.16
60	1.24	0.15	0.00	1.25	0.25	0.00	2.02	0.32	1.88	2.00	0.00	2.02	1.91	0.00	0.00	0.00	0.22
120	1.24	0.16	0.00	1.25	0.26	0.00	2.03	0.33	1.89	2.01	0.00	2.02	1.91	0.00	0.00	0.00	0.22
180	1.21	0.16	0.00	1.22	0.26	0.00	1.98	0.33	1.84	2.00	0.00	1.98	1.91	0.00	0.00	0.00	0.21
300	1.13	0.16	0.00	1.13	0.25	0.00	1.83	0.32	1.71	1.97	0.00	1.83	1.88	0.00	0.00	0.00	0.21
360	1.07	0.16	0.00	1.07	0.25	0.00	1.74	0.32	1.62	1.85	0.00	1.74	1.86	0.00	0.00	0.00	0.21
480	0.92	0.15	0.00	0.92	0.24	0.00	1.50	0.31	1.40	1.60	0.00	1.50	1.82	0.00	0.00	0.00	0.20
540	0.83	0.14	0.00	0.84	0.23	0.00	1.36	0.30	1.27	1.67	0.00	1.36	1.79	0.00	0.00	0.00	0.20
1440	0.51	0.13	0.00	0.52	0.21	0.00	0.84	0.27	0.78	1.76	0.00	0.84	1.68	0.00	0.00	0.00	0.19

POLLUTANT NAME: CARBON DIOXIDE				UNITS: GRAMS PER TRIP													
TIMES MIN	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS	MCY
	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	ALL
5	55.95	5.75	0.00	56.11	7.05	0.00	65.75	9.47	66.71	4.37	0.00	66.71	4.37	0.00	0.00	0.00	0.89
10	60.72	6.69	0.00	60.89	8.25	0.00	71.35	11.17	94.10	8.72	0.00	94.10	8.72	0.00	0.00	0.00	1.77
20	69.96	8.80	0.00	70.16	10.91	0.00	82.22	14.92	108.43	17.33	0.00	108.43	17.33	0.00	0.00	0.00	3.53
30	78.84	11.20	0.00	79.06	13.93	0.00	92.64	19.14	122.18	25.86	0.00	122.18	25.86	0.00	0.00	0.00	5.26
60	103.20	20.16	0.00	103.49	25.13	0.00	121.27	34.61	159.93	50.84	0.00	159.93	50.84	0.00	0.00	0.00	10.35
120	139.65	44.87	0.00	140.04	55.74	0.00	164.10	76.15	216.42	86.47	0.00	216.42	86.47	0.00	0.00	0.00	17.60
180	139.76	51.30	0.00	140.15	63.62	0.00	164.23	87.00	216.59	102.16	0.00	216.59	102.16	0.00	0.00	0.00	20.79
300	139.97	63.76	0.00	140.37	79.11	0.00	164.49	108.27	216.93	130.76	0.00	216.93	130.76	0.00	0.00	0.00	26.61
360	140.08	68.88	0.00	140.46	86.72	0.00	164.62	118.69	217.10	143.67	0.00	217.10	143.67	0.00	0.00	0.00	29.23
480	140.30	81.84	0.00	140.70	101.66	0.00	164.88	139.09	217.44	166.71	0.00	217.44	166.71	0.00	0.00	0.00	33.92
540	140.41	87.86	0.00	140.81	108.99	0.00	165.01	149.08	217.61	176.85	0.00	217.61	176.85	0.00	0.00	0.00	35.88
1440	140.74	105.24	0.00	141.14	130.43	0.00	165.39	178.17	218.12	201.69	0.00	218.12	201.69	0.00	0.00	0.00	41.04

TABLE 4: HOT SOAK EMISSION RATES IN GRAMS PER TRIP

TIMES MIN	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS	MCY
	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	NCAT	CAT	NCAT	CAT	DIESEL	NCAT	CAT	DIESEL	DIESEL	DIESEL	ALL
TQG	5.76	0.46	0.00	5.45	1.34	0.00	3.43	1.74	2.71	2.23	0.00	3.13	2.13	0.00	0.00	0.00	3.59

TABLE 5: DIURNAL EMISSION RATES IN GRAMS PER HOUR

TIMES	LIGHT DUTY AUTOS			LIGHT DUTY TRUCKS			MD. DUTY TRUCKS		LIGHT HEAVY TRUCKS			MEDIUM HEAVY TRUCK			HH TRUCK	URBAN BUS	MCY
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[illegible]

LIGHT DUTY TRUCK NON-CATALYST
TEMPERATURE IN DEG F

[illegible]

TABLE 8 (CONTINUED): EVAPORATED RUNNING LOSSES IN GRAMS PER MILE

LIGHT DUTY TRUCKS CATALYST EQUIPPED
TEMPERATURE IN DEG F

[illegible]

MEDIUM DUTY TRUCKS NON-CATALYST
TEMPERATURE IN DEG F

[illegible]

[illegible]

MEDIUM DUTY TRUCKS CATALYST EQUIPPED
TEMPERATURE IN DEG F

[illegible]

Attachment N

On-Airport Vehicle Fleet Mix for Roadway Links

On-Airport Vehicle Fleet Mix for Roadway Links

No Action/No Project 2005

Roadway Link Name	Light Duty Autos			Light Duty Trucks			Medium Duty			Light Heavy Trucks			Medium Heavy Truck			HHDT UB			MCY
	NCAT	CAT	Diesel	NCAT	CAT	Diesel	NCAT	CAT	NCAT	CAT	Diesel	NCAT	CAT	Diesel	Diesel	Diesel	Diesel	Diesel	ALL
T1 (W)	2.5%	49.7%	0.3%	1.0%	27.1%	0.1%	1.2%	16.4%	0.0%	0.0%	0.0%	0.1%	0.2%	0.5%	0.0%	1.1%	0.0%		
T2 (W)	2.4%	47.9%	0.2%	1.0%	26.1%	0.1%	1.3%	18.8%	0.0%	0.0%	0.0%	0.1%	0.2%	0.6%	0.0%	1.2%	0.0%		
T3 (W)	2.4%	48.4%	0.3%	1.0%	26.4%	0.1%	1.3%	18.8%	0.0%	0.0%	0.0%	0.1%	0.2%	0.6%	0.0%	0.4%	0.0%		
TBIT (S)	2.2%	44.3%	0.2%	0.9%	24.1%	0.1%	1.7%	24.3%	0.0%	0.0%	0.0%	0.1%	0.1%	0.4%	0.0%	1.5%	0.0%		
T4 (E)	2.0%	41.4%	0.2%	0.9%	22.6%	0.1%	2.0%	28.6%	0.0%	0.0%	0.0%	0.0%	0.1%	0.3%	0.0%	1.8%	0.0%		
T5 (E)	2.2%	44.1%	0.2%	0.9%	24.0%	0.1%	1.7%	24.0%	0.0%	0.0%	0.0%	0.1%	0.2%	0.8%	0.0%	1.6%	0.0%		
T6 (E)	2.2%	44.1%	0.2%	0.9%	24.0%	0.1%	1.7%	24.0%	0.0%	0.0%	0.0%	0.1%	0.2%	0.8%	0.0%	1.6%	0.0%		
T7 (E)	2.1%	43.2%	0.2%	0.9%	23.5%	0.1%	1.8%	25.3%	0.0%	0.0%	0.0%	0.1%	0.2%	0.8%	0.0%	1.7%	0.0%		
T8 (E)	2.1%	43.2%	0.2%	0.9%	23.5%	0.1%	1.8%	25.3%	0.0%	0.0%	0.0%	0.1%	0.2%	0.8%	0.0%	1.7%	0.0%		
Skyway/N Sepulveda (S/N)	2.5%	50.6%	0.3%	1.0%	27.6%	0.1%	1.0%	14.5%	0.0%	0.0%	0.0%	0.1%	0.2%	0.7%	0.0%	1.4%	0.0%		
S. Sepulveda (S/N)	2.9%	58.6%	0.3%	1.2%	31.9%	0.1%	0.3%	3.5%	0.0%	0.0%	0.0%	0.1%	0.1%	0.4%	0.0%	0.6%	0.0%		
Century (W/E)	2.4%	48.0%	0.2%	1.0%	26.2%	0.1%	1.4%	19.1%	0.0%	0.0%	0.0%	0.1%	0.1%	0.4%	0.0%	1.2%	0.0%		
West Way (S/N)	2.3%	46.2%	0.2%	1.0%	25.2%	0.1%	1.3%	18.7%	0.0%	0.0%	0.0%	0.1%	0.2%	0.7%	0.0%	4.0%	0.0%		
East Way (S/N)	2.3%	46.2%	0.2%	1.0%	25.2%	0.1%	1.3%	18.7%	0.0%	0.0%	0.0%	0.1%	0.2%	0.7%	0.0%	4.0%	0.0%		
Center Way	3.0%	61.6%	0.3%	1.3%	33.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		
CTALoop	1.5%	30.6%	0.2%	0.6%	16.7%	0.1%	3.1%	43.3%	0.0%	0.0%	0.0%	0.1%	0.3%	0.9%	0.0%	2.7%	0.0%		
Cargo/Ancillary Traffic																			
World Way W/Spine Rd. (W/E)	0.4%	21.3%	0.0%	0.2%	11.5%	0.0%	0.1%	4.8%	0.4%	8.5%	2.4%	1.2%	8.1%	27.8%	13.2%	0.0%	0.0%		
Ramp 33	0.9%	45.2%	0.1%	0.4%	24.4%	0.1%	0.0%	1.5%	0.2%	5.4%	1.5%	0.4%	2.5%	8.8%	8.8%	0.0%	0.0%		
Ramp 34	0.9%	44.2%	0.1%	0.4%	23.9%	0.1%	0.0%	1.6%	0.3%	5.7%	1.6%	0.4%	2.6%	9.0%	9.3%	0.0%	0.0%		
Ramp 35	0.8%	41.1%	0.1%	0.3%	22.2%	0.1%	0.0%	1.8%	0.3%	6.6%	1.3%	0.5%	3.1%	10.5%	10.7%	0.0%	0.0%		
Ramp 36	0.7%	35.4%	0.1%	0.3%	19.1%	0.1%	0.0%	2.3%	0.4%	8.3%	2.3%	0.6%	3.8%	13.1%	13.5%	0.0%	0.0%		
Ramp 37	0.9%	44.9%	0.1%	0.4%	24.3%	0.1%	0.0%	1.5%	0.2%	5.5%	1.5%	0.4%	2.5%	8.7%	8.9%	0.0%	0.0%		
Ramp 38	0.7%	34.8%	0.1%	0.3%	18.6%	0.1%	0.0%	2.3%	0.4%	8.5%	2.4%	0.6%	3.9%	13.4%	13.8%	0.0%	0.0%		
Ramp 39	0.7%	37.8%	0.1%	0.3%	20.4%	0.1%	0.0%	2.1%	0.3%	7.6%	2.1%	0.5%	3.5%	12.0%	12.3%	0.0%	0.0%		
Ramp 40	0.7%	36.7%	0.1%	0.3%	19.6%	0.1%	0.0%	2.2%	0.4%	7.9%	2.2%	0.5%	3.7%	12.5%	12.9%	0.0%	0.0%		
Ramp 41	1.0%	53.5%	0.1%	0.4%	28.9%	0.1%	0.0%	0.8%	0.1%	3.0%	0.8%	0.2%	1.4%	4.7%	4.9%	0.0%	0.0%		
Ramp 42	0.9%	44.7%	0.1%	0.4%	24.2%	0.1%	0.0%	1.5%	0.2%	5.6%	1.6%	0.4%	2.6%	8.8%	9.0%	0.0%	0.0%		
Ramp 43	0.9%	45.3%	0.1%	0.4%	24.5%	0.1%	0.0%	1.5%	0.2%	5.4%	1.5%	0.4%	2.5%	8.5%	8.8%	0.0%	0.0%		
Ramp 44	0.8%	43.9%	0.1%	0.4%	23.7%	0.1%	0.0%	1.6%	0.3%	5.8%	1.6%	0.4%	2.7%	9.2%	9.4%	0.0%	0.0%		
Ramp 45	0.9%	48.0%	0.1%	0.4%	25.9%	0.1%	0.0%	1.3%	0.2%	4.6%	1.3%	0.3%	2.1%	7.3%	7.5%	0.0%	0.0%		
Ramp 46	0.8%	41.0%	0.1%	0.3%	22.1%	0.1%	0.0%	1.8%	0.3%	6.7%	1.9%	0.5%	3.1%	10.5%	10.8%	0.0%	0.0%		
Ramp 47	1.1%	55.9%	0.1%	0.5%	30.2%	0.1%	0.0%	0.6%	0.1%	2.3%	0.6%	0.2%	1.1%	3.6%	3.7%	0.0%	0.0%		
Ramp 48	0.9%	44.1%	0.1%	0.4%	23.8%	0.1%	0.0%	1.6%	0.3%	5.7%	1.6%	0.4%	2.6%	9.1%	9.3%	0.0%	0.0%		
Ramp 49	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	5.2%	0.8%	18.7%	5.3%	1.3%	8.6%	29.6%	30.4%	0.0%	0.0%		

On-Airport Vehicle Fleet Mix for Roadway Links

Alternative A 2005

Roadway Link Name	Light Duty Autos			Light Duty Trucks			Medium Duty			Light Heavy Trucks			Medium Heavy Truck			HHDT	UB	MCY
	NCAT	CAT	Diesel	NCAT	CAT	Diesel	NCAT	CAT	NCAT	CAT	Diesel	NCAT	CAT	Diesel	Diesel	Diesel	Diesel	ALL
T1 (W)	2.5%	50.5%	0.3%	1.0%	27.5%	0.1%	1.1%	14.7%	0.0%	0.0%	0.0%	0.1%	0.2%	0.7%	0.0%	1.3%	0.0%	
T2 (W)	2.6%	51.7%	0.3%	1.1%	28.2%	0.1%	0.9%	12.9%	0.0%	0.0%	0.0%	0.1%	0.2%	0.7%	0.0%	1.3%	0.0%	
T3 (W)	2.7%	54.4%	0.3%	1.1%	28.6%	0.1%	0.7%	10.1%	0.0%	0.0%	0.0%	0.1%	0.2%	0.6%	0.0%	0.0%	0.0%	
TBIT (S)	2.4%	48.5%	0.3%	1.0%	26.4%	0.1%	1.3%	17.9%	0.0%	0.0%	0.0%	0.1%	0.1%	0.4%	0.0%	1.6%	0.0%	
T4 (E)	2.4%	48.5%	0.3%	1.0%	26.4%	0.1%	1.3%	17.9%	0.0%	0.0%	0.0%	0.1%	0.1%	0.4%	0.0%	1.6%	0.0%	
T5 (E)	2.5%	50.4%	0.3%	1.0%	27.5%	0.1%	1.0%	14.5%	0.0%	0.0%	0.0%	0.1%	0.3%	0.8%	0.0%	1.5%	0.0%	
T6 (E)	2.5%	50.4%	0.3%	1.0%	27.5%	0.1%	1.0%	14.5%	0.0%	0.0%	0.0%	0.1%	0.3%	0.8%	0.0%	1.5%	0.0%	
T7 (E)	2.5%	50.6%	0.3%	1.0%	27.6%	0.1%	1.0%	14.2%	0.0%	0.0%	0.0%	0.1%	0.3%	0.8%	0.0%	1.4%	0.0%	
T8 (E)	2.5%	50.6%	0.3%	1.0%	27.6%	0.1%	1.0%	14.2%	0.0%	0.0%	0.0%	0.1%	0.3%	0.8%	0.0%	1.4%	0.0%	
Skyway/N Sepulveda (S/N)	2.8%	55.8%	0.3%	1.2%	30.4%	0.1%	0.4%	5.1%	0.0%	0.0%	0.0%	0.2%	0.4%	1.3%	0.0%	1.0%	0.0%	
S. Sepulveda (S/N)	2.9%	58.2%	0.3%	1.2%	32.2%	0.1%	0.2%	2.7%	0.0%	0.0%	0.0%	0.1%	0.3%	0.9%	0.0%	0.7%	0.0%	
Century (W/E)	2.6%	53.5%	0.3%	1.1%	29.1%	0.1%	0.8%	11.1%	0.0%	0.0%	0.0%	0.0%	0.1%	0.2%	0.0%	1.1%	0.0%	
West Way (S/N)	2.3%	46.2%	0.2%	1.0%	25.2%	0.1%	1.3%	18.7%	0.0%	0.0%	0.0%	0.1%	0.2%	0.7%	0.0%	4.0%	0.0%	
East Way (S/N)	2.3%	46.2%	0.2%	1.0%	25.2%	0.1%	1.3%	18.7%	0.0%	0.0%	0.0%	0.1%	0.2%	0.7%	0.0%	4.0%	0.0%	
Center Way	3.0%	61.6%	0.3%	1.3%	33.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
CTALoop	1.4%	27.8%	0.1%	0.6%	15.1%	0.1%	3.5%	48.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.8%	0.0%	
N. Entrance (N/S)	1.9%	39.3%	0.2%	0.8%	21.4%	0.1%	2.0%	28.3%	0.0%	0.0%	0.0%	0.1%	0.2%	0.5%	0.0%	5.3%	0.0%	
Bypass Rd. (N/S)	2.0%	40.8%	0.2%	0.8%	22.2%	0.1%	2.0%	27.4%	0.0%	0.0%	0.0%	0.1%	0.3%	0.9%	0.0%	4.0%	0.0%	
Curbside N. (N/S)	2.0%	40.1%	0.2%	0.8%	21.9%	0.1%	1.9%	26.9%	0.0%	0.0%	0.0%	0.1%	0.3%	0.8%	0.0%	5.0%	0.0%	
Curbside N.C. (N/S)	2.0%	40.1%	0.2%	0.8%	21.9%	0.1%	1.9%	26.9%	0.0%	0.0%	0.0%	0.1%	0.3%	0.8%	0.0%	5.0%	0.0%	
Curbside C. (N/S)	2.0%	40.1%	0.2%	0.8%	21.9%	0.1%	1.9%	26.9%	0.0%	0.0%	0.0%	0.1%	0.3%	0.8%	0.0%	5.0%	0.0%	
Curbside S.C. (N/S)	2.0%	40.1%	0.2%	0.8%	21.9%	0.1%	1.9%	26.9%	0.0%	0.0%	0.0%	0.1%	0.3%	0.8%	0.0%	5.0%	0.0%	
Curbside S. (N/S)	2.0%	40.1%	0.2%	0.8%	21.9%	0.1%	1.9%	26.9%	0.0%	0.0%	0.0%	0.1%	0.3%	0.8%	0.0%	5.0%	0.0%	
RAC (N/S)	2.4%	48.7%	0.3%	1.0%	26.5%	0.1%	1.3%	17.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.1%	0.0%	
Remote N. (N/S)	2.5%	49.8%	0.3%	1.0%	27.1%	0.1%	1.2%	16.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.9%	0.0%	
Remote S. (N/S)	2.4%	48.7%	0.3%	1.0%	26.5%	0.1%	1.3%	18.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.7%	0.0%	
World Way W/Spine Rd. (W/E)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Cargo/Ancillary Traffic																		
Ramp 33	0.7%	36.6%	0.1%	0.3%	19.8%	0.1%	0.1%	3.1%	0.2%	5.4%	1.5%	0.8%	5.2%	17.8%	8.5%	0.0%	0.0%	
Ramp 35	0.8%	38.9%	0.1%	0.3%	21.0%	0.1%	0.0%	2.8%	0.2%	5.0%	1.4%	0.7%	4.7%	16.2%	7.7%	0.0%	0.0%	
Ramp 36	0.7%	38.7%	0.1%	0.3%	20.9%	0.1%	0.0%	2.8%	0.2%	5.0%	1.4%	0.7%	4.8%	16.3%	7.8%	0.0%	0.0%	
Ramp 37	0.8%	43.2%	0.1%	0.4%	23.3%	0.1%	0.0%	2.3%	0.2%	4.1%	1.2%	0.6%	3.8%	13.4%	8.4%	0.0%	0.0%	
Ramp 38	0.8%	38.9%	0.1%	0.3%	21.0%	0.1%	0.0%	2.8%	0.2%	5.0%	1.4%	0.7%	4.7%	16.2%	7.7%	0.0%	0.0%	
Ramp 41	0.3%	14.5%	0.0%	0.1%	7.9%	0.0%	0.1%	5.6%	0.4%	9.9%	2.8%	1.4%	9.4%	32.2%	15.4%	0.0%	0.0%	
Ramp 43	0.5%	24.4%	0.1%	0.2%	13.2%	0.0%	0.1%	4.4%	0.3%	7.9%	2.2%	1.1%	7.5%	25.7%	12.3%	0.0%	0.0%	
Ramp 44	0.5%	28.3%	0.1%	0.2%	15.3%	0.0%	0.1%	4.0%	0.3%	7.1%	2.0%	1.0%	6.8%	23.2%	11.1%	0.0%	0.0%	
Ramp 45	0.7%	35.7%	0.1%	0.3%	19.3%	0.1%	0.1%	3.2%	0.2%	5.6%	1.6%	0.8%	5.4%	18.3%	8.7%	0.0%	0.0%	

On-Airport Vehicle Fleet Mix for Roadway Links

Roadway Link Name	Alternative B 2005															
	Light Duty Autos			Light Duty Trucks			Medium Duty			Light Heavy Trucks			Medium Heavy Truck			HHDT UB
	NCAT	CAT	Diesel	NCAT	CAT	Diesel	NCAT	CAT	NCAT	CAT	Diesel	NCAT	CAT	Diesel	Diesel	
T1 (W)	2.7%	54.5%	0.3%	1.1%	29.7%	0.1%	0.5%	8.7%	0.0%	0.0%	0.0%	0.1%	0.2%	0.5%	0.0%	1.4%
T2 (W)	2.6%	52.0%	0.3%	1.1%	28.3%	0.1%	0.8%	11.8%	0.0%	0.0%	0.0%	0.1%	0.2%	0.7%	0.0%	2.0%
T3 (W)	2.7%	54.4%	0.3%	1.1%	29.6%	0.1%	0.8%	9.0%	0.0%	0.0%	0.0%	0.1%	0.2%	0.7%	0.0%	1.1%
TBIT (S)	2.4%	48.3%	0.2%	1.0%	26.3%	0.1%	1.3%	17.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.5%
T4 (E)	2.4%	48.3%	0.2%	1.0%	26.3%	0.1%	1.3%	17.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.5%
T5 (E)	2.5%	50.4%	0.3%	1.0%	27.5%	0.1%	1.0%	13.9%	0.0%	0.0%	0.0%	0.1%	0.3%	0.8%	0.0%	2.2%
T6 (E)	2.5%	50.4%	0.3%	1.0%	27.5%	0.1%	1.0%	13.9%	0.0%	0.0%	0.0%	0.1%	0.3%	0.8%	0.0%	2.2%
T7 (E)	2.6%	50.3%	0.3%	1.0%	27.4%	0.1%	1.0%	14.0%	0.0%	0.0%	0.0%	0.1%	0.3%	0.8%	0.0%	2.3%
T8 (E)	2.5%	50.3%	0.3%	1.0%	27.4%	0.1%	1.0%	14.0%	0.0%	0.0%	0.0%	0.1%	0.3%	0.8%	0.0%	2.3%
Skylway/N Sepulveda (S/N)	2.6%	55.0%	0.3%	1.2%	30.5%	0.1%	0.4%	5.1%	0.0%	0.0%	0.0%	0.2%	0.4%	1.2%	0.0%	1.0%
S. Sepulveda (S/N)	2.8%	58.3%	0.3%	1.2%	31.7%	0.1%	0.3%	3.8%	0.0%	0.0%	0.0%	0.0%	0.1%	0.3%	0.0%	1.0%
Century (W/E)	2.6%	53.5%	0.3%	1.1%	29.1%	0.1%	0.8%	11.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.2%
West Way (S/N)	2.3%	46.2%	0.2%	1.0%	25.2%	0.1%	1.3%	18.7%	0.0%	0.0%	0.0%	0.1%	0.2%	0.7%	0.0%	4.0%
East Way (S/N)	2.3%	46.2%	0.2%	1.0%	25.2%	0.1%	1.3%	18.7%	0.0%	0.0%	0.0%	0.1%	0.2%	0.7%	0.0%	4.0%
Center Way	3.0%	61.6%	0.3%	1.3%	33.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
CTALoop	1.4%	27.4%	0.1%	0.6%	14.9%	0.1%	3.5%	49.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.1%
N. Entrance (N/S)	2.0%	40.3%	0.2%	0.8%	22.0%	0.1%	1.9%	26.2%	0.0%	0.0%	0.0%	0.1%	0.2%	0.6%	0.0%	5.6%
Bypass Rd. (N/S)	1.7%	34.2%	0.2%	0.7%	18.7%	0.1%	2.5%	36.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.3%	0.0%	6.4%
Curbside N. (N/S)	2.2%	44.3%	0.2%	0.9%	24.1%	0.1%	1.4%	20.0%	0.0%	0.0%	0.0%	0.1%	0.3%	0.9%	0.0%	5.5%
Curbside N.C. (N/S)	2.2%	44.3%	0.2%	0.9%	24.1%	0.1%	1.4%	20.0%	0.0%	0.0%	0.0%	0.1%	0.3%	0.9%	0.0%	5.5%
Curbside C. (N/S)	2.2%	44.3%	0.2%	0.9%	24.1%	0.1%	1.4%	20.0%	0.0%	0.0%	0.0%	0.1%	0.3%	0.9%	0.0%	5.5%
Curbside S.C. (N/S)	2.2%	44.3%	0.2%	0.9%	24.1%	0.1%	1.4%	20.0%	0.0%	0.0%	0.0%	0.1%	0.3%	0.9%	0.0%	5.5%
Curbside S. (N/S)	2.2%	44.3%	0.2%	0.9%	24.1%	0.1%	1.4%	20.0%	0.0%	0.0%	0.0%	0.1%	0.3%	0.9%	0.0%	5.5%
RAC (N/S)	2.1%	42.2%	0.2%	0.9%	23.0%	0.1%	1.8%	25.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.5%
Remote N. (N/S)	2.0%	39.9%	0.2%	0.8%	21.8%	0.1%	2.0%	28.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.1%
Remote S. (N/S)	2.0%	41.4%	0.2%	0.9%	22.5%	0.1%	1.9%	26.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.0%
World Way W./Spine Rd. (W/E)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Cargo/Ancillary Traffic																
Ramp 33	0.8%	39.2%	0.1%	0.3%	21.2%	0.1%	0.0%	2.8%	0.2%	4.9%	1.4%	0.7%	4.7%	16.0%	7.6%	0.0%
Ramp 34	0.8%	39.2%	0.1%	0.3%	21.2%	0.1%	0.0%	2.8%	0.2%	4.9%	1.4%	0.7%	4.7%	16.0%	7.6%	0.0%
Ramp 35	0.8%	39.2%	0.1%	0.3%	21.2%	0.1%	0.0%	2.8%	0.2%	4.9%	1.4%	0.7%	4.7%	16.0%	7.6%	0.0%
Ramp 36	0.8%	39.2%	0.1%	0.3%	21.2%	0.1%	0.0%	2.8%	0.2%	4.9%	1.4%	0.7%	4.7%	16.0%	7.6%	0.0%
Ramp 37	0.8%	39.3%	0.1%	0.3%	21.2%	0.1%	0.0%	2.8%	0.2%	4.9%	1.4%	0.7%	4.7%	16.0%	7.6%	0.0%
Ramp 38	0.8%	39.2%	0.1%	0.3%	21.2%	0.1%	0.0%	2.8%	0.2%	4.9%	1.4%	0.7%	4.7%	16.0%	7.6%	0.0%
Ramp 39	0.8%	39.2%	0.1%	0.3%	21.2%	0.1%	0.0%	2.8%	0.2%	4.9%	1.4%	0.7%	4.7%	16.0%	7.6%	0.0%
Ramp 41	0.4%	21.4%	0.0%	0.2%	11.6%	0.0%	0.1%	4.8%	0.4%	8.5%	2.4%	1.2%	8.1%	27.7%	13.2%	0.0%
Ramp 42	0.4%	21.2%	0.0%	0.2%	11.4%	0.0%	0.1%	4.8%	0.4%	8.5%	2.4%	1.2%	8.2%	27.9%	13.3%	0.0%
Ramp 43	0.4%	21.3%	0.0%	0.2%	11.5%	0.0%	0.1%	4.8%	0.4%	8.5%	2.4%	1.2%	8.1%	27.8%	13.2%	0.0%
Ramp 44	0.4%	21.2%	0.0%	0.2%	11.4%	0.0%	0.1%	4.8%	0.4%	8.5%	2.4%	1.2%	8.1%	27.9%	13.3%	0.0%
Ramp 45	0.4%	21.1%	0.0%	0.2%	11.4%	0.0%	0.1%	4.8%	0.4%	8.5%	2.4%	1.2%	8.2%	27.9%	13.3%	0.0%
Ramp 46	0.4%	21.3%	0.0%	0.2%	11.5%	0.0%	0.1%	4.8%	0.4%	8.5%	2.4%	1.2%	8.1%	27.8%	13.2%	0.0%
Ramp 47	0.4%	21.1%	0.0%	0.2%	11.4%	0.0%	0.1%	4.8%	0.4%	8.5%	2.4%	1.2%	8.2%	27.9%	13.3%	0.0%
Ramp 48	0.4%	21.2%	0.0%	0.2%	11.4%	0.0%	0.1%	4.8%	0.4%	8.5%	2.4%	1.2%	8.2%	27.9%	13.3%	0.0%

On-Airport Vehicle Fleet Mix for Roadway Links

Alternative C 2005																	
Roadway Link Name	Light Duty Autos			Light Duty Trucks			Medium Duty			Light Heavy Trucks			Medium Heavy Truck			HHDT UB	MCY
	NCAT	CAT	Diesel	NCAT	CAT	Diesel	NCAT	CAT	NCAT	CAT	Diesel	NCAT	CAT	Diesel	Diesel		
T1 (W)	2.7%	64.8%	0.3%	1.1%	29.9%	0.1%	0.6%	8.5%	0.0%	0.0%	0.0%	0.1%	0.2%	0.6%	0.0%	1.1%	0.0%
T2 (W)	2.5%	51.6%	0.3%	1.1%	28.1%	0.1%	0.9%	12.5%	0.0%	0.0%	0.0%	0.1%	0.3%	0.8%	0.0%	1.7%	0.0%
T3 (W)	2.6%	53.0%	0.3%	1.1%	28.9%	0.1%	0.8%	10.9%	0.0%	0.0%	0.0%	0.1%	0.3%	0.9%	0.0%	1.1%	0.0%
TBIT (S)	2.3%	47.3%	0.2%	1.0%	25.8%	0.1%	1.3%	18.8%	0.0%	0.0%	0.0%	0.0%	0.1%	0.3%	0.0%	2.6%	0.0%
T4 (E)	2.3%	47.3%	0.2%	1.0%	25.8%	0.1%	1.3%	18.8%	0.0%	0.0%	0.0%	0.0%	0.1%	0.3%	0.0%	2.6%	0.0%
T5 (E)	2.2%	45.3%	0.2%	0.9%	24.7%	0.1%	1.4%	20.2%	0.0%	0.0%	0.0%	0.2%	0.4%	1.4%	0.0%	2.9%	0.0%
T6 (E)	2.2%	45.3%	0.2%	0.9%	24.7%	0.1%	1.4%	20.2%	0.0%	0.0%	0.0%	0.2%	0.4%	1.4%	0.0%	2.9%	0.0%
T7 (E)	2.2%	45.6%	0.2%	0.9%	24.8%	0.1%	1.4%	19.7%	0.0%	0.0%	0.0%	0.2%	0.4%	1.4%	0.0%	3.0%	0.0%
T8 (E)	2.2%	45.6%	0.2%	0.9%	24.8%	0.1%	1.4%	19.7%	0.0%	0.0%	0.0%	0.2%	0.4%	1.4%	0.0%	3.0%	0.0%
Skylway/N Sepulveda (S/N)	2.7%	55.6%	0.3%	1.1%	30.3%	0.1%	0.4%	6.1%	0.0%	0.0%	0.0%	0.2%	0.5%	1.6%	0.0%	1.0%	0.0%
S. Sepulveda (S/N)	2.9%	57.9%	0.3%	1.2%	31.6%	0.1%	0.3%	4.2%	0.0%	0.0%	0.0%	0.0%	0.1%	0.3%	0.0%	1.1%	0.0%
Century (W/E)	2.6%	53.3%	0.3%	1.1%	29.0%	0.1%	0.8%	11.1%	0.0%	0.0%	0.0%	0.1%	0.1%	0.4%	0.0%	1.1%	0.0%
West Way (S/N)	2.3%	46.2%	0.2%	1.0%	25.2%	0.1%	1.3%	18.7%	0.0%	0.0%	0.0%	0.1%	0.2%	0.7%	0.0%	4.0%	0.0%
East Way (S/N)	2.3%	46.2%	0.2%	1.0%	25.2%	0.1%	1.3%	18.7%	0.0%	0.0%	0.0%	0.1%	0.2%	0.7%	0.0%	4.0%	0.0%
Center Way	3.0%	61.6%	0.3%	1.3%	33.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
CTALoop	1.5%	29.7%	0.2%	0.6%	16.2%	0.1%	3.2%	44.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.0%	0.0%
N. Entrance (N/S)	2.3%	46.7%	0.2%	1.0%	25.5%	0.1%	1.3%	18.5%	0.0%	0.0%	0.0%	0.1%	0.1%	0.4%	0.0%	3.9%	0.0%
NBypass (N/S)	2.0%	40.9%	0.2%	0.8%	22.3%	0.1%	1.9%	27.1%	0.0%	0.0%	0.0%	0.1%	0.1%	0.6%	0.0%	3.9%	0.0%
NLoop (W/E)	2.3%	45.7%	0.2%	0.9%	24.9%	0.1%	1.5%	21.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	2.8%	0.0%
SBypass (N/S)	2.4%	48.7%	0.3%	1.0%	26.5%	0.1%	1.3%	17.8%	0.0%	0.0%	0.0%	0.0%	0.1%	0.2%	0.0%	1.7%	0.0%
Terminal E. (N/S)	2.3%	45.6%	0.2%	0.9%	24.9%	0.1%	1.5%	20.9%	0.0%	0.0%	0.0%	0.0%	0.1%	0.2%	0.0%	3.3%	0.0%
SLoop (W)	0.5%	9.5%	0.0%	0.2%	5.2%	0.0%	4.9%	68.0%	0.0%	0.0%	0.0%	0.1%	0.2%	0.7%	0.0%	10.7%	0.0%
Curbside Idle E (N/S)	2.2%	45.3%	0.2%	0.9%	24.7%	0.1%	1.5%	21.3%	0.0%	0.0%	0.0%	0.0%	0.1%	0.2%	0.0%	3.3%	0.0%
RAC (N/S)	2.6%	53.7%	0.3%	1.1%	29.3%	0.1%	0.8%	11.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.1%	0.0%
Remote N. (N/S)	2.9%	59.0%	0.3%	1.2%	32.1%	0.1%	0.2%	3.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%	0.0%
Remote S. (N/S)	2.8%	57.2%	0.3%	1.2%	31.2%	0.1%	0.4%	5.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.4%	0.0%
World Way W./Spine Rd. (W/E)	0.4%	21.3%	0.0%	0.2%	11.5%	0.0%	0.1%	4.8%	0.4%	8.5%	2.4%	1.2%	8.1%	27.8%	13.2%	0.0%	0.0%
Cargo/Ancillary Traffic																	
Ramp 33	0.8%	39.2%	0.1%	0.3%	21.2%	0.1%	0.0%	2.8%	0.2%	4.9%	1.4%	0.7%	4.7%	16.0%	7.6%	0.0%	0.0%
Ramp 35	0.8%	39.2%	0.1%	0.3%	21.2%	0.1%	0.0%	2.8%	0.2%	4.9%	1.4%	0.7%	4.7%	16.0%	7.6%	0.0%	0.0%
Ramp 36	0.8%	39.2%	0.1%	0.3%	21.2%	0.1%	0.0%	2.8%	0.2%	4.9%	1.4%	0.7%	4.7%	16.0%	7.6%	0.0%	0.0%
Ramp 37	0.8%	39.2%	0.1%	0.3%	21.2%	0.1%	0.0%	2.8%	0.2%	4.9%	1.4%	0.7%	4.7%	16.0%	7.6%	0.0%	0.0%
Ramp 38	0.8%	39.2%	0.1%	0.3%	21.2%	0.1%	0.0%	2.8%	0.2%	4.9%	1.4%	0.7%	4.7%	16.0%	7.6%	0.0%	0.0%
Ramp 39	0.8%	39.2%	0.1%	0.3%	21.2%	0.1%	0.0%	2.8%	0.2%	4.9%	1.4%	0.7%	4.7%	16.0%	7.6%	0.0%	0.0%
Ramp 41	0.4%	21.2%	0.0%	0.2%	11.5%	0.0%	0.1%	4.8%	0.4%	8.5%	2.4%	1.2%	8.1%	27.8%	13.3%	0.0%	0.0%
Ramp 42	0.4%	21.3%	0.0%	0.2%	11.6%	0.0%	0.1%	4.8%	0.4%	8.5%	2.4%	1.2%	8.1%	27.8%	13.2%	0.0%	0.0%
Ramp 43	0.4%	21.4%	0.0%	0.2%	11.5%	0.0%	0.1%	4.8%	0.4%	8.5%	2.4%	1.2%	8.1%	27.8%	13.2%	0.0%	0.0%
Ramp 44	0.4%	21.4%	0.0%	0.2%	11.6%	0.0%	0.1%	4.8%	0.4%	8.5%	2.4%	1.2%	8.1%	27.7%	13.2%	0.0%	0.0%
Ramp 45	0.4%	21.3%	0.0%	0.2%	11.5%	0.0%	0.1%	4.8%	0.4%	8.5%	2.4%	1.2%	8.1%	27.8%	13.2%	0.0%	0.0%
Ramp 46	0.4%	21.2%	0.0%	0.2%	11.5%	0.0%	0.1%	4.8%	0.4%	8.5%	2.4%	1.2%	8.1%	27.8%	13.3%	0.0%	0.0%
Ramp 47	0.4%	21.2%	0.0%	0.2%	11.5%	0.0%	0.1%	4.8%	0.4%	8.5%	2.4%	1.2%	8.1%	27.9%	13.3%	0.0%	0.0%

On-Airport Vehicle Fleet Mix for Roadway Links

No Action/No Project 2015

Roadway Link Name	Light Duty Autos			Light Duty Trucks			Medium Duty			Light Heavy Trucks			Medium Heavy Trucks			HHDT UB			MCY
	NCAT	CAT	Diesel	NCAT	CAT	Diesel	NCAT	CAT	NCAT	CAT	Diesel	NCAT	CAT	Diesel	NCAT	CAT	Diesel	ALL	
T1 (W)	1.0%	53.9%	0.1%	0.4%	29.1%	0.1%	0.2%	12.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.6%	0.0%	2.6%	0.0%
T2 (W)	1.0%	51.5%	0.1%	0.4%	27.8%	0.1%	0.3%	15.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.6%	0.0%	2.6%	0.0%
T3 (W)	1.0%	52.5%	0.1%	0.4%	28.4%	0.1%	0.2%	14.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.6%	0.0%	2.2%	0.0%
TBIT (S)	0.9%	48.6%	0.1%	0.4%	26.2%	0.1%	0.3%	19.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.4%	0.0%	3.1%	0.0%
T4 (E)	0.9%	45.3%	0.1%	0.4%	24.5%	0.1%	0.4%	24.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.3%	0.0%	3.8%	0.0%	0.0%
T5 (E)	0.9%	48.7%	0.1%	0.4%	26.3%	0.1%	0.3%	18.8%	0.0%	0.0%	0.0%	0.0%	0.1%	0.3%	0.7%	0.0%	3.1%	0.0%	0.0%
T6 (E)	0.9%	48.7%	0.1%	0.4%	26.3%	0.1%	0.3%	18.8%	0.0%	0.0%	0.0%	0.0%	0.1%	0.3%	0.7%	0.0%	3.1%	0.0%	0.0%
T7 (E)	0.9%	47.6%	0.1%	0.4%	25.7%	0.1%	0.3%	20.3%	0.0%	0.0%	0.0%	0.0%	0.1%	0.4%	0.8%	0.0%	3.4%	0.0%	0.0%
T8 (E)	0.9%	47.6%	0.1%	0.4%	25.7%	0.1%	0.3%	20.3%	0.0%	0.0%	0.0%	0.0%	0.1%	0.4%	0.8%	0.0%	3.4%	0.0%	0.0%
Skyway/N Sepulveda (S/N)	1.0%	53.2%	0.1%	0.4%	28.8%	0.1%	0.2%	12.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.6%	0.0%	2.2%	0.0%	0.0%
S. Sepulveda (S/N)	1.2%	60.6%	0.1%	0.5%	32.7%	0.1%	0.1%	3.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.3%	0.0%	0.5%	0.0%	0.0%
Century (W/E)	1.1%	54.8%	0.1%	0.4%	29.6%	0.1%	0.2%	11.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.3%	0.0%	2.2%	0.0%	0.0%
West Way (S/N)	0.9%	47.7%	0.1%	0.4%	25.8%	0.1%	0.3%	19.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.6%	0.0%	4.0%	0.0%	0.0%
East Way (S/N)	0.9%	47.7%	0.1%	0.4%	25.8%	0.1%	0.3%	19.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.6%	0.0%	4.0%	0.0%	0.0%
Center Way	1.2%	63.6%	0.1%	0.5%	34.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
CTALoop	0.6%	33.5%	0.1%	0.3%	18.1%	0.1%	0.7%	40.4%	0.0%	0.0%	0.0%	0.1%	0.4%	0.8%	0.0%	5.1%	0.0%	0.0%	0.0%
Cargo/Ancillary Traffic																			
World Way W./Spine Rd. (W/E)	0.7%	34.8%	0.1%	0.3%	18.8%	0.1%	0.0%	2.3%	0.4%	8.5%	2.4%	0.6%	3.9%	13.4%	13.8%	0.0%	0.0%	0.0%	0.0%
Ramp 33	0.9%	45.0%	0.1%	0.4%	24.3%	0.1%	0.0%	1.5%	0.2%	5.5%	1.5%	0.4%	2.5%	8.7%	8.9%	0.0%	0.0%	0.0%	0.0%
Ramp 34	0.9%	44.2%	0.1%	0.4%	23.9%	0.1%	0.0%	1.6%	0.3%	5.7%	1.6%	0.4%	2.6%	9.0%	9.3%	0.0%	0.0%	0.0%	0.0%
Ramp 35	0.8%	41.1%	0.1%	0.3%	22.2%	0.1%	0.0%	1.8%	0.3%	6.6%	1.9%	0.5%	3.1%	10.5%	10.7%	0.0%	0.0%	0.0%	0.0%
Ramp 36	0.7%	35.4%	0.1%	0.3%	19.1%	0.1%	0.0%	2.3%	0.4%	8.3%	2.3%	0.8%	3.8%	13.1%	13.5%	0.0%	0.0%	0.0%	0.0%
Ramp 37	0.9%	44.9%	0.1%	0.4%	24.3%	0.1%	0.0%	1.5%	0.2%	5.5%	1.5%	0.4%	2.5%	8.7%	8.9%	0.0%	0.0%	0.0%	0.0%
Ramp 38	0.7%	34.8%	0.1%	0.3%	18.8%	0.1%	0.0%	2.3%	0.4%	8.5%	2.4%	0.6%	3.9%	13.4%	13.8%	0.0%	0.0%	0.0%	0.0%
Ramp 39	0.7%	37.9%	0.1%	0.3%	20.5%	0.1%	0.0%	2.1%	0.3%	7.6%	2.1%	0.5%	3.5%	12.0%	12.3%	0.0%	0.0%	0.0%	0.0%
Ramp 40	0.7%	36.7%	0.1%	0.3%	19.8%	0.1%	0.0%	2.2%	0.4%	7.9%	2.2%	0.5%	3.7%	12.5%	12.9%	0.0%	0.0%	0.0%	0.0%
Ramp 41	1.0%	53.4%	0.1%	0.4%	28.8%	0.1%	0.0%	0.8%	0.1%	3.0%	0.8%	0.2%	1.4%	4.8%	4.9%	0.0%	0.0%	0.0%	0.0%
Ramp 42	0.9%	44.7%	0.1%	0.4%	24.1%	0.1%	0.0%	1.5%	0.2%	5.6%	1.6%	0.4%	2.6%	8.8%	9.1%	0.0%	0.0%	0.0%	0.0%
Ramp 43	0.9%	45.3%	0.1%	0.4%	24.5%	0.1%	0.0%	1.5%	0.2%	5.4%	1.5%	0.4%	2.5%	8.5%	8.8%	0.0%	0.0%	0.0%	0.0%
Ramp 44	0.8%	43.9%	0.1%	0.4%	23.7%	0.1%	0.0%	1.6%	0.3%	5.8%	1.6%	0.4%	2.7%	9.2%	9.4%	0.0%	0.0%	0.0%	0.0%
Ramp 45	0.9%	48.0%	0.1%	0.4%	26.0%	0.1%	0.0%	1.3%	0.2%	4.6%	1.3%	0.3%	2.1%	7.2%	7.4%	0.0%	0.0%	0.0%	0.0%
Ramp 46	0.7%	34.1%	0.1%	0.3%	18.4%	0.1%	0.0%	2.4%	0.4%	8.7%	2.4%	0.6%	4.0%	13.7%	14.1%	0.0%	0.0%	0.0%	0.0%
Ramp 47	1.1%	55.9%	0.1%	0.5%	30.2%	0.1%	0.0%	0.8%	0.1%	2.3%	0.6%	0.2%	1.1%	3.6%	3.7%	0.0%	0.0%	0.0%	0.0%
Ramp 48	0.8%	44.1%	0.1%	0.4%	23.6%	0.1%	0.0%	1.8%	0.3%	5.8%	1.8%	0.4%	2.7%	9.1%	9.3%	0.0%	0.0%	0.0%	0.0%
Ramp 49	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	5.2%	0.8%	18.7%	5.3%	1.3%	8.6%	29.6%	30.4%	0.0%	0.0%	0.0%	0.0%

On-Airport Vehicle Fleet Mix for Roadway Links

Alternative A 2015

Appendix A-2015																			
Roadway Link Name	Light Duty Autos			Light Duty Trucks			Medium Duty			Light Heavy Trucks			Medium Heavy Trucks			HHDT	UB	MCY	
	NCAT	CAT	Diesel	NCAT	CAT	Diesel	NCAT	CAT	NCAT	CAT	Diesel	NCAT	CAT	Diesel	NCAT	CAT	Diesel	ALL	
T1 (W)	1.0%	52.7%	0.1%	0.4%	28.5%	0.1%	0.2%	14.7%	0.0%	0.0%	0.0%	0.0%	0.2%	0.3%	0.0%	1.8%	0.0%	0.0%	
T2 (W)	1.0%	49.7%	0.1%	0.4%	26.8%	0.1%	0.3%	17.4%	0.0%	0.0%	0.0%	0.1%	0.5%	1.0%	0.0%	2.7%	0.0%	0.0%	
T3 (W)	1.0%	50.5%	0.1%	0.4%	27.4%	0.1%	0.3%	16.1%	0.0%	0.0%	0.0%	0.1%	0.6%	1.2%	0.0%	2.0%	0.0%	0.0%	
TBIT (S)	0.9%	44.7%	0.1%	0.4%	24.1%	0.1%	0.4%	23.8%	0.0%	0.0%	0.0%	0.1%	0.5%	1.0%	0.0%	4.0%	0.0%	0.0%	
T4 (E)	0.9%	44.7%	0.1%	0.4%	24.1%	0.1%	0.4%	23.8%	0.0%	0.0%	0.0%	0.1%	0.5%	1.0%	0.0%	4.0%	0.0%	0.0%	
T5 (E)	0.9%	45.7%	0.1%	0.4%	24.7%	0.1%	0.4%	22.3%	0.0%	0.0%	0.0%	0.1%	0.5%	1.0%	0.0%	4.0%	0.0%	0.0%	
T6 (E)	0.9%	45.7%	0.1%	0.4%	24.7%	0.1%	0.4%	22.3%	0.0%	0.0%	0.0%	0.1%	0.5%	1.0%	0.0%	4.0%	0.0%	0.0%	
T7 (E)	0.8%	41.6%	0.1%	0.3%	22.5%	0.1%	0.5%	29.5%	0.0%	0.0%	0.0%	0.1%	0.5%	1.1%	0.0%	3.0%	0.0%	0.0%	
T8 (E)	0.8%	41.6%	0.1%	0.3%	22.5%	0.1%	0.5%	29.5%	0.0%	0.0%	0.0%	0.1%	0.5%	1.1%	0.0%	3.0%	0.0%	0.0%	
Skyway/N Sepulveda (S/N)	1.1%	58.3%	0.1%	0.5%	31.5%	0.1%	0.1%	7.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%	0.0%	0.0%	
S. Sepulveda (S/N)	1.1%	58.7%	0.1%	0.5%	31.7%	0.1%	0.1%	7.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	0.0%	0.0%	
Century (W/E)	1.1%	56.3%	0.1%	0.5%	30.4%	0.1%	0.2%	9.4%	0.0%	0.0%	0.0%	0.0%	0.1%	0.3%	0.0%	1.5%	0.0%	0.0%	
West Way (S/N)	0.9%	47.7%	0.1%	0.4%	25.8%	0.1%	0.3%	19.7%	0.0%	0.0%	0.0%	0.0%	0.3%	0.6%	0.0%	4.0%	0.0%	0.0%	
East Way (S/N)	0.9%	47.7%	0.1%	0.4%	25.8%	0.1%	0.3%	19.7%	0.0%	0.0%	0.0%	0.0%	0.3%	0.6%	0.0%	4.0%	0.0%	0.0%	
Center Way	1.2%	62.8%	0.1%	0.5%	33.9%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.3%	0.0%	0.0%	
CTALoop	0.4%	21.0%	0.0%	0.2%	11.4%	0.0%	1.0%	62.7%	0.0%	0.0%	0.0%	0.0%	0.2%	0.3%	0.0%	2.7%	0.0%	0.0%	
N. Entrance (N/S)	1.1%	56.0%	0.1%	0.5%	30.2%	0.1%	0.2%	9.2%	0.0%	0.0%	0.0%	0.1%	0.4%	0.8%	0.0%	1.5%	0.0%	0.0%	
Bypass Rd. (N/S)	1.0%	53.9%	0.1%	0.4%	29.1%	0.1%	0.2%	12.1%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	2.7%	0.0%	0.0%	
Curbside N. (N/S)	0.9%	47.5%	0.1%	0.4%	25.7%	0.1%	0.3%	21.2%	0.0%	0.0%	0.0%	0.0%	0.1%	0.2%	0.0%	3.4%	0.0%	0.0%	
Curbside N.C. (N/S)	0.9%	47.5%	0.1%	0.4%	25.7%	0.1%	0.3%	21.2%	0.0%	0.0%	0.0%	0.0%	0.1%	0.2%	0.0%	3.4%	0.0%	0.0%	
Curbside C. (N/S)	0.9%	47.5%	0.1%	0.4%	25.7%	0.1%	0.3%	21.2%	0.0%	0.0%	0.0%	0.0%	0.1%	0.2%	0.0%	3.4%	0.0%	0.0%	
Curbside S.C. (N/S)	0.9%	47.5%	0.1%	0.4%	25.7%	0.1%	0.3%	21.2%	0.0%	0.0%	0.0%	0.0%	0.1%	0.2%	0.0%	3.4%	0.0%	0.0%	
Curbside S. (N/S)	0.9%	47.5%	0.1%	0.4%	25.7%	0.1%	0.3%	21.2%	0.0%	0.0%	0.0%	0.0%	0.1%	0.2%	0.0%	3.4%	0.0%	0.0%	
RAC (N/S)	0.8%	43.6%	0.1%	0.4%	23.6%	0.1%	0.5%	28.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.2%	0.0%	0.0%	
Remote N. (N/S)	1.1%	55.4%	0.1%	0.4%	29.9%	0.1%	0.2%	10.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.0%	0.0%	0.0%	
Remote S. (N/S)	0.8%	43.8%	0.1%	0.4%	23.6%	0.1%	0.4%	25.2%	0.0%	0.0%	0.0%	0.1%	0.5%	1.0%	0.0%	4.3%	0.0%	0.0%	
World Way W./Spine Rd. (W/E)	0.4%	18.4%	0.0%	0.1%	10.0%	0.0%	1.2%	69.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Cargo/Ancillary Traffic																			
Ramp 33	0.8%	40.8%	0.1%	0.3%	22.1%	0.1%	0.0%	2.6%	0.2%	4.6%	1.3%	0.6%	4.4%	15.0%	7.1%	0.0%	0.0%	0.0%	
Ramp 34	0.8%	40.8%	0.1%	0.3%	22.1%	0.1%	0.0%	2.6%	0.2%	4.6%	1.3%	0.6%	4.4%	15.0%	7.1%	0.0%	0.0%	0.0%	
Ramp 35	0.8%	40.8%	0.1%	0.3%	22.1%	0.1%	0.0%	2.6%	0.2%	4.6%	1.3%	0.6%	4.4%	15.0%	7.1%	0.0%	0.0%	0.0%	
Ramp 36	0.8%	40.8%	0.1%	0.3%	22.1%	0.1%	0.0%	2.6%	0.2%	4.6%	1.3%	0.6%	4.4%	15.0%	7.1%	0.0%	0.0%	0.0%	
Ramp 37	0.8%	40.8%	0.1%	0.3%	22.1%	0.1%	0.0%	2.6%	0.2%	4.6%	1.3%	0.6%	4.4%	15.0%	7.1%	0.0%	0.0%	0.0%	
Ramp 41	0.4%	22.3%	0.1%	0.2%	12.1%	0.0%	0.1%	4.7%	0.4%	8.3%	2.3%	1.2%	7.9%	27.1%	12.9%	0.0%	0.0%	0.0%	
Ramp 42	0.4%	22.3%	0.1%	0.2%	12.1%	0.0%	0.1%	4.7%	0.4%	8.3%	2.3%	1.2%	7.9%	27.1%	12.9%	0.0%	0.0%	0.0%	
Ramp 43	0.4%	22.3%	0.1%	0.2%	12.1%	0.0%	0.1%	4.7%	0.4%	8.3%	2.3%	1.2%	7.9%	27.1%	12.9%	0.0%	0.0%	0.0%	
Ramp 44	0.4%	22.3%	0.1%	0.2%	12.1%	0.0%	0.1%	4.7%	0.4%	8.3%	2.3%	1.2%	7.9%	27.1%	12.9%	0.0%	0.0%	0.0%	
Ramp 45	0.4%	22.3%	0.1%	0.2%	12.1%	0.0%	0.1%	4.7%	0.4%	8.3%	2.3%	1.2%	7.9%	27.1%	12.9%	0.0%	0.0%	0.0%	
Ramp 46	0.4%	22.3%	0.1%	0.2%	12.1%	0.0%	0.1%	4.7%	0.4%	8.3%	2.3%	1.2%	7.9%	27.1%	12.9%	0.0%	0.0%	0.0%	

On-Airport Vehicle Fleet Mix for Roadway Links

Roadway Link Name	Alternative B 2015																
	Light Duty Autos			Light Duty Trucks			Medium Duty			Light Heavy Trucks			Medium Heavy Trucks			HHDT	UB
	NCAT	CAT	Diesel	NCAT	CAT	Diesel	NCAT	CAT	NCAT	CAT	Diesel	NCAT	CAT	Diesel	NCAT	CAT	Diesel
T1 (W)	1.0%	52.6%	0.1%	0.4%	28.4%	0.1%	0.2%	13.2%	0.0%	0.0%	0.0%	0.1%	0.4%	0.8%	0.0%	2.7%	0.0%
T2 (W)	0.9%	48.0%	0.1%	0.4%	25.9%	0.1%	0.3%	18.6%	0.0%	0.0%	0.0%	0.1%	0.5%	1.1%	0.0%	4.0%	0.0%
T3 (W)	0.9%	48.1%	0.1%	0.4%	26.0%	0.1%	0.3%	18.3%	0.0%	0.0%	0.0%	0.1%	0.5%	1.2%	0.0%	3.9%	0.0%
TBIT (S)	0.9%	48.4%	0.1%	0.4%	26.1%	0.1%	0.3%	20.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.6%	0.0%
T4 (E)	0.9%	48.4%	0.1%	0.4%	25.1%	0.1%	0.3%	20.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.6%	0.0%
T5 (E)	0.9%	47.5%	0.1%	0.4%	25.7%	0.1%	0.3%	19.4%	0.0%	0.0%	0.0%	0.1%	0.5%	1.1%	0.0%	3.8%	0.0%
T6 (E)	0.9%	47.5%	0.1%	0.4%	25.7%	0.1%	0.3%	19.4%	0.0%	0.0%	0.0%	0.1%	0.5%	1.1%	0.0%	3.8%	0.0%
T7 (E)	0.9%	48.1%	0.1%	0.4%	26.0%	0.1%	0.3%	18.7%	0.0%	0.0%	0.0%	0.1%	0.5%	1.1%	0.0%	3.7%	0.0%
T8 (E)	0.9%	48.1%	0.1%	0.4%	26.0%	0.1%	0.3%	18.7%	0.0%	0.0%	0.0%	0.1%	0.5%	1.1%	0.0%	3.7%	0.0%
Skyway/N Sepulveda (S/N)	1.1%	57.4%	0.1%	0.5%	31.0%	0.1%	0.1%	6.9%	0.0%	0.0%	0.0%	0.1%	0.6%	1.2%	0.0%	1.0%	0.0%
S. Sepulveda (S/N)	1.2%	60.9%	0.1%	0.5%	32.9%	0.1%	0.0%	2.8%	0.0%	0.0%	0.0%	0.0%	0.2%	0.4%	0.0%	0.9%	0.0%
Century (W/E)	1.0%	53.0%	0.1%	0.4%	28.6%	0.1%	0.2%	14.4%	0.0%	0.0%	0.0%	0.0%	0.2%	0.5%	0.0%	1.4%	0.0%
West Way (S/N)	0.9%	47.7%	0.1%	0.4%	25.8%	0.1%	0.3%	19.7%	0.0%	0.0%	0.0%	0.0%	0.3%	0.6%	0.0%	4.0%	0.0%
East Way (S/N)	0.9%	47.7%	0.1%	0.4%	25.8%	0.1%	0.3%	19.7%	0.0%	0.0%	0.0%	0.0%	0.3%	0.6%	0.0%	4.0%	0.0%
Center Way	1.2%	63.8%	0.1%	0.5%	34.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
CTALoop	0.4%	22.0%	0.0%	0.2%	11.9%	0.0%	1.0%	60.8%	0.0%	0.0%	0.0%	0.0%	0.2%	0.4%	0.0%	3.0%	0.0%
N. Entrance (N/S)	1.1%	57.6%	0.1%	0.5%	31.1%	0.1%	0.1%	8.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.2%	0.0%
Bypass Rd. (N/S)	1.1%	57.1%	0.1%	0.5%	30.9%	0.1%	0.1%	8.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.7%	0.0%
Curbside N. (N/S)	1.0%	49.9%	0.1%	0.4%	27.0%	0.1%	0.3%	17.3%	0.0%	0.0%	0.0%	0.0%	0.1%	0.3%	0.0%	3.5%	0.0%
Curbside N.C. (N/S)	1.0%	49.9%	0.1%	0.4%	27.0%	0.1%	0.3%	17.3%	0.0%	0.0%	0.0%	0.0%	0.1%	0.3%	0.0%	3.5%	0.0%
Curbside C. (N/S)	1.0%	49.9%	0.1%	0.4%	27.0%	0.1%	0.3%	17.3%	0.0%	0.0%	0.0%	0.0%	0.1%	0.3%	0.0%	3.5%	0.0%
Curbside S.C. (N/S)	1.0%	49.9%	0.1%	0.4%	27.0%	0.1%	0.3%	17.3%	0.0%	0.0%	0.0%	0.0%	0.1%	0.3%	0.0%	3.5%	0.0%
Curbside S. (N/S)	1.0%	49.9%	0.1%	0.4%	27.0%	0.1%	0.3%	17.3%	0.0%	0.0%	0.0%	0.0%	0.1%	0.3%	0.0%	3.5%	0.0%
RAC (N/S)	1.1%	57.5%	0.1%	0.5%	31.0%	0.1%	0.1%	7.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.9%	0.0%
Remote N. (N/S)	1.1%	58.2%	0.1%	0.5%	31.4%	0.1%	0.1%	6.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.6%	0.0%
Remote S. (N/S)	1.1%	57.3%	0.1%	0.5%	30.9%	0.1%	0.1%	8.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.7%	0.0%
World Way W/Spine Rd. (W/E)	0.4%	18.2%	0.0%	0.1%	9.8%	0.0%	0.9%	53.3%	0.0%	0.0%	0.0%	0.2%	1.3%	2.7%	0.0%	13.1%	0.0%
Cargo/Ancillary Traffic																	
Ramp 33	0.8%	40.8%	0.1%	0.3%	22.1%	0.1%	0.0%	2.6%	0.2%	4.6%	1.3%	0.6%	4.4%	15.0%	7.1%	0.0%	0.0%
Ramp 34	0.8%	40.8%	0.1%	0.3%	22.1%	0.1%	0.0%	2.6%	0.2%	4.6%	1.3%	0.6%	4.4%	15.0%	7.1%	0.0%	0.0%
Ramp 35	0.8%	40.8%	0.1%	0.3%	22.1%	0.1%	0.0%	2.6%	0.2%	4.6%	1.3%	0.6%	4.4%	15.0%	7.1%	0.0%	0.0%
Ramp 36	0.8%	40.8%	0.1%	0.3%	22.1%	0.1%	0.0%	2.6%	0.2%	4.6%	1.3%	0.6%	4.4%	15.0%	7.1%	0.0%	0.0%
Ramp 37	0.8%	40.8%	0.1%	0.3%	22.1%	0.1%	0.0%	2.6%	0.2%	4.6%	1.3%	0.6%	4.4%	15.0%	7.1%	0.0%	0.0%
Ramp 38	0.8%	40.8%	0.1%	0.3%	22.1%	0.1%	0.0%	2.6%	0.2%	4.6%	1.3%	0.6%	4.4%	15.0%	7.1%	0.0%	0.0%
Ramp 41	0.4%	22.3%	0.1%	0.2%	12.1%	0.0%	0.1%	4.7%	0.4%	8.3%	2.3%	1.2%	7.9%	27.1%	12.9%	0.0%	0.0%
Ramp 42	0.4%	22.3%	0.1%	0.2%	12.1%	0.0%	0.1%	4.7%	0.4%	8.3%	2.3%	1.2%	7.9%	27.1%	12.9%	0.0%	0.0%
Ramp 43	0.4%	22.3%	0.1%	0.2%	12.1%	0.0%	0.1%	4.7%	0.4%	8.3%	2.3%	1.2%	7.9%	27.1%	12.9%	0.0%	0.0%
Ramp 44	0.4%	22.3%	0.1%	0.2%	12.1%	0.0%	0.1%	4.7%	0.4%	8.3%	2.3%	1.2%	7.9%	27.1%	12.9%	0.0%	0.0%
Ramp 45	0.4%	22.3%	0.1%	0.2%	12.1%	0.0%	0.1%	4.7%	0.4%	8.3%	2.3%	1.2%	7.9%	27.1%	12.9%	0.0%	0.0%
Ramp 46	0.4%	22.3%	0.1%	0.2%	12.1%	0.0%	0.1%	4.7%	0.4%	8.3%	2.3%	1.2%	7.9%	27.1%	12.9%	0.0%	0.0%
Ramp 47	0.4%	22.3%	0.1%	0.2%	12.1%	0.0%	0.1%	4.7%	0.4%	8.3%	2.3%	1.2%	7.9%	27.1%	12.9%	0.0%	0.0%

On-Airport Vehicle Fleet Mix for Roadway Links

	Alternative C 2015																
	Light Duty Autos			Light Duty Trucks			Medium Duty		Light Heavy Trucks			Medium Heavy Trucks			HHDT	UB	MCV
Roadway Link Name	NCAT	CAT	Diesel	NCAT	CAT	Diesel	NCAT	CAT	NCAT	CAT	Diesel	NCAT	CAT	Diesel	Diesel	Diesel	ALL
T1 (W)	1.1%	56.5%	0.1%	0.5%	30.0%	0.1%	0.2%	10.8%	0.0%	0.0%	0.0%	0.0%	0.3%	0.8%	0.0%	1.1%	0.0%
T2 (W)	1.0%	62.8%	0.1%	0.4%	28.5%	0.1%	0.2%	14.1%	0.0%	0.0%	0.0%	0.1%	0.4%	0.8%	0.0%	1.4%	0.0%
T3 (W)	1.0%	53.8%	0.1%	0.4%	29.1%	0.1%	0.2%	13.0%	0.0%	0.0%	0.0%	0.1%	0.4%	0.9%	0.0%	0.9%	0.0%
TBIT (S)	1.0%	50.5%	0.1%	0.4%	27.3%	0.1%	0.3%	19.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.0%	0.0%
T4 (E)	1.0%	50.5%	0.1%	0.4%	27.3%	0.1%	0.3%	19.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.0%	0.0%
T5 (E)	0.9%	47.5%	0.1%	0.4%	25.7%	0.1%	0.3%	20.9%	0.0%	0.0%	0.0%	0.1%	0.6%	1.2%	0.0%	2.2%	0.0%
T6 (E)	0.9%	47.5%	0.1%	0.4%	25.7%	0.1%	0.3%	20.9%	0.0%	0.0%	0.0%	0.1%	0.6%	1.2%	0.0%	2.2%	0.0%
T7 (E)	0.9%	47.1%	0.1%	0.4%	25.5%	0.1%	0.4%	21.4%	0.0%	0.0%	0.0%	0.1%	0.6%	1.2%	0.0%	2.3%	0.0%
T8 (E)	0.9%	47.1%	0.1%	0.4%	25.5%	0.1%	0.4%	21.4%	0.0%	0.0%	0.0%	0.1%	0.6%	1.2%	0.0%	2.3%	0.0%
Skyway/N Sepulveda (S/N)	1.1%	57.7%	0.1%	0.5%	31.2%	0.1%	0.1%	6.4%	0.0%	0.0%	0.0%	0.1%	0.5%	1.1%	0.0%	1.0%	0.0%
S. Sepulveda (S/N)	1.2%	61.1%	0.1%	0.5%	33.0%	0.1%	0.0%	2.6%	0.0%	0.0%	0.0%	0.0%	0.2%	0.4%	0.0%	0.8%	0.0%
Century (W/E)	1.0%	53.0%	0.1%	0.4%	28.6%	0.1%	0.2%	14.6%	0.0%	0.0%	0.0%	0.0%	0.2%	0.4%	0.0%	1.3%	0.0%
West Way (S/N)	0.9%	47.7%	0.1%	0.4%	26.8%	0.1%	0.3%	19.7%	0.0%	0.0%	0.0%	0.0%	0.3%	0.6%	0.0%	4.0%	0.0%
East Way (S/N)	0.9%	47.7%	0.1%	0.4%	25.8%	0.1%	0.3%	19.7%	0.0%	0.0%	0.0%	0.0%	0.3%	0.6%	0.0%	4.0%	0.0%
Center Way	1.2%	63.6%	0.1%	0.5%	34.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
CTALoop	0.5%	25.9%	0.1%	0.2%	14.0%	0.0%	0.9%	53.7%	0.0%	0.0%	0.0%	0.0%	0.2%	0.5%	0.0%	3.9%	0.0%
N. Entrance (N/S)	1.1%	57.3%	0.1%	0.5%	31.0%	0.1%	0.1%	8.2%	0.0%	0.0%	0.0%	0.0%	0.1%	0.2%	0.0%	1.3%	0.0%
Bypass Rd. (N/S)	1.1%	57.7%	0.1%	0.5%	31.2%	0.1%	0.1%	7.5%	0.0%	0.0%	0.0%	0.0%	0.1%	0.2%	0.0%	1.5%	0.0%
Connector N (W/E)	1.1%	56.3%	0.1%	0.5%	30.4%	0.1%	0.2%	9.6%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	1.6%	0.0%
Terminal W (N)	1.1%	55.6%	0.1%	0.5%	30.1%	0.1%	0.2%	10.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.5%	0.0%
Terminal E. (S)	1.0%	53.3%	0.1%	0.4%	28.6%	0.1%	0.2%	13.6%	0.0%	0.0%	0.0%	0.0%	0.1%	0.2%	0.0%	2.2%	0.0%
Curbside Idle W (N)	1.1%	55.8%	0.1%	0.5%	30.1%	0.1%	0.2%	10.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.5%	0.0%
Curbside Idle N (S)	0.9%	48.5%	0.1%	0.4%	25.1%	0.1%	0.4%	22.5%	0.0%	0.0%	0.0%	0.0%	0.1%	0.3%	0.0%	3.8%	0.0%
RAC (S)	1.1%	58.0%	0.1%	0.5%	31.3%	0.1%	0.1%	8.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Remake N. (N/S)	1.1%	59.4%	0.1%	0.5%	32.1%	0.1%	0.1%	5.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	0.0%
Remake S. (W/E)	1.2%	60.2%	0.1%	0.5%	32.5%	0.1%	0.1%	4.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	0.0%
World Way W/Spine Rd. (W/E)	0.2%	10.6%	0.0%	0.1%	5.7%	0.0%	1.0%	62.7%	0.0%	0.0%	0.0%	0.2%	1.5%	3.2%	0.0%	14.7%	0.0%
Cargo/Ancillary Traffic																	
Ramp 33	0.8%	40.8%	0.1%	0.3%	22.1%	0.1%	0.0%	2.6%	0.2%	4.6%	1.3%	0.6%	4.4%	15.0%	7.1%	0.0%	0.0%
Ramp 34	0.8%	40.8%	0.1%	0.3%	22.1%	0.1%	0.0%	2.6%	0.2%	4.6%	1.3%	0.6%	4.4%	15.0%	7.1%	0.0%	0.0%
Ramp 35	0.8%	40.8%	0.1%	0.3%	22.1%	0.1%	0.0%	2.6%	0.2%	4.6%	1.3%	0.6%	4.4%	15.0%	7.1%	0.0%	0.0%
Ramp 36	0.8%	40.8%	0.1%	0.3%	22.1%	0.1%	0.0%	2.6%	0.2%	4.6%	1.3%	0.6%	4.4%	15.0%	7.1%	0.0%	0.0%
Ramp 37	0.8%	40.8%	0.1%	0.3%	22.0%	0.1%	0.0%	2.6%	0.2%	4.6%	1.3%	0.6%	4.4%	15.0%	7.1%	0.0%	0.0%
Ramp 38	0.8%	40.8%	0.1%	0.3%	22.1%	0.1%	0.0%	2.6%	0.2%	4.6%	1.3%	0.6%	4.4%	15.0%	7.1%	0.0%	0.0%
Ramp 41	0.4%	22.3%	0.1%	0.2%	12.1%	0.0%	0.1%	4.7%	0.4%	8.3%	2.3%	1.2%	7.9%	27.1%	12.9%	0.0%	0.0%
Ramp 42	0.4%	22.3%	0.1%	0.2%	12.1%	0.0%	0.1%	4.7%	0.4%	8.3%	2.3%	1.2%	7.9%	27.1%	12.9%	0.0%	0.0%
Ramp 43	0.4%	22.3%	0.1%	0.2%	12.1%	0.0%	0.1%	4.7%	0.4%	8.3%	2.3%	1.2%	7.9%	27.1%	12.9%	0.0%	0.0%
Ramp 44	0.4%	22.3%	0.1%	0.2%	12.1%	0.0%	0.1%	4.7%	0.4%	8.3%	2.3%	1.2%	7.9%	27.1%	12.9%	0.0%	0.0%
Ramp 46	0.4%	22.3%	0.1%	0.2%	12.1%	0.0%	0.1%	4.7%	0.4%	8.3%	2.3%	1.2%	7.9%	27.1%	12.9%	0.0%	0.0%
Ramp 47	0.4%	22.3%	0.1%	0.2%	12.1%	0.0%	0.1%	4.7%	0.4%	8.3%	2.3%	1.2%	7.9%	27.1%	12.9%	0.0%	0.0%

Attachment O

Assumptions for On-Airport Roadway Links

Assumptions for On-Airport Roadway Links

No Action/No Project 2005

Roadway Link Name	Avg. Trip distance miles	Travel Speed mph	Variable Start Soak				Vehicles Per Year
			Private	Commercial	Private	Commercial	
T1 (W)	0.328	5	1.5	2.0	10	10	37,471,580
T2 (W)	0.239	5	1.5	2.0	10	10	34,326,763
T3 (W)	0.134	5	1.5	2.0	10	10	27,750,101
TBIT (S)	0.145	5	3.4	3.0	10	10	26,379,290
T4 (E)	0.133	10	1.0	2.3	10	10	19,577,910
T5 (E)	0.111	10	1.0	2.3	10	10	20,573,324
T6 (E)	0.129	10	1.0	2.3	10	10	20,573,324
T7 (E)	0.191	5	1.0	2.3	10	10	22,692,670
T8 (E)	0.137	5	1.0	2.3	10	10	22,692,670
Skyway/N Sepulveda (S/N)	0.145	5	1.0	1.0	--	--	18,822,766
S. Sepulveda (S/N)	0.301	5	0.0	0.0	--	--	20,491,803
Century (W/E)	0.118	30	0.0	0.0	--	--	21,294,142
West Way (S/N)	0.152	10	1.2	1.2	--	--	12,987,581
East Way (S/N)	0.155	15	1.2	1.2	--	--	10,606,310
Center Way (E)	0.683	5	2.5	2.5	--	--	9,846,878
CTA Loop	0.469	10	1.5	1.5	--	--	7,196,474
Cargo/Ancillary Traffic							
World Way W./Spine Rd. (W/E)	1.219	25	2.5	7	360	120	3,547,125
Ramp 33	0.568	15	0.5	5	360	120	428,028
Ramp 34	0.170	15	0.5	5	360	120	905,767
Ramp 35	0.662	15	0.5	5	360	120	91,724
Ramp 36	0.625	15	0.5	5	360	120	85,962
Ramp 37	0.588	15	0.5	5	360	120	1,736,828
Ramp 38	0.341	15	0.5	5	360	120	1,314,267
Ramp 39	0.199	15	0.5	5	360	120	1,585,859
Ramp 40	0.568	15	0.5	5	360	120	1,001,519
Ramp 41	0.313	15	0.5	5	360	120	236,666
Ramp 42	0.256	15	0.5	5	360	120	2,208,104
Ramp 43	0.455	15	0.5	5	360	120	2,777,414
Ramp 44	0.284	15	0.5	5	360	120	378,430
Ramp 45	0.170	15	0.5	5	360	120	2,181,095
Ramp 46	0.568	15	0.5	5	360	120	134,144
Ramp 47	0.568	15	0.5	5	360	120	1,665,357
Ramp 48	0.170	15	0.5	5	360	120	1,165,266
Ramp 49	0.284	15	0.5	5	360	120	24,881

Assumptions for On-Airport Roadway Links

Alternative A 2005

Roadway Link Name	Avg. Trip distance miles	Travel Speed mph	Variable Start Soak				Vehicles Per Year
			Private	Commercial	Private	Commercial	
T1 (W)	0.326	10	1.1	1.2	10	10	25,939,050
T2 (W)	0.239	10	1.1	1.2	10	10	22,156,097
T3 (W)	0.134	10	1.1	1.2	10	10	14,976,464
TBIT (S)	0.145	15	1.2	1.8	10	10	14,103,631
T4 (E)	0.133	15	0.7	1.4	10	10	14,082,204
T5 (E)	0.111	15	0.7	1.4	10	10	16,713,764
T6 (E)	0.129	15	0.7	1.4	10	10	16,713,764
T7 (E)	0.191	10	0.7	1.4	10	10	17,049,997
T8 (E)	0.137	10	0.7	1.4	10	10	17,049,997
Skyway/N Sepulveda (S/N)	0.145	10	0.0	0.0	--	--	10,904,167
S. Sepulveda (S/N)	0.301	10	0.0	0.0	--	--	18,056,696
Century (W/E)	0.118	35	0.0	0.0	--	--	15,292,221
West Way (S/N)	0.152	10	0.5	0.5	--	--	10,476,555
East Way (S/N)	0.155	10	0.5	0.5	--	--	6,665,076
Center Way	0.683	5	2.5	2.5	--	--	6,635,283
CTA Loop	0.469	20	1.5	1.5	--	--	3,585,618
N. Entrance (N/S)	0.564	35	0.0	0.0	--	--	8,666,256
Bypass Rd. (N/S)	0.418	30	0.0	0.0	--	--	8,492,130
Curbside N. (N/S)	0.148	20	0.8	0.3	10	10	11,707,158
Curbside N.C. (N/S)	0.113	20	0.8	0.3	10	10	11,707,158
Curbside C. (N/S)	0.154	20	0.8	0.3	10	10	11,707,158
Curbside S.C. (N/S)	0.072	20	0.8	0.3	10	10	11,707,158
Curbside S. (N/S)	0.126	20	0.8	0.3	10	10	11,707,158
RAC (N/S)	0.685	40	0.0	0.0	--	--	4,127,935
Remote N. (N/S)	0.437	35	0.0	0.0	--	--	4,356,635
Remote S. (N/S)	0.389	40	0.0	0.0	--	--	4,483,270
World Way W./Spine Rd. (W/E)	--	--	--	--	--	--	-
Cargo/Ancillary Traffic							
Ramp 33	0.398	15	0.5	5	360	120	3,390,730
Ramp 34	--	--	--	--	--	--	-
Ramp 35	0.454	15	0.5	5	360	120	2,519,002
Ramp 36	0.398	15	0.5	5	360	120	1,256,484
Ramp 37	0.454	15	0.5	5	360	120	2,587,828
Ramp 38	0.568	15	0.5	5	360	120	624,979
Ramp 39	--	--	--	--	--	--	-
Ramp 40	--	--	--	--	--	--	-
Ramp 41	0.568	15	0.5	5	360	120	1,476,005
Ramp 42	--	--	--	--	--	--	-
Ramp 43	0.171	15	0.5	5	360	120	406,540
Ramp 44	0.227	15	0.5	5	360	120	985,897
Ramp 45	0.739	15	0.5	5	360	120	118,850
Ramp 46	--	--	--	--	--	--	-
Ramp 47	--	--	--	--	--	--	-
Ramp 48	--	--	--	--	--	--	-
Ramp 49	--	--	--	--	--	--	-

Assumptions for On-Airport Roadway Links

Alternative B 2005

Roadway Link Name	Avg. Trip distance miles	Travel Speed mph	Idle		Variable Start Soak		Vehicles Per Year
			Private min	Commercial min	Private min	Commercial min	
T1 (W)	0.326	10	1.0	1.2	10	10	24,817,460
T2 (W)	0.239	10	1.0	1.2	10	10	22,056,784
T3 (W)	0.134	10	1.0	1.2	10	10	15,521,137
TBIT (S)	0.145	15	1.6	1.6	10	10	13,256,975
T4 (E)	0.133	15	0.7	1.4	10	10	13,676,143
T5 (E)	0.111	15	0.7	1.4	10	10	16,803,206
T6 (E)	0.129	15	0.7	1.4	10	10	16,803,206
T7 (E)	0.191	10	0.7	1.4	10	10	16,536,623
T8 (E)	0.137	10	0.7	1.4	10	10	16,536,623
Skyway/N Sepulveda (S/N)	0.145	10	0.0	0.0	--	--	10,375,588
S. Sepulveda (S/N)	0.301	10	0.0	0.0	--	--	20,624,232
Century (W/E)	0.118	35	0.0	0.0	--	--	12,914,476
West Way (S/N)	0.152	15	0.5	0.5	--	--	9,859,348
East Way (S/N)	0.155	15	0.5	0.5	--	--	7,106,886
Center Way	0.683	5	2.5	2.5	--	--	6,986,173
CTA Loop	0.469	20	1.5	1.5	--	--	3,316,902
N. Entrance (N/S)	0.564	35	0.0	0.0	--	--	9,462,016
Bypass Rd. (N/S)	0.418	30	0.0	0.0	--	--	7,657,482
Curbside N. (N/S)	0.148	25	0.8	0.8	10	10	7,829,073
Curbside N.C. (N/S)	0.113	25	0.8	0.8	10	10	7,829,073
Curbside C. (N/S)	0.154	25	0.8	0.8	10	10	7,829,073
Curbside S.C. (N/S)	0.072	25	0.8	0.8	10	10	7,829,073
Curbside S. (N/S)	0.128	25	0.8	0.8	10	10	7,829,073
RAC (N/S)	0.685	35	0.0	0.0	--	--	5,015,736
Remote N. (N/S)	0.437	30	0.0	0.0	--	--	4,634,842
Remote S. (N/S)	0.389	35	0.0	0.0	--	--	7,470,807
World Way W./Spine Rd. (W/E)	--	--	--	--	--	--	--
Cargo/Ancillary Traffic							
Ramp 33	0.227	15	0.5	5	360	120	1,606,806
Ramp 34	0.454	15	0.5	5	360	120	2,755,240
Ramp 35	0.454	15	0.5	5	360	120	1,067,058
Ramp 36	0.454	15	0.5	5	360	120	1,244,125
Ramp 37	0.171	15	0.5	5	360	120	944,544
Ramp 38	0.398	15	0.5	5	360	120	878,502
Ramp 39	0.199	15	0.5	5	360	120	1,979,092
Ramp 40	--	--	--	--	--	--	--
Ramp 41	0.566	15	0.5	5	360	120	787,333
Ramp 42	0.171	15	0.5	5	360	120	263,505
Ramp 43	0.227	15	0.5	5	360	120	221,529
Ramp 44	0.454	15	0.5	5	360	120	469,107
Ramp 45	0.114	10	0.5	5	360	120	45,912
Ramp 46	0.171	15	0.5	5	360	120	557,941
Ramp 47	0.199	15	0.5	5	360	120	378,331
Ramp 48	0.199	15	0.5	5	360	120	263,533
Ramp 49	--	--	--	--	--	--	--

Assumptions for On-Airport Roadway Links

Alternative C 2005

Roadway Link Name	Avg. Trip distance miles	Travel Speed mph	Idle		Variable Start Soak		Vehicles Per Year
			Private min	Commercial min	Private min	Commercial min	
T1 (W)	0.326	15	1.0	1.2	10	10	24,608,038
T2 (W)	0.239	15	1.0	1.2	10	10	19,018,401
T3 (W)	0.134	15	1.0	1.2	10	10	15,107,359
TBIT (S)	0.145	15	1.6	1.8	10	10	14,568,058
T4 (E)	0.133	20	1.0	1.6	10	10	14,803,708
T5 (E)	0.111	20	1.0	1.6	10	10	14,149,520
T6 (E)	0.129	20	1.0	1.6	10	10	14,149,520
T7 (E)	0.191	10	1.0	1.6	10	10	17,212,506
T8 (E)	0.137	10	1.0	1.6	10	10	17,212,506
Skyway/N Sepulveda (S/N)	0.145	10	0.0	0.0	--	--	9,968,783
S. Sepulveda (S/N)	0.301	10	0.0	0.0	--	--	17,524,437
Century (W/E)	0.118	35	0.0	0.0	--	--	12,091,845
West Way (S/N)	0.152	20	0.5	0.5	--	--	5,172,650
East Way (S/N)	0.155	15	0.5	0.5	--	--	7,031,436
Center Way	0.683	5	2.5	2.5	--	--	7,066,095
CTA Loop	0.469	10	1.5	1.5	--	--	6,786,808
N. Entrance (N/S)	0.492	40	0.0	0.0	--	--	6,663,102
NBypass (N/S)	0.327	30	0.0	0.0	--	--	9,183,842
NLoop (W/E)	0.334	30	0.0	0.0	--	--	7,286,062
SBypass (N/S)	0.392	30	0.0	0.0	--	--	14,148,254
Terminal E. (N/S)	0.474	25	0.0	0.0	--	--	7,420,930
SLoop (W)	0.197	30	0.0	0.0	--	--	4,502,009
Curbside Idle E (N/S)	0.342	--	3.8	1.2	10	10	7,286,062
RAC (N/S)	0.560	25	0.0	0.0	--	--	4,310,947
Remote N. (N/S)	0.421	30	0.0	0.0	--	--	9,646,245
Remote S. (N/S)	0.324	35	0.0	0.0	--	--	8,499,870
World Way W./Spine Rd. (W/E)	--	--	--	--	--	--	--
Cargo/Ancillary Traffic							
Ramp 33	0.398	15	0.5	5	360	120	3,793,747
Ramp 34	--	--	--	--	360	120	--
Ramp 35	0.369	15	0.5	5	360	120	1,221,641
Ramp 36	0.256	15	0.5	5	360	120	1,321,149
Ramp 37	0.171	15	0.5	5	360	120	1,078,852
Ramp 38	0.398	15	0.5	5	360	120	1,005,109
Ramp 39	0.511	15	0.5	5	360	120	2,057,326
Ramp 40	--	--	--	--	360	120	--
Ramp 41	0.566	15	0.5	5	360	120	599,267
Ramp 42	0.114	15	0.5	5	360	120	79,288
Ramp 43	0.227	15	0.5	5	360	120	136,293
Ramp 44	0.454	15	0.5	5	360	120	288,594
Ramp 45	0.114	15	0.5	5	360	120	34,051
Ramp 46	3.125	15	0.5	5	360	120	1,620,922
Ramp 47	0.199	15	0.5	5	360	120	228,688
Ramp 48	--	--	--	--	360	120	--
Ramp 49	--	--	--	--	360	120	--

Assumptions for On-Airport Roadway Links

No Action/No Project 2015

Roadway Link Name	Avg. Trip distance miles	Travel Speed mph	Variable Start Soak				Vehicles Per Year
			Idle	Private	Commercial	Commercial	
T1 (W)	0.326	5	1.5	2.0	10	10	37,363,425
T2 (W)	0.239	5	1.5	2.0	10	10	32,192,780
T3 (W)	0.134	5	1.5	2.0	10	10	25,849,086
TBIT (S)	0.145	5	3.4	3.0	10	10	24,970,406
T4 (E)	0.133	10	1.0	2.3	10	10	20,998,092
T5 (E)	0.111	5	1.0	2.3	10	10	26,275,503
T6 (E)	0.129	5	1.0	2.3	10	10	26,275,503
T7 (E)	0.191	5	1.0	2.3	10	10	25,962,291
T8 (E)	0.137	5	1.0	2.3	10	10	25,962,291
Skyway/N Sepulveda (S/N)	0.145	5	1.0	1.0	--	--	13,279,788
S. Sepulveda (S/N)	0.301	10	0.0	0.0	--	--	19,854,191
Century (W/E)	0.118	30	0.0	0.0	--	--	20,948,517
West Way (S/N)	0.152	10	1.2	1.2	--	--	10,846,075
East Way (S/N)	0.155	15	1.2	1.2	--	--	8,496,867
Center Way (E)	0.683	5	2.5	2.5	--	--	8,289,398
CTA Loop	0.469	5	1.5	1.5	--	--	9,850,493
Cargo/Ancillary Traffic							
World Way W./Spine Rd. (W/E)	1.218	25	2.5	7	360	120	4,018,306
Ramp 33	0.568	15	0.5	5	360	120	429,914
Ramp 34	0.170	15	0.5	5	360	120	905,767
Ramp 35	0.682	15	0.5	5	360	120	91,724
Ramp 36	0.625	15	0.5	5	360	120	85,962
Ramp 37	0.568	15	0.5	5	360	120	1,736,828
Ramp 38	0.341	15	0.5	5	360	120	1,314,855
Ramp 39	0.199	15	0.5	5	360	120	1,584,711
Ramp 40	0.568	15	0.5	5	360	120	1,001,519
Ramp 41	0.313	15	0.5	5	360	120	236,779
Ramp 42	0.266	15	0.5	5	360	120	2,208,990
Ramp 43	0.455	15	0.5	5	360	120	2,777,414
Ramp 44	0.284	15	0.5	5	360	120	376,430
Ramp 45	0.170	15	0.5	5	360	120	2,178,297
Ramp 46	0.568	15	0.5	5	360	120	108,969
Ramp 47	0.568	15	0.5	5	360	120	1,665,357
Ramp 48	0.170	15	0.5	5	360	120	1,167,173
Ramp 49	0.284	15	0.5	5	360	120	24,881

Assumptions for On-Airport Roadway Links

Alternative A 2015

Roadway Link Name	Avg. Trip distance miles	Travel Speed mph	Variable Start Soak				Vehicles Per Year
			Idle	Private	Commercial	Commercial	
T1 (W)	0.326	20	1.0	0.8	10	10	18,057,598
T2 (W)	0.239	15	1.0	0.8	10	10	14,879,897
T3 (W)	0.134	15	1.0	0.8	10	10	9,803,200
TBIT (S)	0.145	20	0.9	1.1	10	10	8,802,324
T4 (E)	0.133	20	0.7	0.9	10	10	9,574,315
T5 (E)	0.111	20	0.7	0.9	10	10	12,271,469
T6 (E)	0.129	20	0.7	0.9	10	10	12,271,469
T7 (E)	0.191	15	0.7	0.9	10	10	13,213,333
T8 (E)	0.137	15	0.7	0.9	10	10	13,213,333
Skyway/N Sepulveda (S/N)	0.145	15	0.0	0.0	--	--	7,229,523
S. Sepulveda (S/N)	0.301	25	0.0	0.0	--	--	11,671,573
Century (W/E)	0.118	35	0.0	0.0	--	--	11,169,360
West Way (S/N)	0.152	15	0.5	0.5	--	--	6,497,617
East Way (S/N)	0.155	20	0.5	0.5	--	--	4,863,957
Center Way	0.683	20	2.5	2.5	--	--	3,491,122
CTA Loop	0.469	20	1.5	1.5	--	--	2,749,335
N. Entrance (N/S)	0.564	30	0.0	0.0	--	--	30,239,786
Bypass Rd. (N/S)	0.418	30	0.0	0.0	--	--	23,729,871
Curbside N. (N/S)	0.148	15	0.8	0.2	10	10	24,254,586
Curbside N.C. (N/S)	0.113	15	0.8	0.2	10	10	24,254,586
Curbside C. (N/S)	0.154	15	0.8	0.2	10	10	24,254,586
Curbside S.C. (N/S)	0.072	15	0.8	0.2	10	10	24,254,586
Curbside S. (N/S)	0.128	15	0.8	0.2	10	10	24,254,586
RAC (N/S)	0.685	35	0.0	0.0	--	--	14,170,784
Remote N. (N/S)	0.437	30	0.0	0.0	--	--	14,457,453
Remote S. (N/S)	0.389	30	0.0	0.0	--	--	17,173,058
World Way W./Spine Rd. (W/E)	1.485	25	0.0	0.0	--	--	1,874,975
Cargo/Ancillary Traffic							
Ramp 33	0.398	15	0.5	5	360	120	4,053,262
Ramp 34	0.568	15	0.5	5	360	120	3,239,475
Ramp 35	0.284	15	0.5	5	360	120	3,023,800
Ramp 36	0.284	15	0.5	5	360	120	1,569,774
Ramp 37	0.568	15	0.5	5	360	120	2,101,558
Ramp 38	--	--	--	--	--	--	--
Ramp 39	--	--	--	--	--	--	--
Ramp 40	--	--	--	--	--	--	--
Ramp 41	0.398	15	0.5	5	360	120	1,975,914
Ramp 42	0.795	15	0.5	5	360	120	52,925
Ramp 43	0.341	15	0.5	5	360	120	254,048
Ramp 44	0.284	15	0.5	5	360	120	592,122
Ramp 45	0.170	15	0.5	5	360	120	340,492
Ramp 46	0.199	15	0.5	5	360	120	345,785
Ramp 47	--	--	--	--	--	--	--
Ramp 48	--	--	--	--	--	--	--
Ramp 49	--	--	--	--	--	--	--

Assumptions for On-Airport Roadway Links

Alternative B 2015

Roadway Link Name	Avg. Trip distance miles	Travel Speed mph	Idle				Vehicles Per Year
			Private min	Commercial min	Private min	Commercial min	
T1 (W)	0.326	15	1.0	0.8	10	10	17,687,060
T2 (W)	0.239	15	1.0	0.8	10	10	16,003,686
T3 (W)	0.134	15	1.0	0.8	10	10	11,046,655
TBIT (S)	0.145	20	0.9	1.1	10	10	10,218,381
T4 (E)	0.183	20	0.6	0.9	10	10	10,024,292
T5 (E)	0.111	20	0.6	0.9	10	10	12,082,363
T6 (E)	0.129	20	0.6	0.9	10	10	12,082,363
T7 (E)	0.191	15	0.6	0.9	10	10	12,716,217
T8 (E)	0.137	15	0.6	0.9	10	10	12,716,217
Skyway/N Sepulveda (S/N)	0.145	15	0.0	0.0	--	--	7,888,818
S. Sepulveda (S/N)	0.301	20	0.0	0.0	--	--	13,194,776
Century (W/E)	0.118	35	0.0	0.0	--	--	9,271,794
West Way (S/N)	0.152	20	0.5	0.5	--	--	8,910,993
East Way (S/N)	0.155	10	0.5	0.5	--	--	5,528,015
Center Way	0.683	5	2.5	2.5	--	--	3,830,516
CTA Loop	0.469	25	1.5	1.5	--	--	2,494,031
N. Entrance (N/S)	0.475	30	0.0	0.0	--	--	25,249,305
Bypass Rd. (N/S)	0.474	30	0.0	0.0	--	--	24,180,640
Curbside N. (N/S)	0.165	20	0.8	0.2	10	10	20,862,054
Curbside N.C. (N/S)	0.150	20	0.8	0.2	10	10	20,862,054
Curbside C. (N/S)	0.141	20	0.8	0.2	10	10	20,862,054
Curbside S.C. (N/S)	0.051	20	0.8	0.2	10	10	20,862,054
Curbside S. (N/S)	0.168	20	0.8	0.2	10	10	20,862,054
RAC (N/S)	0.805	30	0.0	0.0	--	--	14,682,316
Remote N. (N/S)	0.465	30	0.0	0.0	--	--	15,983,844
Remote S. (N/S)	0.520	30	0.0	0.0	--	--	20,387,707
World Way W./Spine Rd. (W/E)	1.488	25	0.0	0.0	--	--	1,886,315
Cargo/Ancillary Traffic							
Ramp 33	0.227	15	0.5	5	360	120	1,683,624
Ramp 34	0.455	15	0.5	5	360	120	3,116,361
Ramp 35	0.170	15	0.5	5	360	120	974,824
Ramp 36	0.341	15	0.5	5	360	120	942,171
Ramp 37	0.563	15	0.5	5	360	120	2,250,320
Ramp 38	0.341	15	0.5	5	360	120	5,046,216
Ramp 39	--	--	--	--	--	--	--
Ramp 40	--	--	--	--	--	--	--
Ramp 41	0.284	15	0.5	5	360	120	329,128
Ramp 42	0.227	15	0.5	5	360	120	769,198
Ramp 43	0.114	15	0.5	5	360	120	318,034
Ramp 44	1.420	25	0.5	5	360	120	1,312,813
Ramp 45	0.057	10	0.5	5	360	120	55,471
Ramp 46	0.170	15	0.5	5	360	120	318,034
Ramp 47	0.170	15	0.5	5	360	120	456,711
Ramp 48	--	--	--	--	--	--	--
Ramp 49	--	--	--	--	--	--	--

Assumptions for On-Airport Roadway Links

Alternative C 2015

Roadway Link Name	Avg. Trip distance miles	Travel Speed mph	Idle				Vehicles Per Year
			Private min	Commercial min	Private min	Commercial min	
T1 (W)	0.326	15	1.0	0.8	10	10	24,107,126
T2 (W)	0.239	10	1.0	0.8	10	10	20,430,854
T3 (W)	0.134	15	1.0	0.8	10	10	16,912,582
TBIT (S)	0.145	15	1.0	1.0	10	10	16,343,105
T4 (E)	0.133	15	0.9	0.9	10	10	16,042,408
T5 (E)	0.111	15	0.9	0.9	10	10	16,431,496
T6 (E)	0.129	15	0.9	0.9	10	10	16,431,496
T7 (E)	0.191	10	0.9	0.9	10	10	18,509,484
T8 (E)	0.137	10	0.9	0.9	10	10	18,509,484
Skyway/N Sepulveda (S/N)	0.145	20	0.0	0.0	--	--	10,100,741
S. Sepulveda (S/N)	0.301	10	0.0	0.0	--	--	17,176,386
Century (W/E)	0.118	35	0.0	0.0	--	--	12,784,017
West Way (S/N)	0.152	20	0.5	0.5	--	--	4,905,097
East Way (S/N)	0.155	20	0.5	0.5	--	--	4,717,097
Center Way	0.683	15	2.5	2.5	--	--	5,082,423
CTA Loop	0.469	15	1.5	1.5	--	--	5,648,907
N. Entrance (N/S)	0.531	30	0.0	0.0	--	--	22,129,463
Bypass Rd. (N/S)	0.712	30	0.0	0.0	--	--	12,994,798
Connector N (W/E)	0.348	30	0.0	0.0	--	--	17,598,964
Terminal W (N)	0.626	20	0.0	0.0	--	--	7,455,065
Terminal E. (S)	0.604	20	0.0	0.0	--	--	11,153,131
Curbside Idle W (N)	0.337	--	3.9	1.5	10	10	7,455,065
Curbside Idle E (S)	0.341	--	3.5	1.1	10	10	6,733,132
RAC (S)	0.493	30	0.0	0.0	--	--	9,635,598
Remote N. (N/S)	0.269	30	0.0	0.0	--	--	19,928,830
Remote S. (W/E)	0.436	30	0.0	0.0	--	--	19,245,413
World Way W./Spine Rd. (W/E)	1.495	25	0	0	--	--	1,506,483
Cargo/Ancillary Traffic							
Ramp 33	0.426	15	0.5	5	360	120	3,215,435
Ramp 34	0.455	15	0.5	5	360	120	1,987,564
Ramp 35	0.284	15	0.5	5	360	120	966,058
Ramp 36	0.341	15	0.5	5	360	120	1,272,790
Ramp 37	0.568	15	0.5	5	360	120	2,213,024
Ramp 38	0.284	15	0.5	5	360	120	4,324,815
Ramp 39	--	--	--	--	--	--	--
Ramp 40	--	--	--	--	--	--	--
Ramp 41	0.398	15	0.5	5	360	120	1,767,720
Ramp 42	0.313	15	0.5	5	360	120	623,337
Ramp 43	0.341	15	0.5	5	360	120	230,155
Ramp 44	0.568	15	0.5	5	360	120	488,980
Ramp 45	--	--	--	--	--	--	--
Ramp 46	0.227	15	0.5	5	360	120	57,539
Ramp 47	0.189	15	0.5	5	360	120	391,583
Ramp 48	--	--	--	--	--	--	--
Ramp 49	--	--	--	--	--	--	--

Source: Camp Dresser & McKee Inc., 2000

Attachment P

On-Airport Vehicle Fleet Mix and Assumptions for Parking Facilities

On-Airport Vehicle Fleet Mix and Assumptions for Parking Facilities

Parking Facility	No Action/No Project 2005												
	Light Duty Autos			Light Duty Trucks			UB	Travel			Variable Start Soak		
								Speed	Distance	Idle	Soak 1	Soak 2	Soak 3
	NCAT	CAT	Diesel	NCAT	CAT	Diesel	Diesel	mph	miles	min	min	min	min
CTA Structure 1 (P-1)	3.0%	61.6%	0.3%	1.3%	33.6%	0.1%	0.0%	10	0.265	3.0	300	--	--
CTA Structure 2 (P-2)	3.0%	61.6%	0.3%	1.3%	33.6%	0.1%	0.0%	10	0.133	1.5	300	--	--
CTA Structure 2A (P-2A)	3.0%	61.6%	0.3%	1.3%	33.6%	0.1%	0.0%	10	0.133	1.5	300	--	--
CTA Structure 3 (P-3)	3.0%	61.6%	0.3%	1.3%	33.6%	0.1%	0.0%	10	0.265	3.0	300	--	--
CTA Structure 4 (P-4)	3.0%	61.6%	0.3%	1.3%	33.6%	0.1%	0.0%	10	0.265	3.0	300	--	--
CTA Structure 5 (P-5)	3.0%	61.6%	0.3%	1.3%	33.6%	0.1%	0.0%	10	0.133	1.5	300	--	--
CTA Structure 6 (P-6)	3.0%	61.6%	0.3%	1.3%	33.6%	0.1%	0.0%	10	0.341	3.0	300	--	--
CTA Structure 7 (P-7)	3.0%	61.6%	0.3%	1.3%	33.6%	0.1%	0.0%	10	0.303	3.0	300	--	--
East Side Staging	3.0%	61.0%	0.3%	1.3%	33.6%	0.1%	0.0%	10	0.095	5.0	20	--	--
East Side Remote Public	2.5%	50.8%	0.3%	1.0%	27.6%	0.1%	17.9%	10	0.473	0.5	1440	--	--
East Side Employee Parking	2.8%	57.9%	0.3%	1.2%	31.2%	0.1%	7.1%	10	0.284	0.5	540	--	--
East Side Private	2.2%	45.1%	0.2%	0.9%	24.6%	0.1%	26.9%	10	0.095	1.5	1440	--	--
East Side RAC	2.1%	42.3%	0.2%	0.9%	23.0%	0.1%	31.4%	10	0.284	2.0	1440	60	10

On-Airport Vehicle Fleet Mix and Assumptions for Parking Facilities

Parking Facility	Alternative A 2005												
	Light Duty Autos			Light Duty Trucks			UB	Travel			Variable Start Soak		
								Speed	Distance	Idle	Soak 1	Soak 2	Soak 3
	NCAT	CAT	Diesel	NCAT	CAT	Diesel	Diesel	mph	miles	min	min	min	min
CTA Structure 1 (P-1)	3.0%	61.6%	0.3%	1.3%	33.6%	0.1%	0.0%	10	0.265	1.5	300	--	--
CTA Structure 2 (P-2)	3.0%	61.6%	0.3%	1.3%	33.6%	0.1%	0.0%	10	0.133	1.5	300	--	--
CTA Structure 2A (P-2A)	3.0%	61.6%	0.3%	1.3%	33.6%	0.1%	0.0%	10	0.133	1.5	300	--	--
CTA Structure 3 (P-3)	3.0%	61.6%	0.3%	1.3%	33.6%	0.1%	0.0%	10	0.265	1.5	300	--	--
CTA Structure 4 (P-4)	3.0%	61.6%	0.3%	1.3%	33.6%	0.1%	0.0%	10	0.265	1.5	300	--	--
CTA Structure 5 (P-5)	3.0%	61.6%	0.3%	1.3%	33.6%	0.1%	0.0%	10	0.133	1.5	300	--	--
CTA Structure 6 (P-6)	3.0%	61.6%	0.3%	1.3%	33.6%	0.1%	0.0%	10	0.341	1.5	300	--	--
CTA Structure 7 (P-7)	3.0%	61.6%	0.3%	1.3%	33.6%	0.1%	0.0%	10	0.303	1.5	300	--	--
East Side Staging	3.0%	61.6%	0.3%	1.3%	33.6%	0.1%	0.0%	10	0.095	5.0	20	--	--
East Side Employee Parking	2.5%	50.8%	0.3%	1.0%	27.7%	0.1%	17.5%	10	0.284	0.2	540	--	--
East Side Private	2.2%	44.7%	0.2%	0.9%	24.4%	0.1%	27.5%	10	0.095	0.5	1440	--	--
East Side RAC	2.9%	59.1%	0.3%	1.2%	32.2%	0.1%	4.1%	10	0.284	1.0	1440	60	10
West Terminal Close-in Parking	3.0%	61.6%	0.3%	1.3%	33.6%	0.1%	0.0%	10	0.473	1.5	300	--	--
West Side Staging	3.0%	61.6%	0.3%	1.3%	33.6%	0.1%	0.0%	10	0.588	5.0	20	--	--
West Terminal Remote Public	2.6%	53.4%	0.3%	1.1%	29.1%	0.1%	13.4%	10	0.133	0.5	1440	--	--
West Side RAC	2.9%	57.9%	0.3%	1.2%	31.6%	0.1%	6.0%	10	0.284	1.0	1440	60	10
West Side Employee Parking	2.1%	42.3%	0.2%	0.9%	23.1%	0.1%	31.4%	10	0.284	0.2	540	--	--

On-Airport Vehicle Fleet Mix and Assumptions for Parking Facilities

Parking Facility	Alternative B 2005													
	Light Duty Autos			Light Duty Trucks			UB	Travel		Idle min	Variable Start Soak			Vehicles per Year
	NCAT	CAT	Diesel	NCAT	CAT	Diesel	Diesel	Speed mph	Distance miles		Soak 1 min	Soak 2 min	Soak 3 min	
East Side														
CTA Structure 1 (P1)	3.0%	61.6%	0.3%	1.3%	33.6%	0.1%	0.0%	10	0.265	1.5	300	--	--	1,358,375
CTA Structure 2 (P-2)	3.0%	61.6%	0.3%	1.3%	33.6%	0.1%	0.0%	10	0.133	1.5	300	--	--	625,798
CTA Structure 2A (P-2A)	3.0%	61.6%	0.3%	1.3%	33.6%	0.1%	0.0%	10	0.133	1.5	300	--	--	731,091
CTA Structure 3 (P-3)	3.0%	61.6%	0.3%	1.3%	33.6%	0.1%	0.0%	10	0.265	1.5	300	--	--	1,215,836
CTA Structure 4 (P-4)	3.0%	61.6%	0.3%	1.3%	33.6%	0.1%	0.0%	10	0.265	1.5	300	--	--	1,120,476
CTA Structure 5 (P-5)	3.0%	61.6%	0.3%	1.3%	33.6%	0.1%	0.0%	10	0.133	1.5	300	--	--	661,558
CTA Structure 6 (P-6)	3.0%	61.6%	0.3%	1.3%	33.6%	0.1%	0.0%	10	0.341	1.5	300	--	--	413,225
CTA Structure 7 (P-7)	3.0%	61.6%	0.3%	1.3%	33.6%	0.1%	0.0%	10	0.303	1.5	300	--	--	1,712,501
East Side Staging	3.0%	61.6%	0.3%	1.3%	33.6%	0.1%	0.0%	10	0.095	5.0	20	--	--	844,488
East Side Employee Parking	2.5%	51.1%	0.3%	1.1%	27.8%	0.1%	17.1%	10	0.284	0.2	540	--	--	2,325,120
East Side Private	2.2%	44.9%	0.2%	0.9%	24.4%	0.1%	27.2%	10	0.095	0.5	1440	--	--	2,393,925
West Side														
West Terminal Close-in Parking	3.0%	61.6%	0.3%	1.3%	33.6%	0.1%	0.0%	10	0.473	1.5	300	--	--	2,578,443
West Side Staging	3.0%	61.6%	0.3%	1.3%	33.6%	0.1%	0.0%	10	0.095	5.0	20	--	--	209,688
West Terminal Remote Public	2.7%	54.7%	0.3%	1.1%	29.8%	0.1%	11.2%	10	0.473	0.5	1440	--	--	336,377
West Side RAC	2.9%	58.5%	0.3%	1.2%	31.9%	0.1%	5.0%	10	0.284	1.0	1440	60	10	3,017,650
West Side Employee Parking	2.0%	41.5%	0.2%	0.9%	22.6%	0.1%	32.7%	10	0.284	0.2	640	--	--	1,220,688

On-Airport Vehicle Fleet Mix and Assumptions for Parking Facilities

Parking Facility	Alternative C 2005													
	Light Duty Autos			Light Duty Trucks			UB	Travel		Idle min	Variable Start Soak			Vehicles per Year
	NCAT	CAT	Diesel	NCAT	CAT	Diesel	Diesel	Speed mph	Distance miles		Soak 1 min	Soak 2 min	Soak 3 min	
East Side														
CTA Structure 1 (P1)	3.0%	61.6%	0.3%	1.3%	33.6%	0.1%	0.0%	10	0.285	1.5	300	--	--	1,304,305
CTA Structure 2 (P-2)	3.0%	61.6%	0.3%	1.3%	33.6%	0.1%	0.0%	10	0.133	1.5	300	--	--	599,433
CTA Structure 2A (P-2A)	3.0%	61.6%	0.3%	1.3%	33.6%	0.1%	0.0%	10	0.133	1.5	300	--	--	700,966
CTA Structure 3 (P-3)	3.0%	61.6%	0.3%	1.3%	33.6%	0.1%	0.0%	10	0.265	1.5	300	--	--	1,165,673
CTA Structure 4 (P-4)	3.0%	61.6%	0.3%	1.3%	33.6%	0.1%	0.0%	10	0.265	1.5	300	--	--	1,075,856
CTA Structure 5 (P-5)	3.0%	61.6%	0.3%	1.3%	33.6%	0.1%	0.0%	10	0.133	1.5	300	--	--	634,579
CTA Structure 6 (P-6)	3.0%	61.6%	0.3%	1.3%	33.6%	0.1%	0.0%	10	0.341	1.5	300	--	--	396,368
CTA Structure 7 (P-7)	3.0%	61.6%	0.3%	1.3%	33.6%	0.1%	0.0%	10	0.303	1.5	300	--	--	1,642,098
East Side Staging	3.0%	61.6%	0.3%	1.3%	33.6%	0.1%	0.0%	10	0.095	5.0	20	--	--	854,831
East Side Employee Parking	2.4%	48.5%	0.3%	1.0%	26.5%	0.1%	21.2%	10	0.284	0.2	540	--	--	1,876,704
East Side Private	2.3%	46.3%	0.2%	1.0%	25.2%	0.1%	24.9%	10	0.095	0.5	1440	--	--	2,243,482
East Side RAC	2.6%	52.2%	0.3%	1.1%	28.5%	0.1%	15.3%	10	0.284	1.0	1440	60	10	3,165,087
West Side														
West Terminal Close-in Parking	3.0%	61.6%	0.3%	1.3%	33.6%	0.1%	0.0%	10	0.473	1.5	300	--	--	2,900,817
West Terminal Remote Public	2.7%	55.5%	0.3%	1.1%	30.3%	0.1%	9.9%	10	0.473	0.5	1440	--	--	343,071
West Side Employee Parking	2.1%	42.3%	0.2%	0.9%	23.1%	0.1%	31.4%	10	0.284	0.2	540	--	--	1,270,512

On-Airport Vehicle Fleet Mix and Assumptions for Parking Facilities

No Action/No Project 2015														
Parking Facility	Light Duty Autos			Light Duty Trucks			UB	Travel		Variable Start Soak				Vehicles per Year
	NCAT	CAT	Diesel	NCAT	CAT	Diesel	Diesel	Speed mph	Distance miles	Idle min	Soak 1 min	Soak 2 min	Soak 3 min	
CTA Structure 1 (P1)	1.2%	63.6%	0.1%	0.5%	34.4%	0.1%	0.0%	10	0.265	3.0	300	--	--	1,722,504
CTA Structure 2 (P-2)	1.2%	63.6%	0.1%	0.5%	34.4%	0.1%	0.0%	10	0.133	1.5	300	--	--	791,317
CTA Structure 2A (P-2A)	1.2%	63.6%	0.1%	0.5%	34.4%	0.1%	0.0%	10	0.133	1.5	300	--	--	925,439
CTA Structure 3 (P-3)	1.2%	63.6%	0.1%	0.5%	34.4%	0.1%	0.0%	10	0.285	3.0	300	--	--	1,538,586
CTA Structure 4 (P-4)	1.2%	63.6%	0.1%	0.5%	34.4%	0.1%	0.0%	10	0.265	3.0	300	--	--	1,419,773
CTA Structure 5 (P-5)	1.2%	63.6%	0.1%	0.5%	34.4%	0.1%	0.0%	10	0.133	1.5	300	--	--	839,218
CTA Structure 6 (P-6)	1.2%	63.6%	0.1%	0.5%	34.4%	0.1%	0.0%	10	0.341	3.0	300	--	--	523,074
CTA Structure 7 (P-7)	1.2%	63.6%	0.1%	0.5%	34.4%	0.1%	0.0%	10	0.303	3.0	300	--	--	2,167,022
East Side Staging	1.2%	63.6%	0.1%	0.5%	34.4%	0.1%	0.0%	10	0.095	5.0	20	--	--	846,485
East Side Remote Public	1.0%	51.8%	0.1%	0.4%	28.0%	0.1%	18.5%	10	0.473	0.5	1440	--	--	517,326
East Side Employee Parking	1.1%	58.9%	0.1%	0.5%	31.8%	0.1%	7.4%	10	0.284	0.5	540	--	--	2,698,800
East Side Private	0.9%	48.2%	0.1%	0.4%	26.0%	0.1%	24.3%	10	0.095	1.5	1440	--	--	1,417,857
East Side RAC	0.8%	42.8%	0.1%	0.3%	23.1%	0.1%	32.8%	10	0.284	2.0	1440	60	10	4,090,708

On-Airport Vehicle Fleet Mix and Assumptions for Parking Facilities

Parking Facility	Alternative A 2015														Vehicles per Year
	Light Duty Autos			Light Duty Trucks			UB	Travel		Variable Start Soak					
	NCAT	CAT	Diesel	NCAT	CAT	Diesel	Diesel	Speed mph	Distance miles	Idle min	Soak 1 min	Soak 2 min	Soak 3 min		
East Side															
CTA Structure 1 (P1)	1.2%	63.6%	0.1%	0.5%	34.4%	0.1%	0.0%	10	0.265	1.5	300	--	--	1,001,943	
CTA Structure 2 (P-2)	1.2%	63.6%	0.1%	0.5%	34.4%	0.1%	0.0%	10	0.133	1.5	300	--	--	460,165	
CTA Structure 2A (P-2A)	1.2%	63.6%	0.1%	0.5%	34.4%	0.1%	0.0%	10	0.133	1.5	300	--	--	538,308	
CTA Structure 3 (P-3)	1.2%	63.6%	0.1%	0.5%	34.4%	0.1%	0.0%	10	0.265	1.5	300	--	--	896,018	
CTA Structure 4 (P-4)	1.2%	63.6%	0.1%	0.5%	34.4%	0.1%	0.0%	10	0.265	1.5	300	--	--	826,560	
CTA Structure 5 (P-5)	1.2%	63.6%	0.1%	0.5%	34.4%	0.1%	0.0%	10	0.133	1.5	300	--	--	487,948	
CTA Structure 6 (P-6)	1.2%	63.6%	0.1%	0.5%	34.4%	0.1%	0.0%	10	0.341	1.5	300	--	--	303,882	
CTA Structure 7 (P-7)	1.2%	63.6%	0.1%	0.5%	34.4%	0.1%	0.0%	10	0.303	1.5	300	--	--	1,282,414	
East Side Staging	1.2%	63.6%	0.1%	0.5%	34.4%	0.1%	0.0%	10	0.095	5.0	20	--	--	493,350	
East Side Remote Public								10	0.473	0.0	1440	--	--	-	
East Side Employee Parking	1.0%	49.6%	0.1%	0.4%	26.8%	0.1%	22.1%	10	0.284	0.2	540	--	--	1,801,988	
East Side Private	0.9%	45.6%	0.1%	0.4%	24.8%	0.1%	28.3%	10	0.095	0.5	1440	--	--	1,845,867	
East Side RAC	1.2%	59.6%	0.1%	0.5%	32.2%	0.1%	6.3%	10	0.284	1.0	1440	60	10	1,660,065	
West Side															
West Terminal Close-in Parking	1.2%	63.6%	0.1%	0.5%	34.4%	0.1%	0.0%	10	0.473	1.5	300	--	--	6,698,703	
West Side Staging	1.2%	63.6%	0.1%	0.5%	34.4%	0.1%	0.0%	10	0.095	5.0	20	--	--	559,514	
West Terminal Remote Public	1.1%	59.3%	0.1%	0.5%	32.0%	0.1%	6.8%	10	0.473	0.5	1440	--	--	577,134	
West Side RAC	1.2%	62.6%	0.1%	0.5%	33.8%	0.1%	1.8%	10	0.284	1.0	1440	60	10	2,173,708	
West Side Employee Parking	1.0%	51.0%	0.1%	0.4%	27.6%	0.1%	19.8%	10	0.284	0.2	540	--	--	2,009,568	

On-Airport Vehicle Fleet Mix and Assumptions for Parking Facilities

Alternative B 2015

Parking Facility	Light Duty Autos			Light Duty Trucks			UB	Travel		Variable Start Soak				Vehicles per Year
	NCAT	CAT	Diesel	NCAT	CAT	Diesel	Diesel	Speed mph	Distance miles	Idle min	Soak 1 min	Soak 2 min	Soak 3 min	
East Side														
CTA Structure 1 (P1)	1.2%	63.6%	0.1%	0.5%	34.4%	0.1%	0.0%	10	0.265	1.5	300	--	--	997,273
CTA Structure 2 (P-2)	1.2%	63.6%	0.1%	0.5%	34.4%	0.1%	0.0%	10	0.133	1.5	300	--	--	458,157
CTA Structure 2A (P-2A)	1.2%	63.6%	0.1%	0.5%	34.4%	0.1%	0.0%	10	0.133	1.5	300	--	--	537,276
CTA Structure 3 (P-3)	1.2%	63.6%	0.1%	0.5%	34.4%	0.1%	0.0%	10	0.265	1.5	300	--	--	892,394
CTA Structure 4 (P-4)	1.2%	63.6%	0.1%	0.5%	34.4%	0.1%	0.0%	10	0.265	1.5	300	--	--	822,474
CTA Structure 5 (P-5)	1.2%	63.6%	0.1%	0.5%	34.4%	0.1%	0.0%	10	0.133	1.5	300	--	--	485,757
CTA Structure 6 (P-6)	1.2%	63.6%	0.1%	0.5%	34.4%	0.1%	0.0%	10	0.341	1.5	300	--	--	303,598
CTA Structure 7 (P-7)	1.2%	63.6%	0.1%	0.5%	34.4%	0.1%	0.0%	10	0.303	1.5	300	--	--	1,256,711
East Side Staging	1.2%	63.6%	0.1%	0.5%	34.4%	0.1%	0.0%	10	0.095	5.0	20	--	--	491,711
East Side Employee Parking	0.9%	47.9%	0.1%	0.4%	25.9%	0.1%	24.5%	10	0.284	0.2	540	--	--	1,610,976
East Side Private	0.9%	45.0%	0.1%	0.4%	24.3%	0.1%	29.3%	10	0.095	0.5	1440	--	--	1,889,667
West Side														
West Terminal Close-in Parking	1.2%	63.6%	0.1%	0.5%	34.4%	0.1%	0.0%	10	0.473	1.5	300	--	--	6,724,695
West Side Staging	1.2%	63.6%	0.1%	0.5%	34.4%	0.1%	0.0%	10	0.095	5.0	20	--	--	561,653
West Terminal Remote Public	1.2%	63.6%	0.1%	0.5%	34.4%	0.1%	0.0%	10	0.473	0.5	1440	--	--	541,353
West Side RAC	1.2%	63.6%	0.1%	0.5%	34.4%	0.1%	0.0%	10	0.284	1.0	1440	60	10	4,301,024
West Side Employee Parking	1.0%	51.0%	0.1%	0.4%	27.6%	0.1%	19.8%	10	0.284	0.2	540	--	--	2,009,588

On-Airport Vehicle Fleet Mix and Assumptions for Parking Facilities

Alternative C 2015

Parking Facility	Light Duty Autos			Light Duty Trucks			UB	Travel		Variable Start Soak				Vehicles per Year
	NCAT	CAT	Diesel	NCAT	CAT	Diesel	Diesel	Speed mph	Distance miles	Idle min	Soak 1 min	Soak 2 min	Soak 3 min	
East Side														
CTA Structure 1 (P1)	1.2%	63.6%	0.1%	0.5%	34.4%	0.1%	0.0%	10	0.265	1.5	300	--	--	1,257,698
CTA Structure 2 (P-2)	1.2%	63.6%	0.1%	0.5%	34.4%	0.1%	0.0%	10	0.133	1.5	300	--	--	578,502
CTA Structure 2A (P-2A)	1.2%	63.6%	0.1%	0.5%	34.4%	0.1%	0.0%	10	0.133	1.5	300	--	--	675,248
CTA Structure 3 (P-3)	1.2%	63.6%	0.1%	0.5%	34.4%	0.1%	0.0%	10	0.265	1.5	300	--	--	1,125,413
CTA Structure 4 (P-4)	1.2%	63.6%	0.1%	0.5%	34.4%	0.1%	0.0%	10	0.265	1.5	300	--	--	1,036,564
CTA Structure 5 (P-5)	1.2%	63.6%	0.1%	0.5%	34.4%	0.1%	0.0%	10	0.133	1.5	300	--	--	612,067
CTA Structure 6 (P-6)	1.2%	63.6%	0.1%	0.5%	34.4%	0.1%	0.0%	10	0.341	1.5	300	--	--	383,035
CTA Structure 7 (P-7)	1.2%	63.6%	0.1%	0.5%	34.4%	0.1%	0.0%	10	0.303	1.5	300	--	--	1,583,475
East Side Staging	1.2%	63.6%	0.1%	0.5%	34.4%	0.1%	0.0%	10	0.095	5.0	20	--	--	618,776
East Side Employee Parking	1.0%	50.6%	0.1%	0.4%	27.4%	0.1%	20.4%	10	0.284	0.2	540	--	--	1,951,440
East Side Private	0.9%	47.4%	0.1%	0.4%	25.6%	0.1%	25.6%	10	0.095	0.5	1440	--	--	2,292,288
West Side														
West Terminal Close-in Parking	1.2%	63.6%	0.1%	0.5%	34.4%	0.1%	0.0%	10	0.473	1.5	300	--	--	5,118,889
West Side Staging	1.2%	63.6%	0.1%	0.5%	34.4%	0.1%	0.0%	10	0.095	5.0	20	--	--	427,404
West Terminal Remote Public	1.2%	63.6%	0.1%	0.5%	34.4%	0.1%	0.0%	10	0.473	0.5	1440	--	--	349,854
West Side RAC	1.2%	63.6%	0.1%	0.5%	34.4%	0.1%	0.0%	10	0.284	1.0	1440	60	10	4,483,318
West Side Employee Parking	1.0%	53.8%	0.1%	0.4%	29.1%	0.1%	15.4%	10	0.284	0.2	540	--	--	2,042,784

NCAT: Non Catalytic

CAT: Catalytic

UB: Urban Buses

Source: Camp Dresser & McKee Inc., 2000

Attachment Q

Off-Airport Roadway VMT Data

Trip Factors

Passenger	5.6
Employee	11.1
Cargo/Ancillary	6.7
Collateral	4
Background	4.4

Phase 4: 2005 Baseline 1 (No Action) - PM

[illegible]

VMT

Phase 4: 2005 Baseline 1 (No Action) - AP

		00-10MPH	10-20MPH	20-30MPH	30-40MPH	40-50MPH	50-60MPH	TOTAL
Tier 1	Passenger	3,906	10,833	20,583	8,715	8,408	2,855	55,100
	Employee	44	159	391	191	129	15	929
	Cargo/Ancillary	492	2,813	6,909	3,869	3,159	1,011	18,253
	Collateral	0	0	0	0	0	0	0
	Subtotal Airport	4,442	13,805	27,883	12,775	11,896	3,881	74,282
	Background	7,814	33,428	169,892	65,938	43,521	20,774	340,667
	Total	12,356	47,233	197,575	78,113	55,217	24,655	414,949
Remaining LA County (Bein)	Passenger	832	7,650	53,259	64,281	53,604	14,820	194,446
	Employee	13	86	832	1,226	853	168	3,177
	Cargo/Ancillary	862	2,966	16,878	25,803	22,582	28,511	95,602
	Collateral	0	0	0	0	0	0	0
	Subtotal Airport	1,707	10,702	70,969	91,309	77,039	41,499	293,225
	Background	100,064	714,964	5,030,282	2,238,086	2,547,165	986,745	11,817,286
	Total	101,771	725,666	5,101,251	2,329,375	2,624,204	1,028,244	11,910,511
Orange County	Passenger							32,701
	Employee							613
	Cargo/Ancillary							9,379
	Collateral							0
	Subtotal Airport							42,693
	Background							2,613,727
	Total							2,656,420
San Bernardino County	Passenger							2,549
	Employee							33
	Cargo/Ancillary							9,492
	Collateral							0
	Subtotal Airport							12,074
	Background							804,264
	Total							816,338
Riverside County	Passenger							3,398
	Employee							52
	Cargo/Ancillary							1,259
	Collateral							0
	Subtotal Airport							4,709
	Background							1,338,081
	Total							1,342,790
Subtotal SCAB	Passenger							288,194
	Employee							4,804
	Cargo/Ancillary							133,985
	Collateral							0
	Subtotal Airport							426,983
	Background							16,714,025
	Total							17,141,008
Palmdale/Lancaster	Passenger							443
	Employee							0
	Cargo/Ancillary							0
	Collateral							0
	Subtotal Airport							443
	Background							554,721
	Total							555,164
Ventura County	Passenger							10,829
	Employee							33
	Cargo/Ancillary							425
	Collateral							0
	Subtotal Airport							11,088
	Background							696,953
	Total							698,041
Total Model Area	Passenger							299,266
	Employee							4,837
	Cargo/Ancillary							134,411
	Collateral							0
	Total Airport							438,514
	Total Background							17,925,699
	Grand Total							18,364,213

VMT

Phase 3F: 2005 Baseline 1 (No Action) - 24 hr

	00-10MPH	10-20MPH	20-30MPH	30-40MPH	40-50MPH	50-60MPH	TOTAL
Tier 1							
Passenger	35,808	111,989	230,278	147,823	108,612	54,795	689,293
Employee	1,887	9,502	30,414	23,454	11,422	4,917	81,596
Cargo/Ancillary	7,410	37,279	109,599	92,487	48,032	20,294	315,101
Collateral	0	0	0	0	0	0	0
Subtotal Airport	45,104	158,769	370,290	263,764	168,066	79,996	1,085,990
Background							
Total	45,104	158,769	370,290	263,764	168,066	79,996	1,085,990
Remaining LA County (Basin)							
Passenger	13,345	135,022	686,375	784,168	568,842	247,274	2,435,026
Employee	1,510	18,848	86,081	93,429	52,270	19,958	272,094
Cargo/Ancillary	17,902	90,537	355,026	450,146	336,801	575,048	1,825,261
Collateral	0	0	0	0	0	0	0
Subtotal Airport	32,757	244,407	1,127,482	1,327,743	957,714	842,279	4,532,381
Background							
Total	32,757	244,407	1,127,482	1,327,743	957,714	842,279	4,532,381
Orange County *							
Passenger							410,424
Employee							43,623
Cargo/Ancillary							169,544
Collateral							0
Subtotal Airport							623,591
Background							
Total							
San Bernardino County *							
Passenger							32,491
Employee							2,464
Cargo/Ancillary							197,148
Collateral							0
Subtotal Airport							232,103
Background							
Total							
Riverside County *							
Passenger							42,796
Employee							4,851
Cargo/Ancillary							19,933
Collateral							0
Subtotal Airport							67,579
Background							
Total							
Subtotal SCAB *							
Passenger							3,610,029
Employee							404,429
Cargo/Ancillary							2,526,855
Collateral							0
Subtotal Airport							6,541,443
Background							
Total							6,541,443
Palmdale/Lancaster							
Passenger							5,499
Employee							0
Cargo/Ancillary							0
Collateral							0
Subtotal Airport							5,499
Background							
Total							
Ventura County *							
Passenger							133,521
Employee							3,485
Cargo/Ancillary							8,935
Collateral							0
Subtotal Airport							143,941
Background							
Total							
Total Model Area *							
Passenger							3,749,049
Employee							407,914
Cargo/Ancillary							2,533,920
Collateral							0
Airport Total							6,690,883

* Detailed information not available

VMT

Phase 4: 2005 No Action/No Project Alternative - AM

	00-10MPH	10-20MPH	20-30MPH	30-40MPH	40-50MPH	50-60MPH	TOTAL
Tier 1							
Passenger	2,003	4,475	13,579	8,157	5,521	3,793	38,528
Employee	174	718	2,323	1,657	753	254	5,879
Cargo/Ancillary	709	2,605	8,277	6,153	2,652	1,271	21,867
Collateral	1,013	3,272	9,982	3,423	2,555	542	20,787
Subtotal Airport	3,899	11,270	34,161	20,390	11,481	5,860	87,061
Background	9,621	35,418	135,508	96,740	40,134	20,458	337,879
Total	13,520	46,688	169,669	117,130	51,615	26,318	424,940
Remaining LA County (Basin)							
Passenger	965	11,439	39,899	27,088	28,347	29,632	137,350
Employee	164	2,263	7,488	4,829	3,944	2,911	21,599
Cargo/Ancillary	1,545	11,398	27,589	22,567	18,389	53,017	134,505
Collateral	468	5,499	18,899	11,138	3,013	924	38,941
Subtotal Airport	3,142	30,599	93,875	65,602	53,693	86,484	333,385
Background	151,228	926,804	5,072,609	2,083,243	1,419,205	1,274,778	10,927,867
Total	154,370	957,403	5,166,484	2,148,845	1,472,898	1,361,262	11,261,262
Orange County *							
Passenger							24,121
Employee							4,221
Cargo/Ancillary							10,782
Collateral							5,348
Subtotal Airport							44,472
San Bernardino County *							
Passenger							2,428
Employee							230
Cargo/Ancillary							16,144
Collateral							904
Subtotal Airport							19,706
Background							
Total							
Riverside County *							
Passenger							2,623
Employee							451
Cargo/Ancillary							1,120
Collateral							2,009
Subtotal Airport							6,203
Subtotal SCAB *							
Passenger							205,050
Employee							32,380
Cargo/Ancillary							184,418
Collateral							68,989
Subtotal Airport							490,837
Background							16,424,792
Total							16,915,628
Palmdale/Lancaster							
Passenger							397
Employee							0
Cargo/Ancillary							0
Collateral							390
Subtotal Airport							787
Background							
Total							
Ventura County *							
Passenger							7,482
Employee							252
Cargo/Ancillary							392
Collateral							405
Subtotal Airport							8,531
Total Model Area *							
Passenger							212,928
Employee							32,632
Cargo/Ancillary							184,810
Collateral							69,784
Airport Total							500,155

* Detailed information not available

VMT

Phase 4: 2005 No Action/No Project Alternative - PM

		00-10MPH	10-20MPH	20-30MPH	30-40MPH	40-50MPH	50-60MPH	TOTAL
Tier 1								
	Passenger	1,392	7,522	15,058	7,003	9,233	2,060	42,268
	Employee	128	822	2,434	1,776	889	327	8,378
	Cargo/Ancillary	297	2,088	7,286	4,970	2,919	1,105	18,646
	Collateral	258	2,837	9,590	3,865	1,285	864	18,499
	Subtotal Airport	2,075	13,249	34,368	17,614	14,326	4,167	85,789
	Background	4,618	44,531	167,453	110,777	36,845	18,185	382,409
	Total	6,693	57,780	201,821	128,391	51,171	22,342	468,198
Remaining LA County (Basin)								
	Passenger	995	9,170	43,702	62,641	29,448	7,871	153,827
	Employee	135	1,531	6,889	9,705	4,300	1,143	23,683
	Cargo/Ancillary	994	4,628	20,855	34,744	19,374	32,927	113,522
	Collateral	182	1,867	8,576	8,532	3,496	1,041	23,694
	Subtotal Airport	2,306	17,196	80,002	115,622	56,618	42,982	314,726
	Background	135,889	898,181	5,317,975	3,035,582	2,319,998	740,480	12,448,085
	Total	138,195	915,387	5,397,977	3,151,204	2,376,616	783,462	12,762,811
Orange County *								
	Passenger							27,992
	Employee							4,834
	Cargo/Ancillary							10,164
	Collateral							2,046
	Subtotal Airport							45,036
San Bernardino County *								
	Passenger							1,914
	Employee							186
	Cargo/Ancillary							12,375
	Collateral							224
	Subtotal Airport							14,699
	Background							
	Total							
Riverside County *								
	Passenger							3,842
	Employee							504
	Cargo/Ancillary							1,084
	Collateral							783
	Subtotal Airport							6,213
	Background							
	Total							
Subtotal SCAB *								
	Passenger							229,843
	Employee							35,583
	Cargo/Ancillary							155,791
	Collateral							45,246
	Subtotal Airport							466,463
	Background							18,413,581
	Total							18,880,044
Palmdale/Lancaster								
	Passenger							454
	Employee							0
	Cargo/Ancillary							0
	Collateral							288
	Subtotal Airport							742
Ventura County *								
	Passenger							8,301
	Employee							281
	Cargo/Ancillary							347
	Collateral							126
	Subtotal Airport							9,055
Total Model Area *								
	Passenger							44,338
	Employee							155,052
	Cargo/Ancillary							45,583
	Collateral							468,877
	Airport Total							9,777

* Detailed information not available

Phase 4: 2005 No Action/No Project Alternative - AP

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VMT

Phase 3F: 2005 No Action/No Project - 24 hr

	00-10MPH	10-20MPH	20-30MPH	30-40MPH	40-50MPH	50-60MPH	TOTAL
Tier 1							
Passenger	47,242	141,165	289,022	166,284	119,987	47,320	811,009
Employee	5,228	26,030	74,958	52,004	23,909	8,103	190,232
Cargo/Ancillary	11,759	59,188	161,128	110,222	58,984	23,825	425,115
Collateral	6,216	28,812	91,204	34,072	16,780	5,704	182,788
Subtotal Airport	70,444	255,194	616,312	362,561	219,680	84,952	1,609,144
Background Total	70,444	255,194	616,312	362,561	219,680	84,952	1,609,144
Remaining LA County (Basin)							
Passenger	17,696	168,762	830,536	943,914	649,863	304,002	2,914,772
Employee	4,373	49,062	216,417	235,609	140,770	56,011	702,242
Cargo/Ancillary	26,371	133,102	467,986	619,000	432,686	820,750	2,499,897
Collateral	2,772	31,856	124,066	93,264	33,492	8,962	294,464
Subtotal Airport	51,213	382,782	1,639,009	1,891,806	1,256,811	1,189,754	6,411,375
Background Total	51,213	382,782	1,639,009	1,891,806	1,256,811	1,189,754	6,411,375
Orange County *							
Passenger							524,339
Employee							139,938
Cargo/Ancillary							225,254
Collateral							34,348
Subtotal Airport							923,879
San Bernardino County *							
Passenger							40,846
Employee							8,739
Cargo/Ancillary							276,067
Collateral							5,204
Subtotal Airport							328,855
Background Total							
Riverside County *							
Passenger							67,346
Employee							14,719
Cargo/Ancillary							33,044
Collateral							13,080
Subtotal Airport							128,189
Subtotal SCAB *							
Passenger							4,358,312
Employee							1,063,867
Cargo/Ancillary							3,459,376
Collateral							529,884
Subtotal Airport							9,401,441
Background Total							9,401,441
Palmdale/Lancaster							
Passenger							8,618
Employee							0
Cargo/Ancillary							0
Collateral							3,152
Subtotal Airport							11,770
Background Total							
Ventura County *							
Passenger							157,982
Employee							7,925
Cargo/Ancillary							7,893
Collateral							2,438
Subtotal Airport							176,238
Total Model Area *							
Passenger							3,437,056
Employee							2,396,102
Cargo/Ancillary							2,726,619
Collateral							2,220,340
Airport Total							10,780,116

* Detailed information not available

VMT

Phase 3F: 2005 Alternative A - AM

		00-10MPH	10-20MPH	20-30MPH	30-40MPH	40-50MPH	50-60MPH	TOTAL
Tier 1	Passenger	1,106	4,150	9,739	12,089	13,928	4,096	45,086
	Employee	177	474	2,319	2,279	1,266	111	6,616
	Cargo/Ancillary	538	1,297	5,422	9,007	4,034	1,167	21,465
	Collateral	654	1,884	6,792	3,402	2,720	254	15,506
	Subtotal Airport	2,475	7,605	24,272	26,757	21,936	5,628	88,673
	Background	6,247	22,808	119,940	124,761	56,958	19,969	350,681
	Total	8,722	30,413	144,212	151,518	78,892	25,597	439,354
Remaining LA County (Basin)	Passenger	1,376	10,266	46,826	30,866	36,426	32,094	157,856
	Employee	187	1,725	8,032	5,069	5,369	3,364	23,746
	Cargo/Ancillary	3,128	9,029	29,104	21,419	17,520	23,278	103,478
	Collateral	161	1,250	6,450	3,899	3,531	2,551	17,842
	Subtotal Airport	4,854	22,270	90,412	61,253	62,846	61,287	302,922
	Background	157,544	897,871	5,057,213	2,104,540	1,467,847	1,261,343	10,946,158
	Total	162,398	920,141	5,147,625	2,165,793	1,530,493	1,322,630	11,249,080
Orange County *	Passenger							27,554
	Employee							4,654
	Cargo/Ancillary							7,366
	Collateral							1,464
	Subtotal Airport							41,038
San Bernardino County *	Passenger							2,719
	Employee							228
	Cargo/Ancillary							10,554
	Collateral							330
	Subtotal Airport							13,841
Riverside County *	Passenger							3,077
	Employee							491
	Cargo/Ancillary							1,111
	Collateral							548
	Subtotal Airport							5,227
Subtotal SCAB *	Passenger							236,292
	Employee							35,735
	Cargo/Ancillary							143,984
	Collateral							35,890
	Subtotal Airport							451,701
	Background							16,422,835
	Total							16,874,536
Palmdale/Lancaster	Passenger							457
	Employee							0
	Cargo/Ancillary							0
	Collateral							224
	Subtotal Airport							681
	Background							
	Total							
Ventura County *	Passenger							8,594
	Employee							276
	Cargo/Ancillary							294
	Collateral							101
	Subtotal Airport							9,265
Total Model Area *	Passenger							245,343
	Employee							36,011
	Cargo/Ancillary							144,278
	Collateral							36,015
	Airport Total							461,647

* Detailed information not available

VMT

Phase 3F: 2005 Alternative A - PM

		00-10MPH	10-20MPH	20-30MPH	30-40MPH	40-50MPH	50-60MPH	TOTAL
Tier 1	Passenger	1,378	5,549	13,088	9,455	15,610	3,291	48,371
	Employee	179	777	2,467	1,582	1,280	411	6,696
	Cargo/Ancillary	294	1,031	5,790	5,096	3,570	1,514	18,295
	Collateral	153	2,292	6,332	3,241	2,671	503	15,092
	Subtotal Airport	2,004	9,649	27,677	20,374	23,031	5,719	88,454
	Background	5,098	40,052	149,549	122,045	61,208	20,133	398,085
	Total	7,102	49,701	177,226	142,419	84,239	25,852	486,539
Remaining LA County (Basin)	Passenger	1,189	9,424	50,100	70,215	35,718	6,841	173,487
	Employee	147	1,415	7,243	9,811	4,823	816	24,255
	Cargo/Ancillary	1,079	3,838	20,885	34,713	20,821	34,384	115,720
	Collateral	146	1,351	6,698	5,379	3,268	551	18,393
	Subtotal Airport	2,561	16,028	84,926	121,118	64,630	42,592	331,855
	Background	136,865	922,463	5,365,209	3,030,899	2,334,061	710,482	12,498,999
	Total	138,446	938,491	5,450,135	3,152,017	2,398,691	753,074	12,830,854
Orange County *	Passenger							31,606
	Employee							4,929
	Cargo/Ancillary							9,202
	Collateral							1,714
	Subtotal Airport							47,451
San Bernardino County *	Passenger							2,258
	Employee							197
	Cargo/Ancillary							13,532
	Collateral							242
	Subtotal Airport							16,229
Riverside County *	Passenger							4,384
	Employee							537
	Cargo/Ancillary							1,056
	Collateral							747
	Subtotal Airport							6,724
Subtotal SCAB *	Passenger							260,106
	Employee							36,814
	Cargo/Ancillary							157,805
	Collateral							36,188
	Subtotal Airport							490,713
Background	Background							18,400,271
	Total							18,890,984
Palmdale/Lancaster	Passenger							520
	Employee							0
	Cargo/Ancillary							0
	Collateral							231
	Subtotal Airport							751
Ventura County *	Passenger							9,370
	Employee							272
	Cargo/Ancillary							273
	Collateral							120
	Subtotal Airport							10,035
Total Model Area *	Passenger							46,504
	Employee							158,077
	Cargo/Ancillary							36,461
	Collateral							491,064
	Airport Total							10,786

* Detailed information not available

VMT

Phase 3F: 2005 Alternative A- AP

		00-10MPH	10-20MPH	20-30MPH	30-40MPH	40-50MPH	50-60MPH	TOTAL
Tier 1	Passenger	4,573	10,133	22,999	10,809	19,377	2,170	70,061
	Employee	368	1,050	3,218	1,131	1,023	179	6,969
	Cargo/Ancillary	528	2,045	8,959	4,777	4,232	930	21,471
	Collateral	344	1,030	3,291	675	1,033	211	6,584
	Subtotal Airport	5,813	14,258	38,467	17,392	25,665	3,490	105,085
	Background Total	13,684	47,663	201,836	73,469	88,838	23,303	448,793
Remaining LA County (Basin)	Passenger	1,217	9,434	67,504	89,466	59,202	16,995	243,818
	Employee	136	958	7,465	10,112	5,682	1,348	25,701
	Cargo/Ancillary	1,532	4,081	19,824	38,155	26,975	44,683	135,050
	Collateral	30	532	3,017	3,347	1,972	467	9,355
	Subtotal Airport	2,915	15,005	97,810	141,080	93,831	63,483	413,924
	Background Total	107,622	726,089	5,159,986	2,463,650	2,646,614	999,313	12,003,274
Orange County *	Passenger							43,368
	Employee							5,027
	Cargo/Ancillary							10,460
	Collateral							1,064
	Subtotal Airport							59,917
	Background Total							
San Bernardino County *	Passenger							3,338
	Employee							284
	Cargo/Ancillary							16,614
	Collateral							190
	Subtotal Airport							20,406
	Background Total							
Riverside County *	Passenger							5,609
	Employee							525
	Cargo/Ancillary							1,775
	Collateral							437
	Subtotal Airport							8,346
	Background Total							
Subtotal SCAB *	Passenger							366,192
	Employee							38,486
	Cargo/Ancillary							185,370
	Collateral							17,630
	Subtotal Airport							607,678
	Background Total							16,723,060
Palmdale/Lancaster	Passenger							732
	Employee							0
	Cargo/Ancillary							0
	Collateral							105
	Subtotal Airport							837
	Background Total							
Ventura County *	Passenger							13,145
	Employee							292
	Cargo/Ancillary							288
	Collateral							69
	Subtotal Airport							13,794
	Background Total							
Total Model Area *	Passenger							380,069
	Employee							38,778
	Cargo/Ancillary							185,658
	Collateral							17,804
	Airport Total							622,309
	Background Total							

VMT

Phase 3F: 2005 Alternative A - 24 hr

	00-10MPH	10-20MPH	20-30MPH	30-40MPH	40-50MPH	50-60MPH	TOTAL
Tier 1							
Passenger	39,519	111,059	256,626	181,065	273,913	53,519	915,701
Employee	8,036	25,541	88,844	55,411	39,505	7,781	225,119
Cargo/Ancillary	9,112	29,299	135,146	133,198	79,301	24,194	410,248
Collateral	4,604	20,024	65,660	29,272	25,296	3,872	148,728
Subtotal Airport	61,272	185,923	546,276	398,944	418,015	89,366	1,699,796
Background							
Total	61,272	185,923	546,276	398,944	418,015	89,366	1,699,796
Remaining LA County (Basin)							
Passenger	21,190	163,094	920,808	1,067,063	735,538	313,208	3,220,902
Employee	5,217	45,488	252,414	277,411	176,201	61,361	818,082
Cargo/Ancillary	38,451	113,552	466,407	631,723	437,617	685,712	2,373,462
Collateral	1,348	12,532	64,660	54,500	35,084	14,236	182,360
Subtotal Airport	66,207	334,666	1,704,289	2,030,697	1,384,440	1,074,516	6,594,815
Background							
Total	66,207	334,666	1,704,289	2,030,697	1,384,440	1,074,516	6,594,815
Orange County *							
Passenger							574,146
Employee							162,171
Cargo/Ancillary							181,088
Collateral							16,968
Subtotal Airport							934,372
San Bernardino County *							
Passenger							46,564
Employee							7,648
Cargo/Ancillary							272,757
Collateral							3,048
Subtotal Airport							330,017
Background							
Total							
Riverside County *							
Passenger							73,192
Employee							17,239
Cargo/Ancillary							26,411
Collateral							6,928
Subtotal Airport							123,770
Subtotal SCAB *							
Passenger							4,830,504
Employee							1,230,269
Cargo/Ancillary							3,263,965
Collateral							358,032
Subtotal Airport							9,682,770
Background							
Total							9,682,770
Palmdale/Lancaster							
Passenger							9,570
Employee							0
Cargo/Ancillary							0
Collateral							2,240
Subtotal Airport							11,810
Background							
Total							
Ventura County *							
Passenger							174,210
Employee							9,324
Cargo/Ancillary							5,729
Collateral							1,160
Subtotal Airport							190,423
Total Model Area *							
Passenger							3,762,730
Employee							2,594,813
Cargo/Ancillary							2,454,860
Collateral							2,179,532
Airport Total							10,981,934

* Detailed information not available

VMT

Phase 3F: 2005 Alternative B - AM

		00-10MPH	10-20MPH	20-30MPH	30-40MPH	40-50MPH	50-60MPH	TOTAL
Tier 1	Passenger	1,270	3,923	8,604	11,874	13,895	3,518	43,084
	Employee	73	672	2,214	1,719	977	108	5,784
	Cargo/Ancillary	544	1,350	5,811	8,235	4,395	829	21,184
	Collateral	777	1,306	5,994	2,917	2,871	244	14,109
	Subtotal Airport	2,664	7,261	22,623	24,746	22,138	4,700	84,121
	Background	6,078	23,690	120,460	117,913	64,975	18,155	351,271
	Total	8,742	30,941	143,083	142,658	87,113	22,855	435,392
Remaining LA County (Basin)	Passenger	1,336	10,054	43,702	29,069	35,121	30,702	149,984
	Employee	191	1,803	8,110	5,186	5,592	3,379	24,241
	Cargo/Ancillary	1,983	10,153	26,481	23,088	19,575	56,717	137,957
	Collateral	141	1,010	4,723	2,831	2,580	1,897	13,162
	Subtotal Airport	3,631	23,020	82,936	60,164	62,848	92,895	325,344
	Background	154,173	900,298	5,088,094	2,055,895	1,472,820	1,259,026	10,928,306
	Total	157,804	923,318	5,169,090	2,116,049	1,635,668	1,351,721	11,253,650
Orange County *	Passenger							25,840
	Employee							4,708
	Cargo/Ancillary							9,721
	Collateral							1,040
	Subtotal Airport							41,309
	Background							
	Total							
San Bernardino County *	Passenger							2,599
	Employee							240
	Cargo/Ancillary							17,983
	Collateral							281
	Subtotal Airport							21,073
	Background							
	Total							
Riverside County *	Passenger							2,959
	Employee							500
	Cargo/Ancillary							979
	Collateral							443
	Subtotal Airport							4,881
	Background							
	Total							
Subtotal SCAB *	Passenger							224,466
	Employee							35,453
	Cargo/Ancillary							187,804
	Collateral							29,005
	Subtotal Airport							476,728
	Background							16,424,087
	Total							16,900,815
Palmdale/Lancaster	Passenger							444
	Employee							0
	Cargo/Ancillary							0
	Collateral							196
	Subtotal Airport							630
	Background							
	Total							
Ventura County *	Passenger							8,222
	Employee							281
	Cargo/Ancillary							285
	Collateral							73
	Subtotal Airport							8,871
	Background							
	Total							
Total Model Area *	Passenger							233,132
	Employee							35,734
	Cargo/Ancillary							188,099
	Collateral							29,284
	Airport Total							486,229
	Background							
	Total							

* Detailed information not available

VMT

Phase 3F: 2005 Alternative B - PM

	00-10MPH	10-20MPH	20-30MPH	30-40MPH	40-50MPH	50-60MPH	TOTAL
Tier 1							
Passenger	1,539	4,664	12,462	9,685	15,202	3,269	46,921
Employee	41	837	2,430	1,539	727	299	5,873
Cargo/Ancillary	317	1,234	6,561	5,400	3,138	1,235	17,885
Collateral	159	2,204	6,433	3,264	3,065	638	15,823
Subtotal Airport	2,156	8,939	27,886	19,888	22,132	5,441	86,502
Background	5,383	39,665	156,690	122,216	55,921	20,574	400,449
Total	7,539	48,604	184,576	142,104	78,053	26,015	486,951
Remaining LA County (Basin)							
Passenger	1,134	9,037	47,864	67,924	34,599	6,796	187,354
Employee	137	1,466	7,223	10,093	5,011	844	24,764
Cargo/Ancillary	1,067	4,087	20,814	34,525	19,545	35,347	115,385
Collateral	144	1,236	6,033	5,883	3,343	587	17,226
Subtotal Airport	2,482	16,816	81,934	118,425	62,498	43,574	324,729
Background	135,228	908,132	5,332,521	3,059,653	2,311,195	741,456	12,488,187
Total	137,710	923,948	5,414,455	3,178,078	2,373,693	785,032	12,812,916
Orange County *							
Passenger							29,887
Employee							4,981
Cargo/Ancillary							9,400
Collateral							1,665
Subtotal Airport							45,933
San Bernardino County *							
Passenger							2,087
Employee							195
Cargo/Ancillary							13,355
Collateral							266
Subtotal Airport							16,903
Background							
Total							
Riverside County *							
Passenger							4,266
Employee							528
Cargo/Ancillary							1,179
Collateral							827
Subtotal Airport							6,800
Subtotal SCAB *							
Passenger							250,515
Employee							36,341
Cargo/Ancillary							157,204
Collateral							35,807
Subtotal Airport							479,867
Background							16,389,729
Total							16,879,696
Palmdale/Lancaster							
Passenger							518
Employee							0
Cargo/Ancillary							0
Collateral							228
Subtotal Airport							746
Ventura County *							
Passenger							9,099
Employee							275
Cargo/Ancillary							275
Collateral							136
Subtotal Airport							9,785
Total Model Area *							
Passenger							45,958
Employee							157,479
Cargo/Ancillary							36,082
Collateral							480,231
Airport Total							10,531

* Detailed information not available

VMT

Phase 3F: 2005 Alternative B - 24 hr

	00-10MPH	10-20MPH	20-30MPH	30-40MPH	40-50MPH	50-60MPH	TOTAL
San Bernardino County *							
Passenger	42,846	99,473	244,938	179,430	270,581	49,644	886,911
Employee	3,141	26,540	84,027	48,152	28,782	5,883	196,526
Cargo/Ancillary	11,156	33,748	144,613	120,004	74,739	19,336	403,595
Collateral	5,280	19,464	64,440	27,284	31,188	4,712	152,368
Subtotal Airport	62,422	179,225	538,018	374,869	405,290	79,575	1,639,399
Background Total	62,422	179,225	538,018	374,869	405,290	79,575	1,639,399
Remaining LA County (Basin)							
Passenger	20,675	156,257	877,279	1,012,088	710,573	308,585	3,085,457
Employee	5,572	46,467	253,724	279,298	185,048	82,937	833,065
Cargo/Ancillary	29,936	124,305	445,999	633,854	446,850	917,264	2,598,206
Collateral	1,275	11,484	56,224	49,048	32,578	12,058	162,664
Subtotal Airport	57,459	338,533	1,633,226	1,974,288	1,375,047	1,301,841	6,680,393
Background Total	57,459	338,533	1,633,226	1,974,288	1,375,047	1,301,841	6,680,393
Orange County *							
Passenger							540,938
Employee							163,414
Cargo/Ancillary							201,830
Collateral							15,236
Subtotal Airport							921,218
San Bernardino County *							
Passenger							44,234
Employee							7,870
Cargo/Ancillary							318,832
Collateral							3,048
Subtotal Airport							373,784
Background Total							
Riverside County *							
Passenger							71,406
Employee							17,249
Cargo/Ancillary							29,621
Collateral							7,136
Subtotal Airport							125,412
Subtotal SCAB *							
Passenger							4,628,846
Employee							1,218,125
Cargo/Ancillary							3,551,683
Collateral							340,452
Subtotal Airport							9,740,206
Background Total							9,740,206
Palmdale/Lancaster							
Passenger							9,425
Employee							0
Cargo/Ancillary							0
Collateral							2,116
Subtotal Airport							11,541
Background Total							
Ventura County *							
Passenger							167,737
Employee							9,424
Cargo/Ancillary							5,742
Collateral							1,189
Subtotal Airport							184,091
Total Model Area *							
Passenger							3,607,733
Employee							2,589,125
Cargo/Ancillary							2,744,065
Collateral							2,119,966
Airport Total							11,040,923

* Detailed information not available

VMT

Phase 3F: 2005 Alternative C - AM

	00-10MPH	10-20MPH	20-30MPH	30-40MPH	40-50MPH	50-60MPH	TOTAL
Tier 1							
Passenger	1,112	3,981	8,738	11,129	12,019	4,020	40,997
Employee	128	465	2,213	2,147	1,047	134	6,132
Cargo/Ancillary	461	1,458	5,342	8,833	5,397	1,243	22,734
Collateral	387	854	3,548	1,486	1,741	157	8,173
Subtotal Airport	2,088	6,758	19,839	23,595	20,204	5,554	78,038
Background	5,237	24,159	121,719	118,661	63,372	21,108	354,256
Total	7,323	30,917	141,558	142,256	83,576	26,662	432,292
Remaining LA County (Basin)							
Passenger	1,189	9,685	44,099	28,982	33,438	29,569	146,951
Employee	179	1,708	7,900	4,860	5,202	3,344	23,193
Cargo/Ancillary	1,924	9,551	27,387	22,981	19,279	56,714	137,846
Collateral	59	571	2,514	1,549	1,409	1,081	7,163
Subtotal Airport	3,351	21,525	81,900	58,372	59,328	90,708	316,183
Background	150,109	899,855	5,065,711	2,103,662	1,467,333	1,268,591	10,955,281
Total	153,460	921,381	5,147,611	2,162,034	1,526,661	1,369,299	11,270,444
Orange County *							
Passenger							25,840
Employee							4,554
Cargo/Ancillary							9,813
Collateral							585
Subtotal Airport							40,772
San Bernardino County *							
Passenger							2,572
Employee							236
Cargo/Ancillary							17,895
Collateral							144
Subtotal Airport							20,847
Background							
Total							
Riverside County *							
Passenger							2,820
Employee							474
Cargo/Ancillary							1,092
Collateral							254
Subtotal Airport							4,650
Subtotal SCAB *							
Passenger							219,190
Employee							34,589
Cargo/Ancillary							189,380
Collateral							18,329
Subtotal Airport							459,488
Background							16,423,225
Total							16,882,713
Palmdale/Lancaster							
Passenger							422
Employee							0
Cargo/Ancillary							0
Collateral							115
Subtotal Airport							537
Background							
Total							
Ventura County *							
Passenger							7,977
Employee							269
Cargo/Ancillary							294
Collateral							38
Subtotal Airport							8,578
Total Model Area *							
Passenger							227,589
Employee							34,858
Cargo/Ancillary							189,674
Collateral							16,482
Airport Total							468,603

PARSONS:
Baseline + Adjustment
Where adjustment =
5% (Increase in LAX)
or
15% (Decrease in LAX)

* Detailed information not available

VMT

Phase 3F: 2005 Alternative C - PM

	00-10MPH	10-20MPH	20-30MPH	30-40MPH	40-50MPH	50-60MPH	TOTAL
Tier 1							
Passenger	1,224	5,113	12,696	9,466	12,623	2,839	43,961
Employee	130	480	2,753	1,551	1,013	384	6,311
Cargo/Ancillary	331	1,188	6,135	5,909	3,890	1,748	19,301
Collateral	101	1,201	3,727	2,343	1,975	357	9,704
Subtotal Airport	1,786	7,982	25,311	19,269	19,801	5,328	79,277
Background	4,641	38,697	154,067	125,911	59,320	20,471	403,107
Total	6,427	46,679	179,378	145,180	78,921	25,799	482,384
Remaining LA County (Basin)							
Passenger	1,082	9,162	47,053	67,557	33,571	6,546	164,971
Employee	138	1,492	7,143	10,019	4,682	819	24,293
Cargo/Ancillary	1,070	4,145	20,108	35,366	20,363	34,425	115,477
Collateral	77	689	3,312	3,593	1,895	331	9,877
Subtotal Airport	2,367	15,468	77,616	116,535	60,511	42,121	314,618
Background	134,444	939,139	5,282,882	3,135,664	2,329,723	702,834	12,524,686
Total	136,811	954,607	5,360,498	3,252,199	2,390,234	744,955	12,839,304
Orange County *							
Passenger							29,940
Employee							4,897
Cargo/Ancillary							9,201
Collateral							981
Subtotal Airport							44,999
San Bernardino County *							
Passenger							2,146
Employee							199
Cargo/Ancillary							13,494
Collateral							180
Subtotal Airport							15,999
Background							
Total							
Riverside County *							
Passenger							4,071
Employee							522
Cargo/Ancillary							1,025
Collateral							505
Subtotal Airport							6,123
Subtotal SCAB *							
Passenger							245,089
Employee							36,222
Cargo/Ancillary							158,498
Collateral							21,207
Subtotal Airport							461,016
Background							18,398,787
Total							18,859,803
Palmdale/Lancaster							
Passenger							491
Employee							0
Cargo/Ancillary							0
Collateral							139
Subtotal Airport							630
Ventura County *							
Passenger							8,901
Employee							271
Cargo/Ancillary							275
Collateral							76
Subtotal Airport							9,523
Total Model Area *							
Passenger							45,614
Employee							158,769
Cargo/Ancillary							21,482
Collateral							461,231
Airport Total							10,163

PARSONS
Baseline + Adjustment
Where adjustment =
5% (Increase in LAX)
or
15% (Decrease in LAX)

* Detailed information not available

VMT

Phase 3F: 2005 Alternative C - AP

	00-10MPH	10-20MPH	20-30MPH	30-40MPH	40-50MPH	50-60MPH	TOTAL
Tier 1							
Passenger	4,021	8,527	23,206	10,345	18,258	2,292	66,650
Employee	270	887	3,004	1,248	895	147	6,451
Cargo/Ancillary	788	2,280	9,089	4,851	4,732	1,213	22,933
Collateral	204	851	2,199	455	971	145	4,825
Subtotal Airport	5,283	12,545	37,478	16,899	24,857	3,797	100,859
Background	7,802	34,468	167,054	58,618	59,800	19,374	346,916
Total	12,865	47,013	204,532	75,517	84,657	23,171	447,775
Remaining LA County (Basin)							
Passenger	1,138	10,113	64,209	84,873	56,830	17,378	234,541
Employee	120	1,026	7,054	9,605	5,752	1,411	24,968
Cargo/Ancillary	1,435	4,484	19,161	37,294	26,478	44,574	133,424
Collateral	16	387	1,876	2,117	1,325	321	6,042
Subtotal Airport	2,709	16,010	92,300	133,889	90,383	63,684	396,975
Background	103,184	725,510	5,073,911	2,343,323	2,434,175	952,022	11,632,125
Total	105,893	741,520	5,166,211	2,477,212	2,524,558	1,015,706	12,031,100
Orange County *							
Passenger							42,111
Employee							4,899
Cargo/Ancillary							11,730
Collateral							650
Subtotal Airport							59,390
San Bernardino County *							
Passenger							2,871
Employee							258
Cargo/Ancillary							15,436
Collateral							137
Subtotal Airport							18,702
Riverside County *							
Passenger							5,731
Employee							508
Cargo/Ancillary							3,212
Collateral							321
Subtotal Airport							9,772
Subtotal SCAB *							
Passenger							351,904
Employee							37,084
Cargo/Ancillary							186,735
Collateral							11,975
Subtotal Airport							587,698
Background							16,722,061
Total							17,309,759
Palmdale/Lancaster							
Passenger							898
Employee							0
Cargo/Ancillary							0
Collateral							76
Subtotal Airport							774
Ventura County *							
Passenger							12,559
Employee							287
Cargo/Ancillary							284
Collateral							44
Subtotal Airport							13,174
Total Model Area *							
Passenger							365,181
Employee							37,371
Cargo/Ancillary							187,019
Collateral							12,085
Airport Total							601,645

PARSONS:
Baseline + Adjustment
Where adjustment =
5% (Increase in LAX)
or
15% (Decrease in LAX)

VMT

Phase 3F: 2005 Alternative C - 24 hr

	00-10MPH	10-20MPH	20-30MPH	30-40MPH	40-50MPH	50-60MPH	TOTAL
Tier 1							
Passenger	35,599	98,876	249,973	173,264	240,246	51,246	848,005
Employee	5,839	20,335	88,467	54,901	32,801	7,382	209,723
Cargo/Ancillary	10,586	33,004	137,658	131,273	94,697	28,167	435,286
Collateral	2,758	11,624	37,896	17,136	16,748	2,836	90,808
Subtotal Airport	54,792	163,641	513,994	376,574	386,391	89,430	1,584,822
Background							
Total	54,792	163,641	513,994	376,574	386,391	89,430	1,584,822
Remaining LA County (Basin)							
Passenger	19,090	162,182	870,022	1,015,907	683,487	299,561	3,060,249
Employee	4,851	46,909	245,277	271,772	173,560	61,871	804,239
Cargo/Ancillary	29,674	121,873	446,595	640,785	442,991	909,277	2,561,205
Collateral	608	6,508	30,808	29,036	18,516	6,932	92,408
Subtotal Airport	54,223	337,471	1,592,702	1,957,510	1,328,553	1,277,641	6,548,101
Background							
Total	54,223	337,471	1,592,702	1,957,510	1,328,553	1,277,641	6,548,101
Orange County *							
Passenger							548,190
Employee							159,285
Cargo/Ancillary							205,985
Collateral							8,704
Subtotal Airport							922,163
San Bernardino County *							
Passenger							42,468
Employee							7,692
Cargo/Ancillary							313,728
Collateral							1,764
Subtotal Airport							365,652
Background							
Total							
Riverside County *							
Passenger							70,683
Employee							16,684
Cargo/Ancillary							35,704
Collateral							4,360
Subtotal Airport							127,442
Background							
Total							
Subtotal SCAB *							
Passenger							4,570,625
Employee							1,197,835
Cargo/Ancillary							3,581,807
Collateral							198,044
Subtotal Airport							9,548,210
Background							
Total							9,548,210
Palmdale/Lancaster							
Passenger							9,022
Employee							0
Cargo/Ancillary							0
Collateral							1,320
Subtotal Airport							10,342
Background							
Total							
Ventura County *							
Passenger							164,847
Employee							9,180
Cargo/Ancillary							5,715
Collateral							632
Subtotal Airport							180,374
Background							
Total							
Total Model Area *							
Passenger							3,574,838
Employee							2,564,078
Cargo/Ancillary							2,667,773
Collateral							1,959,232
Airport Total							10,765,921

* Detailed information not available

VMT

Phase 3F: 2015 Adjusted Environmental Baseline - AM

		00-10MPH	10-20MPH	20-30MPH	30-40MPH	40-50MPH	50-60MPH	TOTAL
Tier 1	Passenger	1,609	3,642	12,049	5,984	5,582	3,472	32,338
	Employee	83	436	1,228	561	392	150	2,850
	Cargo/Ancillary	457	2,094	6,299	3,425	2,109	835	15,219
	Collateral	0	0	0	0	0	0	0
	Subtotal Airport	2,149	6,172	19,576	9,970	8,083	4,457	50,407
	Background	10,262	51,351	185,937	85,217	50,488	23,586	396,841
	Total	12,411	57,523	195,513	95,187	58,571	28,043	437,248
Remaining LA County (Basin)	Passenger	1,260	6,711	36,235	27,661	22,698	19,032	113,597
	Employee	134	667	3,577	2,593	1,602	635	9,408
	Cargo/Ancillary	2,640	7,353	22,445	15,846	13,981	30,870	93,135
	Collateral	0	0	0	0	0	0	0
	Subtotal Airport	4,034	14,931	62,257	46,100	38,281	50,537	216,140
	Background	257,599	1,111,862	5,550,587	2,541,333	1,527,523	1,209,870	12,208,774
	Total	271,633	1,126,793	5,612,844	2,587,433	1,665,804	1,260,407	12,424,914
Orange County	Passenger							18,938
	Employee							1,399
	Cargo/Ancillary							8,796
	Collateral							0
	Subtotal Airport							29,133
	Background							3,251,858
	Total							3,280,991
San Bernardino County	Passenger							1,689
	Employee							98
	Cargo/Ancillary							10,298
	Collateral							0
	Subtotal Airport							12,083
	Background							1,241,235
	Total							1,253,318
Riverside County	Passenger							1,819
	Employee							164
	Cargo/Ancillary							1,688
	Collateral							0
	Subtotal Airport							3,671
	Background							1,911,254
	Total							1,914,925
Subtotal SCAB	Passenger							168,381
	Employee							13,919
	Cargo/Ancillary							129,134
	Collateral							-
	Subtotal Airport							311,434
	Background							18,999,962
	Total							19,311,396
Palmdale/Lancaster	Passenger							252
	Employee							0
	Cargo/Ancillary							0
	Collateral							0
	Subtotal Airport							252
	Background							716,458
	Total							716,710
Ventura County	Passenger							6,197
	Employee							121
	Cargo/Ancillary							313
	Collateral							0
	Subtotal Airport							6,631
	Background							682,306
	Total							688,940
Total Model Area	Passenger							174,830
	Employee							14,040
	Cargo/Ancillary							129,447
	Collateral							0
	Total Model Area							318,317
	Total Background							20,408,729
	Grand Total							20,727,046

Phase 3F: 2015 Adjusted Environmental Baseline - PM

[illegible]

Phase 3F: 2015 Adjusted Environmental Baseline - AP

		00-10MPH	10-20MPH	20-30MPH	30-40MPH	40-50MPH	50-60MPH	TOTAL
Tier 1								
	Passenger	4,613	13,214	20,466	8,459	5,280	3,508	55,520
	Employee	48	228	408	160	47	3	892
	Cargo/Ancillary	555	4,551	7,635	2,667	2,354	424	18,186
	Collateral	0	0	0	0	0	0	0
	Subtotal Airport	5,216	17,991	28,509	11,286	7,681	3,935	74,698
	Background	13,872	69,657	193,502	43,151	35,668	23,815	379,765
	Total	19,188	87,648	222,011	64,437	43,329	27,750	454,363
Remaining LA County (Basin)								
	Passenger	1,450	11,849	65,252	66,572	35,586	15,704	186,513
	Employee	17	152	1,103	1,294	461	88	3,113
	Cargo/Ancillary	2,005	5,723	23,749	24,899	24,687	14,625	95,568
	Collateral	0	0	0	0	0	0	0
	Subtotal Airport	3,472	17,824	90,104	92,765	60,614	30,415	295,194
	Background	252,503	1,389,824	6,324,733	2,093,851	1,982,955	731,224	13,665,090
	Total	256,975	1,387,648	6,414,837	3,086,616	2,053,669	761,639	13,960,284
Orange County								
	Passenger							33,286
	Employee							632
	Cargo/Ancillary							9,957
	Collateral							0
	Subtotal Airport							43,875
	Background							3,280,005
	Total							3,323,880
San Bernardino County								
	Passenger							2,597
	Employee							33
	Cargo/Ancillary							9,362
	Collateral							0
	Subtotal Airport							12,022
	Background							1,262,994
	Total							1,275,016
Riverside County								
	Passenger							3,441
	Employee							51
	Cargo/Ancillary							1,412
	Collateral							0
	Subtotal Airport							4,904
	Background							2,194,490
	Total							2,199,394
Subtotal SCAB								
	Passenger							291,357
	Employee							4,721
	Cargo/Ancillary							134,516
	Collateral							0
	Subtotal Airport							430,593
	Background							20,782,344
	Total							21,212,937
Palmdale/Lancaster								
	Passenger							438
	Employee							0
	Cargo/Ancillary							0
	Collateral							0
	Subtotal Airport							438
	Background							956,416
	Total							956,854
Ventura County								
	Passenger							10,464
	Employee							33
	Cargo/Ancillary							415
	Collateral							0
	Subtotal Airport							10,912
	Background							855,746
	Total							866,658
Total Model Area*								
	Passenger							302,259
	Employee							4,754
	Cargo/Ancillary							134,930
	Collateral							0
	Total Model Area							441,943
	Total Background							22,604,506
	Grand Total							23,046,449

VMT

Phase 3F: 2015 Adjusted Environmental Baseline - 24 hr

	00-10MPH	10-20MPH	20-30MPH	30-40MPH	40-50MPH	50-60MPH	TOTAL
Tier 1							
Passenger	42,549	132,989	252,918	111,485	104,769	51,832	696,332
Employee	2,220	14,608	35,709	16,339	8,325	3,819	80,819
Cargo/Ancillary	8,382	61,908	129,980	60,320	40,200	13,568	314,357
Collateral	0	0	0	0	0	0	0
Subtotal Airport	53,151	209,504	418,607	188,144	153,284	68,618	1,091,508
Background							
Total	53,151	209,504	418,607	188,144	153,284	68,618	1,091,508
Remaining LA County (Basin)							
Passenger	22,595	188,185	834,893	779,262	413,958	240,335	2,459,218
Employee	2,853	24,020	106,072	92,119	37,196	10,712	272,971
Cargo/Ancillary	40,515	138,141	449,979	422,006	336,568	429,564	1,816,772
Collateral	0	0	0	0	0	0	0
Subtotal Airport	65,962	330,346	1,390,943	1,293,388	787,722	680,611	4,548,961
Background							
Total	65,962	330,346	1,390,943	1,293,388	787,722	680,611	4,548,961
Orange County *							
Passenger							416,450
Employee							44,587
Cargo/Ancillary							183,888
Collateral							0
Subtotal Airport							644,904
San Bernardino County *							
Passenger							33219.2
Employee							2874.9
Cargo/Ancillary							188501.2
Collateral							0
Subtotal Airport							222,695.3
Background							
Total							222,695.3
Riverside County *							
Passenger							44716
Employee							5183.7
Cargo/Ancillary							39982.2
Collateral							0
Subtotal Airport							85,861.9
Subtotal SCAB *							
Passenger							3849934.4
Employee							406415.4
Cargo/Ancillary							2537470.9
Collateral							0
Subtotal Airport							6,593,821
Background							
Total							6,593,821
Palmdale/Lancaster							
Passenger							5426.4
Employee							0
Cargo/Ancillary							0
Collateral							0
Subtotal Airport							5,426
Background							
Total							5,426
Ventura County *							
Passenger							132260.8
Employee							3407.7
Cargo/Ancillary							6760.3
Collateral							0
Subtotal Airport							142,429
Background							
Total							142,429
Total Model Area *							
Passenger							3787621.6
Employee							409823.1
Cargo/Ancillary							2544231.2
Collateral							0
Airport Total							6,741,676

* Detailed information not available

VMT

Phase 4: 2015 No Action/No Project Alternative - AM

	00-10MPH	10-20MPH	20-30MPH	30-40MPH	40-50MPH	50-80MPH	TOTAL
Tier 1							
Passenger	3,056	6,354	15,549	9,527	6,308	4,797	45,691
Employee	283	1,050	2,446	1,452	586	245	6,062
Cargo/Ancillary	983	4,141	8,408	5,435	1,986	1,189	22,142
Collateral	2,945	9,062	19,291	4,323	3,111	869	39,601
Subtotal Airport	7,267	20,607	45,694	20,837	11,991	7,100	113,496
Background	13,066	55,461	152,942	84,287	31,912	23,980	364,648
Total	20,333	79,068	198,636	105,124	43,903	31,080	478,144
Remaining LA County (Basin)							
Passenger	2,009	10,080	53,453	38,478	33,095	27,999	165,114
Employee	336	2,056	8,526	5,774	4,641	1,637	23,170
Cargo/Ancillary	3,797	9,861	32,435	21,947	21,739	46,170	135,949
Collateral	681	4,798	19,279	9,441	5,102	3,633	42,944
Subtotal Airport	6,833	26,796	113,693	75,640	64,577	79,639	367,177
Background	265,810	1,150,884	5,604,429	2,571,532	1,402,231	1,199,199	12,194,085
Total	272,643	1,177,679	5,718,122	2,647,172	1,466,808	1,278,838	12,661,262
Orange County *							
Passenger							30,715
Employee							4,635
Cargo/Ancillary							12,456
Collateral							2,633
Subtotal Airport							60,639
San Bernardino County *							
Passenger							3,112
Employee							261
Cargo/Ancillary							15,378
Collateral							505
Subtotal Airport							19,256
Background							
Total							
Riverside County *							
Passenger							4,147
Employee							635
Cargo/Ancillary							2,361
Collateral							1,034
Subtotal Airport							8,177
Subtotal SCAB *							
Passenger							248,779
Employee							34,963
Cargo/Ancillary							188,286
Collateral							88,717
Subtotal Airport							658,745
Background							18,012,328
Total							19,671,073
Palmdale/Lancaster							
Passenger							584
Employee							0
Cargo/Ancillary							0
Collateral							637
Subtotal Airport							1,221
Background							
Total							
Ventura County *							
Passenger							8,794
Employee							236
Cargo/Ancillary							362
Collateral							241
Subtotal Airport							9,633
Total Model Area *							
Passenger							258,157
Employee							35,199
Cargo/Ancillary							188,638
Collateral							87,595
Airport Total							669,669

* Detailed information not available

VMT

Phase 4: 2015 No Action/No Project Alternative - PM

	00-10MPH	10-20MPH	20-30MPH	30-40MPH	40-50MPH	50-60MPH	TOTAL
Tier 1							
Passenger	4,807	7,936	17,304	6,913	9,389	2,429	48,788
Employee	296	1,221	2,919	1,358	615	198	6,609
Cargo/Ancillary	725	3,696	7,537	3,714	2,189	795	18,656
Collateral	1,511	9,333	19,491	5,265	1,785	822	38,207
Subtotal Airport	7,341	22,186	47,251	17,250	13,988	4,244	112,260
Background	13,917	88,993	194,151	85,887	28,566	21,107	432,621
Total	21,258	111,179	241,402	103,137	42,554	25,351	644,881
Remaining LA County (Basin)							
Passenger	2,019	17,598	70,570	58,815	24,819	7,750	181,571
Employee	258	2,588	10,816	8,851	2,446	567	25,536
Cargo/Ancillary	2,039	10,652	30,104	30,668	15,382	25,925	114,780
Collateral	608	5,186	21,532	11,717	4,720	1,157	45,821
Subtotal Airport	4,925	37,034	133,022	110,051	47,377	35,399	367,808
Background	282,737	1,780,387	6,866,753	3,219,195	1,608,024	626,750	14,393,646
Total	287,662	1,817,421	6,999,775	3,329,246	1,655,401	662,149	14,761,654
Orange County *							
Passenger							35,074
Employee							5,604
Cargo/Ancillary							11,651
Collateral							3,335
Subtotal Airport							55,664
San Bernardino County *							
Passenger							2,684
Employee							309
Cargo/Ancillary							11,672
Collateral							399
Subtotal Airport							15,244
Background							
Total							
Riverside County *							
Passenger							5,665
Employee							855
Cargo/Ancillary							2,899
Collateral							1,504
Subtotal Airport							10,723
Subtotal SCAB *							
Passenger							273,862
Employee							38,913
Cargo/Ancillary							159,458
Collateral							89,366
Subtotal Airport							561,699
Background							22,576,480
Total							23,138,189
Palmdale/Lancaster							
Passenger							645
Employee							0
Cargo/Ancillary							0
Collateral							594
Subtotal Airport							1,239
Ventura County *							
Passenger							9,579
Employee							252
Cargo/Ancillary							321
Collateral							298
Subtotal Airport							10,450
Total Model Area *							
Passenger							49,137
Employee							159,710
Cargo/Ancillary							89,687
Collateral							562,591
Airport Total							11,689

* Detailed information not available

VMT

Phase 4: 2015 No Action/No Project Alternative - AP

		00-10MPH	10-20MPH	20-30MPH	30-40MPH	40-50MPH	50-60MPH	TOTAL
Tier 1	Passenger	5,903	15,450	26,095	7,697	5,785	2,788	63,898
	Employee	228	1,250	2,168	771	379	34	4,830
	Cargo/Ancillary	886	8,370	9,251	3,224	2,863	532	22,926
	Collateral	843	2,771	7,004	1,185	604	236	12,843
	Subtotal Airport	7,660	25,841	44,518	12,877	9,431	3,570	104,097
	Background	15,185	73,710	191,827	35,360	42,516	15,537	374,138
	Total	23,048	99,551	236,345	48,237	51,947	19,107	478,235
Remaining LA County (Basin)	Passenger	2,268	15,101	79,780	81,290	45,072	9,844	233,335
	Employee	184	1,121	6,753	7,631	2,359	515	18,563
	Cargo/Ancillary	2,944	7,839	30,423	34,245	32,796	20,468	128,515
	Collateral	141	1,687	7,317	5,595	2,918	575	18,233
	Subtotal Airport	5,537	25,648	124,253	128,761	83,145	31,402	398,646
	Background	249,219	1,386,079	6,309,365	3,032,710	1,966,089	684,247	13,527,699
	Total	254,756	1,411,627	6,433,608	3,161,471	2,049,234	715,649	14,026,345
Orange County *	Passenger							44,539
	Employee							4,084
	Cargo/Ancillary							13,033
	Collateral							1,782
	Subtotal Airport							63,438
San Bernardino County *	Passenger							4,100
	Employee							219
	Cargo/Ancillary							13,673
	Collateral							304
	Subtotal Airport							18,496
Riverside County *	Passenger							6,015
	Employee							480
	Cargo/Ancillary							1,565
	Collateral							603
	Subtotal Airport							8,663
Subtotal SCAB *	Passenger							351,687
	Employee							28,176
	Cargo/Ancillary							179,912
	Collateral							33,765
	Subtotal Airport							593,540
Background	Background							20,790,491
	Total							21,384,031
Palmdale/Lancaster	Passenger							847
	Employee							0
	Cargo/Ancillary							0
	Collateral							210
	Subtotal Airport							1,067
Ventura County *	Passenger							12,221
	Employee							187
	Cargo/Ancillary							402
	Collateral							149
	Subtotal Airport							12,959
Total Model Area *	Passenger							364,755
	Employee							28,363
	Cargo/Ancillary							180,314
	Collateral							34,124
	Airport Total							607,896

VMT

Phase 3F: 2015 No Action/No Project - 24 hr

	00-10MPH	10-20MPH	20-30MPH	30-40MPH	40-50MPH	50-60MPH	TOTAL
Tier 1							
Passenger	77,090	166,544	330,109	135,727	120,355	55,966	885,791
Employee	8,980	39,083	83,618	38,748	17,538	5,295	194,261
Cargo/Ancillary	17,380	95,187	168,813	82,899	45,815	16,857	428,951
Collateral	21,196	84,654	163,144	43,092	22,000	7,708	361,804
Subtotal Airport	124,646	385,478	765,682	301,467	205,708	85,826	1,668,807
Background							
Total	124,646	385,478	765,682	301,467	205,708	85,826	1,668,807
Remaining LA County (Basin)							
Passenger	35,258	239,582	1,141,185	1,000,065	578,722	255,321	3,248,112
Employee	8,636	64,103	289,656	247,042	104,851	32,401	746,688
Cargo/Ancillary	58,826	188,618	622,845	581,962	468,511	620,172	2,540,935
Collateral	5,764	50,684	192,512	107,012	50,980	21,480	428,392
Subtotal Airport	108,483	542,967	2,246,197	1,936,080	1,201,043	929,354	6,964,126
Background							
Total	108,483	542,967	2,246,197	1,936,080	1,201,043	929,354	6,964,126
Orange County *							
Passenger							617,837
Employee							161,205
Cargo/Ancillary							248,838
Collateral							31,000
Subtotal Airport							1,058,880
Background							
Total							
San Bernardino County *							
Passenger							56425.6
Employee							8757.9
Cargo/Ancillary							274184.1
Collateral							4832
Subtotal Airport							344,199.6
Background							
Total							344,199.6
Riverside County *							
Passenger							88631.2
Employee							21867
Cargo/Ancillary							44387.5
Collateral							13364
Subtotal Airport							168,249.7
Background							
Total							
Subtotal SCAB *							
Passenger							4896796.8
Employee							1132777.2
Cargo/Ancillary							3535295.2
Collateral							839392
Subtotal Airport							10,404,261
Background							
Total							10,404,261
Palmdale/Lancaster							
Passenger							11625.6
Employee							0
Cargo/Ancillary							0
Collateral							5764
Subtotal Airport							17,390
Background							
Total							17,390
Ventura County *							
Passenger							171326.4
Employee							7482.6
Cargo/Ancillary							7202.5
Collateral							2752
Subtotal Airport							188,773
Background							
Total							188,773
Total Model Area *							
Passenger							3763474.4
Employee							2478319.2
Cargo/Ancillary							3072881.3
Collateral							2737240
Airport Total							12,061,915

* Detailed information not available

VMT

Phase 4: 2015 Alternative A - AM

	00-10MPH	10-20MPH	20-30MPH	30-40MPH	40-50MPH	50-60MPH	TOTAL
Tier 1							
Passenger	1,064	4,487	13,701	11,862	23,396	5,985	60,475
Employee	91	1,250	3,200	2,074	1,282	160	8,057
Cargo/Ancillary	485	2,928	9,952	7,471	5,305	980	27,121
Collateral	1,085	2,923	6,089	3,499	2,234	136	15,966
Subtotal Airport	2,725	11,588	32,942	24,906	32,217	7,261	111,819
Background	8,737	44,951	159,528	84,792	60,644	20,629	379,281
Total	11,462	56,539	192,470	109,698	92,861	27,890	490,900
Remaining LA County (Basin)							
Passenger	2,873	11,471	63,451	50,970	35,834	30,262	194,961
Employee	493	2,464	11,035	9,177	6,074	2,764	32,007
Cargo/Ancillary	5,554	12,032	40,611	30,608	43,920	43,131	176,056
Collateral	241	1,179	4,986	3,083	1,990	1,550	13,009
Subtotal Airport	9,161	27,146	120,083	94,038	87,918	77,707	416,033
Background	267,928	1,151,882	5,586,190	2,585,394	1,517,924	1,087,397	12,176,715
Total	277,089	1,179,028	5,706,263	2,659,432	1,605,842	1,165,104	12,592,748
Orange County *							
Passenger							35,210
Employee							6,579
Cargo/Ancillary							15,405
Collateral							944
Subtotal Airport							58,238
San Bernardino County *							
Passenger							3,621
Employee							357
Cargo/Ancillary							20,827
Collateral							230
Subtotal Airport							25,035
Background							
Total							
Riverside County *							
Passenger							5,095
Employee							858
Cargo/Ancillary							3,546
Collateral							414
Subtotal Airport							9,913
Subtotal SCAB *							
Passenger							300,362
Employee							47,958
Cargo/Ancillary							242,955
Collateral							30,563
Subtotal Airport							621,838
Background							19,015,482
Total							19,637,320
Palmdale/Lancaster							
Passenger							708
Employee							0
Cargo/Ancillary							0
Collateral							219
Subtotal Airport							927
Background							
Total							
Ventura County *							
Passenger							10,382
Employee							326
Cargo/Ancillary							372
Collateral							76
Subtotal Airport							11,156
Total Model Area *							
Passenger							311,452
Employee							48,284
Cargo/Ancillary							243,327
Collateral							30,858
Airport Total							633,921

* Detailed information not available

VMT

Phase 4: 2015 Alternative A - PM

		00-10MPH	10-20MPH	20-30MPH	30-40MPH	40-50MPH	50-60MPH	TOTAL
Tier 1	Passenger	1,261	6,153	16,029	18,621	31,152	4,781	77,986
	Employee	136	1,301	2,806	1,515	1,359	291	7,408
	Cargo/Ancillary	338	3,056	7,680	5,176	4,662	1,017	21,929
	Collateral	614	3,242	7,306	3,723	1,893	246	17,024
	Subtotal Airport	2,348	13,752	33,819	29,035	38,066	6,335	124,355
	Background	10,106	65,189	165,115	103,768	55,360	20,609	440,047
	Total	12,454	78,941	218,934	132,803	94,426	26,944	664,402
Remaining LA County (Basin)	Passenger	2,737	23,596	97,331	78,554	35,061	10,179	247,457
	Employee	309	3,021	12,970	9,851	2,827	631	29,609
	Cargo/Ancillary	2,638	13,004	38,279	36,286	18,105	33,111	141,423
	Collateral	225	2,156	7,277	4,812	1,857	492	18,819
	Subtotal Airport	5,909	41,776	155,857	129,503	57,850	44,413	435,308
	Background	280,867	1,812,050	6,875,258	3,190,576	1,578,370	622,985	14,360,106
	Total	286,776	1,853,826	7,031,115	3,320,079	1,636,220	667,398	14,795,414
Orange County *	Passenger							47,843
	Employee							6,502
	Cargo/Ancillary							15,040
	Collateral							1,551
	Subtotal Airport							70,936
	Background							
San Bernardino County *	Passenger							3,801
	Employee							354
	Cargo/Ancillary							14,064
	Collateral							184
	Subtotal Airport							18,413
	Background							
Riverside County *	Passenger							7,977
	Employee							1,051
	Cargo/Ancillary							4,864
	Collateral							833
	Subtotal Airport							14,625
	Background							
Subtotal SCAB *	Passenger							384,974
	Employee							44,922
	Cargo/Ancillary							197,320
	Collateral							36,421
	Subtotal Airport							663,637
	Background							22,581,750
Palmdale/Lancaster	Passenger							894
	Employee							0
	Cargo/Ancillary							0
	Collateral							246
	Subtotal Airport							1,140
	Background							
Ventura County *	Passenger							13,116
	Employee							294
	Cargo/Ancillary							350
	Collateral							149
	Subtotal Airport							13,909
	Background							
Total Model Area *	Passenger							58,932
	Employee							197,614
	Cargo/Ancillary							36,771
	Collateral							664,032
	Airport Total							15,049
	Background							

* Detailed information not available

Phase 4: 2015 Alternative A- AP

[illegible]

VMT

Phase 3F: 2015 Alternative A - 24 hr

	00-10MPH	10-20MPH	20-30MPH	30-40MPH	40-50MPH	50-60MPH	TOTAL
Tier 1							
Passenger	28,728	133,655	313,398	342,832	496,630	74,855	1,390,099
Employee	5,794	47,020	106,283	63,148	36,253	5,806	284,102
Cargo/Ancillary	10,298	68,231	189,295	133,591	80,708	18,811	502,735
Collateral	8,884	30,980	71,212	33,404	19,068	2,252	165,600
Subtotal Airport	53,504	280,886	680,188	572,975	632,659	102,324	2,322,536
Background							
Total	53,504	280,886	680,188	572,975	632,659	102,324	2,322,536
Remaining LA County (Basin)							
Passenger	49,538	313,902	1,541,882	1,457,910	691,779	307,068	4,362,199
Employee	12,643	84,127	406,393	367,976	136,308	48,241	1,055,688
Cargo/Ancillary	83,053	237,153	784,121	768,497	681,001	719,031	3,272,858
Collateral	2,196	17,404	64,652	44,408	20,792	9,336	158,988
Subtotal Airport	147,430	652,676	2,787,248	2,638,790	1,529,881	1,083,706	8,849,730
Background							
Total	147,430	652,676	2,787,248	2,638,790	1,529,881	1,083,706	8,849,730
Orange County *							
Passenger							825,558
Employee							228,440
Cargo/Ancillary							302,458
Collateral							14,004
Subtotal Airport							1,368,460
Background							
Total							
San Bernardino County *							
Passenger							73,920
Employee							12,155
Cargo/Ancillary							372,152
Collateral							2,508
Subtotal Airport							480,734
Background							
Total							
Riverside County *							
Passenger							121,934
Employee							30,536
Cargo/Ancillary							70,819
Collateral							6,932
Subtotal Airport							230,222
Background							
Total							
Subtotal SCAB *							
Passenger							6,773,710
Employee							1,586,921
Cargo/Ancillary							4,521,019
Collateral							346,032
Subtotal Airport							13,231,682
Background							
Total							13,231,682
Palmdale/Lancaster							
Passenger							15,876
Employee							0
Cargo/Ancillary							0
Collateral							2,356
Subtotal Airport							18,232
Background							
Total							18,232
Ventura County *							
Passenger							229,536
Employee							10,601
Cargo/Ancillary							7,249
Collateral							1,252
Subtotal Airport							248,640
Background							
Total							
Total Model Area *							
Passenger							5,114,833
Employee							3,291,139
Cargo/Ancillary							3,450,245
Collateral							2,860,604
Airport Total							14,716,721

* Detailed information not available

VMT

Phase 3F: 2015 Alternative B - AM

		00-10MPH	10-20MPH	20-30MPH	30-40MPH	40-50MPH	50-60MPH	TOTAL
Tier 1								
	Passenger	1,145	3,819	12,192	11,108	27,517	5,501	61,282
	Employee	66	1,236	3,360	1,855	789	135	7,251
	Cargo/Ancillary	335	3,880	10,583	7,879	3,847	1,089	27,403
	Collateral	828	1,875	6,208	3,077	2,577	119	14,682
	Subtotal Airport	2,372	10,810	32,363	23,719	34,740	6,824	110,618
	Background	8,295	47,725	150,746	93,093	54,745	19,791	374,398
	Total	10,670	58,335	183,099	116,812	89,485	26,616	485,016
Remaining LA County (Basin)								
	Passenger	2,359	11,173	61,840	51,524	35,730	31,803	194,429
	Employee	402	2,426	11,081	9,318	6,122	2,774	32,123
	Cargo/Ancillary	4,940	12,920	40,331	31,020	42,649	44,885	176,746
	Collateral	187	1,179	4,453	2,829	1,803	1,475	11,956
	Subtotal Airport	7,888	27,698	117,735	94,691	86,304	80,938	415,264
	Background	260,773	1,120,533	5,591,025	2,526,209	1,526,345	1,113,710	12,138,595
	Total	268,661	1,148,231	5,708,760	2,620,900	1,612,649	1,194,648	12,553,849
Orange County *								
	Passenger							35,659
	Employee							6,673
	Cargo/Ancillary							14,754
	Collateral							857
	Subtotal Airport							57,943
San Bernardino County *								
	Passenger							3,706
	Employee							357
	Cargo/Ancillary							21,406
	Collateral							221
	Subtotal Airport							25,690
Riverside County *								
	Passenger							5,031
	Employee							675
	Cargo/Ancillary							2,851
	Collateral							377
	Subtotal Airport							9,134
Subtotal SCAB *								
	Passenger							300,107
	Employee							47,279
	Cargo/Ancillary							243,160
	Collateral							28,093
	Subtotal Airport							618,639
	Background							19,015,322
	Total							19,633,961
Palmdale/Lancaster								
	Passenger							721
	Employee							0
	Cargo/Ancillary							0
	Collateral							203
	Subtotal Airport							924
Ventura County *								
	Passenger							10,320
	Employee							326
	Cargo/Ancillary							374
	Collateral							60
	Subtotal Airport							11,080
Total Model Area *								
	Passenger							311,148
	Employee							47,605
	Cargo/Ancillary							243,534
	Collateral							28,365
	Airport Total							630,652

* Detailed information not available

VMT

Phase 3F: 2015 Alternative B - PM

		00-10MPH	10-20MPH	20-30MPH	30-40MPH	40-50MPH	50-60MPH	TOTAL
Tier 1	Passenger	1,353	4,989	16,690	18,992	31,895	4,865	78,794
	Employee	55	1,535	3,308	1,888	329	322	7,217
	Cargo/Ancillary	297	3,303	8,792	5,848	2,182	759	22,181
	Collateral	416	2,841	7,177	3,211	2,133	257	16,035
	Subtotal Airport	2,121	12,678	36,967	29,719	36,639	6,203	124,227
	Background	10,390	68,600	187,876	103,347	44,109	20,314	434,436
	Total	12,611	81,278	224,643	133,066	80,648	26,517	558,663
Remaining LA County (Basin)	Passenger	2,579	23,425	93,013	80,575	35,267	10,709	245,571
	Employee	306	3,163	13,703	11,216	3,162	725	32,275
	Cargo/Ancillary	2,585	13,028	36,480	38,419	18,753	33,237	142,482
	Collateral	214	2,010	6,678	4,650	1,740	465	15,757
	Subtotal Airport	5,684	41,626	149,874	134,863	58,922	46,136	436,085
	Background	280,301	1,807,583	6,741,073	3,241,292	1,622,241	616,425	14,308,915
	Total	285,985	1,849,209	6,890,947	3,376,155	1,681,163	661,561	14,745,000
Orange County *	Passenger							47,272
	Employee							7,042
	Cargo/Ancillary							14,102
	Collateral							1,438
	Subtotal Airport							69,854
San Bernardino County *	Passenger							3,725
	Employee							391
	Cargo/Ancillary							15,059
	Collateral							195
	Subtotal Airport							19,370
Riverside County *	Passenger							8,032
	Employee							1,119
	Cargo/Ancillary							3,676
	Collateral							773
	Subtotal Airport							13,600
Subtotal SCAB *	Passenger							383,394
	Employee							48,044
	Cargo/Ancillary							197,500
	Collateral							34,198
	Subtotal Airport							663,136
	Background							22,557,870
	Total							23,221,006
Palmdale/Lancaster	Passenger							897
	Employee							0
	Cargo/Ancillary							0
	Collateral							235
	Subtotal Airport							1,132
Ventura County *	Passenger							13,034
	Employee							319
	Cargo/Ancillary							351
	Collateral							142
	Subtotal Airport							13,846
Total Model Area *	Passenger							387,325
	Employee							48,363
	Cargo/Ancillary							197,851
	Collateral							34,575
	Airport Total							678,114

* Detailed information not available

VMT

Phase 3F: 2015 Alternative B - AP

		00-10MPH	10-20MPH	20-30MPH	30-40MPH	40-50MPH	50-60MPH	TOTAL
Tier 1								
	Passenger	2,113	11,715	28,895	27,438	37,131	2,586	109,878
	Employee	175	1,600	3,582	1,320	369	26	7,072
	Cargo/Ancillary	651	5,067	13,110	5,720	1,812	498	28,888
	Collateral	532	1,370	3,893	997	889	206	7,887
	Subtotal Airport	3,471	19,762	49,480	35,475	40,201	3,316	151,725
	Background	12,685	64,769	185,476	46,768	39,788	17,472	396,958
	Total	16,156	84,571	234,956	82,243	79,989	20,788	518,683
Remaining LA County (Basin)								
	Passenger	3,165	20,652	114,717	125,739	56,109	14,133	334,515
	Employee	322	1,984	12,018	13,028	3,393	829	31,574
	Cargo/Ancillary	4,135	10,759	39,022	45,577	41,773	30,523	171,889
	Collateral	70	962	3,606	2,931	1,313	258	9,160
	Subtotal Airport	7,692	34,377	169,363	187,375	102,588	46,743	547,138
	Background	256,121	1,395,834	6,363,910	3,051,868	1,867,880	656,312	13,601,725
	Total	263,813	1,420,211	6,533,273	3,239,043	1,990,468	702,065	14,148,863
Orange County *								
	Passenger							62,561
	Employee							8,785
	Cargo/Ancillary							15,766
	Collateral							941
	Subtotal Airport							86,053
San Bernardino County *								
	Passenger							5,387
	Employee							362
	Cargo/Ancillary							19,990
	Collateral							186
	Subtotal Airport							25,927
Riverside County *								
	Passenger							9,309
	Employee							608
	Cargo/Ancillary							3,048
	Collateral							466
	Subtotal Airport							13,631
Subtotal SCAB *								
	Passenger							521,650
	Employee							46,611
	Cargo/Ancillary							237,581
	Collateral							18,642
	Subtotal Airport							824,484
	Background							20,802,039
	Total							21,626,523
Palmdale/Lancaster								
	Passenger							1,244
	Employee							0
	Cargo/Ancillary							0
	Collateral							118
	Subtotal Airport							1,362
Ventura County *								
	Passenger							17,403
	Employee							316
	Cargo/Ancillary							375
	Collateral							83
	Subtotal Airport							18,177
Total Model Area *								
	Passenger							540,297
	Employee							46,927
	Cargo/Ancillary							237,956
	Collateral							18,843
	Airport Total							844,023

* Detailed information not available

VMT

Phase 3F: 2015 Alternative B - 24 hr

	00-10MPH	10-20MPH	20-30MPH	30-40MPH	40-50MPH	50-60MPH	TOTAL
Tier 1							
Passenger	25,822	114,885	323,551	322,213	540,641	72,531	1,399,742
Employee	3,288	48,518	113,775	51,537	18,617	5,361	239,084
Cargo/Ancillary	8,586	80,936	224,417	130,295	52,535	15,584	512,352
Collateral	7,086	24,344	89,112	29,140	22,398	2,328	154,416
Subtotal Airport	44,799	268,783	730,855	533,185	632,188	95,805	2,305,615
Background							
Total	44,799	268,783	730,855	533,185	632,188	95,805	2,305,615
Remaining LA County (Basin)							
Passenger	45,377	309,400	1,509,592	1,443,910	711,794	317,212	4,337,284
Employee	11,433	84,060	408,502	372,538	140,715	48,041	1,065,289
Cargo/Ancillary	77,888	245,937	776,081	771,277	691,273	727,928	3,290,484
Collateral	1,884	16,684	58,068	41,640	19,424	8,792	147,492
Subtotal Airport	136,682	656,081	2,753,243	2,629,385	1,563,205	1,101,973	8,840,649
Background							
Total	136,682	656,081	2,753,243	2,629,385	1,563,205	1,101,973	8,840,649
Orange County *							
Passenger							814,755
Employee							227,661
Cargo/Ancillary							298,987
Collateral							12,844
Subtotal Airport							1,354,328
San Bernardino County *							
Passenger							71,781
Employee							12,321
Cargo/Ancillary							378,249
Collateral							2,416
Subtotal Airport							464,766
Background							
Total							
Riverside County *							
Passenger							125,283
Employee							31,102
Cargo/Ancillary							64,153
Collateral							6,464
Subtotal Airport							227,002
Subtotal SCAB *							
Passenger							6,748,846
Employee							1,575,487
Cargo/Ancillary							4,544,215
Collateral							323,732
Subtotal Airport							13,192,260
Background							
Total							13,192,260
Palmdale/Lancaster							
Passenger							16,027
Employee							0
Cargo/Ancillary							0
Collateral							2,224
Subtotal Airport							18,251
Background							
Total							18,251
Ventura County *							
Passenger							228,239
Employee							10,667
Cargo/Ancillary							7,370
Collateral							1,176
Subtotal Airport							247,452
Total Model Area *							
Passenger							6,993,112
Employee							1,586,135
Cargo/Ancillary							4,551,585
Collateral							327,132
Airport Total							13,457,983

* Detailed information not available

VMT

Phase 3F: 2015 Alternative C - AM

	00-10MPH	10-20MPH	20-30MPH	30-40MPH	40-50MPH	50-60MPH	TOTAL
Tier 1							
Passenger	1,121	6,890	12,893	13,216	26,931	4,090	65,141
Employee	93	1,318	3,571	2,156	984	206	8,307
Cargo/Ancillary	546	3,489	7,283	7,629	5,419	533	24,899
Collateral	1,083	2,916	5,596	3,322	2,284	96	15,297
Subtotal Airport	2,843	14,613	29,343	26,323	35,598	4,924	113,644
Background	8,538	49,732	156,410	84,360	61,655	19,023	379,818
Total	11,481	64,345	185,753	110,683	97,253	23,947	493,462
Remaining LA County (Basin)							
Passenger	2,523	12,487	66,981	58,813	41,791	31,944	212,339
Employee	411	2,600	11,527	9,477	6,172	2,529	32,716
Cargo/Ancillary	4,515	11,513	36,190	29,373	40,027	37,704	159,322
Collateral	191	1,162	4,507	2,898	1,848	1,327	11,933
Subtotal Airport	7,640	27,762	119,205	98,361	89,838	73,604	416,310
Background	265,330	1,168,304	5,646,879	2,520,601	1,538,847	1,080,828	12,222,789
Total	272,970	1,196,066	5,766,084	2,619,062	1,628,686	1,154,332	12,639,099
Orange County *							
Passenger							39,006
Employee							6,848
Cargo/Ancillary							13,094
Collateral							868
Subtotal Airport							59,816
San Bernardino County *							
Passenger							4,037
Employee							367
Cargo/Ancillary							19,484
Collateral							212
Subtotal Airport							24,100
Riverside County *							
Passenger							5,414
Employee							860
Cargo/Ancillary							2,396
Collateral							390
Subtotal Airport							8,060
Subtotal SCAB *							
Passenger							325,937
Employee							49,098
Cargo/Ancillary							218,195
Collateral							28,700
Subtotal Airport							622,930
Background							19,015,537
Total							19,538,467
Palmdale/Lancaster							
Passenger							783
Employee							0
Cargo/Ancillary							0
Collateral							206
Subtotal Airport							989
Ventura County *							
Passenger							11,283
Employee							334
Cargo/Ancillary							332
Collateral							73
Subtotal Airport							12,032
Total Model Area *							
Passenger							338,013
Employee							49,432
Cargo/Ancillary							219,527
Collateral							28,979
Airport Total							635,951

* Detailed information not available

VMT

Phase 3F: 2015 Alternative C - PM

	00-10MPH	10-20MPH	20-30MPH	30-40MPH	40-50MPH	50-60MPH	TOTAL
Tier 1							
Passenger	1,946	7,574	11,662	18,616	24,423	5,428	69,649
Employee	120	1,286	2,886	1,584	1,206	268	7,448
Cargo/Ancillary	407	2,832	5,358	5,578	5,006	1,106	20,286
Collateral	568	3,312	6,795	3,485	2,334	257	16,751
Subtotal Airport	3,041	15,004	26,701	29,363	32,969	7,059	114,134
Background	9,157	67,062	177,129	116,693	51,204	22,631	443,896
Total	12,198	82,066	203,830	146,056	84,173	29,690	658,030
Remaining LA County (Basin)							
Passenger	2,762	21,042	82,667	74,132	31,555	11,162	233,320
Employee	333	2,940	13,276	9,985	2,590	806	29,930
Cargo/Ancillary	2,350	11,472	33,715	33,015	16,919	30,647	128,116
Collateral	231	1,956	6,777	4,834	1,641	603	15,542
Subtotal Airport	5,676	37,410	146,435	121,796	52,705	43,218	407,210
Background	292,903	1,721,336	6,859,081	3,208,277	1,615,628	632,719	14,329,947
Total	298,579	1,758,746	7,005,516	3,330,043	1,668,334	675,937	14,737,167
Orange County *							
Passenger							44,738
Employee							8,574
Cargo/Ancillary							11,937
Collateral							1,418
Subtotal Airport							66,667
San Bernardino County *							
Passenger							3,613
Employee							360
Cargo/Ancillary							13,923
Collateral							226
Subtotal Airport							18,122
Riverside County *							
Passenger							7,787
Employee							1,198
Cargo/Ancillary							3,021
Collateral							745
Subtotal Airport							12,751
Subtotal SCAB *							
Passenger							359,107
Employee							45,510
Cargo/Ancillary							177,285
Collateral							34,982
Subtotal Airport							616,884
Background							22,665,658
Total							23,172,442
Palmdale/Lancaster							
Passenger							849
Employee							0
Cargo/Ancillary							0
Collateral							230
Subtotal Airport							1,079
Ventura County *							
Passenger							12,363
Employee							293
Cargo/Ancillary							300
Collateral							143
Subtotal Airport							13,099
Total Model Area *							
Passenger							372,319
Employee							45,803
Cargo/Ancillary							177,585
Collateral							35,355
Airport Total							631,062

* Detailed information not available

VMT

Phase 3F: 2015 Alternative C - Airport Peak

		00-10MPH	10-20MPH	20-30MPH	30-40MPH	40-50MPH	50-60MPH	TOTAL
Tier 1								
	Passenger	3,579	11,190	21,071	30,825	30,334	2,498	99,897
	Employee	279	1,458	4,132	1,879	399	206	8,351
	Cargo/Ancillary	736	4,029	8,951	7,312	2,631	576	24,236
	Collateral	442	1,490	3,963	1,244	1,122	133	8,394
	Subtotal Airport	5,336	18,166	38,117	41,360	34,486	3,413	140,877
	Background	12,602	57,977	179,577	64,238	36,345	23,908	374,647
	Total	17,938	76,142	217,694	105,598	70,831	27,321	615,524
Remaining LA County (Basin)								
	Passenger	2,974	19,270	106,326	120,171	50,593	13,332	312,686
	Employee	346	2,108	12,668	14,266	3,584	643	33,925
	Cargo/Ancillary	3,886	9,437	33,915	42,771	36,119	28,376	154,503
	Collateral	68	986	3,588	2,976	1,275	260	9,153
	Subtotal Airport	7,274	31,801	156,497	180,184	91,560	42,911	510,247
	Background	254,101	1,429,660	6,337,104	3,016,683	1,902,678	666,727	13,606,963
	Total	261,375	1,461,461	6,493,601	3,196,777	1,994,238	709,638	14,117,110
Orange County *								
	Passenger							58,401
	Employee							7,349
	Cargo/Ancillary							13,021
	Collateral							937
	Subtotal Airport							79,708
San Bernardino County *								
	Passenger							5,389
	Employee							389
	Cargo/Ancillary							18,963
	Collateral							181
	Subtotal Airport							24,932
Riverside County *								
	Passenger							8,297
	Employee							850
	Cargo/Ancillary							1,657
	Collateral							483
	Subtotal Airport							11,287
Subtotal SCAB *								
	Passenger							484,650
	Employee							50,864
	Cargo/Ancillary							212,379
	Collateral							19,138
	Subtotal Airport							767,031
	Background							20,799,166
	Total							21,566,197
Palmdale/Lancaster								
	Passenger							1,181
	Employee							0
	Cargo/Ancillary							0
	Collateral							118
	Subtotal Airport							1,279
Ventura County *								
	Passenger							16,311
	Employee							337
	Cargo/Ancillary							311
	Collateral							82
	Subtotal Airport							17,041
Total Model Area *								
	Passenger							502,122
	Employee							51,201
	Cargo/Ancillary							212,690
	Collateral							19,338
	Airport Total							785,351

* Detailed information not available

VMT

Phase 3F: 2015 Alternative C - 24 hr

	00-10MPH	10-20MPH	20-30MPH	30-40MPH	40-50MPH	50-60MPH	TOTAL
Tier 1							
Passenger	38,898	143,662	255,506	351,439	467,453	67,290	1,314,247
Employee	5,461	46,066	117,538	63,481	28,516	7,515	287,577
Cargo/Ancillary	11,316	69,345	144,666	137,477	87,475	14,834	485,114
Collateral	8,372	30,872	65,416	32,204	22,960	1,944	161,768
Subtotal Airport	64,047	289,945	583,126	584,601	596,404	91,682	2,208,706
Background							
Total	64,047	289,945	583,126	584,601	596,404	91,682	2,208,706
Remaining LA County (Basin)							
Passenger	46,250	295,874	1,489,454	1,405,130	894,058	316,053	4,246,620
Employee	12,099	84,893	415,928	374,381	137,152	47,486	1,071,938
Cargo/Ancillary	72,032	217,227	695,594	704,565	623,529	648,071	2,961,018
Collateral	1,960	16,416	58,488	42,032	19,056	8,760	147,712
Subtotal Airport	132,341	614,211	2,660,465	2,626,108	1,473,795	1,020,370	8,427,288
Background							
Total	132,341	614,211	2,660,465	2,626,108	1,473,795	1,020,370	8,427,288
Orange County *							
Passenger							796,012
Employee							230,558
Cargo/Ancillary							254,948
Collateral							12,892
Subtotal Airport							1,294,411
San Bernardino County *							
Passenger							73,018
Employee							12,388
Cargo/Ancillary							350,879
Collateral							2,516
Subtotal Airport							438,801
Background							
Total							
Riverside County *							
Passenger							120,366
Employee							32,279
Cargo/Ancillary							47,396
Collateral							6,392
Subtotal Airport							5,227
Subtotal SCAB *							
Passenger							6,550,286
Employee							1,614,739
Cargo/Ancillary							4,079,355
Collateral							331,280
Subtotal Airport							12,575,661
Total							12,575,661
Palmdale/Lancaster							
Passenger							15,641
Employee							0
Cargo/Ancillary							0
Collateral							2,216
Subtotal Airport							17,857
Background							
Total							
Ventura County *							
Passenger							223,815
Employee							10,700
Cargo/Ancillary							6,318
Collateral							1,192
Subtotal Airport							242,025
Total Model Area *							
Passenger							6,799,742
Employee							1,625,440
Cargo/Ancillary							4,085,873
Collateral							334,688
Airport Total							12,536,543

* Detailed information not available

Attachment R

Market Penetration for Alternative-Fueled, On-Road Vehicles

LEV1 Standards

Technology Group Sales Fractions					
Vehicle Model Year	\$d.	TLEV	LEV	ULEV	ZEV
1995	0.85	0.15	0.00	0.00	0.00
1996	0.60	0.20	0.00	0.00	0.00
1997	0.73	0.00	0.25	0.02	0.00
1998	0.48	0.00	0.48	0.02	0.02
1999	0.23	0.00	0.73	0.02	0.02
2000	0.00	0.00	0.96	0.02	0.02
2001	0.00	0.00	0.90	0.05	0.05
2002	0.00	0.00	0.85	0.10	0.05
2003	0.00	0.00	0.75	0.15	0.10
2050	0.00	0.00	0.75	0.15	0.10

Transitional low-emission vehicle (TLEV) means any vehicle certified to transitional low-emission standards.
 Low-emission vehicle (LEV) means any vehicle certified to low-emission standards.
 Ultra-low-emission vehicle (ULEV) means any vehicle certified to ultra-low emission standards.
 Zero-emission vehicle (ZEV) means any vehicle certified to zero-emission standards.

EMFAC 2000 TECHNOLOGY GROUP SALES FRACTIONS

VEHICLE MODEL YEAR	STD.	TLEV ²	2001 PC & LDT (TLEV)	PC & LDT (LEV, ULEV, ULEV)	MDV (LEV, ULEV, ULEV)	PC & LDT1 (LEV1)	LDT2 (heavier) (LEV 1)	MDV (LEV)	MDV (ULEV)	MDV TIER 1	LEV	ULEV	MY FUEL EVAP EMISSIONS	RUNNING GROSS AND USEFUL LIFE	LEV	ULEV	SULEV	ZEV ¹
1995	85	15												10	0	0	0	0
1996	80	20												30	0	0	0	0
1997	75	0												50	25	2	2	2
1998	48	0													48	2	2	2
1999	23	0													73	2	2	2
2000	0	0													96	2	2	2
2001	0	0	25	25											90	5	5	5
2002	0	0	50	50	25										85	10	10	10
2003	0	0	85	85	100	25	25	25	25	25	100	100	40		75	15		
2004	0	0	100	100	100	50	50	50	50	50	100	100	100					
2005	0	0				100	100	100	100	100			100					
2006	0	0																
2007	0	0																
2050	0	0																10

1) In 1996, the ZEV requirements prior to the year 2003 were cancelled. The ZEV requirements are flexible with partial ZEV "allowances".

2) TLEV is eliminated after the year 2003

EMFAC 2000 TECHNOLOGY GROUP SALES FRACTIONS

TLEV, LEV, ULEV, ZEV

VEHICLE MODEL YEAR	STD.	TLEV	2001 PC & LDT (TLEV)	PC & LDT (LEV, ULEV)	PC & LDT1 (LEV II)	MV FUEL EVAP. EMISSIO NS	RUNNIN G LOSS AND USEFUL LIFE	LEV	ULEV	ZEV ¹
1995	85	15					10	0	0	0
1996	80	20					30	0	0	0
1997	73	0					50	25	2	0
1998	48	0						48	2	2
1999	23	0						73	2	2
2000	0	0						96	2	2
2001	0	0	25	25				90	5	8
2002	0	0	50	50				85	10	8
2003	0	0	85	85				75	15	10
2004			100	100	25	40				
2005					50	80				
2006					75	100				
2007					100					
2050	0	0						75	15	10

1) In 1996, the ZEV requirements prior to the year 2003 were cancelled.

EMFAC 2000 TECHNOLOGY GROUP SALES FRACTIONS

VEHICLE MODEL YEAR	STD.	TLEV	2001 PC & LDT (TLEV)	PC & LDT (LEV, ULEV)	PC & LDT1 (LEV II)	LDT2 (LEV II)	MV FUEL EVAP. EMISSIO NS	RUNNIN G LOSS AND USEFUL LIFE	LEV	ULEV	ZEV ¹
1995	85	15							10	0	0
1996	80	20							30	0	0
1997	73	0							50	25	2
1998	48	0								48	2
1999	23	0								73	2
2000	0	0								96	2
2001	0	0	25	25						90	5
2002	0	0	50	50						85	10
2003	0	0	85	85						75	15
2004			100	100	25	25	40				
2005					50	50	80				
2006					75	75	100				
2007					100	100					
2050	0	0								75	15

1) In 1996, the ZEV requirements prior to the year 2003 were cancelled.

EMFAC 2000 TECHNOLOGY GROUP SALES FRACTIONS

LEV, ULEV, SULEV, ZEV

VEHICLE MODEL YEAR	STD.	MDV (LEV, ULEV, SULEV)	MDV (LEV)	(ULEV)	MDV TIER 1	LEV	ULEV	MY FUEL EVAP. EMISSIO NS	RUNNIN G LOSS AND USEFUL LIFE	LEV	ULEV	ZEV ¹
1996	85								10	0	0	0
1996	80								30	0	0	0
1997	73								50	25	2	0
1998	48									48	2	2
1999	23									73	2	2
2000	0									88	2	2
2001	0		80	20	100					90	5	5
2002	0		70	30		100				85	10	4
2003	0	25	80	40		100				75	15	10
2004		50	40	60			100	40				
2005		100						80				
2006								100				
2007												
2050	0									75	15	10

1) In 1996, the ZEV requirements prior to the year 2003 were cancelled.

Attachment S

Meteorological Data Used in Dispersion Modeling

BOOK	TEMP	WD	WS	STAR	BOOK	TEMP	WD	WS	STAR	BOOK	TEMP	WD	WS	STAR
1	61.16	1	1.5	6	105	55.58	349	3.1	4	209	60.26	251	4.6	4
2	61.16	358	1.5	6	106	55.4	118	3.6	4	210	55.58	274	5.1	5
3	60.62	4	1.5	6	107	52.52	228	2.6	4	211	55.58	266	5.1	5
4	60.62	3	1.5	6	108	55.58	189	3.1	4	212	55.58	271	5.1	5
5	59.72	283	2.6	5	109	58.28	178	3.1	4	213	55.58	269	5.1	6
6	59.9	312	1.5	6	110	58.1	240	4.6	3	214	55.58	270	5.1	5
7	58.82	315	2.1	5	111	56.3	245	5.1	3	215	55.58	274	5.1	6
8	59.9	313	1.5	6	112	57.2	248	8.2	4	216	53.6	95	2.6	5
9	60.44	307	1.5	3	113	58.82	269	8.2	4	217	53.06	91	2.1	5
10	63.32	311	2.1	4	114	57.02	316	8.2	4	218	51.26	103	3.1	6
11	65.84	104	3.1	4	115	54.68	317	8.2	4	219	50.36	90	3.1	5
12	67.64	96	2.1	4	116	53.96	357	6.7	4	220	50.36	115	3.1	5
13	64.58	253	5.7	4	117	53.42	12	7.7	4	221	50.36	88	2.1	6
14	62.78	249	5.7	4	118	52.88	330	7.7	4	222	49.82	265	2.1	6
15	62.78	262	4.6	4	119	53.06	338	9.3	4	223	49.82	264	2.1	6
16	61.34	274	3.6	4	120	52.88	342	8.7	4	224	49.82	264	2.1	6
17	61.34	251	2.6	4	121	51.62	326	8.2	4	225	49.82	256	3.1	4
18	61.52	197	1.5	4	122	50.72	343	6.7	4	226	50.18	262	2.6	4
19	61.52	134	2.1	5	123	50.54	345	6.2	4	227	51.44	91	3.1	4
20	61.34	107	3.1	5	124	50.72	343	5.1	5	228	55.4	273	1	3
21	61.52	80	3.1	5	125	52.16	2	7.2	5	229	57.2	255	3.1	4
22	61.34	69	1	6	126	52.52	6	7.2	4	230	58.28	236	3.6	4
23	61.34	120	2.1	5	127	51.98	18	9.3	4	231	58.1	236	4.1	4
24	61.52	110	2.6	5	128	50.36	2	6.7	4	232	57.56	228	4.6	4
25	61.34	126	2.1	5	129	53.42	358	8.2	4	233	55.76	238	4.6	4
26	61.34	132	2.1	5	130	55.4	28	7.2	4	234	54.86	237	3.1	5
27	61.16	112	2.6	5	131	57.92	25	10.3	4	235	53.06	253	4.1	4
28	61.16	110	2.6	5	132	58.28	16	8.7	4	236	52.52	249	3.1	5
29	61.16	106	2.6	5	133	60.44	1	8.7	4	237	53.6	245	3.1	5
30	61.16	107	2.6	5	134	60.44	25	10.3	4	238	54.32	222	2.1	5
31	61.16	109	2.6	5	135	60.44	22	10.3	4	239	54.14	158	2.6	5
32	61.16	106	2.6	5	136	61.88	52	8.2	4	240	54.32	101	1.5	6
33	60.44	110	1.5	3	137	61.34	62	6.7	4	241	51.8	50	1.5	6
34	60.8	101	3.6	3	138	60.62	45	6.2	4	242	51.8	94	4.1	6
35	61.7	115	3.1	3	139	57.56	338	7.2	4	243	49.1	83	3.1	6
36	62.06	101	3.6	3	140	55.76	11	3.6	5	244	49.46	54	3.6	5
37	62.06	99	3.6	3	141	54.86	352	7.7	4	245	49.28	73	3.6	5
38	61.88	187	2.6	3	142	53.78	326	5.7	4	246	49.28	74	3.6	5
39	61.34	220	3.1	4	143	53.96	342	4.6	5	247	47.84	62	3.6	5
40	61.7	204	3.6	4	144	54.32	346	6.2	4	248	49.1	61	3.1	4
41	62.24	208	2.6	4	145	54.68	8	3.6	5	249	50.72	52	3.1	4
42	61.7	226	1	6	146	54.14	343	3.6	5	250	52.7	95	3.6	4
43	61.88	122	1.5	6	147	51.8	230	3.1	6	251	53.6	77	3.6	4
44	60.62	245	3.1	5	148	55.76	235	2.6	6	252	55.22	90	4.1	4
45	61.34	134	3.1	5	149	51.98	253	5.7	4	253	57.38	95	2.6	4
46	61.16	135	2.6	5	150	52.34	116	4.6	5	254	57.56	184	2.6	4
47	60.44	207	6.7	4	151	47.48	69	2.1	6	255	57.74	257	4.6	4
48	59.9	218	5.1	4	152	45.68	44	2.1	4	256	57.38	261	4.6	4
49	59.72	170	3.1	5	153	51.26	350	2.1	4	257	55.94	243	4.6	4
50	60.08	186	2.6	5	154	57.74	354	2.1	3	258	53.78	246	5.1	4
51	60.26	224	3.1	5	155	59.54	250	1	2	259	54.5	249	4.1	4
52	60.08	240	4.6	4	156	64.22	92	1	2	260	53.24	254	3.6	4
53	59.9	237	4.6	4	157	65.84	181	2.6	3	261	52.7	246	3.6	4
54	59.54	249	4.1	4	158	65.84	246	3.1	3	262	52.88	246	2.6	4
55	58.64	245	5.1	4	159	62.06	237	5.7	4	263	52.16	251	4.1	4
56	58.64	249	5.1	4	160	64.58	235	5.1	3	264	53.96	49	2.6	4
57	58.28	238	4.6	4	161	64.58	234	5.1	3	265	53.06	98	3.6	4
58	58.28	244	4.6	4	162	59.9	194	2.6	5	266	53.42	109	2.6	4
59	61.16	272	3.1	4	163	57.92	191	2.1	5	267	52.7	94	2.6	4
60	60.26	248	6.2	4	164	56.66	192	2.1	5	268	52.7	106	2.6	4
61	62.6	261	6.7	4	165	56.66	48	3.1	5	269	52.88	97	4.6	4
62	62.6	262	6.7	4	166	54.86	92	4.6	4	270	53.06	108	4.1	4
63	65.12	247	5.1	3	167	51.98	91	4.6	4	271	52.7	68	2.6	5
64	62.06	260	7.2	4	168	52.16	85	4.6	4	272	52.7	262	4.6	4
65	60.26	249	6.2	4	169	52.88	49	3.6	4	273	51.98	253	3.1	4
66	60.26	271	6.2	4	170	49.64	91	4.1	4	274	51.8	101	3.1	4
67	60.98	257	4.6	4	171	48.38	58	3.6	4	275	51.62	118	3.6	4
68	60.98	258	4.6	5	172	46.4	75	3.1	4	276	51.26	179	4.1	4
69	61.34	327	4.6	5	173	48.38	37	4.1	4	277	51.26	248	4.1	4
70	60.98	299	4.1	4	174	47.3	55	2.6	4	278	51.26	88	3.1	4
71	59.36	301	1.5	6	175	47.66	105	2.1	4	279	52.52	91	2.1	4
72	55.58	77	3.6	6	176	47.3	71	3.1	4	280	52.7	359	1	3
73	54.68	76	4.1	6	177	48.56	90	4.1	4	281	53.24	356	1.5	3
74	55.4	86	3.6	6	178	54.32	30	3.6	4	282	52.88	359	1.5	6
75	55.22	88	2.6	6	179	57.2	119	2.6	4	283	52.34	112	3.1	5
76	55.76	49	3.6	6	180	61.16	127	2.1	4	284	51.98	115	4.1	4
77	54.68	81	3.6	6	181	64.76	149	4.1	4	285	51.62	86	4.1	4
78	54.5	52	3.1	6	182	65.48	214	5.1	3	286	51.08	87	4.6	4
79	53.24	46	3.6	6	183	62.42	232	5.1	3	287	51.8	185	3.6	5
80	53.6	58	3.1	4	184	60.8	239	4.1	3	288	51.44	320	8.2	4
81	55.4	86	4.1	4	185	58.28	248	4.6	4	289	49.82	89	4.1	4
82	57.92	87	4.1	4	186	56.12	240	4.6	4	290	50.72	238	4.1	4
83	58.82	87	4.6	4	187	55.04	233	4.1	4	291	51.98	3	7.2	4
84	60.26	93	3.6	4	188	53.96	232	4.1	4	292	48.38	69	2.6	5
85	61.7	95	4.1	4	189	55.04	233	4.1	4	293	48.38	74	3.1	5
86	61.88	152	4.6	4	190	54.86	228	3.1	5	294	49.46	320	5.1	4
87	61.16	151	4.1	4	191	55.04	90	2.6	5	295	49.82	247	2.1	5
88	59.72	230	5.7	4	192	53.42	104	3.1	5	296	51.8	263	8.7	4
89	59	243	4.1	4	193	53.6	95	2.6	5	297	52.16	281	7.7	4
90	59	239	4.1	4	194	53.24	36	3.1	5	298	52.16	283	7.7	4
91	59	237	4.1	4	195	52.52	16	3.1	5	299	54.68	252	9.3	4
92	59	239	4.1	4	196	51.08	54	3.1	5	300	56.12	251	8.2	4
93	59	237	4.1	4	197	49.1	86	2.6	6	301	55.76	260	11.8	4
94	56.66	199	2.6	5	198	48.38	79	2.6	6	302	55.76	257	11.8	4
95	56.66	212	2.1	5	199	47.48	103	2.6	6	303	55.04	251	8.2	4
96	57.2	228	2.1	5	200	47.84	74	3.1	4	304	54.86	256	8.2	4
97	56.48	125	1.5	6	201	49.46	70	3.1	4	305	53.06	257	8.7	4
98	56.12	134	3.6	5	202	52.7	94	3.6	4	306	51.62	274	5.1	4
99	55.58	117	1.5	5	203	55.76	91	3.6	4	307	51.44	270	5.7	4
100	55.22	120	2.1	5	204	59.54	87	2.1	4	308	50.9	266	4.1	4
101	55.4	262	5.1	4	205									

HOOR	TEMP	WD	WS	STAB	HOOR	TEMP	WD	WS	STAB	HOOR	TEMP	WD	WS	STAB
313	49.46	94	3.6	5	417	52.7	53	3.1	4	521	57.02	79	4.6	4
314	49.64	83	4.1	5	418	58.46	42	4.6	3	522	57.74	136	4.6	4
315	48.92	78	2.6	5	419	65.66	347	4.1	3	523	57.56	145	4.1	4
316	47.84	100	3.6	5	420	69.8	347	5.1	3	524	57.74	107	3.6	5
317	47.66	82	2.6	5	421	73.58	1	4.1	3	525	57.38	130	4.1	4
318	47.48	86	3.1	5	422	73.58	5	4.1	3	526	57.38	145	3.6	5
319	47.48	62	3.1	5	423	73.58	1	4.1	3	527	57.02	121	4.1	4
320	48.02	74	2.6	4	424	73.58	5	4.1	3	528	56.3	153	4.1	4
321	49.28	70	3.1	4	425	73.58	359	4.1	3	529	55.22	120	4.1	4
322	51.08	90	3.1	4	426	73.58	359	4.1	3	530	55.22	107	5.1	4
323	52.52	108	3.1	4	427	73.58	5	4.1	3	531	55.76	130	5.1	4
324	54.68	97	4.1	4	428	73.58	360	4.1	3	532	56.12	320	2.1	4
325	55.94	133	2.6	4	429	73.58	359	4.1	3	533	57.92	229	6.2	4
326	56.48	51	3.6	4	430	73.58	1	4.1	3	534	58.1	231	5.7	4
327	56.84	117	1.5	4	431	73.58	3	4.1	3	535	55.22	39	4.1	4
328	56.3	116	2.6	4	432	73.58	356	4.1	3	536	54.86	67	2.6	4
329	56.48	132	3.1	4	433	73.58	357	4.1	3	537	54.86	115	3.1	4
330	54.32	146	1.5	6	434	73.58	357	4.1	3	538	56.12	99	2.6	4
331	54.32	155	1.5	5	435	73.58	5	4.1	3	539	57.2	126	3.6	4
332	55.04	343	2.1	5	436	73.58	356	4.1	3	540	60.62	254	3.6	4
333	55.4	46	3.1	5	437	73.58	3	4.1	5	541	58.82	240	5.1	4
334	55.4	77	3.1	5	438	73.58	358	4.1	5	542	58.82	239	5.1	4
335	54.68	47	2.6	5	439	73.58	2	4.1	5	543	61.52	190	2.1	4
336	54.68	50	2.6	5	440	73.58	2	4.1	4	544	59	253	5.1	4
337	53.42	80	3.6	5	441	73.58	357	4.1	4	545	58.46	242	5.7	4
338	53.6	92	5.1	5	442	73.58	1	4.1	3	546	56.48	265	4.6	4
339	53.6	88	4.1	5	443	73.58	4	4.1	3	547	56.3	234	4.1	4
340	51.98	90	5.1	5	444	73.58	359	4.1	3	548	56.66	231	4.6	4
341	51.26	75	6.2	5	445	73.58	360	4.1	3	549	58.84	247	4.1	4
342	51.8	70	5.1	5	446	73.58	360	4.1	3	550	56.66	247	4.6	4
343	52.34	89	5.1	5	447	73.58	1	4.1	3	551	56.12	227	4.1	4
344	52.34	92	5.1	5	448	73.58	3	4.1	3	552	56.48	190	3.1	5
345	51.08	77	5.1	5	449	73.58	4	4.1	4	553	56.48	216	3.1	5
346	50.72	77	5.7	5	450	73.58	358	4.1	5	554	56.12	219	2.6	5
347	51.26	82	6.2	5	451	73.58	360	4.1	4	555	55.94	297	3.1	5
348	51.44	60	5.1	5	452	73.58	4	4.1	5	556	56.12	268	4.1	4
349	51.08	44	4.6	5	453	73.58	357	4.1	5	557	55.58	269	2.6	4
350	51.62	360	5.1	5	454	73.58	1	4.1	5	558	54.86	272	1.5	6
351	49.82	13	4.6	4	455	73.58	358	4.1	5	559	55.22	312	1	6
352	50.72	76	3.6	4	456	73.58	356	4.1	5	560	55.94	223	3.1	4
353	52.88	93	3.6	4	457	73.58	359	4.1	5	561	56.12	238	3.1	4
354	52.88	17	4.1	4	458	73.58	3	4.1	5	562	57.2	244	2.6	4
355	51.44	11	3.6	5	459	73.58	357	4.1	5	563	58.1	257	2.1	4
356	50.72	12	5.7	4	460	73.58	4	4.1	5	564	59.54	238	4.6	4
357	49.82	4	5.1	5	461	73.58	357	4.1	5	565	59.9	259	6.2	4
358	49.28	13	5.7	4	462	73.58	3	4.1	5	566	59.72	257	6.2	4
359	47.84	9	4.6	5	463	73.58	5	4.1	5	567	59.72	263	5.1	3
360	47.84	360	5.7	4	464	73.58	358	4.1	5	568	59.36	268	4.1	3
361	46.76	6	4.6	5	465	73.58	360	4.1	5	569	60.62	228	2.6	4
362	47.66	359	5.7	5	466	73.58	5	4.1	5	570	55.94	242	6.7	4
363	46.4	357	4.1	5	467	56.66	158	2.1	5	571	55.58	262	5.7	4
364	46.58	359	4.6	5	468	58.64	186	7.2	4	572	54.68	272	3.6	5
365	46.76	4	5.1	5	469	59.9	193	7.7	4	573	55.58	75	2.6	5
366	46.22	12	3.6	5	470	57.92	210	6.7	4	574	56.12	335	2.1	5
367	46.22	2	3.6	5	471	58.64	242	7.2	4	575	54.86	253	4.1	4
368	46.58	8	4.6	4	472	57.56	233	5.1	4	576	55.22	239	3.1	5
369	48.38	352	3.1	4	473	56.84	231	5.7	4	577	55.4	240	1.5	6
370	52.52	357	4.6	3	474	56.3	249	5.7	4	578	55.94	2	4.1	6
371	55.94	1	2.6	3	475	55.04	247	4.1	4	579	55.22	84	3.1	5
372	59.36	2	4.1	3	476	53.6	255	3.6	5	580	55.58	140	1	6
373	60.62	2	4.1	3	477	53.6	249	4.1	5	581	55.76	111	1.5	6
374	63.14	300	4.6	3	478	53.42	224	2.6	5	582	55.58	115	1.5	6
375	63.32	301	4.6	3	479	54.14	229	3.6	5	583	55.04	96	3.1	5
376	61.52	245	4.6	3	480	52.7	258	1.5	6	584	54.68	91	3.1	4
377	59.72	236	6.2	4	481	51.98	359	2.1	6	585	54.5	94	4.6	4
378	59.72	241	6.2	4	482	52.52	310	2.6	6	586	55.4	32	3.6	4
379	59.72	239	6.2	5	483	49.82	39	3.1	6	587	56.12	131	4.6	4
380	59.72	240	6.2	5	484	48.74	120	2.1	6	588	56.84	98	6.7	4
381	59.72	236	6.2	5	485	48.2	97	2.6	6	589	56.84	133	5.1	4
382	59.72	236	6.2	6	486	47.84	91	2.6	6	590	56.84	142	3.6	4
383	59.72	239	6.2	6	487	47.3	69	3.1	6	591	57.2	122	5.1	4
384	51.8	92	3.1	6	488	48.74	97	3.1	4	592	57.2	130	5.1	4
385	51.62	87	2.6	6	489	49.28	85	3.1	4	593	57.2	146	5.1	4
386	50.72	298	3.6	5	490	53.42	100	3.6	4	594	57.02	121	3.6	5
387	49.46	19	3.1	6	491	54.32	112	3.1	4	595	57.02	121	3.6	4
388	48.56	24	2.6	6	492	57.02	105	3.6	4	596	56.12	320	5.1	4
389	48.56	23	2.6	6	493	57.02	21	1	3	597	55.76	118	6.2	4
390	47.12	67	2.1	6	494	57.74	206	3.1	3	598	54.86	100	5.7	4
391	46.22	30	2.1	5	495	56.3	80	3.1	3	599	55.04	77	4.6	4
392	48.38	41	3.1	4	496	53.78	88	4.6	4	600	55.4	90	4.1	4
393	54.32	14	4.1	4	497	53.78	88	4.6	4	601	56.66	42	3.1	5
394	57.02	22	4.1	4	498	51.44	84	7.7	4	602	56.66	45	4.1	5
395	59.9	96	3.6	3	499	51.44	36	6.2	4	603	57.38	38	2.1	5
396	62.96	105	4.1	3	500	51.62	39	4.1	4	604	56.3	38	2.1	5
397	66.38	96	3.6	2	501	51.26	76	4.6	4	605	56.48	44	1.5	5
398	70.16	298	3.1	3	502	51.8	87	5.7	4	606	57.02	26	2.6	5
399	68	294	4.1	3	503	51.26	78	4.1	4	607	57.2	295	1	5
400	64.58	262	4.1	3	504	51.44	89	4.6	4	608	57.2	18	1	3
401	60.08	248	5.1	4	505	50.9	92	4.1	4	609	57.74	93	3.1	4
402	60.44	229	3.6	4	506	51.8	71	2.6	5	610	58.1	234	3.6	4
403	57.56	239	3.6	5	507	51.26	90	2.6	5	611	58.1	242	4.6	4
404	56.12	317	2.1	5	508	51.44	94	2.6	5	612	58.64	236	4.6	4
405	61.16	8	5.1	4	509	52.98	95	2.6	5	613	59	216	4.1	4
406	60.62	8	4.6	4	510	51.8	72	4.1	4	614	60.8	232	3.6	4
407	57.2	81	3.6	5	511	51.8	77	4.6	4	615	59.36	216	4.6	4
408	58.82	29	2.6	5	512	52.16	92	4.6	4	616	59.36	200	6.2	4
409	56.12	60	3.6	5	513	52.16	68	4.6	4	617	58.28	215	5.1	4
410	55.04	59	3.1	5	514	52.88	84	3.6	4	618	58.46	201	6.2	4
411	52.52	59	3.1	5	515	53.24	78	4.6	4	619	58.28	234	5.1	4
412	50.54	53	3.1	5	516	53.78	73	4.6	4	620	58.28	228	4.6	4

BOUR	TEMP	WD	WS	STAB	BOUR	TEMP	WD	WS	STAB	BOUR	TEMP	WD	WS	STAB
625	57.92	261	4.6	4	729	59.9	96	2.1	4	833	59	246	6.2	4
626	57.92	242	4.1	4	730	64.4	104	2.1	3	834	58.46	242	5.1	4
627	57.56	251	2.6	4	731	69.08	48	2.6	3	835	57.38	255	7.2	4
628	55.4	251	3.6	5	732	71.06	106	2.6	2	836	57.2	224	5.7	4
629	56.48	298	3.1	5	733	69.8	247	5.1	3	837	56.84	216	5.1	5
630	55.04	301	1.5	6	734	69.8	254	5.1	3	838	57.02	214	4.1	4
631	55.22	334	1	6	735	65.48	249	5.7	4	839	56.84	212	3.6	5
632	55.4	157	1	3	736	65.12	246	5.7	4	840	57.2	88	1.5	6
633	56.84	1	2.1	4	737	65.12	248	5.7	4	841	55.58	66	5.1	4
634	58.1	92	3.1	4	738	60.62	249	3.6	4	842	54.86	69	6.7	4
635	60.08	123	3.1	4	739	58.64	236	4.1	4	843	53.42	62	4.1	4
636	64.22	180	1	3	740	56.66	249	5.1	4	844	52.16	42	3.6	4
637	62.6	236	4.1	4	741	56.66	241	2.6	4	845	53.42	9	3.1	4
638	62.6	257	5.1	4	742	56.3	258	2.6	5	846	51.8	46	2.6	6
639	61.34	264	6.2	4	743	57.38	236	3.6	5	847	50.36	29	2.6	6
640	60.26	256	7.7	4	744	56.3	233	3.1	5	848	50	88	2.1	4
641	58.28	248	8.7	4	745	55.04	233	2.1	5	849	51.98	90	3.1	4
642	56.66	251	6.7	4	746	55.58	238	2.1	5	850	55.4	95	3.1	3
643	55.4	256	5.7	4	747	54.86	97	1.5	5	851	58.64	122	2.1	3
644	55.22	246	3.6	5	748	53.06	69	2.1	5	852	62.06	242	3.6	2
645	56.3	238	4.1	4	749	53.06	87	3.1	5	853	61.52	235	5.7	3
646	56.48	251	2.1	5	750	49.82	66	3.1	5	854	62.78	236	4.6	3
647	56.84	116	2.1	5	751	50.18	109	3.1	5	855	63.14	254	4.6	3
648	56.3	226	3.1	5	752	49.64	156	2.1	5	856	62.78	265	5.7	4
649	55.94	7	3.1	5	753	51.44	100	2.6	5	857	62.24	263	5.7	4
650	55.4	110	2.1	5	754	55.22	114	2.6	5	858	62.6	267	8.2	4
651	55.04	87	2.6	5	755	59.54	176	2.6	5	859	63.5	295	6.2	4
652	55.58	24	2.1	5	756	59.72	256	4.6	5	860	60.98	2	4.6	5
653	55.76	52	3.1	5	757	58.1	244	4.1	5	861	60.8	359	4.6	5
654	55.4	47	2.1	5	758	60.08	229	4.6	5	862	58.64	2	2.6	6
655	56.66	26	3.1	5	759	56.48	216	4.1	5	863	54.5	64	3.6	5
656	56.66	29	3.1	5	760	57.56	236	5.7	5	864	56.48	357	4.1	5
657	58.1	319	3.1	4	761	57.38	228	4.1	4	865	51.8	78	4.1	5
658	62.6	4	3.1	4	762	56.84	242	4.1	4	866	51.62	43	4.1	5
659	67.64	34	3.1	4	763	55.58	256	5.1	4	867	50.18	50	3.6	5
660	69.62	26	1.5	4	764	55.76	249	3.1	5	868	51.8	46	4.1	5
661	72.68	248	4.1	3	765	56.12	225	3.6	5	869	50.18	78	3.1	5
662	63.86	265	5.7	3	766	55.76	232	2.6	5	870	52.34	47	4.1	5
663	65.48	251	6.2	4	767	56.3	231	3.1	5	871	50.72	44	4.6	4
664	67.1	242	4.6	3	768	55.76	172	2.1	5	872	51.44	39	4.6	4
665	66.92	221	3.1	4	769	55.4	92	4.1	4	873	52.52	84	2.6	3
666	61.52	238	4.6	4	770	56.3	85	3.6	4	874	56.66	88	3.1	3
667	59.9	248	3.1	4	771	56.3	123	3.1	4	875	59.18	58	3.6	3
668	60.62	210	2.6	5	772	55.94	95	3.6	4	876	61.88	56	3.6	3
669	58.82	227	3.1	6	773	55.94	79	3.6	5	877	65.3	64	2.1	2
670	59.36	101	4.1	4	774	56.12	63	2.6	5	878	65.3	59	2.1	3
671	59.54	88	2.1	6	775	55.76	66	4.1	4	879	65.3	65	2.1	3
672	58.1	48	4.1	5	776	55.76	56	3.6	4	880	65.3	62	2.1	3
673	61.16	17	3.1	6	777	56.66	55	4.1	4	881	65.3	62	2.1	3
674	60.08	282	2.1	6	778	55.94	106	4.6	3	882	65.3	62	2.1	4
675	62.24	325	4.6	5	779	59.72	71	3.6	3	883	65.3	58	2.1	4
676	53.96	81	3.6	5	780	61.7	136	2.1	3	884	65.3	61	2.1	4
677	53.42	88	3.1	5	781	62.96	253	4.1	3	885	65.3	59	2.1	4
678	54.68	116	1	6	782	61.7	246	5.1	3	886	65.3	62	2.1	5
679	54.68	318	1	6	783	61.34	262	6.7	4	887	65.3	57	2.1	5
680	55.4	139	1	3	784	60.26	230	6.2	4	888	65.3	57	2.1	5
681	57.56	123	3.6	4	785	58.82	248	6.2	4	889	65.3	58	2.1	5
682	64.94	329	2.6	3	786	57.74	234	4.6	4	890	65.3	65	2.1	5
683	69.8	243	2.6	3	787	57.56	218	3.6	5	891	65.3	64	2.1	5
684	72.5	240	4.1	3	788	56.3	207	2.1	6	892	65.3	58	2.1	5
685	75.02	143	4.6	3	789	56.48	223	2.6	6	893	65.3	61	2.1	4
686	74.48	191	5.7	3	790	55.22	90	2.6	6	894	65.3	60	2.1	4
687	72.32	235	6.2	3	791	55.58	109	2.6	6	895	65.3	62	2.1	6
688	72.5	234	5.7	4	792	54.5	113	3.1	6	896	65.3	64	2.1	6
689	73.22	210	6.2	4	793	53.06	61	2.1	6	897	65.3	64	2.1	6
690	70.52	207	4.1	4	794	51.98	115	2.1	6	898	58.64	43	4.1	3
691	67.28	223	4.1	5	795	51.44	46	2.1	6	899	60.26	68	5.1	3
692	62.78	247	4.6	5	796	50.9	58	2.1	6	900	62.78	21	4.1	4
693	65.12	89	2.1	6	797	49.82	41	1	6	901	66.74	332	3.6	3
694	61.7	72	2.6	6	798	49.82	63	1	6	902	64.22	240	4.1	3
695	64.04	94	3.6	5	799	49.64	320	2.1	6	903	62.78	241	5.1	3
696	62.24	348	2.6	6	800	50	32	2.1	4	904	61.7	251	5.1	3
697	60.8	162	1	6	801	52.16	354	2.1	4	905	60.62	254	5.7	4
698	56.12	102	2.6	6	802	57.56	353	2.6	4	906	58.1	263	5.1	4
699	55.04	317	1.5	6	803	61.7	315	2.1	4	907	55.58	258	4.6	4
700	53.42	340	1	6	804	64.76	30	1.5	2	908	55.94	245	4.1	5
701	54.5	320	2.1	6	805	65.84	238	5.1	3	909	54.86	240	4.1	5
702	55.58	358	1.5	6	806	62.78	238	5.1	3	910	54.5	245	4.1	5
703	56.84	122	1.5	6	807	62.06	252	5.7	4	911	54.14	233	2.6	6
704	52.7	125	1.5	3	808	60.62	247	6.2	4	912	53.6	84	2.6	6
705	54.5	37	3.1	4	809	58.82	237	7.2	4	913	52.7	110	4.1	4
706	60.98	62	2.1	4	810	56.84	275	6.2	4	914	51.08	81	3.1	4
707	66.38	2	2.6	4	811	55.58	246	6.2	4	915	51.08	185	1	4
708	69.62	79	3.1	2	812	55.58	252	6.2	4	916	50.18	261	2.1	4
709	73.58	84	1.5	2	813	55.76	243	4.1	4	917	50.18	260	2.1	4
710	75.92	80	1.5	2	814	55.58	98	4.1	4	918	47.3	72	2.6	5
711	75.92	238	4.1	3	815	55.76	203	2.6	5	919	48.92	101	3.1	5
712	68.72	273	5.1	3	816	55.4	205	2.1	5	920	47.66	65	3.1	4
713	66.74	252	4.6	4	817	51.8	87	2.6	5	921	50	21	2.6	4
714	63.86	251	4.6	4	818	51.62	17	2.1	5	922	53.42	74	2.6	3
715	62.06	244	3.1	6	819	50.18	46	3.1	5	923	53.42	66	2.6	4
716	62.96	243	2.1	6	820	48.92	75	2.6	5	924	60.08	203	2.6	4
717	62.78	335	1	6	821	48.92	72	2.6	5	925	60.44	234	4.6	3
718	61.88	248	1	6	822	48.92	68	2.6	4	926	59.72	262	5.7	4
719	62.6	1	2.1	6	823	48.92	67	2.6	5	927	59.18	252	5.1	4
720	61.7	128	3.1	6	824	48.92	69	2.6	4	928	58.46	263	6.2	4
721	59.9	54	2.6	6	825	48.92	74	2.6	4	929	57.2	248	6.2	4
722	60.8	28	2.1	6	826	48.92	66	2.6	3	930	55.58	249	5.1	4
723	59.9	22	4.1	5	827	59.36	65	2.1	3	931	53.24	245	3.6	5
724	57.02	51	2.1	6	828	62.78	333	2.6	3	932	54.68	217	3.6	5
725														

HOOR	TEMP	WD	WS	SEAS	HOOR	TEMP	WD	WS	SEAS	HOOR	TEMP	WD	WS	SEAS
937	52.34	99	3.1	6	1041	52.88	89	2.6	3	1145	53.42	349	7.2	4
938	50.72	104	2.1	6	1042	57.74	91	2.1	3	1146	55.04	249	7.2	4
939	50.18	86	2.1	6	1043	62.24	134	4.6	3	1147	55.04	244	5.1	4
940	49.1	57	2.1	6	1044	65.12	141	3.6	2	1148	55.58	358	3.6	5
941	49.1	41	2.1	6	1045	64.76	239	6.2	4	1149	55.58	320	4.1	5
942	47.66	48	1.5	6	1046	65.84	237	5.7	3	1150	55.04	322	2.6	6
943	48.2	26	2.1	6	1047	65.84	240	6.2	4	1151	52.7	243	4.1	5
944	46.4	97	2.1	4	1048	66.2	219	5.7	4	1152	53.42	246	5.1	5
945	49.28	110	3.1	3	1049	65.3	220	8.2	4	1153	53.78	243	5.7	4
946	53.6	101	4.1	3	1050	63.68	205	6.7	4	1154	55.04	273	5.1	4
947	57.02	101	2.6	3	1051	59.9	174	5.7	4	1155	53.6	263	6.2	4
948	61.16	104	2.1	3	1052	58.28	76	1.5	4	1156	54.14	254	3.6	4
949	62.96	99	2.1	4	1053	59.18	69	3.1	6	1157	58.64	217	6.2	4
950	61.88	256	5.7	4	1054	59.54	69	3.6	5	1158	55.76	250	7.7	4
951	60.08	257	5.7	4	1055	55.76	68	3.1	6	1159	57.74	290	7.2	4
952	59.9	248	5.1	4	1056	55.94	66	2.6	6	1160	59.36	314	7.2	4
953	58.28	242	6.2	4	1057	56.12	70	2.1	6	1161	61.52	348	7.7	4
954	56.3	237	6.2	4	1058	54.32	72	2.1	6	1162	65.12	358	6.2	4
955	54.68	247	4.6	5	1059	51.8	66	1.5	6	1163	68.18	339	7.2	4
956	53.42	249	4.1	5	1060	49.64	86	1	6	1164	73.58	17	5.7	4
957	52.88	236	3.1	6	1061	49.46	358	2.6	6	1165	75.92	356	6.2	4
958	53.24	245	4.1	5	1062	48.2	5	2.1	6	1166	77.54	357	8.7	4
959	53.78	245	2.6	5	1063	48.38	360	2.1	6	1167	78.08	341	6.2	4
960	54.68	231	3.1	5	1064	50.18	94	2.6	4	1168	78.26	316	6.2	4
961	52.16	115	3.1	5	1065	56.12	93	2.1	3	1169	66.92	269	8.7	4
962	51.8	99	2.1	5	1066	60.8	93	2.1	3	1170	63.32	263	8.2	4
963	52.52	90	3.1	5	1067	67.82	88	1.5	3	1171	66.74	280	8.7	4
964	52.7	61	2.6	5	1068	70.88	234	3.1	2	1172	63.5	294	6.2	4
965	51.08	356	3.1	5	1069	73.04	252	4.1	3	1173	62.24	288	5.1	5
966	51.26	65	3.1	5	1070	71.78	237	4.6	3	1174	63.14	333	4.1	5
967	51.8	81	2.1	5	1071	66.92	275	6.7	4	1175	60.8	62	2.6	6
968	52.34	99	3.1	4	1072	66.02	263	6.7	4	1176	58.46	125	3.6	5
969	53.78	87	4.1	4	1073	64.94	263	4.1	4	1177	58.28	129	2.6	6
970	55.04	100	4.6	4	1074	62.06	246	4.1	4	1178	57.38	44	1	6
971	57.92	81	4.1	4	1075	60.26	249	3.6	5	1179	59	98	2.1	6
972	58.64	42	2.6	4	1076	59.54	237	2.1	5	1180	52.52	108	1	6
973	57.56	264	3.6	4	1077	60.26	231	3.6	5	1181	51.98	99	2.6	6
974	58.46	259	5.1	4	1078	59.18	358	1	6	1182	49.82	108	2.1	6
975	58.46	193	5.7	4	1079	57.92	68	2.6	6	1183	51.26	110	3.1	6
976	57.74	165	5.1	4	1080	59.18	93	3.1	6	1184	53.78	357	1	3
977	54.68	208	3.6	4	1081	57.92	93	2.6	5	1185	56.12	114	2.1	3
978	53.42	244	4.6	4	1082	57.92	52	3.1	5	1186	64.76	341	1.5	3
979	52.88	250	3.6	5	1083	56.48	52	1.5	6	1187	66.02	260	3.6	2
980	54.14	287	3.6	5	1084	56.66	50	2.1	5	1188	68.9	263	4.6	3
981	53.6	355	2.6	5	1085	50.54	68	3.1	5	1189	67.28	242	4.1	3
982	53.6	254	3.1	5	1086	56.66	67	2.1	5	1190	64.94	242	5.7	3
983	53.6	7	3.6	5	1087	54.68	71	2.6	5	1191	66.02	257	9.3	4
984	53.96	351	3.6	5	1088	55.04	74	1.5	3	1192	65.84	247	8.7	4
985	53.24	116	2.1	5	1089	59.72	66	2.1	3	1193	66.92	254	6.2	4
986	53.06	143	3.1	5	1090	64.04	78	2.1	3	1194	64.76	247	4.6	4
987	52.34	334	2.1	5	1091	70.52	76	2.1	3	1195	61.16	252	5.1	4
988	51.44	114	1	5	1092	77.36	85	2.1	2	1196	59.54	250	5.1	5
989	49.46	317	3.1	5	1093	78.98	78	1.5	2	1197	60.08	248	4.6	5
990	47.48	116	2.6	5	1094	78.98	182	2.6	2	1198	59.62	319	6.7	4
991	48.38	123	2.1	5	1095	79.16	278	5.1	3	1199	68.36	317	6.7	4
992	49.82	108	2.6	4	1096	77.18	326	4.1	3	1200	67.46	308	6.2	4
993	50.72	53	3.6	3	1097	68.9	254	4.1	4	1201	65.12	288	5.7	4
994	53.96	105	3.6	3	1098	69.26	256	3.6	4	1202	66.2	283	6.2	4
995	57.2	101	3.1	3	1099	71.6	265	2.1	5	1203	65.48	304	5.7	4
996	60.26	131	3.6	2	1100	66.56	266	2.6	5	1204	64.76	311	7.2	4
997	63.86	48	2.1	2	1101	65.92	281	2.1	5	1205	64.4	318	7.2	4
998	60.98	252	5.1	3	1102	63.68	244	1.5	6	1206	63.86	323	8.2	4
999	61.52	225	4.1	3	1103	66.92	90	2.6	5	1207	62.78	342	8.7	4
1000	61.16	235	4.6	3	1104	68.54	4	3.6	5	1208	62.96	345	6.7	4
1001	60.08	254	6.7	4	1105	66.56	55	3.6	5	1209	63.5	322	9.3	4
1002	59.18	227	4.1	4	1106	63.86	41	3.1	5	1210	65.3	317	8.7	4
1003	57.74	151	3.1	6	1107	64.94	72	4.1	4	1211	66.2	323	11.3	4
1004	57.74	253	2.6	6	1108	63.14	64	3.1	5	1212	68.9	322	8.7	4
1005	56.66	141	3.1	6	1109	64.22	271	1	6	1213	71.96	308	7.2	4
1006	54.86	86	5.1	5	1110	62.06	69	3.1	6	1214	74.84	360	6.7	4
1007	54.5	86	4.1	5	1111	58.64	207	1	6	1215	70.7	264	6.2	4
1008	53.6	94	4.1	5	1112	63.32	360	2.6	4	1216	70.7	256	6.2	4
1009	52.16	89	2.6	6	1113	61.34	358	2.6	4	1217	70.7	258	6.2	4
1010	53.24	19	3.6	5	1114	64.76	54	4.1	4	1218	72.68	317	6.2	4
1011	52.88	44	4.1	4	1115	68.9	85	3.1	4	1219	69.08	325	8.2	4
1012	50.54	81	3.6	5	1116	71.78	152	2.6	3	1220	66.2	321	7.7	4
1013	50.54	69	4.1	5	1117	75.38	103	1.5	2	1221	64.4	335	6.2	4
1014	49.82	92	3.1	6	1118	76.82	105	2.1	3	1222	64.04	326	6.7	4
1015	50.36	93	3.1	6	1119	66.2	236	5.1	4	1223	64.04	346	6.2	4
1016	51.62	102	3.1	4	1120	65.48	250	5.1	4	1224	62.6	350	4.6	5
1017	54.32	76	3.1	4	1121	65.3	252	4.1	4	1225	60.44	90	3.6	5
1018	54.86	92	3.6	4	1122	65.84	229	3.6	4	1226	59.18	94	3.1	5
1019	56.3	95	4.1	4	1123	62.06	232	3.6	5	1227	57.2	88	1.5	5
1020	59.18	37	3.1	4	1124	62.06	264	2.6	5	1228	53.96	98	3.1	6
1021	59.36	128	3.1	4	1125	61.52	244	2.6	5	1229	54.14	84	3.1	6
1022	59.9	1	2.6	4	1126	60.08	149	2.1	6	1230	56.12	68	2.1	6
1023	59.9	248	5.1	4	1127	57.38	101	2.1	6	1231	53.06	84	2.1	6
1024	59.36	254	5.1	4	1128	55.94	234	3.1	6	1232	55.76	76	1.5	3
1025	58.64	258	5.7	4	1129	56.48	226	2.1	6	1233	59.54	94	2.1	3
1026	55.76	262	7.2	4	1130	55.58	232	2.6	6	1234	64.22	46	4.1	3
1027	55.58	265	8.7	4	1131	52.88	293	1	6	1235	68	52	3.1	2
1028	55.76	260	6.2	4	1132	53.24	161	1	6	1236	71.06	54	4.1	3
1029	59.54	92	3.6	5	1133	53.24	316	1	6	1237	73.04	91	4.1	3
1030	59.54	345	7.7	4	1134	51.08	357	1.5	6	1238	72.68	263	4.6	3
1031	59.54	338	10.3	4	1135	49.82	115	3.1	5	1239	71.6	238	4.6	3
1032	59.18	345	6.2	4	1136	51.26	338	1	3	1240	69.98	238	6.7	4
1033	57.56	344	3.6	5	1137	54.5	20	1	3	1241	63.14	248	6.2	4
1034	57.56	15	4.6	5	1138	58.1	261	4.1	3</					

HOOR	TEMP	WD	WS	STAB	HOOR	TEMP	WD	WS	STAB	HOOR	TEMP	WD	WS	STAB
1249	56.84	126	1.5	6	1353	54.32	69	5.1	4	1457	64.04	240	7.7	4
1250	53.42	100	3.1	6	1354	56.66	71	6.2	4	1458	60.98	226	7.2	4
1251	53.42	100	3.1	6	1355	57.92	100	5.7	4	1459	59	243	5.7	4
1252	53.42	96	3.1	5	1356	60.62	100	6.7	4	1460	55.94	258	5.7	4
1253	53.42	104	3.1	5	1357	62.42	128	4.6	4	1461	55.94	235	3.6	4
1254	53.42	100	3.1	5	1358	64.4	131	2.6	4	1462	57.02	4	2.6	5
1255	53.42	105	3.1	5	1359	59.9	236	6.2	4	1463	57.02	70	2.6	5
1256	53.42	100	3.1	4	1360	61.34	252	5.1	4	1464	57.02	69	2.6	5
1257	53.42	104	3.1	3	1361	60.8	247	4.1	4	1465	55.94	59	3.6	4
1258	58.46	97	5.1	3	1362	56.3	254	6.2	4	1466	57.02	28	2.6	5
1259	61.88	104	3.6	2	1363	55.04	253	4.6	4	1467	53.96	89	3.1	5
1260	65.84	116	3.6	2	1364	55.04	254	4.1	4	1468	53.96	73	3.1	5
1261	69.62	349	3.1	2	1365	56.48	195	3.6	4	1469	55.94	45	4.1	4
1262	63.86	234	5.1	2	1366	55.58	141	2.1	5	1470	55.94	164	2.1	5
1263	61.34	254	6.2	2	1367	55.58	252	1	6	1471	55.04	99	2.6	5
1264	62.24	252	6.2	4	1368	55.58	4	1.5	6	1472	55.04	78	2.1	4
1265	60.98	273	5.7	4	1369	55.4	358	2.1	5	1473	57.92	63	3.6	4
1266	59.18	241	6.2	4	1370	55.4	237	2.1	5	1474	60.08	104	3.1	4
1267	57.38	228	4.1	5	1371	54.86	253	2.6	5	1475	62.06	137	2.6	3
1268	56.3	226	3.6	5	1372	54.86	232	2.1	5	1476	62.06	155	2.6	3
1269	55.76	226	3.1	6	1373	53.78	245	2.6	5	1477	62.06	186	3.1	3
1270	54.68	209	3.1	6	1374	53.6	244	5.7	5	1478	62.96	196	2.1	3
1271	55.4	230	1	6	1375	53.96	243	4.6	4	1479	64.94	183	1.5	2
1272	54.86	147	2.1	6	1376	53.78	253	5.1	4	1480	62.06	253	4.6	4
1273	53.6	96	3.6	5	1377	53.78	265	6.2	4	1481	60.08	242	5.1	4
1274	51.62	108	3.6	5	1378	54.68	259	6.7	4	1482	57.92	249	4.6	4
1275	52.34	60	3.1	6	1379	55.94	251	7.7	4	1483	57.02	243	2.6	5
1276	49.64	79	3.1	6	1380	57.38	239	7.2	4	1484	57.02	126	2.1	5
1277	50	61	3.1	6	1381	57.56	348	9.3	4	1485	55.94	82	4.1	4
1278	49.64	93	3.1	6	1382	57.56	255	9.3	4	1486	57.02	208	2.6	5
1279	49.28	95	3.1	6	1383	61.16	265	7.7	4	1487	57.02	141	2.6	5
1280	49.64	81	3.1	4	1384	60.62	295	10.3	4	1488	57.02	145	2.6	5
1281	52.52	82	3.1	3	1385	60.62	286	11.8	4	1489	55.94	70	3.6	4
1282	56.48	101	3.6	3	1386	57.56	271	11.8	4	1490	55.94	95	3.6	4
1283	61.34	89	1.5	2	1387	55.76	258	11.3	4	1491	55.94	93	3.6	4
1284	65.12	166	3.1	2	1388	55.76	259	11.3	4	1492	55.94	56	4.1	4
1285	64.4	236	5.1	2	1389	53.96	266	10.3	4	1493	55.94	58	4.1	4
1286	64.22	245	5.7	2	1390	54.5	305	5.1	4	1494	55.94	56	4.1	4
1287	63.32	266	5.7	3	1391	54.14	268	5.7	4	1495	53.96	47	2.6	5
1288	61.52	267	6.7	3	1392	53.96	267	7.2	4	1496	55.04	39	2.6	4
1289	60.26	266	6.2	3	1393	53.78	299	5.7	4	1497	53.96	87	5.1	4
1290	59.54	256	6.7	4	1394	53.6	279	6.2	4	1498	55.94	94	6.2	4
1291	57.02	245	6.2	4	1395	52.34	266	5.1	4	1499	55.94	90	6.2	4
1292	57.74	62	2.1	5	1396	51.8	267	5.7	4	1500	55.94	36	4.6	4
1293	58.82	72	5.1	4	1397	51.8	270	5.7	4	1501	55.94	83	6.2	4
1294	60.8	80	4.6	4	1398	50	319	3.6	5	1502	57.02	78	6.7	4
1295	58.28	88	3.1	5	1399	49.1	296	3.1	6	1503	55.94	93	4.1	4
1296	59.9	123	2.1	5	1400	52.34	270	5.7	4	1504	55.94	89	4.1	4
1297	59.18	123	2.6	5	1401	54.32	257	6.2	4	1505	55.94	94	3.1	4
1298	58.64	42	3.1	5	1402	58.64	246	3.6	3	1506	55.94	94	3.1	4
1299	59.9	12	4.1	5	1403	62.96	9	4.1	3	1507	57.02	203	6.7	4
1300	59.36	51	6.2	5	1404	60.26	259	8.7	3	1508	59	198	6.7	4
1301	57.92	4	3.6	5	1405	60.98	260	8.2	4	1509	59	229	7.2	4
1302	55.22	17	4.1	5	1406	60.62	265	10.3	4	1510	59	230	7.2	4
1303	54.86	16	5.7	4	1407	60.44	262	10.3	4	1511	57.92	179	5.1	4
1304	54.32	9	5.1	4	1408	60.62	269	9.3	4	1512	57.02	217	6.7	4
1305	57.2	11	7.2	4	1409	60.62	272	9.3	4	1513	57.02	220	6.7	4
1306	60.08	22	7.2	4	1410	63.14	343	10.3	4	1514	55.94	240	4.1	4
1307	62.24	40	5.7	3	1411	60.26	337	7.2	4	1515	55.94	226	5.1	4
1308	63.68	89	2.1	2	1412	59	320	5.1	4	1516	55.94	237	3.6	4
1309	64.94	91	2.6	2	1413	58.1	319	5.1	4	1517	55.94	240	5.1	4
1310	62.42	215	6.7	4	1414	56.3	325	5.1	4	1518	53.96	247	5.1	4
1311	62.06	235	6.7	4	1415	55.22	322	5.1	4	1519	53.96	255	4.1	5
1312	61.52	233	7.2	4	1416	55.4	315	7.2	4	1520	55.04	251	6.7	4
1313	61.7	232	5.1	3	1417	55.4	309	7.2	4	1521	57.02	246	6.2	4
1314	63.14	34	6.2	4	1418	53.96	109	2.1	5	1522	57.92	254	5.7	4
1315	61.88	14	7.2	4	1419	53.06	98	2.6	5	1523	60.08	259	5.7	3
1316	60.44	14	4.6	4	1420	51.98	107	2.1	5	1524	60.08	261	7.7	4
1317	60.08	11	4.1	5	1421	51.08	84	3.1	5	1525	60.08	265	8.7	4
1318	58.46	335	6.2	4	1422	51.08	88	2.1	5	1526	60.98	254	7.7	4
1319	57.02	327	6.2	4	1423	51.98	65	2.1	5	1527	60.98	250	9.3	4
1320	56.12	317	5.1	5	1424	51.98	2	2.1	4	1528	60.08	251	9.3	4
1321	55.94	334	7.2	4	1425	57.02	38	2.1	4	1529	60.08	239	8.7	4
1322	55.76	345	5.7	4	1426	60.98	34	3.1	3	1530	57.92	233	6.2	4
1323	54.32	358	4.1	4	1427	64.94	34	3.6	2	1531	57.02	239	6.2	4
1324	54.32	337	3.1	4	1428	68	107	2.1	2	1532	55.94	254	7.7	4
1325	54.32	345	4.1	4	1429	71.96	325	1.5	2	1533	55.94	236	6.7	4
1326	53.42	333	5.1	4	1430	69.98	255	5.1	3	1534	55.04	248	8.2	4
1327	53.6	322	5.7	4	1431	69.98	264	5.7	3	1535	55.04	254	7.2	4
1328	54.86	333	5.1	4	1432	64.94	265	7.7	4	1536	53.96	257	5.1	5
1329	57.56	332	6.7	4	1433	64.04	251	7.7	4	1537	53.96	316	1.5	6
1330	60.8	326	5.7	4	1434	60.08	265	7.7	4	1538	53.06	330	2.1	6
1331	63.5	293	6.2	4	1435	57.02	249	4.6	4	1539	51.98	360	2.1	6
1332	62.78	256	8.7	4	1436	57.92	199	3.1	4	1540	51.08	347	2.6	6
1333	63.32	266	9.3	4	1437	59	239	2.6	6	1541	51.08	20	2.1	6
1334	63.86	270	10.8	4	1438	60.08	319	2.6	5	1542	51.08	1	3.1	6
1335	61.88	265	13.4	4	1439	59	93	2.1	5	1543	50	50	3.1	5
1336	61.7	261	13.9	4	1440	57.02	30	2.6	5	1544	51.98	15	2.6	4
1337	61.7	258	10.3	4	1441	57.02	35	3.6	4	1545	55.04	38	3.6	3
1338	59.54	271	12.9	4	1442	57.92	29	3.6	4	1546	57.92	31	2.6	3
1339	55.94	248	8.7	4	1443	57.02	19	3.1	5	1547	60.98	108	2.6	2
1340	55.58	267	8.7	4	1444	53.06	60	2.6	5	1548	64.04	220	1.5	2
1341	55.22	240	6.7	4	1445	53.06	10	4.6	4	1549	64.94	212	3.6	2
1342	55.04	226	6.2	4	1446	51.98	55	2.1	5	1550	64.94	217	5.7	3
1343	55.4	234	2.1	5	1447	53.96	131	1	6	1551	64.04	251	5.7	3
1344	54.68	114	3.6	5	1448	55.04	85	1.5	3	1552	62.96	259	6.2	4
1345	53.42	91	3.6	5	1449	62.06	3	1	2	1553	62.96	261	5.1	4

HOOR	TEMP	WD	WS	STAB	HOOR	TEMP	WD	WS	STAB	HOOR	TEMP	WD	WS	STAB
1561	55.94	104	1.5	6	1665	57.92	248	4.1	4	1769	62.06	235	6.2	4
1562	57.02	62	3.6	4	1666	60.98	334	3.1	4	1770	62.06	231	7.2	4
1563	57.02	21	3.6	4	1667	62.96	238	5.1	4	1771	59	244	6.2	4
1564	57.02	6	2.1	5	1668	62.06	233	5.1	4	1772	59	238	4.1	4
1565	55.04	37	1.5	6	1669	60.98	227	6.2	4	1773	59	206	4.6	4
1566	55.94	311	2.6	5	1670	62.06	247	6.2	4	1774	60.08	196	3.1	6
1567	55.94	56	2.1	5	1671	62.06	255	6.7	4	1775	57.92	224	4.1	5
1568	55.94	41	3.6	4	1672	62.06	254	6.7	4	1776	57.02	238	2.1	6
1569	62.06	56	3.6	4	1673	62.06	239	6.2	4	1777	57.02	281	2.1	5
1570	66.02	38	5.1	4	1674	60.98	236	5.7	4	1778	55.94	92	2.1	5
1571	69.98	16	3.6	2	1675	59	235	5.1	4	1779	55.04	21	2.1	6
1572	73.04	33	3.1	2	1676	57.92	227	4.6	4	1780	53.06	101	3.1	6
1573	75.92	129	3.1	2	1677	57.92	230	5.1	4	1781	53.06	88	3.6	5
1574	78.98	62	1.5	2	1678	57.92	235	5.1	4	1782	53.06	91	4.1	5
1575	73.94	248	5.1	3	1679	57.02	231	4.1	4	1783	53.06	87	4.1	5
1576	71.06	260	6.2	4	1680	57.92	223	3.1	5	1784	55.04	70	2.6	4
1577	69.98	262	5.1	4	1681	57.02	240	3.6	4	1785	57.02	91	3.1	4
1578	66.92	262	5.1	4	1682	57.02	237	5.1	4	1786	57.02	102	4.1	4
1579	62.96	251	7.2	4	1683	55.94	250	4.1	4	1787	60.98	93	2.6	4
1580	64.04	259	6.7	4	1684	55.04	250	3.6	4	1788	66.02	225	1	1
1581	62.06	248	5.1	4	1685	57.02	239	4.6	4	1789	64.94	226	4.1	3
1582	64.94	320	4.1	4	1686	55.04	251	2.6	5	1790	64.04	247	5.1	3
1583	62.96	85	2.6	5	1687	55.94	319	2.6	5	1791	62.96	244	6.2	4
1584	62.96	40	1.5	6	1688	57.02	117	4.1	4	1792	62.06	236	6.2	4
1585	59	72	2.6	5	1689	60.08	125	1.5	3	1793	60.98	238	6.2	4
1586	62.06	28	4.1	5	1690	60.08	159	3.6	4	1794	60.08	251	5.1	4
1587	57.92	38	2.1	6	1691	59	196	4.1	4	1795	57.92	246	4.1	4
1588	57.92	66	2.6	6	1692	59	184	5.7	4	1796	57.02	246	3.1	5
1589	57.02	72	3.1	6	1693	57.92	150	8.2	4	1797	57.92	208	3.1	5
1590	53.96	64	3.6	5	1694	55.94	179	5.1	4	1798	57.02	351	2.1	5
1591	55.04	48	3.1	5	1695	57.02	200	6.2	4	1799	57.02	236	2.1	5
1592	60.08	202	1	3	1696	57.02	203	6.2	4	1800	57.02	246	2.1	5
1593	66.92	10	3.1	3	1697	59	232	8.2	4	1801	57.02	357	3.1	5
1594	71.06	354	3.1	3	1698	57.02	255	7.7	4	1802	55.04	90	2.6	5
1595	73.94	21	3.6	2	1699	55.04	254	5.7	4	1803	57.02	107	3.1	5
1596	78.98	260	2.1	2	1700	55.94	231	7.2	4	1804	57.02	114	2.6	5
1597	80.96	143	3.1	2	1701	55.94	217	8.2	4	1805	57.02	112	1.5	6
1598	78.98	255	4.6	3	1702	55.04	217	6.2	4	1806	57.02	19	1	6
1599	71.06	251	6.2	4	1703	55.04	217	7.2	4	1807	57.02	66	4.1	4
1600	69.08	242	5.7	4	1704	55.04	230	5.7	4	1808	57.92	109	3.6	4
1601	66.02	249	6.2	4	1705	55.04	226	6.2	4	1809	57.92	69	3.6	4
1602	68	254	5.1	4	1706	53.06	269	3.1	5	1810	59	134	3.1	4
1603	64.04	254	5.1	4	1707	53.06	237	3.1	5	1811	60.08	134	3.1	4
1604	64.04	250	4.1	4	1708	53.96	238	4.6	4	1812	60.98	146	3.1	4
1605	62.96	241	3.6	4	1709	53.06	39	3.6	4	1813	62.06	118	2.6	4
1606	64.94	236	2.1	5	1710	51.08	82	1.5	6	1814	60.98	245	4.1	4
1607	64.94	87	2.6	5	1711	51.08	77	3.1	5	1815	60.98	241	4.1	4
1608	60.98	264	2.6	5	1712	51.08	73	3.1	4	1816	62.96	242	5.7	4
1609	59	239	3.1	5	1713	53.06	78	3.1	4	1817	60.98	241	5.1	4
1610	60.08	23	2.6	5	1714	53.96	114	3.6	4	1818	60.08	238	5.1	4
1611	57.92	98	3.6	4	1715	55.04	107	3.1	4	1819	57.92	218	5.7	4
1612	55.04	92	4.1	4	1716	57.92	88	3.1	4	1820	57.02	250	4.1	4
1613	55.04	90	3.1	5	1717	57.92	89	3.1	4	1821	57.02	247	4.6	4
1614	55.94	92	2.6	5	1718	59	247	5.7	4	1822	57.02	181	2.6	5
1615	57.02	105	2.6	5	1719	60.98	253	5.7	4	1823	57.92	228	2.6	5
1616	57.02	20	3.1	4	1720	60.98	248	5.7	4	1824	57.92	128	3.6	4
1617	60.98	72	3.1	3	1721	57.92	228	6.2	4	1825	57.92	87	2.6	5
1618	66.92	96	3.1	3	1722	57.02	232	5.7	4	1826	57.92	132	2.6	5
1619	69.98	115	3.1	2	1723	57.02	232	5.7	4	1827	57.92	95	2.6	5
1620	66.02	256	4.1	3	1724	55.94	252	4.1	4	1828	57.92	101	3.1	5
1621	66.92	252	4.6	3	1725	53.96	45	5.1	4	1829	57.92	78	3.1	5
1622	66.92	244	5.7	3	1726	53.06	75	5.7	4	1830	57.92	74	2.1	5
1623	68	250	4.1	3	1727	53.06	73	5.1	4	1831	57.92	73	2.1	4
1624	69.08	244	4.1	3	1728	53.06	69	5.1	4	1832	57.92	74	3.1	4
1625	69.08	245	3.6	3	1729	51.08	80	3.6	4	1833	59	103	4.1	4
1626	62.06	255	4.1	4	1730	50	92	2.6	4	1834	60.08	59	4.1	4
1627	62.06	236	4.1	4	1731	51.08	94	1.5	6	1835	64.04	173	2.6	2
1628	60.98	236	4.1	4	1732	50	5	2.6	5	1836	64.04	270	4.1	2
1629	59	238	5.1	4	1733	50	1	2.6	6	1837	62.96	243	6.7	4
1630	57.92	37	2.1	5	1734	48.02	5	2.6	6	1838	62.96	241	6.2	4
1631	59	237	2.1	5	1735	48.02	66	1.5	6	1839	62.06	245	6.7	4
1632	57.92	43	1	6	1736	51.08	51	3.6	4	1840	60.98	254	7.2	4
1633	53.96	249	3.1	5	1737	55.94	44	2.6	3	1841	60.98	240	6.2	4
1634	55.94	260	3.6	4	1738	57.92	112	3.6	3	1842	60.08	247	7.2	4
1635	55.94	249	2.6	5	1739	59	241	4.1	3	1843	57.02	253	7.2	4
1636	55.94	250	2.6	5	1740	59	238	4.1	3	1844	57.02	247	5.7	4
1637	51.98	57	2.6	6	1741	60.98	253	5.1	3	1845	57.02	229	3.1	5
1638	51.98	101	1.5	6	1742	62.06	242	5.1	4	1846	57.02	232	3.1	5
1639	50	69	3.6	5	1743	62.06	242	6.2	4	1847	55.94	244	3.6	5
1640	50	87	1.5	3	1744	60.98	260	7.2	4	1848	55.94	258	3.1	5
1641	53.06	135	2.1	3	1745	57.92	226	6.2	4	1849	55.94	235	2.6	5
1642	57.92	200	1.5	2	1746	57.92	231	6.2	4	1850	55.94	262	3.6	5
1643	64.04	222	2.1	2	1747	57.92	231	6.2	4	1851	55.94	257	3.6	5
1644	66.02	215	4.1	3	1748	57.02	260	5.1	4	1852	55.94	333	3.1	5
1645	64.94	239	5.1	3	1749	57.02	238	4.6	4	1853	55.94	280	2.6	5
1646	62.96	246	6.2	4	1750	57.92	230	4.1	4	1854	55.94	278	2.6	5
1647	62.96	240	6.7	4	1751	57.92	87	3.1	5	1855	55.04	272	3.6	5
1648	62.96	238	5.7	4	1752	55.04	70	3.6	4	1856	55.94	5	3.1	5
1649	62.96	258	7.2	4	1753	55.04	62	4.1	4	1857	55.94	97	3.6	5
1650	62.96	264	7.2	4	1754	55.04	55	4.1	4	1858	55.94	102	3.6	5
1651	59	266	7.2	4	1755	53.96	28	2.6	5	1859	60.08	232	3.1	5
1652	59	239	5.7	4	1756	53.96	8	2.1	6	1860	60.98	229	4.1	4
1653	57.92	246	5.7	4	1757	51.98	114	2.1	6	1861	60.98	234	4.1	4
1654	57.92	247	5.7	4	1758	51.08	46	2.1	6	1862	59	250	6.7	4
1655	57.92	248	5.1	4	1759	48.92	73	3.1	5	1863	57.92	248	7.2	4
1656	57.92	229	4.1	4	1760	51.98	66	3.1	4	1864	57.92	253	5.7	4
1657	57.92	242	4.1	4	1761	55.94	83	3.1	4	1865	57.92	262	4.6	4
1658	57.0													

HOOR	TEMP	WD	WS	STAB	HOOR	TEMP	WD	WS	STAB	HOOR	TEMP	WD	WS	STAB
1873	55.94	254	2.1	4	1977	60.98	64	4.1	3	2081	62.96	238	7.2	4
1874	55.94	328	2.1	4	1978	62.96	116	3.6	3	2082	62.96	239	7.2	4
1875	55.94	322	1.5	4	1979	64.94	65	4.1	3	2083	62.06	265	9.3	4
1876	55.94	261	3.1	4	1980	66.92	123	4.1	3	2084	60.08	237	9.3	4
1877	53.96	293	3.6	4	1981	66.92	123	4.1	4	2085	59	253	9.8	4
1878	55.04	317	2.1	4	1982	68	217	6.2	4	2086	57.92	249	9.3	4
1879	55.04	285	2.1	4	1983	66.92	245	5.1	3	2087	55.94	246	7.2	4
1880	53.96	292	3.6	4	1984	66.92	242	6.2	3	2088	55.94	282	4.1	4
1881	55.04	246	2.1	4	1985	62.96	236	6.7	4	2089	55.94	289	3.6	4
1882	59	94	3.1	4	1986	62.96	242	8.2	4	2090	57.02	304	4.1	4
1883	64.04	88	2.6	2	1987	60.98	225	6.2	4	2091	53.96	36	4.6	4
1884	62.96	256	5.7	3	1988	59	254	4.1	4	2092	51.08	97	3.1	4
1885	62.96	257	5.7	3	1989	59	256	5.7	4	2093	53.06	61	4.1	4
1886	62.96	264	5.7	4	1990	59	254	4.6	4	2094	53.06	88	3.6	4
1887	64.04	249	5.7	4	1991	57.92	252	4.1	4	2095	50	96	4.6	4
1888	64.94	256	4.6	4	1992	57.92	238	3.1	4	2096	55.04	77	4.1	3
1889	60.98	258	4.6	4	1993	57.92	36	2.1	5	2097	59	130	2.6	3
1890	60.98	259	4.6	4	1994	55.04	89	3.1	5	2098	62.06	111	2.6	3
1891	60.08	216	4.1	4	1995	55.04	112	2.6	5	2099	62.06	111	2.6	3
1892	60.08	239	5.1	4	1996	55.04	92	2.1	5	2100	64.04	254	5.7	3
1893	59	261	4.6	4	1997	53.06	69	3.6	5	2101	64.94	269	5.7	3
1894	59	258	4.1	4	1998	51.98	76	3.1	5	2102	64.94	246	6.2	3
1895	59	216	3.1	5	1999	51.98	79	3.1	4	2103	64.94	247	6.2	4
1896	59	243	2.6	5	2000	51.98	78	3.1	4	2104	64.94	258	5.1	4
1897	59	213	2.1	5	2001	60.08	80	3.6	3	2105	64.04	242	5.7	4
1898	60.08	108	2.6	5	2002	62.06	85	2.1	3	2106	62.06	267	5.7	4
1899	60.08	97	3.6	4	2003	64.04	122	3.6	2	2107	60.08	237	5.1	4
1900	60.98	99	4.1	4	2004	64.94	222	4.1	2	2108	59	259	4.1	4
1901	60.08	107	3.1	4	2005	64.94	225	6.2	4	2109	57.92	306	4.1	4
1902	60.08	153	1	4	2006	64.94	226	7.2	4	2110	59	285	3.6	5
1903	60.98	39	1.5	4	2007	64.94	274	6.7	4	2111	57.92	245	4.6	5
1904	60.98	176	1	4	2008	62.06	235	7.2	4	2112	59	251	4.6	5
1905	62.06	270	1.5	4	2009	62.96	253	8.2	4	2113	57.92	15	3.1	5
1906	62.06	254	3.1	4	2010	60.98	247	9.8	4	2114	55.94	66	1	5
1907	64.04	198	1	4	2011	59	245	8.2	4	2115	55.04	210	1.5	5
1908	64.04	221	1	4	2012	59	242	7.2	4	2116	55.04	21	3.1	5
1909	64.04	184	1	4	2013	57.92	259	9.3	4	2117	55.04	243	1	5
1910	66.02	249	5.1	4	2014	57.92	262	7.7	4	2118	53.06	75	2.6	5
1911	66.02	246	5.1	4	2015	57.92	244	4.6	4	2119	53.96	51	3.6	4
1912	64.94	226	6.7	4	2016	57.92	237	4.1	4	2120	55.94	89	3.1	4
1913	62.96	238	6.2	4	2017	55.94	68	3.6	4	2121	60.98	87	3.6	3
1914	60.08	252	5.7	4	2018	55.94	93	3.6	4	2122	64.04	90	3.1	3
1915	60.08	236	4.1	4	2019	55.04	90	2.6	5	2123	69.98	191	1.5	2
1916	60.08	239	3.6	4	2020	55.04	46	2.1	5	2124	66.92	232	5.7	2
1917	60.08	275	3.6	4	2021	55.04	328	1.5	6	2125	68	244	5.7	2
1918	60.08	222	3.6	4	2022	53.96	307	1.5	6	2126	66.92	249	6.2	2
1919	60.08	231	2.6	4	2023	51.08	74	2.6	6	2127	66.92	253	6.7	2
1920	60.08	232	2.6	4	2024	55.04	89	4.1	6	2128	66.02	265	7.2	4
1921	60.08	252	3.1	4	2025	60.98	104	2.6	3	2129	64.94	258	7.7	4
1922	59	245	3.1	4	2026	64.94	88	3.6	3	2130	64.04	264	6.7	4
1923	59	193	3.6	4	2027	69.98	98	2.1	3	2131	64.04	260	6.7	4
1924	59	195	2.1	4	2028	69.98	216	4.6	3	2132	59	247	5.7	4
1925	57.92	129	3.1	4	2029	69.98	244	6.2	4	2133	59	255	4.6	4
1926	57.92	133	2.1	4	2030	69.08	229	7.2	4	2134	57.92	254	5.1	5
1927	57.02	96	2.1	4	2031	69.08	255	8.2	4	2135	57.92	247	4.1	5
1928	57.02	166	1.5	4	2032	68	252	7.2	4	2136	59	221	3.1	6
1929	57.92	125	4.1	4	2033	66.92	252	8.2	4	2137	59	226	2.6	6
1930	60.08	196	3.1	4	2034	66.02	252	10.3	4	2138	57.92	25	1	6
1931	60.08	231	4.1	4	2035	64.94	248	7.7	4	2139	57.92	206	1	6
1932	62.96	236	4.6	4	2036	64.04	251	6.2	4	2140	55.04	42	2.1	6
1933	64.04	243	5.7	4	2037	62.06	219	3.6	5	2141	55.04	42	1	6
1934	62.96	236	5.7	4	2038	62.06	232	4.1	5	2142	53.96	56	2.1	6
1935	66.02	262	6.2	4	2039	60.98	227	4.1	5	2143	53.96	48	1	3
1936	62.96	260	6.2	4	2040	60.08	227	2.1	6	2144	55.94	78	3.1	3
1937	64.04	258	7.2	4	2041	59	65	1	6	2145	60.98	93	3.1	3
1938	62.96	254	6.7	4	2042	57.92	85	2.6	5	2146	64.94	245	2.1	3
1939	60.98	238	5.1	5	2043	57.92	54	2.1	5	2147	68	241	4.1	3
1940	62.06	247	4.6	5	2044	55.04	78	2.6	5	2148	68	251	5.1	3
1941	62.06	243	4.1	5	2045	53.06	81	2.1	5	2149	69.98	238	5.1	4
1942	62.06	230	4.6	5	2046	53.96	80	3.1	5	2150	69.08	242	5.7	4
1943	62.06	179	3.6	5	2047	53.96	92	2.6	5	2151	68	245	5.7	4
1944	62.06	93	2.6	6	2048	57.02	64	3.6	5	2152	66.02	255	6.7	4
1945	60.98	241	3.6	6	2049	60.98	84	3.6	4	2153	66.02	254	6.7	4
1946	59	255	7.2	4	2050	64.94	103	4.1	4	2154	66.02	247	6.7	4
1947	59	246	4.6	5	2051	69.08	58	4.1	4	2155	60.98	261	5.1	4
1948	60.08	278	3.6	5	2052	69.08	61	4.1	4	2156	60.98	263	5.1	4
1949	59	316	6.2	4	2053	69.08	242	5.1	4	2157	60.98	261	5.1	4
1950	57.92	336	6.2	4	2054	68	240	4.6	4	2158	60.08	226	3.6	4
1951	57.02	300	5.1	4	2055	69.08	251	5.1	4	2159	60.08	226	4.6	4
1952	59	332	5.1	4	2056	68	231	5.1	4	2160	59	224	4.6	4
1953	60.98	334	6.7	4	2057	66.02	244	6.2	4	2161	59	209	3.1	5
1954	60.08	333	9.3	4	2058	64.04	273	6.2	4	2162	59	119	4.1	5
1955	64.94	345	7.7	4	2059	62.06	248	5.1	4	2163	59	124	4.1	5
1956	66.02	340	11.3	4	2060	60.08	255	4.6	4	2164	57.02	21	2.6	5
1957	68	328	10.3	4	2061	59	280	3.1	5	2165	55.94	89	2.6	5
1958	69.08	328	10.3	4	2062	60.08	225	3.6	4	2166	55.04	72	2.6	5
1959	64.94	252	11.3	4	2063	60.08	203	2.1	5	2167	55.04	73	2.6	4
1960	64.04	247	12.3	4	2064	60.08	234	1.5	6	2168	59	72	2.1	4
1961	64.04	267	12.9	4	2065	59	60	2.1	6	2169	64.04	16	2.6	3
1962	62.06	265	12.3	4	2066	57.92	81	3.6	5	2170	62.96	142	2.1	3
1963	60.98	256	9.3	4	2067	57.92	85	3.6	5	2171	66.02	75	2.6	3
1964	60.98	282	7.2	4	2068	59	91	2.6	6	2172	69.08	227	4.1	3
1965	60.08	273	4.6	4	2069	59	90	2.6	5	2173	64.94	248	6.2	3
1966	59	258	5.1	4	2070	60.08	82	4.1	5	2174	64.04	241	6.2	3
1967	60.98	333	3.1	4	2071	60.08	81	4.6	4	2175	62.96	238	6.2	3
1968	60.08	355	3.6	4	2072	60.08	85	4.6	3	2176	62.06	234	5.7	3
1969	57.92	57	3.1	5	2073	60.08	81	4.6	3	2177	62.06	228	5.7	3
1970	55.04	57	6.2	4	2074	62.06	114	3.						

HOOR	TEMP	WD	WS	STAB	HOOR	TEMP	WD	WS	STAB	HOOR	TEMP	WD	WS	STAB
2185	57.92	274	5.1	5	2289	71.96	88	4.1	3	2393	66.92	238	4.6	3
2186	57.92	275	5.1	4	2290	78.98	41	3.6	2	2394	62.06	241	7.2	4
2187	57.92	269	5.1	4	2291	82.94	115	4.6	3	2395	59	252	7.7	4
2188	57.92	267	5.1	4	2292	82.94	114	4.6	4	2396	57.92	264	7.7	4
2189	53.96	284	2.6	5	2293	78.98	238	6.7	3	2397	57.92	249	5.7	4
2190	53.96	262	3.6	4	2294	78.98	234	6.2	4	2398	57.02	253	5.1	5
2191	53.96	64	1	3	2295	78.08	244	6.7	4	2399	57.02	232	3.1	6
2192	57.02	250	2.1	3	2296	78.08	252	7.2	4	2400	57.02	146	3.1	6
2193	59	249	4.6	3	2297	77	229	8.7	4	2401	57.02	166	2.6	6
2194	60.08	261	5.1	3	2298	75.02	249	8.2	4	2402	55.94	50	1.5	6
2195	60.98	254	4.1	3	2299	73.94	254	5.7	4	2403	55.04	60	1.5	6
2196	62.96	241	5.7	3	2300	69.98	228	4.6	5	2404	55.04	46	3.1	6
2197	62.06	249	5.1	3	2301	68	230	3.6	4	2405	53.06	64	2.6	6
2198	62.96	227	6.2	4	2302	66.02	232	4.1	4	2406	53.96	50	3.1	5
2199	62.96	260	7.2	4	2303	64.04	133	3.1	5	2407	55.04	85	3.1	4
2200	64.04	249	5.7	4	2304	62.96	166	2.6	5	2408	57.92	80	2.6	3
2201	64.04	250	5.7	4	2305	62.06	103	2.6	5	2409	60.98	114	3.6	3
2202	60.98	245	6.7	4	2306	62.06	73	2.6	5	2410	64.94	227	3.1	2
2203	60.08	244	5.1	4	2307	62.96	73	3.1	5	2411	64.04	234	4.1	3
2204	57.92	236	5.1	4	2308	60.98	74	3.1	5	2412	66.02	226	5.7	3
2205	57.92	239	5.1	4	2309	60.98	67	3.1	5	2413	64.94	229	6.2	3
2206	59	249	5.1	4	2310	59	110	2.6	5	2414	64.94	234	5.7	3
2207	57.02	248	3.1	4	2311	57.92	90	2.6	4	2415	66.02	244	5.1	3
2208	57.02	66	2.1	4	2312	62.96	74	2.6	4	2416	66.02	242	6.2	4
2209	55.04	50	3.6	5	2313	68	98	4.1	4	2417	64.94	223	5.7	4
2210	55.94	92	2.6	6	2314	73.04	108	4.1	4	2418	64.94	221	5.7	3
2211	55.04	66	3.6	5	2315	75.92	249	3.6	4	2419	64.94	218	5.7	4
2212	53.96	86	3.6	5	2316	71.96	237	5.7	4	2420	57.92	226	7.2	4
2213	53.06	68	3.1	6	2317	73.04	246	5.7	4	2421	57.92	226	7.2	4
2214	51.98	75	2.6	6	2318	71.96	247	5.1	4	2422	57.02	229	6.2	4
2215	53.06	90	3.1	4	2319	71.06	241	6.2	4	2423	59	185	3.1	5
2216	57.02	94	3.1	3	2320	69.08	246	7.2	4	2424	57.02	37	3.1	6
2217	60.08	113	3.1	3	2321	66.92	239	7.2	4	2425	55.94	66	3.1	6
2218	62.96	163	3.6	2	2322	64.04	233	6.7	4	2426	57.02	68	3.6	5
2219	66.02	228	1.5	2	2323	60.98	240	5.1	4	2427	55.94	70	4.1	5
2220	64.04	234	5.7	2	2324	59	254	6.2	4	2428	55.94	69	4.1	5
2221	64.94	242	7.2	3	2325	57.92	238	4.6	4	2429	55.04	71	4.6	5
2222	64.04	227	8.2	3	2326	57.92	243	4.6	4	2430	55.04	83	4.1	4
2223	62.96	245	7.7	3	2327	53.96	252	3.6	5	2431	55.04	85	2.6	4
2224	62.96	243	6.7	3	2328	53.96	255	3.1	5	2432	57.92	41	2.6	4
2225	62.06	243	6.2	3	2329	53.96	199	3.1	5	2433	62.06	132	2.1	3
2226	62.06	236	6.2	3	2330	55.04	229	3.6	5	2434	64.94	231	3.1	2
2227	59	249	4.6	4	2331	53.96	258	3.1	5	2435	68	229	4.1	3
2228	57.02	237	4.6	4	2332	53.96	256	3.1	5	2436	62.96	236	6.2	3
2229	57.02	261	5.1	4	2333	55.04	89	1	5	2437	64.04	236	5.7	3
2230	57.02	248	4.6	4	2334	53.96	238	3.1	5	2438	64.94	235	7.2	3
2231	55.94	248	4.1	4	2335	53.96	250	2.6	5	2439	64.94	246	8.2	4
2232	55.94	243	4.1	4	2336	55.94	197	2.1	5	2440	64.94	227	11.3	4
2233	55.04	253	3.6	4	2337	55.94	204	2.1	5	2441	62.96	226	10.3	4
2234	55.94	242	4.1	4	2338	62.96	251	1.5	5	2442	60.98	246	9.3	4
2235	55.04	242	2.6	5	2339	66.02	100	2.6	5	2443	59	245	5.1	4
2236	53.96	220	2.1	5	2340	62.96	243	5.7	5	2444	59	252	4.1	4
2237	55.04	248	1.5	6	2341	62.06	242	6.2	5	2445	59	32	3.1	5
2238	53.06	57	2.1	6	2342	62.06	252	6.2	5	2446	57.92	100	4.1	5
2239	51.98	71	2.1	6	2343	62.06	237	5.1	5	2447	57.02	88	4.1	5
2240	55.04	104	3.1	6	2344	62.06	237	5.1	5	2448	57.92	83	3.1	5
2241	60.08	66	2.6	6	2345	62.06	244	5.1	5	2449	62.96	33	6.2	5
2242	64.94	88	1	6	2346	57.92	247	6.2	5	2450	62.96	2	6.2	4
2243	66.92	226	4.6	6	2347	55.94	242	5.1	5	2451	57.92	62	4.6	4
2244	66.02	235	5.1	6	2348	55.04	240	5.1	5	2452	55.04	71	4.1	4
2245	64.94	238	6.2	3	2349	55.94	248	6.2	5	2453	55.04	44	4.1	4
2246	64.94	242	6.2	3	2350	55.94	239	5.7	5	2454	55.04	37	3.1	5
2247	66.02	248	6.2	3	2351	55.94	237	4.1	4	2455	55.94	6	2.6	4
2248	66.02	246	7.2	3	2352	55.04	228	4.1	4	2456	59	29	3.1	3
2249	68	244	5.1	4	2353	55.94	228	3.6	5	2457	60.98	71	4.1	3
2250	68	216	3.6	4	2354	55.94	223	4.1	4	2458	64.94	152	2.6	2
2251	66.92	216	4.6	4	2355	55.94	224	4.1	4	2459	68	150	2.6	2
2252	64.94	245	5.1	4	2356	55.94	131	3.6	4	2460	66.92	229	4.6	2
2253	64.94	211	3.6	5	2357	55.94	228	3.6	4	2461	66.92	241	6.2	3
2254	62.06	194	2.6	5	2358	55.94	223	4.6	4	2462	66.02	255	6.2	3
2255	62.96	190	1.5	5	2359	55.94	132	3.1	4	2463	66.02	255	7.2	4
2256	68	4	4.1	4	2360	57.02	125	3.6	4	2464	66.02	243	6.2	4
2257	68	325	4.1	5	2361	59	202	4.1	4	2465	64.04	252	6.7	4
2258	66.92	1	1	6	2362	62.06	187	4.6	4	2466	62.06	244	6.7	4
2259	64.94	72	3.1	6	2363	60.98	203	4.1	4	2467	60.98	254	5.1	4
2260	64.94	74	3.1	6	2364	62.96	172	3.6	3	2468	60.08	244	4.6	4
2261	60.08	71	3.1	6	2365	64.04	208	4.6	2	2469	59	181	2.6	5
2262	53.96	79	3.6	6	2366	62.96	230	6.7	4	2470	57.92	275	1	6
2263	53.96	75	3.1	6	2367	62.06	244	6.2	4	2471	57.92	217	3.6	4
2264	60.08	90	2.1	6	2368	62.06	236	6.2	4	2472	57.92	87	1	6
2265	69.98	238	1.5	6	2369	60.98	228	6.7	4	2473	57.02	104	3.1	5
2266	78.08	204	2.6	6	2370	60.08	257	7.2	4	2474	55.94	95	2.1	5
2267	80.96	255	4.1	6	2371	59	235	5.1	4	2475	55.94	110	1	6
2268	80.06	222	6.2	6	2372	57.92	231	4.6	4	2476	55.04	87	3.1	6
2269	80.96	233	6.2	3	2373	57.02	225	3.1	5	2477	55.94	105	2.1	6
2270	82.04	215	5.7	3	2374	57.92	106	2.6	5	2478	55.04	103	1.5	6
2271	82.04	226	5.7	3	2375	57.02	146	3.1	5	2479	53.96	72	2.6	4
2272	82.04	230	6.2	3	2376	57.02	110	3.1	5	2480	60.98	73	3.1	3
2273	80.96	202	5.1	4	2377	55.94	100	3.1	5	2481	66.92	62	3.6	3
2274	78.98	219	6.2	4	2378	55.04	84	3.1	5	2482	66.92	56	3.6	2
2275	77	192	3.1	4	2379	55.94	78	4.1	4	2483	75.02	263	4.1	3
2276	69.08	194	2.6	5	2380	53.96	88	3.1	5	2484	75.92	236	4.6	2
2277	66.02	174	2.1	6	2381	53.96	74	2.1	5	2485	77	246	4.6	2
2278	68	139	2.1	6	2382	53.06	68	3.6	4	2486	73.04	240	6.2	3
2279	69.98	1	3.1	6	2383	53.06	74	3.6	4	2487	75.92	255	6.2	4
2280	68	314	2.1	6	2384	57.02	96	1.5	2	2488	75.02	241	5.7	3
2281	64.94	86	2.6	6	2385	60.08	114	2.6	4	2489	69.98	258	5.7	4
2282														

HOOR	TEMP	WD	WS	STAB	HOOR	TEMP	WD	WS	STAB	HOOR	TEMP	WD	WS	STAB
2497	62.06	1	2.6	5	2601	62.06	83	3.6	3	2705	69.98	241	6.2	4
2498	60.08	258	2.1	5	2602	64.94	67	5.1	3	2706	69.08	239	5.1	4
2499	60.08	247	1	6	2603	68	97	3.6	2	2707	66.92	216	4.1	4
2500	59	232	2.6	5	2604	71.06	138	2.1	1	2708	64.94	225	5.7	4
2501	55.94	255	4.1	4	2605	69.98	231	5.7	3	2709	62.06	237	4.1	5
2502	57.92	270	1	6	2606	64.94	256	8.2	3	2710	62.06	240	2.6	6
2503	57.92	243	1.5	3	2607	66.02	246	10.3	4	2711	60.98	242	2.6	6
2504	60.98	227	1	2	2608	66.02	248	9.3	4	2712	60.08	315	1	6
2505	64.94	89	3.6	3	2609	66.02	250	9.3	4	2713	60.98	229	1	6
2506	69.98	111	3.1	2	2610	62.96	246	8.2	4	2714	62.06	92	2.1	6
2507	69.98	110	3.1	2	2611	60.98	253	5.1	4	2715	60.98	91	2.1	6
2508	75.02	240	4.6	2	2612	57.92	198	3.6	4	2716	60.98	306	2.1	6
2509	68	238	8.2	3	2613	57.92	235	4.1	4	2717	60.08	132	1	6
2510	66.02	271	8.7	3	2614	57.02	244	4.6	4	2718	59	46	1	6
2511	68	246	6.7	4	2615	55.94	240	4.1	4	2719	62.06	106	2.1	4
2512	69.08	252	7.2	4	2616	57.02	239	2.1	6	2720	64.94	261	3.1	3
2513	66.92	237	8.2	4	2617	53.96	39	2.6	6	2721	64.94	256	3.1	3
2514	64.04	254	6.7	4	2618	55.04	98	2.6	6	2722	71.06	238	4.1	3
2515	62.06	233	6.2	4	2619	53.96	79	2.6	5	2723	71.06	236	4.1	2
2516	62.06	234	4.1	4	2620	53.96	70	1	6	2724	75.02	253	3.6	2
2517	59	255	4.1	4	2621	53.96	320	1	6	2725	71.96	249	5.1	3
2518	59	231	4.1	4	2622	53.06	74	2.6	5	2726	69.08	252	6.7	3
2519	59	245	5.1	4	2623	53.96	111	1	3	2727	69.98	248	6.7	4
2520	57.92	244	4.1	4	2624	57.02	108	2.6	3	2728	69.98	240	6.2	4
2521	57.02	78	2.6	5	2625	57.02	113	2.6	3	2729	68	222	6.2	4
2522	57.02	97	2.6	5	2626	68	334	5.7	3	2730	64.94	252	6.2	4
2523	57.02	103	2.6	5	2627	71.06	307	6.2	4	2731	62.06	231	7.2	4
2524	55.94	222	3.6	4	2628	64.94	255	8.2	3	2732	60.98	219	5.1	4
2525	55.94	297	1	6	2629	64.94	246	8.7	3	2733	60.98	218	3.6	4
2526	57.02	84	2.6	5	2630	66.92	256	8.2	3	2734	60.98	130	4.1	4
2527	57.02	73	3.6	4	2631	66.92	243	7.2	4	2735	60.98	75	3.1	5
2528	59	83	2.6	4	2632	64.94	243	7.7	4	2736	62.96	90	2.1	5
2529	60.98	95	4.1	4	2633	64.94	252	6.7	4	2737	60.98	82	4.1	5
2530	62.96	99	3.6	4	2634	62.96	249	7.2	4	2738	60.08	58	3.1	6
2531	60.98	211	4.1	4	2635	62.96	253	7.2	4	2739	60.08	68	4.1	5
2532	60.98	209	4.1	4	2636	57.02	266	5.7	4	2740	60.98	76	3.1	6
2533	60.98	208	4.1	4	2637	55.94	262	4.6	5	2741	60.08	112	3.6	5
2534	66.02	235	4.6	3	2638	55.04	133	1	6	2742	60.08	64	2.1	5
2535	62.96	235	4.6	4	2639	55.04	71	4.1	5	2743	62.06	98	3.6	4
2536	62.96	235	4.6	4	2640	55.94	85	4.6	5	2744	64.04	140	1.5	3
2537	60.98	236	3.6	4	2641	53.06	70	3.6	5	2745	66.92	120	3.6	4
2538	60.98	201	3.6	4	2642	53.96	85	3.6	5	2746	66.92	254	3.1	3
2539	60.98	198	4.6	4	2643	55.04	33	2.6	5	2747	71.06	231	4.1	3
2540	60.08	239	3.6	4	2644	53.96	26	3.1	5	2748	71.06	240	4.6	3
2541	60.08	236	4.1	4	2645	55.94	38	2.6	5	2749	71.96	243	5.7	3
2542	59	245	3.6	4	2646	53.06	46	2.6	5	2750	71.96	245	5.1	3
2543	59	228	3.1	5	2647	53.06	97	2.1	4	2751	69.98	251	5.1	3
2544	59	227	3.1	5	2648	55.04	89	3.6	3	2752	73.04	252	5.1	3
2545	57.92	249	3.6	4	2649	57.92	87	3.6	3	2753	69.98	249	4.6	3
2546	59	259	4.1	4	2650	64.04	84	3.1	2	2754	71.06	264	3.6	3
2547	59	236	3.1	5	2651	66.92	270	3.1	2	2755	66.92	264	4.1	4
2548	60.08	177	3.1	5	2652	64.94	256	6.2	3	2756	64.94	240	3.6	4
2549	60.08	220	5.7	4	2653	66.02	263	5.1	3	2757	66.92	201	2.6	5
2550	60.08	219	5.7	4	2654	64.94	238	7.2	3	2758	66.92	176	2.1	5
2551	60.08	216	5.7	4	2655	64.94	243	7.7	4	2759	66.02	154	1	6
2552	59	250	3.6	4	2656	64.94	239	5.7	3	2760	64.94	251	1	6
2553	60.98	237	4.1	4	2657	62.06	244	7.2	4	2761	64.04	109	2.6	5
2554	64.04	256	4.1	4	2658	62.96	244	6.2	4	2762	64.04	133	3.1	5
2555	64.04	249	4.6	3	2659	60.08	263	6.7	4	2763	64.04	128	3.1	5
2556	64.94	229	4.6	2	2660	57.92	248	8.2	4	2764	62.06	92	3.1	6
2557	66.02	230	5.7	3	2661	57.02	229	5.7	4	2765	62.06	110	3.1	6
2558	64.94	225	6.2	4	2662	57.02	250	4.6	4	2766	60.98	92	3.1	5
2559	66.02	222	6.7	4	2663	57.92	89	4.6	4	2767	62.06	5	1	3
2560	66.02	229	6.7	4	2664	55.94	67	4.1	4	2768	62.96	110	2.1	4
2561	64.04	242	5.7	4	2665	55.94	70	4.1	4	2769	66.92	132	1.5	3
2562	62.06	233	5.1	4	2666	57.02	50	3.1	5	2770	69.08	246	3.1	4
2563	62.06	227	4.6	4	2667	55.94	66	2.6	6	2771	69.98	245	3.6	2
2564	60.98	260	4.1	4	2668	55.94	87	2.6	6	2772	69.08	226	5.1	3
2565	60.08	349	3.1	5	2669	53.96	292	1	6	2773	68	262	5.7	3
2566	57.92	115	3.6	4	2670	53.96	109	1	6	2774	66.92	254	6.7	4
2567	57.92	92	5.7	4	2671	55.94	115	2.6	4	2775	66.02	240	6.2	4
2568	59	95	5.7	4	2672	60.08	31	3.1	3	2776	62.96	244	6.2	4
2569	59	89	5.7	4	2673	66.02	6	2.6	3	2777	62.06	255	4.6	4
2570	59	229	4.1	4	2674	66.02	14	2.6	2	2778	62.06	255	4.1	4
2571	59	228	4.1	4	2675	71.06	239	4.1	3	2779	60.08	266	4.1	4
2572	59	247	3.6	4	2676	71.06	241	4.1	2	2780	60.08	236	3.1	5
2573	59	254	2.6	5	2677	71.06	245	4.1	3	2781	60.98	248	2.6	5
2574	57.92	238	4.6	4	2678	71.06	274	6.7	3	2782	60.98	57	1.5	6
2575	57.92	265	6.2	4	2679	71.06	260	5.7	3	2783	60.98	57	1.5	6
2576	59	252	4.6	4	2680	69.08	251	6.2	4	2784	62.06	88	3.6	4
2577	59	268	4.1	4	2681	68	249	6.2	4	2785	62.96	119	3.1	5
2578	64.04	314	6.2	4	2682	66.02	253	6.2	4	2786	62.96	106	3.6	4
2579	68	314	6.7	4	2683	64.04	239	5.1	4	2787	62.96	99	3.1	5
2580	66.92	277	6.2	3	2684	62.06	244	4.6	5	2788	62.96	337	1	6
2581	66.92	255	7.2	3	2685	60.98	246	4.1	5	2789	62.06	247	2.6	5
2582	66.92	255	8.7	3	2686	60.98	248	2.1	6	2790	62.06	311	2.1	5
2583	64.94	264	10.3	4	2687	62.06	124	3.6	5	2791	60.98	134	1	3
2584	66.02	265	10.3	4	2688	60.98	77	2.1	5	2792	62.96	237	3.1	4
2585	64.94	261	10.8	4	2689	60.08	76	2.6	5	2793	64.04	245	3.1	4
2586	62.96	255	9.8	4	2690	59	90	3.1	5	2794	66.92	240	4.1	4
2587	60.98	259	9.3	4	2691	60.08	90	2.1	5	2795	69.08	252	5.1	3
2588	60.98	269	7.2	4	2692	60.08	87	2.1	5	2796	69.08	235	5.7	3
2589	62.96	299	6.2	4	2693	57.92	100	2.6	6	2797	69.08	229	5.7	3
2590	62.96	329	7.7	4	2694	57.02	101	2.1	6	2798	69.98	236	6.2	3
2591	62.06	333	5.1	5	2695	59	80	1.5	3	2799	69.98	260	4.6	3
2592	62.06	330	6.7	4	2696	66.02	342	1	2	2800	69.98	258	4.6	3
2593	60.98	285	5.1	5	2697	73.04	118	2.1	3	2801	66.92	238	5.1	4
2594	60.08	309	3											

HOOR	TEMP	WD	WS	STAD	HOOR	TEMP	WD	WS	STAD	HOOR	TEMP	WD	WS	STAD
2809	60.98	132	3.6	4	2913	69.08	173	2.6	4	3017	73.04	242	5.7	4
2810	60.98	131	3.6	4	2914	71.06	174	3.6	2	3018	71.06	241	5.1	4
2811	60.98	140	3.1	5	2915	73.04	212	5.7	3	3019	66.92	254	6.2	4
2812	62.06	124	3.1	5	2916	75.02	226	5.7	3	3020	64.94	263	8.7	4
2813	60.98	125	2.6	5	2917	73.04	216	6.7	3	3021	64.94	258	8.7	4
2814	60.98	62	2.1	5	2918	71.96	242	6.7	3	3022	62.96	251	4.1	5
2815	62.06	137	2.6	4	2919	71.96	226	6.7	4	3023	62.96	231	4.1	5
2816	59	132	2.1	4	2920	69.98	230	6.7	4	3024	62.96	228	3.6	5
2817	60.08	138	3.1	4	2921	69.08	235	6.2	4	3025	62.96	144	2.6	6
2818	64.94	244	2.1	4	2922	68	241	5.7	4	3026	60.98	78	3.1	6
2819	64.94	238	2.1	4	2923	64.94	254	5.1	4	3027	60.98	22	2.6	6
2820	71.06	263	4.1	2	2924	62.96	228	4.1	4	3028	60.08	31	2.1	6
2821	69.98	247	5.1	3	2925	62.96	16	2.6	5	3029	60.08	43	3.6	5
2822	69.98	257	6.2	3	2926	62.96	226	3.1	5	3030	60.08	67	2.6	5
2823	69.98	265	6.2	4	2927	62.06	244	2.1	5	3031	60.98	45	3.6	4
2824	69.08	244	6.2	4	2928	62.06	228	2.1	5	3032	64.94	92	4.1	3
2825	68	249	6.2	4	2929	62.06	231	2.1	5	3033	68	86	4.1	3
2826	66.02	256	6.7	4	2930	62.06	232	3.1	5	3034	71.96	84	3.1	2
2827	64.04	265	4.6	4	2931	62.06	231	2.1	5	3035	73.94	198	2.6	2
2828	64.04	257	4.6	4	2932	62.96	241	2.1	5	3036	71.96	236	6.2	3
2829	64.04	260	4.6	4	2933	62.06	218	2.6	5	3037	71.96	227	6.2	3
2830	64.04	265	4.6	5	2934	62.06	231	2.1	5	3038	71.06	244	5.7	3
2831	60.98	341	2.1	5	2935	62.06	247	2.1	4	3039	71.06	269	6.7	4
2832	62.06	313	2.6	5	2936	64.04	290	2.1	4	3040	68	246	7.7	4
2833	62.06	360	1	6	2937	64.94	251	2.1	4	3041	66.92	248	6.7	4
2834	60.98	307	2.6	5	2938	68	242	3.6	4	3042	66.92	239	6.7	4
2835	60.08	22	1	6	2939	69.08	273	6.7	4	3043	64.94	226	5.1	4
2836	59	45	1	6	2940	69.98	250	3.6	2	3044	62.96	259	4.6	4
2837	60.08	339	2.1	5	2941	69.98	266	6.2	3	3045	62.06	241	3.6	4
2838	60.08	68	1	6	2942	69.98	247	6.2	3	3046	62.96	238	3.6	4
2839	62.06	156	1	3	2943	69.98	254	6.7	4	3047	62.06	236	3.1	6
2840	66.92	97	2.1	3	2944	68	236	6.2	4	3048	62.96	233	3.6	5
2841	78.98	25	2.6	3	2945	68	238	6.2	4	3049	62.06	233	3.1	6
2842	84.92	179	1	1	2946	64.04	231	5.7	4	3050	62.06	188	3.1	6
2843	89.06	26	3.6	2	2947	62.06	246	4.1	4	3051	60.98	312	1	6
2844	91.04	104	3.1	2	2948	62.06	246	1.5	6	3052	60.08	269	1	6
2845	91.04	100	3.1	2	2949	62.06	198	3.1	5	3053	59	57	2.1	6
2846	84.02	249	6.2	3	2950	62.06	231	2.6	5	3054	59	66	1.5	6
2847	84.02	240	6.2	4	2951	60.98	206	2.1	5	3055	60.08	89	2.6	4
2848	84.02	253	6.2	4	2952	60.08	346	2.1	6	3056	64.94	86	1.5	2
2849	84.02	262	7.2	4	2953	60.98	244	1	6	3057	68	250	2.1	2
2850	84.02	265	7.2	4	2954	60.98	90	1	6	3058	69.98	264	3.6	2
2851	80.06	254	8.2	4	2955	60.98	267	1	6	3059	71.06	236	4.1	3
2852	75.02	251	4.6	5	2956	60.08	144	3.1	5	3060	71.96	246	4.1	2
2853	73.04	237	4.1	5	2957	60.98	82	2.1	5	3061	71.06	254	5.7	3
2854	71.96	257	1.5	5	2958	62.06	117	1.5	6	3062	69.98	249	6.2	3
2855	71.06	177	1	6	2959	62.06	76	2.6	4	3063	71.06	246	6.2	4
2856	69.08	67	1	6	2960	64.94	89	2.1	4	3064	71.06	246	5.7	3
2857	68	266	1	6	2961	66.92	109	2.1	4	3065	69.98	238	7.2	4
2858	66.92	201	1	6	2962	71.06	254	3.1	2	3066	68	262	7.7	4
2859	68	199	1	6	2963	71.06	244	4.1	3	3067	66.92	236	4.6	4
2860	66.92	155	1	6	2964	71.06	236	4.6	2	3068	66.92	239	4.6	4
2861	66.92	224	1	6	2965	69.98	248	5.7	3	3069	64.94	295	1.5	6
2862	66.92	249	1	6	2966	69.98	265	7.2	3	3070	64.94	222	2.1	6
2863	69.08	97	3.6	4	2967	69.98	251	6.7	4	3071	62.96	261	4.1	5
2864	69.08	103	3.6	3	2968	69.98	252	6.2	4	3072	62.06	242	2.6	6
2865	69.08	98	3.6	3	2969	68	251	5.7	4	3073	60.98	242	3.1	6
2866	69.08	104	3.6	2	2970	66.92	248	5.1	4	3074	62.06	325	3.1	6
2867	69.08	97	3.6	2	2971	64.94	238	4.1	4	3075	60.98	23	2.1	6
2868	69.08	98	3.6	2	2972	62.96	240	3.6	4	3076	60.08	55	3.1	6
2869	69.08	99	3.6	2	2973	62.96	247	3.1	5	3077	59	79	3.6	5
2870	69.08	97	3.6	2	2974	62.06	251	1.5	6	3078	59	83	3.6	5
2871	69.08	103	3.6	4	2975	62.96	228	2.6	5	3079	60.98	76	4.1	4
2872	69.08	98	3.6	3	2976	62.06	228	2.6	5	3080	64.94	116	2.6	3
2873	78.98	248	3.1	3	2977	62.06	289	1	6	3081	68	135	3.1	2
2874	78.98	252	3.1	3	2978	62.06	342	2.6	5	3082	69.98	236	3.1	2
2875	73.94	242	4.6	4	2979	62.06	335	2.1	5	3083	71.06	241	4.6	2
2876	69.08	252	4.6	5	2980	60.98	301	2.6	5	3084	71.96	246	5.1	3
2877	69.08	245	3.1	6	2981	60.08	178	1	6	3085	71.96	253	5.7	3
2878	66.02	245	2.6	6	2982	59	84	2.1	6	3086	71.96	246	6.2	3
2879	66.92	193	2.6	6	2983	60.98	93	1	3	3087	71.06	252	5.1	3
2880	68	246	1	6	2984	64.04	274	1	2	3088	71.06	250	5.7	3
2881	66.02	200	2.1	6	2985	69.08	113	1.5	2	3089	69.08	248	5.7	4
2882	64.94	272	1	6	2986	73.04	79	2.6	2	3090	68	254	6.7	4
2883	64.04	54	3.1	6	2987	71.96	253	5.1	2	3091	66.02	268	6.2	4
2884	62.96	75	2.6	6	2988	71.06	240	5.7	3	3092	62.96	247	6.2	4
2885	62.06	91	1	6	2989	69.98	253	5.7	3	3093	62.06	233	4.6	5
2886	62.06	27	1	6	2990	71.06	241	6.2	3	3094	60.98	250	3.1	6
2887	64.04	76	3.6	4	2991	71.06	245	6.2	4	3095	60.98	219	3.1	6
2888	68	91	4.1	4	2992	71.06	244	5.1	3	3096	60.98	233	2.1	6
2889	73.04	104	2.6	3	2993	69.98	240	5.7	4	3097	60.98	141	2.6	6
2890	78.08	92	2.6	2	2994	68	237	5.1	4	3098	62.06	165	2.1	6
2891	80.06	121	4.1	3	2995	68	243	4.1	4	3099	59	66	3.1	6
2892	84.02	108	4.1	2	2996	64.94	237	2.6	6	3100	60.08	78	1.5	6
2893	84.02	133	3.1	2	2997	64.04	239	1.5	6	3101	60.98	266	2.1	6
2894	84.02	132	3.1	2	2998	64.04	112	1.5	6	3102	59	288	1	6
2895	75.02	242	5.7	3	2999	64.04	114	2.1	6	3103	62.06	112	1	3
2896	73.04	250	5.1	3	3000	64.94	138	1.5	6	3104	66.02	72	1.5	2
2897	71.96	246	4.6	3	3001	62.96	95	3.1	6	3105	71.06	54	2.1	2
2898	71.06	251	3.6	3	3002	62.06	112	3.1	5	3106	73.94	123	2.6	2
2899	66.92	231	3.6	4	3003	62.06	87	3.1	5	3107	75.02	245	5.1	3
2900	64.94	210	3.6	4	3004	62.06	93	3.1	5	3108	75.92	240	4.1	2
2901	64.94	218	3.1	5	3005	60.98	40	3.1	6	3109	75.02	238	5.7	3
2902	64.94	240	2.6	5	3006	60.98	38	3.1	6	3110	75.02	238	6.2	3
2903	64.04	222	1	6	3007	62.06	92	3.6	4	3111	73.94	262	6.7	4
2904	64.04	120	2.6	5	3008	66.02	105	3.6	3	3112	73.04	237	7.2	4
2905	62.96	142	3.1	5	3009	69.98	117	2.1	2	3113	73.04	237	6.2	4
2906	62.96	85	3.6											

HOOR	TEMP	WD	WS	STAB	HOOR	TEMP	WD	WS	STAB	HOOR	TEMP	WD	WS	STAB
3121	66.02	57	1.5	6	3225	68	231	2.6	4	3329	69.08	258	7.2	4
3122	64.04	7	2.1	6	3226	73.04	284	2.1	2	3330	66.92	252	6.7	4
3123	64.04	66	2.1	6	3227	73.94	236	5.1	3	3331	64.04	265	7.2	4
3124	64.94	50	1	6	3228	73.04	243	6.2	3	3332	62.96	260	7.2	4
3125	62.06	252	3.1	5	3229	73.04	234	6.7	3	3333	62.06	252	6.2	4
3126	60.98	248	4.1	4	3230	71.96	232	6.7	3	3334	60.98	255	6.2	4
3127	62.96	247	3.6	4	3231	73.04	252	7.2	4	3335	60.98	238	4.6	5
3128	66.92	249	4.1	3	3232	69.98	253	7.7	4	3336	60.08	245	3.1	6
3129	69.08	274	3.6	2	3233	68	248	6.7	4	3337	60.08	296	1	6
3130	69.08	266	3.6	2	3234	64.94	249	6.7	4	3338	59	95	2.1	6
3131	71.96	255	4.6	3	3235	62.96	255	5.7	4	3339	59	79	1.5	6
3132	75.02	253	4.6	2	3236	62.06	237	6.2	4	3340	59	37	2.6	6
3133	78.98	263	4.6	2	3237	62.06	233	3.1	5	3341	59	44	3.1	6
3134	82.04	257	5.1	3	3238	62.06	239	3.1	5	3342	57.92	92	3.6	4
3135	80.06	255	5.7	3	3239	62.06	236	3.1	5	3343	60.98	87	3.6	4
3136	77	252	5.7	3	3240	62.06	252	3.1	5	3344	64.04	80	3.6	3
3137	77	246	5.7	3	3241	62.06	239	2.6	5	3345	68	139	3.1	2
3138	71.06	262	6.7	4	3242	62.06	244	2.6	5	3346	71.96	121	2.6	2
3139	66.92	255	6.7	4	3243	62.96	216	2.1	5	3347	71.06	254	4.6	2
3140	66.02	244	5.1	4	3244	64.04	247	1.5	6	3348	71.06	241	6.7	3
3141	66.02	236	4.1	4	3245	64.04	251	1.5	6	3349	71.06	239	6.2	3
3142	66.02	244	3.1	5	3246	64.04	108	3.1	4	3350	69.98	237	6.2	3
3143	64.94	242	2.6	6	3247	62.96	126	3.1	4	3351	69.98	260	6.2	4
3144	64.94	128	2.6	6	3248	62.96	127	2.1	4	3352	69.98	259	7.2	4
3145	64.94	146	2.6	6	3249	64.04	250	4.6	4	3353	69.08	250	6.2	4
3146	64.94	339	2.1	6	3250	64.04	251	4.1	4	3354	68	245	5.1	4
3147	62.96	342	2.1	6	3251	64.04	261	5.1	4	3355	64.94	244	5.7	4
3148	64.04	332	2.1	6	3252	64.94	254	4.6	3	3356	60.98	256	5.1	5
3149	62.06	249	1.5	6	3253	68	239	5.7	4	3357	60.08	249	4.1	5
3150	62.06	311	1	6	3254	69.08	236	5.7	4	3358	60.08	249	4.6	5
3151	64.04	291	1	3	3255	68	237	5.7	4	3359	60.08	248	4.6	5
3152	66.92	238	2.6	3	3256	69.98	248	5.7	4	3360	59	246	2.6	6
3153	71.06	240	3.1	2	3257	68	242	5.1	4	3361	59	250	2.1	6
3154	73.04	275	3.6	2	3258	66.02	227	4.6	4	3362	59	282	1.5	6
3155	75.02	252	4.1	2	3259	66.02	227	5.1	4	3363	59	333	1	6
3156	75.02	252	4.6	2	3260	64.94	259	5.1	4	3364	57.02	86	2.6	6
3157	75.02	255	6.7	3	3261	64.04	226	4.1	4	3365	59	223	1	6
3158	75.02	246	6.7	3	3262	64.04	255	4.1	4	3366	57.92	65	2.6	4
3159	75.02	274	5.1	3	3263	64.04	255	4.1	4	3367	62.06	80	3.1	4
3160	75.92	265	5.1	3	3264	62.96	251	4.1	4	3368	64.94	84	3.1	3
3161	75.92	253	4.6	3	3265	62.96	265	3.6	4	3369	69.08	243	3.6	2
3162	71.96	237	4.6	3	3266	64.04	289	2.6	5	3370	69.08	223	4.6	3
3163	68	255	5.1	4	3267	62.06	250	3.1	5	3371	69.08	248	3.6	2
3164	64.04	252	5.1	4	3268	60.98	291	2.6	5	3372	69.98	244	5.7	3
3165	64.04	249	5.1	4	3269	60.98	216	2.1	5	3373	71.06	252	6.2	3
3166	62.96	252	3.1	5	3270	60.98	245	2.6	4	3374	71.06	247	7.2	3
3167	62.06	244	2.6	5	3271	62.96	301	3.1	4	3375	69.08	255	8.2	4
3168	62.96	227	2.1	5	3272	66.02	279	3.1	3	3376	69.98	233	6.7	4
3169	62.96	200	1	6	3273	69.08	347	3.1	4	3377	71.96	233	5.7	4
3170	62.06	115	1	6	3274	69.08	240	4.1	4	3378	69.98	236	5.7	4
3171	60.98	135	1	6	3275	69.98	231	5.1	4	3379	68	239	6.7	4
3172	62.06	256	2.1	5	3276	71.06	252	7.7	4	3380	66.02	247	7.2	4
3173	60.98	8	2.1	5	3277	69.98	254	7.7	4	3381	66.02	281	4.1	4
3174	62.06	67	3.1	5	3278	71.96	259	8.2	3	3382	64.94	248	4.6	5
3175	62.96	84	4.1	4	3279	71.96	243	8.2	4	3383	64.94	238	3.6	5
3176	66.02	109	3.6	4	3280	69.98	265	8.2	4	3384	66.02	53	2.6	6
3177	66.02	114	3.6	4	3281	69.08	238	8.2	4	3385	66.02	63	1.5	6
3178	73.94	68	2.1	2	3282	66.92	244	7.2	4	3386	62.96	272	1.5	6
3179	73.04	248	4.1	2	3283	66.02	250	7.7	4	3387	64.04	212	2.6	6
3180	73.04	246	5.1	3	3284	64.94	237	7.2	4	3388	60.98	360	2.1	6
3181	73.04	244	6.2	3	3285	64.04	245	5.7	4	3389	62.06	358	3.1	6
3182	71.96	239	5.7	3	3286	64.04	264	6.2	4	3390	62.06	97	2.1	4
3183	73.04	245	5.1	3	3287	64.04	257	4.6	4	3391	62.06	251	3.1	4
3184	71.96	242	5.7	3	3288	62.96	261	5.1	4	3392	64.04	244	3.1	4
3185	71.06	242	5.7	4	3289	62.06	256	5.1	4	3393	66.02	236	3.6	4
3186	68	242	5.1	4	3290	60.98	263	3.1	6	3394	66.02	238	3.6	4
3187	66.92	238	3.6	4	3291	60.98	264	3.1	5	3395	66.92	236	6.2	3
3188	64.94	241	4.6	4	3292	60.08	242	2.1	5	3396	68	245	5.1	3
3189	64.04	239	3.1	5	3293	60.08	357	1	6	3397	66.02	238	5.7	3
3190	64.94	242	3.1	5	3294	59	256	1.5	3	3398	66.02	252	6.7	3
3191	66.02	334	1	6	3295	62.06	323	3.1	4	3399	66.02	238	7.2	4
3192	66.02	117	3.6	4	3296	62.96	358	3.1	4	3400	66.92	236	6.7	4
3193	64.94	98	2.6	5	3297	68	333	1.5	2	3401	64.94	244	6.2	4
3194	64.94	105	2.6	5	3298	69.08	245	4.6	3	3402	64.04	256	5.1	4
3195	64.04	144	4.1	4	3299	69.98	241	6.2	3	3403	64.04	246	3.1	4
3196	64.04	138	4.1	4	3300	69.98	241	5.1	3	3404	60.98	275	3.6	4
3197	64.04	131	3.6	4	3301	71.06	238	6.2	4	3405	59	251	3.1	5
3198	64.04	130	3.1	5	3302	71.06	242	6.2	4	3406	59	254	3.6	4
3199	64.04	92	3.1	4	3303	71.96	265	7.7	4	3407	59	310	3.1	5
3200	66.02	144	3.1	4	3304	73.04	245	8.7	4	3408	59	314	3.6	4
3201	68	54	3.1	4	3305	71.96	244	9.3	4	3409	57.02	275	3.1	5
3202	71.06	253	5.1	3	3306	71.96	227	7.7	4	3410	57.92	231	2.6	6
3203	71.06	248	5.1	4	3307	68	251	7.7	4	3411	57.02	232	3.1	6
3204	69.98	251	6.2	3	3308	64.94	253	8.2	4	3412	55.94	84	3.1	6
3205	71.06	262	6.7	4	3309	64.04	251	5.7	4	3413	57.02	113	1	6
3206	71.06	240	6.2	3	3310	62.96	236	4.1	4	3414	57.02	109	2.6	4
3207	71.06	251	5.7	4	3311	62.96	236	4.1	4	3415	59	135	2.6	4
3208	71.06	251	6.2	4	3312	62.06	194	2.6	4	3416	62.96	140	2.1	3
3209	71.06	254	6.2	4	3313	62.06	189	4.1	4	3417	66.02	168	2.6	2
3210	68	243	4.6	4	3314	62.06	129	2.6	5	3418	66.92	234	6.2	4
3211	66.02	258	4.6	4	3315	60.08	74	2.1	5	3419	68	255	6.2	3
3212	64.04	255	3.6	4	3316	60.98	21	2.1	6	3420	68	242	6.2	3
3213	64.04	260	4.1	4	3317	60.98	19	2.6	5	3421	68	253	7.2	3
3214	64.04	255	3.6	4	3318	59	72	3.1	4	3422	68	255	6.2	3
3215	64.04	243	3.1	5	3319	62.06	73	2.1	4	3423	68	246	6.2	4
3216	64.04	234	2.6	5	3320	66.02	112	3.1	3	3424	66.92	250	6.7	4
3217	64.04	230	3.1	5	3321	69.08	86	3.6	2	3425	66.92	252	5.7	4
3218														

HOOR	TEMP	WD	WS	STAR	HOOR	TEMP	WD	WS	STAR	HOOR	TEMP	WD	WS	STAR
3433	62.06	246	3.6	4	3537	62.96	244	3.6	4	3641	73.04	248	5.7	3
3434	57.92	252	4.1	4	3538	64.04	246	4.1	4	3642	69.98	261	5.7	4
3435	59	251	3.1	5	3539	66.02	252	4.6	3	3643	69.08	258	5.1	4
3436	57.92	244	1.5	6	3540	66.92	254	5.7	4	3644	66.92	247	4.1	4
3437	57.02	101	3.1	6	3541	68	251	6.2	3	3645	66.92	210	3.1	5
3438	55.04	67	3.1	4	3542	68	253	6.2	3	3646	66.02	236	3.1	5
3439	59	85	4.1	4	3543	68	248	6.7	4	3647	64.04	244	3.1	5
3440	62.06	91	5.1	4	3544	66.92	258	7.2	4	3648	64.04	254	2.6	5
3441	66.02	78	4.6	4	3545	66.02	258	7.7	4	3649	64.04	241	2.1	5
3442	69.98	41	3.1	2	3546	64.04	261	7.2	4	3650	64.04	228	2.6	5
3443	73.04	125	3.6	3	3547	62.06	242	6.7	4	3651	62.96	202	1	6
3444	66.92	234	5.7	4	3548	62.06	244	6.7	4	3652	64.04	294	1	6
3445	66.02	248	6.7	4	3549	62.06	239	6.7	4	3653	64.04	25	2.1	5
3446	66.92	264	6.7	4	3550	62.06	243	6.7	4	3654	62.96	40	2.1	4
3447	68	264	9.3	4	3551	59	242	2.6	6	3655	66.02	138	1	3
3448	66.92	252	5.1	4	3552	59	236	2.6	5	3656	71.96	242	1.5	2
3449	71.06	239	5.7	4	3553	60.08	276	2.1	5	3657	77	309	2.6	2
3450	69.98	229	4.6	3	3554	60.08	310	2.1	5	3658	78.98	251	3.6	2
3451	66.92	234	3.6	4	3555	60.08	280	3.6	4	3659	77	250	5.7	3
3452	64.94	248	4.1	4	3556	60.98	356	1	6	3660	75.02	250	6.2	3
3453	64.04	190	3.1	5	3557	60.98	84	2.1	5	3661	78.08	248	6.2	3
3454	62.96	182	3.1	6	3558	60.98	80	1.5	5	3662	78.08	241	7.2	3
3455	62.96	153	2.6	6	3559	62.06	125	2.1	5	3663	75.92	246	6.7	4
3456	60.98	246	2.6	6	3560	62.06	240	5.1	5	3664	75.02	242	6.2	4
3457	60.08	183	1.5	6	3561	62.96	244	4.6	5	3665	75.02	237	6.2	4
3458	59	93	3.1	5	3562	64.04	267	5.1	5	3666	73.04	284	5.7	4
3459	59	103	3.1	5	3563	66.92	254	5.1	5	3667	69.08	253	4.1	4
3460	59	84	3.1	5	3564	66.92	246	5.7	3	3668	68	234	3.1	5
3461	57.92	77	4.1	4	3565	68	249	6.7	3	3669	68	205	3.1	5
3462	57.92	80	3.1	4	3566	68	254	7.7	3	3670	66.92	241	3.1	5
3463	59	110	4.1	4	3567	66.02	254	7.7	4	3671	66.02	245	2.6	5
3464	60.98	124	3.1	4	3568	64.94	252	7.2	4	3672	64.04	244	3.6	4
3465	66.02	108	5.7	4	3569	64.94	263	7.2	4	3673	62.96	248	3.1	6
3466	68	108	7.2	4	3570	64.04	261	6.7	4	3674	62.06	247	3.1	6
3467	68	109	7.2	3	3571	62.06	238	5.7	4	3675	62.96	253	4.1	5
3468	69.08	137	6.7	4	3572	59	246	5.1	4	3676	62.06	262	3.1	6
3469	69.98	146	5.7	4	3573	57.92	246	4.1	4	3677	62.96	117	1	6
3470	68	207	5.1	3	3574	57.92	239	3.6	4	3678	60.08	319	1	3
3471	66.02	251	7.7	4	3575	57.92	205	3.6	4	3679	62.96	160	1	3
3472	66.02	246	6.2	4	3576	57.92	177	3.1	5	3680	69.98	183	1	2
3473	64.94	249	5.7	4	3577	57.92	216	3.1	5	3681	75.02	215	2.6	2
3474	62.96	253	4.6	3	3578	57.02	198	3.1	5	3682	71.96	239	5.1	3
3475	62.06	280	4.1	4	3579	57.02	180	1	6	3683	68	251	5.1	3
3476	60.08	254	3.1	6	3580	57.02	249	2.1	5	3684	69.08	259	5.7	3
3477	59	248	3.1	6	3581	57.92	101	2.1	5	3685	69.08	238	6.2	3
3478	59	253	3.6	5	3582	59	83	1.5	3	3686	68	255	6.2	3
3479	60.08	252	3.6	5	3583	60.08	135	2.1	4	3687	69.08	255	5.7	3
3480	59	265	2.6	6	3584	62.06	251	2.6	4	3688	69.08	255	5.1	3
3481	59	319	2.6	6	3585	62.06	252	5.1	4	3689	69.08	246	5.1	3
3482	57.92	299	2.1	6	3586	64.04	251	5.1	3	3690	64.94	251	6.2	4
3483	57.02	258	3.6	4	3587	66.02	239	5.1	3	3691	62.96	248	5.7	4
3484	57.92	346	2.1	5	3588	66.92	236	6.2	3	3692	62.06	249	3.6	4
3485	57.92	299	2.1	5	3589	66.92	256	5.7	3	3693	60.98	256	3.6	4
3486	57.02	68	2.1	4	3590	66.02	265	6.2	4	3694	60.98	255	3.6	4
3487	57.92	157	1	3	3591	66.02	256	6.2	4	3695	62.06	218	3.1	5
3488	62.06	247	2.6	3	3592	64.94	267	7.7	4	3696	62.06	227	3.1	5
3489	64.04	254	2.6	2	3593	64.04	266	6.2	4	3697	62.06	229	3.1	5
3490	62.96	251	4.1	3	3594	64.04	266	5.1	4	3698	62.06	229	3.1	5
3491	66.92	260	4.6	2	3595	64.04	275	5.1	4	3699	62.06	226	3.1	5
3492	66.02	253	6.2	3	3596	59	262	4.6	5	3700	62.06	227	3.1	5
3493	66.02	252	8.2	3	3597	59	272	3.1	6	3701	62.06	230	3.1	5
3494	66.02	262	7.7	3	3598	57.92	250	3.1	6	3702	62.06	229	3.1	4
3495	64.94	257	7.7	4	3599	59	238	2.6	6	3703	62.06	226	3.1	4
3496	64.94	247	7.7	4	3600	57.02	253	2.1	6	3704	62.06	230	3.1	4
3497	64.04	254	7.7	4	3601	57.92	223	3.1	6	3705	66.92	117	3.1	4
3498	62.06	257	6.7	4	3602	57.02	232	2.6	6	3706	71.06	116	2.6	2
3499	60.98	252	6.2	4	3603	57.92	212	1.5	6	3707	73.04	259	4.1	2
3500	60.98	250	6.2	4	3604	57.02	271	2.1	6	3708	71.06	249	4.6	2
3501	59	258	4.1	4	3605	57.02	254	3.1	5	3709	71.96	240	4.6	2
3502	59	249	4.1	4	3606	55.04	77	2.6	4	3710	73.04	245	5.1	3
3503	59	247	4.1	4	3607	57.92	96	1.5	3	3711	71.06	242	5.7	3
3504	57.92	248	3.6	4	3608	62.06	99	1.5	2	3712	69.08	239	5.1	3
3505	59	248	2.6	5	3609	64.94	171	1.5	2	3713	68	242	5.1	3
3506	59	253	2.6	5	3610	66.02	202	3.1	2	3714	68	243	5.1	3
3507	59	284	2.6	5	3611	66.92	240	5.1	3	3715	64.04	257	4.1	4
3508	60.08	121	1.5	6	3612	68	229	6.2	3	3716	62.96	270	4.1	4
3509	60.08	118	4.1	4	3613	68	241	6.2	3	3717	62.96	269	4.1	4
3510	60.08	113	2.6	4	3614	69.08	255	6.7	3	3718	62.96	275	4.1	4
3511	60.08	112	1.5	3	3615	69.08	255	5.7	3	3719	59	242	2.6	6
3512	60.98	135	3.6	4	3616	68	253	5.1	3	3720	59	245	1.5	6
3513	60.98	242	3.6	4	3617	66.92	252	4.6	3	3721	59	79	1.5	6
3514	62.06	237	3.6	4	3618	66.02	264	4.1	3	3722	62.06	59	2.6	5
3515	62.96	253	4.6	3	3619	64.04	244	4.1	3	3723	62.96	58	3.1	5
3516	62.96	272	4.1	3	3620	62.06	254	4.1	5	3724	62.96	57	3.1	5
3517	62.96	248	4.6	3	3621	60.98	251	2.6	6	3725	62.06	124	3.6	4
3518	62.96	250	4.6	3	3622	60.98	325	2.1	6	3726	62.06	78	3.6	4
3519	66.02	244	6.2	4	3623	62.06	307	3.1	6	3727	62.96	115	3.6	4
3520	64.94	246	5.7	3	3624	62.06	307	2.6	6	3728	64.94	112	4.1	4
3521	64.04	248	7.2	4	3625	62.06	24	2.6	6	3729	66.02	98	4.1	4
3522	64.04	247	7.2	4	3626	60.98	72	1	6	3730	66.92	144	3.1	4
3523	62.06	255	5.1	4	3627	60.98	245	1	6	3731	69.98	144	4.6	3
3524	60.08	251	4.6	5	3628	60.08	19	1	6	3732	73.04	117	3.6	2
3525	60.08	255	4.1	5	3629	59	95	1	6	3733	77	125	3.6	2
3526	59	246	3.6	5	3630	60.08	323	2.1	4	3734	75.02	235	6.7	3
3527	59	236	2.6	6	3631	62.96	2	2.1	4	3735	73.04	254	6.2	3
3528	59	230	2.6	6	3632	68	3	2.6	3	3736	73.04	255	5.7	3
3529	59	180	3.1	5	3633	73.04	232	2.6	2	3737	69.98	251	5.7	3
3530	57.92	164	2.6	5	3634	71.96</								

HOOR	TEMP	WD	WS	STAB	HOOR	TEMP	WD	WS	STAB	HOOR	TEMP	WD	WS	STAB
3745	62.96	275	2.6	5	3849	69.98	208	1.5	3	3953	69.98	258	6.7	4
3746	62.06	269	1.5	6	3850	71.06	241	4.6	3	3954	68	254	6.7	4
3747	62.06	209	2.6	5	3851	71.96	248	5.1	3	3955	66.02	256	5.7	4
3748	62.96	240	2.6	5	3852	73.04	260	4.1	2	3956	62.96	249	5.1	4
3749	64.04	110	3.1	5	3853	73.04	232	3.6	2	3957	62.06	236	4.6	4
3750	64.04	115	3.1	5	3854	73.04	247	4.1	2	3958	60.98	247	4.1	4
3751	64.04	116	3.1	4	3855	73.04	251	5.7	3	3959	60.98	258	3.6	4
3752	64.04	155	2.1	4	3856	71.96	249	5.7	3	3960	60.98	259	3.6	4
3753	66.02	93	2.6	4	3857	69.98	261	5.7	3	3961	62.06	262	3.1	5
3754	68	117	2.6	4	3858	69.08	259	3.6	3	3962	62.06	321	2.6	5
3755	68	117	2.6	4	3859	68	246	3.1	4	3963	62.06	350	2.1	5
3756	71.06	248	4.1	3	3860	64.94	255	4.1	4	3964	62.96	4	1	6
3757	71.96	251	5.1	3	3861	64.04	237	3.1	5	3965	62.96	55	1.5	6
3758	71.06	246	4.6	2	3862	62.96	230	2.6	5	3966	62.96	142	2.1	4
3759	71.96	246	4.6	2	3863	64.04	232	2.1	5	3967	64.04	237	3.1	4
3760	69.98	238	4.6	3	3864	64.94	360	2.1	5	3968	64.94	242	2.1	4
3761	71.06	240	4.1	3	3865	64.94	144	1.5	6	3969	66.02	98	2.6	4
3762	69.08	246	4.6	3	3866	66.02	142	3.1	5	3970	73.04	194	2.6	4
3763	66.02	243	5.1	4	3867	64.94	141	1.5	6	3971	71.96	258	5.7	3
3764	64.04	268	4.1	4	3868	64.94	136	4.1	4	3972	71.96	253	5.7	3
3765	62.96	255	4.1	4	3869	64.94	137	4.1	4	3973	71.96	257	6.2	3
3766	64.04	264	3.6	4	3870	64.04	131	3.1	4	3974	71.06	247	6.7	3
3767	64.04	250	2.6	5	3871	64.94	106	3.1	4	3975	69.98	265	6.7	3
3768	64.04	259	2.1	5	3872	66.02	141	1.5	3	3976	69.98	254	6.7	4
3769	64.04	309	2.6	5	3873	69.08	136	4.6	4	3977	69.08	249	7.2	4
3770	64.04	308	2.6	5	3874	69.98	228	4.1	4	3978	66.92	236	6.7	4
3771	64.94	289	2.1	5	3875	69.98	226	4.1	4	3979	64.94	255	6.2	4
3772	64.94	263	2.1	5	3876	71.06	243	4.6	2	3980	62.96	247	6.2	4
3773	64.94	175	2.1	5	3877	73.04	249	5.7	3	3981	62.06	250	5.1	4
3774	64.94	134	1.5	3	3878	71.96	272	6.2	3	3982	60.98	265	4.6	4
3775	64.94	229	2.6	4	3879	71.96	258	7.2	3	3983	60.98	251	4.1	4
3776	66.02	178	2.6	4	3880	69.98	260	7.2	4	3984	62.06	253	3.1	5
3777	66.02	233	3.1	4	3881	69.08	242	6.2	4	3985	62.06	250	2.6	5
3778	66.92	244	4.1	4	3882	66.92	252	5.7	4	3986	62.06	42	1	5
3779	69.08	247	4.1	3	3883	64.94	251	5.1	4	3987	62.96	250	2.6	5
3780	69.08	255	4.1	3	3884	64.04	259	5.1	4	3988	62.06	250	3.1	5
3781	71.96	256	5.1	3	3885	62.96	228	4.6	5	3989	62.06	249	2.6	5
3782	73.04	236	4.6	2	3886	62.06	250	4.1	5	3990	62.96	11	2.1	4
3783	71.96	253	5.1	3	3887	60.08	265	3.6	5	3991	57.92	314	1	3
3784	71.06	253	5.7	3	3888	60.08	270	3.6	4	3992	64.04	247	1.5	3
3785	69.98	252	5.1	3	3889	62.06	262	2.6	5	3993	64.94	255	3.6	4
3786	66.92	269	4.6	3	3890	62.96	268	1	6	3994	64.94	249	3.6	4
3787	64.94	263	5.1	4	3891	62.06	228	2.6	5	3995	69.98	226	4.6	3
3788	62.96	246	4.6	4	3892	62.06	226	2.6	5	3996	69.98	234	4.6	3
3789	62.96	252	5.1	4	3893	62.96	232	2.6	5	3997	71.06	250	5.7	3
3790	62.06	248	4.1	4	3894	62.96	341	1	3	3998	69.98	249	6.2	3
3791	62.06	251	3.1	5	3895	64.04	148	1.5	3	3999	69.98	260	6.2	3
3792	62.06	255	2.6	5	3896	66.02	140	4.1	4	4000	69.08	263	6.2	4
3793	62.06	270	2.1	5	3897	66.92	140	2.6	4	4001	66.92	252	6.2	4
3794	62.06	255	2.6	5	3898	68	244	4.1	4	4002	66.02	275	4.1	3
3795	62.06	243	2.1	5	3899	69.98	271	3.6	2	4003	62.96	254	4.6	4
3796	62.06	226	2.1	5	3900	69.98	240	5.7	3	4004	62.06	261	4.1	4
3797	62.06	268	2.1	5	3901	71.06	243	6.7	3	4005	60.98	257	3.1	5
3798	62.06	6	1.5	3	3902	71.06	265	6.2	3	4006	60.08	257	2.6	5
3799	62.06	257	2.1	4	3903	69.98	261	7.2	3	4007	60.98	237	2.6	6
3800	62.96	239	3.1	4	3904	69.98	252	6.2	4	4008	60.08	250	2.6	5
3801	64.04	277	3.1	4	3905	69.98	249	6.2	4	4009	59	246	2.6	5
3802	69.08	254	4.1	4	3906	68	254	6.2	4	4010	60.08	249	2.1	5
3803	69.08	230	4.1	3	3907	66.02	254	5.7	4	4011	60.08	64	1	6
3804	69.98	266	5.1	3	3908	62.96	250	6.2	4	4012	62.06	198	2.6	5
3805	69.98	253	5.1	3	3909	62.06	251	5.7	4	4013	62.06	259	1.5	6
3806	69.98	248	5.1	3	3910	62.06	236	5.1	4	4014	60.98	352	2.6	4
3807	69.98	243	5.1	3	3911	60.98	237	4.1	4	4015	62.06	77	2.6	4
3808	69.08	239	6.2	4	3912	60.98	244	4.1	4	4016	62.96	53	2.6	4
3809	68	264	5.7	3	3913	62.96	249	2.6	5	4017	66.92	88	3.1	4
3810	66.02	254	5.7	4	3914	62.96	113	2.1	5	4018	71.06	164	4.1	3
3811	64.04	263	5.7	4	3915	64.04	290	1	6	4019	69.98	247	4.6	2
3812	62.06	248	4.1	4	3916	64.04	142	2.6	5	4020	69.98	258	6.2	3
3813	62.06	239	4.6	4	3917	64.04	160	3.1	5	4021	69.98	239	5.1	3
3814	60.98	250	4.1	4	3918	64.04	72	2.6	4	4022	71.06	237	5.1	3
3815	60.98	249	4.1	4	3919	64.94	105	3.1	4	4023	69.98	263	5.7	3
3816	60.08	237	2.6	5	3920	66.92	80	3.1	4	4024	69.98	248	5.7	3
3817	60.08	240	2.1	5	3921	69.08	162	2.6	4	4025	69.08	248	7.7	4
3818	60.98	280	2.6	5	3922	71.06	246	5.1	3	4026	66.92	262	5.7	4
3819	60.98	236	2.1	5	3923	71.06	255	5.1	3	4027	66.02	242	5.7	4
3820	60.98	237	2.1	5	3924	71.96	246	5.7	3	4028	64.94	262	5.1	4
3821	62.06	60	2.1	5	3925	71.96	232	6.2	3	4029	64.04	235	3.1	5
3822	62.06	77	2.1	4	3926	71.96	234	5.7	3	4030	62.06	255	3.1	5
3823	62.96	105	2.6	4	3927	69.98	250	6.7	3	4031	62.96	205	1	6
3824	66.02	136	1	2	3928	69.98	264	6.2	4	4032	62.96	336	1	6
3825	69.08	236	4.1	3	3929	69.08	265	6.7	4	4033	62.06	240	2.6	6
3826	69.98	244	4.1	3	3930	66.92	265	6.2	4	4034	62.06	262	2.6	6
3827	71.06	229	5.1	3	3931	64.94	256	5.1	4	4035	62.96	26	1	6
3828	69.98	261	4.6	2	3932	62.96	226	4.6	4	4036	62.06	140	1	6
3829	71.06	255	5.1	3	3933	62.06	228	4.1	4	4037	62.06	158	1	6
3830	71.06	264	5.1	3	3934	62.06	237	3.6	4	4038	62.06	245	2.1	4
3831	69.98	250	5.1	3	3935	62.06	237	3.1	5	4039	64.94	18	1	3
3832	69.08	271	5.1	3	3936	62.06	228	2.6	5	4040	68	111	2.6	3
3833	69.08	259	5.1	3	3937	60.98	259	2.6	5	4041	71.96	114	2.6	2
3834	66.92	273	4.1	3	3938	60.98	260	1.5	6	4042	71.96	112	2.6	2
3835	64.04	249	3.1	4	3939	62.96	249	1.5	6	4043	75.02	251	4.6	2
3836	62.06	244	4.1	4	3940	62.96	300	1.5	6	4044	73.04	238	5.7	3
3837	62.06	236	4.1	4	3941	62.96	297	1.5	6	4045	71.96	233	6.2	3
3838	60.08	238	2.6	5	3942	64.04	91	2.6	4	4046	73.04	232	6.2	3
3839	60.08	254	2.6	5	3943	64.94	49	2.6	4	4047	73.04	242	6.2	3
3840	60.98	237	2.1	5	3944	66.02	157	3.1	4	4048	73.94	250	5.7	3
3841	60.98	186	2.1	5										

HOOR	TEMP	WD	WS	STAB	HOOR	TEMP	WD	WS	STAB	HOOR	TEMP	WD	WS	STAB
4057	66.02	122	1.5	6	4161	66.92	137	2.6	4	4265	68	237	8.7	4
4058	66.02	55	1.5	6	4162	68	142	3.1	4	4266	68	245	8.7	4
4059	64.94	178	3.1	5	4163	69.08	252	4.1	3	4267	68	236	8.7	4
4060	64.04	88	2.6	5	4164	69.98	249	5.7	4	4268	68	242	8.7	4
4061	64.94	114	3.1	5	4165	71.96	244	6.2	3	4269	68	243	8.7	4
4062	64.04	96	3.1	4	4166	71.06	250	5.7	3	4270	68	238	8.7	4
4063	64.94	103	3.1	4	4167	69.98	248	5.7	3	4271	68	243	8.7	4
4064	64.94	96	3.1	4	4168	69.98	243	5.7	3	4272	68	245	8.7	5
4065	71.96	123	3.1	2	4169	68	242	6.2	4	4273	68	237	8.7	5
4066	75.92	114	2.6	2	4170	66.92	251	5.1	4	4274	68	237	8.7	5
4067	73.04	262	5.1	3	4171	64.94	244	5.1	4	4275	68	236	8.7	5
4068	73.04	236	4.6	2	4172	64.04	263	5.1	4	4276	68	245	8.7	6
4069	73.04	236	6.2	3	4173	62.96	258	4.1	4	4277	68	242	8.7	5
4070	73.94	262	5.1	3	4174	62.96	261	3.1	5	4278	68	238	8.7	4
4071	73.04	236	5.1	3	4175	64.04	241	2.6	5	4279	68	237	8.7	4
4072	73.94	260	4.1	3	4176	64.04	338	3.1	5	4280	68	239	8.7	3
4073	73.04	255	4.1	3	4177	64.04	314	3.1	5	4281	68	104	3.1	2
4074	71.06	251	4.1	3	4178	64.04	198	2.6	5	4282	71.96	246	1.5	2
4075	69.08	254	3.1	4	4179	64.04	202	2.6	4	4283	71.96	255	6.2	3
4076	66.02	238	4.6	4	4180	64.04	171	3.6	4	4284	71.06	253	6.7	3
4077	64.94	226	2.6	5	4181	62.96	123	3.1	5	4285	71.96	273	6.7	3
4078	66.02	126	4.6	4	4182	62.96	117	2.6	4	4286	71.06	257	5.7	3
4079	64.94	134	2.6	6	4183	62.96	185	3.1	4	4287	71.06	255	6.2	3
4080	62.96	128	2.1	5	4184	64.94	182	2.6	4	4288	71.06	272	7.2	4
4081	60.98	171	2.1	5	4185	66.02	236	3.6	4	4289	69.98	256	7.2	4
4082	62.96	172	2.1	5	4186	66.92	254	5.1	4	4290	69.08	252	6.2	4
4083	62.06	91	2.1	5	4187	68	248	4.6	3	4291	69.08	255	4.1	4
4084	62.06	141	2.6	5	4188	69.98	266	5.7	3	4292	69.08	244	4.1	4
4085	62.06	78	1.5	6	4189	71.06	247	6.7	3	4293	66.02	256	3.1	6
4086	62.06	81	1.5	6	4190	71.96	234	6.2	3	4294	66.02	114	2.1	6
4087	62.96	227	2.1	4	4191	71.06	249	6.2	3	4295	68	112	3.6	5
4088	64.04	260	3.1	4	4192	69.98	236	5.1	3	4296	68	88	3.1	6
4089	64.94	251	3.1	4	4193	68	248	6.2	4	4297	68	86	3.1	6
4090	68	252	4.1	4	4194	68	249	6.2	4	4298	66.02	89	3.1	6
4091	69.98	253	5.7	3	4195	64.04	256	5.7	4	4299	66.02	317	1	6
4092	69.98	250	5.7	3	4196	64.04	259	5.7	4	4300	64.04	82	2.6	6
4093	71.06	236	5.1	3	4197	62.06	251	4.1	4	4301	64.04	59	2.6	6
4094	71.06	247	5.1	3	4198	62.06	238	3.1	5	4302	64.04	96	2.1	4
4095	71.06	254	5.1	3	4199	62.06	226	3.1	5	4303	66.92	109	2.1	4
4096	69.98	246	4.6	3	4200	62.96	183	3.1	6	4304	66.92	108	2.1	4
4097	71.06	258	4.1	3	4201	62.06	113	3.1	5	4305	80.96	230	2.6	2
4098	69.08	271	4.6	3	4202	62.06	138	2.1	5	4306	78.98	245	4.6	3
4099	64.94	256	7.2	3	4203	60.98	117	2.6	5	4307	80.06	252	4.1	2
4100	64.04	266	6.2	4	4204	62.06	129	2.6	5	4308	82.04	252	5.1	3
4101	64.04	268	6.2	4	4205	60.08	67	2.1	5	4309	82.94	255	5.1	3
4102	62.06	251	4.1	4	4206	60.08	76	2.1	4	4310	84.02	256	6.7	3
4103	62.96	246	3.1	5	4207	64.04	69	2.1	4	4311	82.04	254	7.7	3
4104	62.06	256	2.1	5	4208	66.02	156	2.1	4	4312	80.06	245	7.7	4
4105	64.04	167	3.1	5	4209	69.08	180	2.1	4	4313	77	253	7.2	4
4106	64.04	247	1	5	4210	69.08	184	2.1	4	4314	77	257	7.2	4
4107	64.04	217	3.1	5	4211	69.08	176	2.1	3	4315	77	255	4.1	4
4108	64.04	224	1.5	6	4212	69.08	176	2.1	3	4316	75.92	242	3.6	4
4109	64.94	112	4.1	4	4213	69.08	184	2.1	4	4317	73.94	239	3.1	5
4110	64.94	247	2.1	4	4214	69.08	179	2.1	4	4318	75.02	162	2.1	5
4111	64.94	246	2.1	4	4215	69.08	176	2.1	4	4319	73.94	114	3.1	5
4112	64.94	239	3.1	4	4216	69.08	176	2.1	4	4320	73.04	87	1	6
4113	66.92	229	4.6	4	4217	69.08	178	2.1	4	4321	69.08	313	1	6
4114	66.92	234	4.6	4	4218	64.94	262	8.2	4	4322	69.08	123	2.6	6
4115	69.08	244	4.6	3	4219	62.96	246	6.7	4	4323	66.02	80	3.6	5
4116	69.08	236	4.6	3	4220	62.06	259	4.6	4	4324	66.02	76	3.1	6
4117	71.06	238	6.2	3	4221	60.98	245	4.1	4	4325	64.94	68	3.1	6
4118	69.98	255	6.2	3	4222	60.98	242	5.7	4	4326	64.94	77	3.1	4
4119	69.98	261	7.7	3	4223	60.98	241	4.1	4	4327	66.92	94	3.6	4
4120	69.08	252	8.2	4	4224	60.08	252	3.1	5	4328	71.96	89	3.6	3
4121	69.08	261	7.2	4	4225	60.08	252	4.1	4	4329	71.96	94	3.6	3
4122	66.02	258	7.7	4	4226	59	265	4.1	4	4330	82.94	118	3.1	2
4123	64.94	258	5.7	4	4227	60.08	283	4.1	4	4331	87.98	88	2.6	1
4124	62.06	250	4.1	4	4228	57.92	255	3.1	5	4332	84.02	246	5.1	3
4125	60.98	247	4.1	4	4229	59	109	2.6	5	4333	84.02	254	5.1	3
4126	60.98	231	3.1	5	4230	59	93	2.1	4	4334	84.02	249	5.1	3
4127	62.06	238	3.1	5	4231	60.98	116	3.1	4	4335	84.02	255	5.1	3
4128	60.98	238	4.1	4	4232	60.98	116	3.1	4	4336	84.02	252	5.1	4
4129	62.06	247	3.1	5	4233	66.02	125	3.1	4	4337	84.02	252	5.1	4
4130	62.06	252	2.1	5	4234	66.02	116	3.1	4	4338	84.02	252	5.1	4
4131	62.06	245	2.1	5	4235	64.94	241	7.2	3	4339	84.02	248	5.1	4
4132	60.98	251	2.6	5	4236	66.92	236	6.2	3	4340	84.02	251	5.1	4
4133	62.06	248	2.1	5	4237	66.92	243	6.2	3	4341	84.02	249	5.1	4
4134	60.98	324	2.1	4	4238	66.92	226	6.7	3	4342	84.02	252	5.1	4
4135	60.98	323	2.1	4	4239	66.92	252	7.7	3	4343	84.02	247	5.1	4
4136	64.94	244	3.6	3	4240	66.92	260	6.2	4	4344	84.02	247	5.1	4
4137	64.94	243	3.6	3	4241	64.94	258	5.7	3	4345	84.02	248	5.1	4
4138	68	239	3.6	4	4242	64.94	264	7.2	4	4346	63.68	255	3.1	4
4139	68	253	4.6	2	4243	62.96	258	5.1	4	4347	63.68	254	3.1	4
4140	69.08	250	4.6	2	4244	62.06	257	6.7	4	4348	63.5	248	2.1	4
4141	69.98	243	7.2	3	4245	60.08	243	5.1	4	4349	62.06	251	2.6	4
4142	69.08	241	6.2	3	4246	60.08	240	6.2	4	4350	62.24	250	2.1	4
4143	69.08	275	6.2	3	4247	60.08	259	5.1	4	4351	63.32	242	3.6	4
4144	68	264	6.7	4	4248	59	253	4.1	4	4352	64.22	254	4.1	4
4145	66.92	250	7.2	4	4249	59	261	4.1	4	4353	67.82	264	3.1	4
4146	66.02	237	5.7	4	4250	59	255	3.6	4	4354	70.7	263	5.1	4
4147	64.04	243	4.6	4	4251	57.02	246	3.1	5	4355	73.22	238	4.6	4
4148	62.06	237	4.1	4	4252	57.92	308	2.1	5	4356	73.22	241	4.6	4
4149	62.06	259	4.1	5	4253	57.02	246	1.5	6	4357	74.66	262	6.2	4
4150	60.98	232	3.6	5	4254	57.02	76	2.1	4	4358	72.5	250	6.7	4
4151	60.08	244	3.1	6	4255	60.08	340	2.1	4	4359	73.94	261	7.2	4
4152	60.98	238	2.6	6	4256	62.96	342	2.1	3	4360	72.68	251	6.7	4
4153	60.08	245	2.6	6	4257	66.02	174	1.5	2	4361	72.14	254	7.7	

HOOR	TEMP	WD	WS	STAR	HOOR	TEMP	WD	WS	STAR	HOOR	TEMP	WD	WS	STAR
4369	66.02	140	1.5	4	4473	71.42	226	2.6	4	4577	70.7	262	5.1	4
4370	65.84	121	2.6	4	4474	76.28	232	3.6	4	4578	69.44	249	6.2	4
4371	65.48	162	1	4	4475	71.06	235	4.1	4	4579	69.44	252	7.2	4
4372	65.84	321	3.1	4	4476	71.96	227	5.7	4	4580	67.1	254	5.1	4
4373	66.02	310	1.5	4	4477	72.68	238	5.7	4	4581	66.56	254	4.1	4
4374	64.94	242	3.1	4	4478	72.68	251	6.7	4	4582	66.38	249	3.1	4
4375	66.02	241	2.6	4	4479	71.6	258	7.2	4	4583	66.2	251	3.1	4
4376	71.06	225	2.1	4	4480	70.52	264	6.7	4	4584	65.66	254	2.6	4
4377	74.12	241	3.6	4	4481	69.8	258	6.7	4	4585	65.3	256	2.1	4
4378	71.78	244	5.1	4	4482	67.46	252	5.1	4	4586	64.94	262	2.1	4
4379	72.14	246	4.6	4	4483	65.48	235	5.1	4	4587	64.58	261	2.1	4
4380	72.5	253	5.1	4	4484	64.22	240	6.2	4	4588	64.4	254	2.1	4
4381	73.76	254	5.7	4	4485	62.06	242	5.1	4	4589	64.58	251	2.1	4
4382	73.04	262	5.7	4	4486	61.34	235	5.1	4	4590	64.58	247	2.1	4
4383	73.04	252	6.7	4	4487	60.08	248	3.1	4	4591	65.66	245	3.6	4
4384	71.96	253	6.2	4	4488	59.36	255	2.6	4	4592	66.92	251	4.1	4
4385	69.98	238	5.7	4	4489	59.54	234	2.6	4	4593	69.08	258	4.1	4
4386	69.44	229	4.6	4	4490	59.9	245	2.1	4	4594	72.32	261	4.1	4
4387	68.18	235	4.1	4	4491	60.08	249	2.1	4	4595	73.22	245	4.6	4
4388	64.76	247	3.6	4	4492	60.44	237	2.1	4	4596	72.5	264	5.1	4
4389	64.76	253	3.6	4	4493	60.26	254	2.1	4	4597	74.66	268	5.7	4
4390	64.04	239	2.6	4	4494	60.44	262	2.1	4	4598	74.66	274	6.2	4
4391	63.86	236	2.1	4	4495	60.44	257	3.1	4	4599	73.94	254	7.2	4
4392	63.86	242	2.1	4	4496	62.6	260	2.6	4	4600	73.22	252	8.2	4
4393	63.86	239	2.1	4	4497	66.2	249	4.1	4	4601	71.96	249	7.7	4
4394	63.86	244	2.1	4	4498	66.74	251	4.1	4	4602	70.52	249	7.2	4
4395	64.94	236	2.6	4	4499	67.1	264	4.6	4	4603	68.9	254	6.2	4
4396	65.48	237	2.6	4	4500	64.94	241	5.1	4	4604	67.1	248	5.1	5
4397	64.94	241	1.5	4	4501	66.2	259	5.7	4	4605	66.38	250	5.1	5
4398	64.94	238	1.5	4	4502	66.38	257	5.7	4	4606	66.2	232	4.1	5
4399	65.3	246	2.6	4	4503	66.2	260	6.7	4	4607	66.02	233	3.1	5
4400	67.82	317	2.6	4	4504	66.92	269	5.7	4	4608	65.48	226	2.6	5
4401	71.24	240	4.1	4	4505	66.2	260	6.7	4	4609	64.94	283	2.8	5
4402	68.36	241	4.1	4	4506	62.6	255	5.1	4	4610	65.48	253	2.1	5
4403	67.82	251	4.6	4	4507	61.34	244	5.7	4	4611	65.48	183	2.6	5
4404	70.16	274	5.1	4	4508	59.36	236	4.6	4	4612	65.48	244	2.6	6
4405	72.68	239	3.1	4	4509	58.64	249	3.6	4	4613	64.76	257	2.1	6
4406	71.42	246	4.1	4	4510	58.64	269	4.6	4	4614	65.48	260	2.6	4
4407	67.46	247	5.7	4	4511	58.1	248	3.6	4	4615	66.56	250	3.1	4
4408	68.54	248	5.7	4	4512	57.92	236	3.1	4	4616	68.54	264	4.6	3
4409	72.5	272	4.1	4	4513	57.92	250	2.6	4	4617	70.52	238	4.6	3
4410	71.6	257	4.6	4	4514	57.92	252	2.1	4	4618	71.06	248	4.6	3
4411	66.92	247	5.1	4	4515	57.74	256	2.1	4	4619	72.32	249	4.6	2
4412	64.04	249	4.6	4	4516	57.74	246	2.1	4	4620	73.22	237	5.1	2
4413	63.5	236	3.6	4	4517	58.1	238	2.1	4	4621	73.22	236	5.1	2
4414	64.22	235	3.1	4	4518	58.28	265	2.6	4	4622	74.3	247	6.2	3
4415	64.04	235	2.1	4	4519	53.06	240	2.6	4	4623	73.4	261	5.7	3
4416	64.04	231	3.1	4	4520	56.3	244	2.1	4	4624	71.6	256	5.7	4
4417	64.58	235	2.1	4	4521	56.12	243	2.1	4	4625	70.34	249	5.7	3
4418	64.22	339	3.1	4	4522	62.24	243	3.6	4	4626	69.62	243	5.7	3
4419	63.5	360	2.1	4	4523	62.24	238	3.6	4	4627	66.74	240	5.7	4
4420	64.58	181	1	4	4524	60.98	254	3.6	4	4628	65.66	254	4.6	4
4421	64.58	41	1	4	4525	71.06	252	4.1	4	4629	64.94	248	3.6	4
4422	64.58	185	1	4	4526	69.44	257	5.1	4	4630	64.94	253	3.6	4
4423	64.58	203	1	4	4527	69.44	255	5.7	4	4631	64.58	232	3.6	5
4424	67.28	319	2.1	4	4528	72.14	253	5.7	4	4632	64.4	255	3.1	5
4425	67.28	317	2.1	4	4529	68.72	243	5.1	4	4633	63.86	249	2.6	5
4426	67.28	320	2.1	4	4530	66.38	236	4.6	4	4634	63.5	269	2.1	5
4427	70.52	251	4.6	4	4531	64.76	249	4.1	4	4635	63.32	258	2.1	5
4428	72.32	242	4.6	4	4532	62.78	257	3.6	4	4636	63.32	256	2.1	5
4429	72.86	244	5.7	4	4533	62.42	261	3.1	4	4637	63.32	259	2.1	5
4430	72.68	249	6.2	4	4534	62.06	248	2.1	4	4638	63.32	248	2.1	5
4431	70.88	253	5.7	4	4535	62.24	248	2.6	4	4639	64.58	270	2.1	5
4432	71.96	255	5.7	4	4536	61.88	253	2.1	4	4640	66.92	67	2.1	5
4433	72.32	258	5.1	4	4537	61.52	253	2.1	4	4641	69.44	124	2.1	5
4434	72.32	264	5.1	4	4538	61.88	252	1.5	4	4642	73.22	181	1.5	2
4435	72.32	260	5.1	4	4539	62.42	252	1.5	4	4643	73.4	230	4.1	2
4436	67.64	247	3.1	4	4540	62.24	250	2.1	4	4644	72.86	233	4.6	2
4437	66.74	245	2.6	4	4541	63.5	248	2.1	4	4645	72.86	232	4.6	2
4438	68	244	2.1	4	4542	64.04	247	2.6	4	4646	72.86	232	4.6	3
4439	69.8	307	3.1	4	4543	64.58	251	2.1	4	4647	72.86	227	4.6	4
4440	67.28	311	2.1	4	4544	66.2	254	3.1	4	4648	72.86	227	4.6	4
4441	64.94	306	2.6	4	4545	67.46	146	3.6	4	4649	72.86	234	4.6	3
4442	64.58	313	2.1	4	4546	70.16	248	4.1	4	4650	72.86	227	4.6	3
4443	63.5	314	2.1	4	4547	71.06	246	4.6	4	4651	72.86	232	4.6	4
4444	62.96	312	2.1	4	4548	71.06	255	4.6	4	4652	72.86	230	4.6	5
4445	63.5	307	1.5	4	4549	73.4	228	4.1	4	4653	65.3	248	3.6	5
4446	64.22	306	2.1	4	4550	73.94	252	5.1	4	4654	65.48	229	3.6	5
4447	64.22	313	2.1	4	4551	73.4	248	5.1	4	4655	65.3	257	2.6	5
4448	64.22	308	2.1	4	4552	71.78	246	6.2	4	4656	65.3	258	2.6	5
4449	64.22	313	2.1	4	4553	70.16	274	6.2	4	4657	64.58	248	2.1	6
4450	75.56	255	3.6	4	4554	69.08	256	6.2	4	4658	64.58	253	2.1	6
4451	75.56	251	3.6	4	4555	67.28	236	5.7	4	4659	64.76	344	2.1	6
4452	72.68	261	5.1	4	4556	65.3	255	5.7	4	4660	64.58	311	2.1	6
4453	72.68	248	5.7	4	4557	64.04	251	4.1	4	4661	64.58	335	1	6
4454	72.14	272	6.2	4	4558	63.86	254	3.6	4	4662	65.84	93	2.1	4
4455	71.6	265	5.1	4	4559	63.86	260	3.6	4	4663	66.92	62	2.1	4
4456	74.12	265	5.7	4	4560	64.04	264	2.6	4	4664	68	125	2.6	4
4457	73.94	244	5.7	4	4561	64.04	235	2.1	4	4665	69.8	132	3.1	4
4458	69.98	247	4.1	4	4562	63.68	251	2.1	4	4666	71.78	117	2.6	4
4459	68.54	251	4.1	4	4563	63.5	262	2.1	4	4667	72.32	273	4.6	4
4460	65.84	243	3.6	4	4564	63.5	254	2.1	4	4668	73.58	272	4.6	3
4461	64.94	221	2.6	4	4565	63.5	251	2.1	4	4669	75.74	248	4.6	3
4462	64.94	216	2.6	4	4566	64.58	249	2.1	4	4670	76.82	250	5.1	2
4463	64.94	196	2.6	4	4567	66.92	255	2.1	4	4671	72.14	254	5.1	3
4464	64.94	204	2.6	4	4568	70.7	90	2.6	4	4672	72.14	246	5.1	3
4465	62.78	249	2.1	4										

BOUR	TEMP	WD	WS	STAB	BOUR	TEMP	WD	WS	STAB	BOUR	TEMP	WD	WS	STAB
4681	66.2	230	2.1	5	4785	70.52	82	1.5	5	4889	70.88	271	5.1	3
4682	66.92	234	2.1	5	4786	73.04	246	3.6	5	4890	69.26	255	5.1	3
4683	66.74	228	2.1	5	4787	74.12	253	4.6	5	4891	67.82	249	4.6	4
4684	66.56	228	1.5	6	4788	73.58	246	5.1	2	4892	66.56	249	3.6	5
4685	67.1	234	2.1	5	4789	73.94	236	5.1	2	4893	65.66	249	3.1	6
4686	67.1	228	2.1	4	4790	74.84	260	6.2	3	4894	65.66	229	2.6	6
4687	68	49	1	3	4791	73.58	255	6.2	4	4895	64.58	253	2.6	6
4688	69.08	356	1.5	3	4792	73.22	251	6.7	4	4896	64.04	240	1.5	6
4689	69.98	244	2.6	4	4793	70.34	258	5.7	4	4897	64.22	245	2.1	6
4690	71.96	236	3.6	4	4794	68.9	261	4.6	4	4898	63.5	249	2.1	6
4691	73.4	232	5.1	4	4795	67.1	218	4.6	4	4899	63.86	239	1.5	6
4692	72.68	244	5.7	4	4796	64.4	247	4.1	4	4900	64.76	270	1	6
4693	74.12	251	5.1	3	4797	63.5	240	2.6	5	4901	63.5	250	2.1	6
4694	74.48	253	4.6	2	4798	63.5	246	2.1	5	4902	63.14	245	1.5	6
4695	73.04	248	5.7	3	4799	63.5	254	2.1	5	4903	64.4	246	2.1	4
4696	72.5	238	4.6	3	4800	63.68	244	1.5	6	4904	67.28	255	2.1	3
4697	70.88	248	6.2	4	4801	63.68	241	1.5	6	4905	71.6	253	2.1	2
4698	68.18	251	5.7	4	4802	63.5	238	2.6	5	4906	75.02	147	2.1	2
4699	67.1	262	4.6	4	4803	62.6	230	2.6	5	4907	75.02	147	2.1	2
4700	65.84	254	3.6	5	4804	62.6	252	2.6	5	4908	74.3	238	5.1	2
4701	64.76	249	3.1	5	4805	60.8	255	1.5	5	4909	75.74	241	5.1	2
4702	64.76	253	2.1	5	4806	60.8	250	1.5	5	4910	74.66	246	5.1	2
4703	65.48	252	2.1	5	4807	62.06	143	2.1	5	4911	74.3	236	5.1	3
4704	65.66	326	2.1	5	4808	63.32	142	2.1	3	4912	75.02	238	4.6	3
4705	66.38	6	2.1	5	4809	68.72	109	2.6	3	4913	73.04	260	6.2	4
4706	66.56	280	2.1	5	4810	71.6	241	4.1	3	4914	72.14	256	4.6	3
4707	66.02	250	2.1	5	4811	71.6	260	4.6	2	4915	70.16	253	4.6	4
4708	66.02	246	2.1	5	4812	71.42	250	4.6	2	4916	67.82	248	4.1	5
4709	66.2	274	2.1	5	4813	71.6	258	5.1	2	4917	67.1	245	3.1	5
4710	66.2	270	2.6	4	4814	72.86	251	5.1	2	4918	66.74	254	2.6	6
4711	66.2	275	2.6	4	4815	72.86	256	5.7	3	4919	67.64	220	2.6	6
4712	69.08	270	2.1	4	4816	72.68	262	5.1	3	4920	67.64	229	2.1	6
4713	69.26	264	4.1	4	4817	73.58	257	4.6	3	4921	67.64	229	1.5	6
4714	70.16	257	3.1	4	4818	71.6	254	4.1	3	4922	66.92	358	1	6
4715	72.86	254	3.6	3	4819	71.6	253	4.1	4	4923	67.28	359	1.5	6
4716	73.4	246	4.1	3	4820	67.64	244	3.6	5	4924	67.1	63	3.1	6
4717	75.56	269	5.1	3	4821	64.94	275	2.1	5	4925	67.46	65	2.1	5
4718	75.92	274	5.1	2	4822	66.02	261	2.1	6	4926	67.64	74	2.1	4
4719	75.56	274	6.2	4	4823	66.74	265	2.1	5	4927	69.62	89	3.1	4
4720	73.94	272	5.7	3	4824	65.66	94	1	6	4928	69.62	88	3.1	3
4721	73.94	273	5.7	4	4825	66.56	358	1.5	6	4929	73.76	113	3.6	2
4722	71.06	261	6.2	4	4826	65.84	97	2.1	6	4930	75.56	134	3.6	2
4723	69.26	258	5.1	4	4827	66.56	83	3.1	6	4931	78.8	127	2.6	2
4724	66.74	246	4.1	4	4828	66.74	82	2.1	5	4932	76.82	255	4.6	2
4725	65.84	246	4.6	4	4829	63.5	315	2.6	5	4933	77.9	246	4.1	2
4726	65.84	249	4.6	4	4830	62.24	344	2.6	4	4934	79.16	246	4.1	2
4727	65.84	255	2.6	5	4831	64.76	343	3.1	4	4935	77.9	253	4.1	3
4728	65.84	247	2.6	5	4832	66.38	243	2.6	4	4936	77.72	253	4.1	3
4729	66.38	246	2.1	5	4833	69.98	235	2.1	4	4937	77.18	262	3.6	3
4730	67.1	248	2.6	5	4834	72.86	229	3.1	4	4938	74.3	259	3.6	3
4731	67.46	330	2.1	5	4835	70.52	241	4.6	3	4939	72.5	253	3.1	3
4732	67.46	339	2.1	5	4836	71.42	259	4.6	3	4940	70.34	246	2.6	6
4733	68.36	151	3.6	5	4837	71.78	258	5.1	3	4941	69.44	252	2.1	6
4734	68.36	153	3.6	5	4838	71.96	255	5.1	3	4942	69.98	20	1	6
4735	68.36	155	3.6	4	4839	71.78	275	5.1	4	4943	71.24	91	4.6	5
4736	67.1	271	3.6	4	4840	72.32	275	4.6	3	4944	70.34	105	2.6	5
4737	68.36	262	2.6	4	4841	72.68	256	4.6	4	4945	69.26	90	2.1	5
4738	69.44	261	3.1	4	4842	70.88	261	5.1	4	4946	70.34	125	2.1	5
4739	71.42	229	3.1	3	4843	70.88	258	5.1	4	4947	70.52	153	2.1	5
4740	72.5	266	4.6	3	4844	68.18	249	3.1	5	4948	70.34	63	1	6
4741	73.58	246	5.1	2	4845	67.1	246	3.6	5	4949	69.08	248	2.1	6
4742	73.76	275	5.7	3	4846	66.92	255	2.6	5	4950	68.9	266	2.6	4
4743	73.58	246	5.7	3	4847	67.82	258	2.1	5	4951	69.08	267	2.1	4
4744	72.86	267	6.7	4	4848	67.64	257	2.6	5	4952	69.44	259	2.6	4
4745	71.42	246	6.2	4	4849	67.1	249	2.1	5	4953	72.14	237	2.6	2
4746	69.8	246	5.7	4	4850	66.2	249	1.5	6	4954	75.92	274	4.1	2
4747	67.82	275	5.7	4	4851	65.84	246	2.1	5	4955	76.64	230	3.6	2
4748	66.2	242	5.1	4	4852	65.48	247	2.1	5	4956	79.52	246	4.1	2
4749	66.2	242	5.1	5	4853	63.68	250	1.5	5	4957	82.22	233	4.1	2
4750	65.12	250	3.1	5	4854	64.04	249	2.1	4	4958	83.3	268	3.1	2
4751	64.76	248	2.6	5	4855	64.04	246	2.1	4	4959	83.84	253	4.1	2
4752	64.76	283	3.1	5	4856	64.22	260	2.1	4	4960	80.42	259	5.1	3
4753	64.76	283	2.1	5	4857	68.36	237	3.1	4	4961	77.36	254	5.1	3
4754	64.58	312	2.1	5	4858	68.18	266	4.1	4	4962	75.38	244	5.7	4
4755	65.12	332	2.1	5	4859	70.7	239	4.1	4	4963	72.32	263	4.1	4
4756	65.12	331	2.1	5	4860	71.24	239	3.6	2	4964	72.14	258	2.6	5
4757	65.12	334	2.6	5	4861	71.78	280	5.1	2	4965	72.14	259	2.6	4
4758	65.66	327	2.1	4	4862	71.78	285	5.1	2	4966	70.88	200	4.1	4
4759	65.84	326	2.1	4	4863	71.78	282	5.1	2	4967	73.22	249	4.1	4
4760	67.1	329	2.1	4	4864	71.06	249	5.7	2	4968	70.88	257	3.6	5
4761	68.72	71	2.1	4	4865	71.06	252	5.7	4	4969	69.8	260	3.1	5
4762	70.88	252	4.1	4	4866	68.72	253	6.2	4	4970	71.6	150	2.6	5
4763	72.86	240	4.1	4	4867	68.72	247	6.2	4	4971	71.6	146	2.6	5
4764	73.94	249	4.1	4	4868	64.76	270	4.1	4	4972	71.6	237	3.1	5
4765	74.48	251	5.7	3	4869	66.02	239	2.6	6	4973	68.9	270	3.6	5
4766	72.86	255	5.1	3	4870	66.2	235	2.1	6	4974	68	257	2.1	5
4767	72.86	255	6.2	4	4871	66.74	232	4.1	5	4975	67.82	265	2.1	4
4768	72.14	243	6.7	4	4872	65.66	245	3.1	6	4976	70.88	251	2.6	4
4769	70.88	262	6.7	4	4873	64.58	249	2.6	6	4977	77.54	246	2.6	4
4770	68.72	254	5.7	4	4874	64.76	249	2.6	6	4978	76.46	244	3.6	2
4771	64.94	264	5.1	4	4875	64.76	248	2.6	6	4979	75.74	239	4.1	2
4772	63.68	274	4.1	4	4876	64.76	157	2.1	6	4980	75.56	241	5.1	2
4773	63.14	271	4.1	4	4877	64.76	164	2.1	6	4981	75.56	245	6.7	3
4774	62.24	255	2.6	5	4878	64.22	198	2.1	6	4982	75.38	254	6.2	3
4775	63.32	237	2.1	5	4879	64.58	255	2.1	4	4983	75.38	250	6.2	4
4776	63.86	237	2.1	5	4880	66.92	242	3.6	3	4984	72.14	251	8.2	4
4777	63.86	71	1	6	4881	68.36								

HOOR	TEMP	WD	WS	STAB	HOOR	TEMP	WD	WS	STAB	HOOR	TEMP	WD	WS	STAB
4993	66.56	236	2.1	5	5097	75.74	235	2.6	2	5201	73.4	226	5.1	3
4994	66.74	250	1.5	5	5098	76.28	240	4.1	3	5202	73.22	241	5.1	3
4995	66.56	270	1.5	5	5099	76.28	252	4.1	3	5203	73.22	241	5.1	3
4996	64.76	257	1.5	5	5100	76.64	245	3.6	2	5204	68	250	4.6	3
4997	66.02	270	1.5	5	5101	76.64	239	3.6	2	5205	66.74	248	5.1	5
4998	66.02	271	1.5	5	5102	75.02	246	5.1	2	5206	66.2	270	4.1	5
4999	67.1	260	1.5	3	5103	74.84	240	4.6	3	5207	65.66	257	3.1	5
5000	67.64	275	2.1	4	5104	72.68	258	5.1	4	5208	65.48	250	3.1	5
5001	69.44	248	3.1	4	5105	73.22	248	4.1	3	5209	65.48	252	3.1	5
5002	71.06	271	3.6	4	5106	73.22	254	4.1	3	5210	66.56	305	3.1	5
5003	72.5	258	4.6	4	5107	71.24	266	4.6	4	5211	66.38	298	3.1	5
5004	73.4	250	5.1	4	5108	69.8	249	2.1	6	5212	66.74	298	2.6	5
5005	73.22	242	4.6	2	5109	69.08	246	2.1	6	5213	67.28	304	2.6	5
5006	73.76	247	5.7	3	5110	69.26	257	1.5	6	5214	67.28	296	2.1	5
5007	74.3	261	6.7	4	5111	70.34	258	1.5	6	5215	67.82	273	2.1	4
5008	74.3	249	5.7	3	5112	71.6	259	1.5	6	5216	67.82	266	2.1	4
5009	73.22	251	6.2	4	5113	70.88	122	4.1	4	5217	70.34	243	2.1	4
5010	72.32	249	6.7	4	5114	70.88	121	4.1	5	5218	72.14	244	2.6	4
5011	70.7	246	4.6	4	5115	70.7	120	2.1	5	5219	71.78	242	3.6	4
5012	68.9	255	3.6	5	5116	70.52	124	1.5	6	5220	73.76	256	4.1	4
5013	68.18	237	3.1	5	5117	71.06	125	2.1	5	5221	75.38	266	4.6	4
5014	68.54	230	2.1	5	5118	71.06	122	2.1	5	5222	75.38	272	4.6	4
5015	66.74	252	2.1	5	5119	71.24	117	2.1	4	5223	73.58	256	7.2	4
5016	66.56	250	2.1	5	5120	71.78	122	2.1	4	5224	73.04	260	7.7	4
5017	67.1	214	1.5	6	5121	72.86	118	2.1	4	5225	72.14	265	7.7	4
5018	66.74	212	2.1	5	5122	72.86	244	2.6	4	5226	69.62	271	7.2	4
5019	66.02	211	2.1	5	5123	74.3	248	3.1	4	5227	68.36	254	6.2	4
5020	66.02	206	2.1	5	5124	76.1	263	4.1	4	5228	66.56	248	5.7	4
5021	66.38	207	2.1	5	5125	76.1	257	4.1	4	5229	66.02	236	4.1	4
5022	67.1	211	1.5	6	5126	76.64	227	4.6	4	5230	66.02	236	4.1	4
5023	67.64	196	2.1	4	5127	76.64	255	4.6	4	5231	65.66	244	2.6	4
5024	70.34	231	3.1	4	5128	75.2	234	4.1	4	5232	65.48	238	2.1	4
5025	70.34	226	3.1	4	5129	73.22	259	4.6	4	5233	65.48	241	2.1	4
5026	74.48	238	3.6	4	5130	70.34	246	4.1	4	5234	65.12	242	2.1	4
5027	73.04	246	3.6	4	5131	69.08	265	4.1	4	5235	65.3	241	2.1	4
5028	71.78	273	3.6	4	5132	67.28	247	2.1	4	5236	64.76	241	2.1	4
5029	73.04	279	4.1	2	5133	67.46	250	1.5	4	5237	64.4	238	2.1	4
5030	74.48	262	5.1	2	5134	68.18	245	2.1	4	5238	64.76	241	2.1	4
5031	74.3	248	7.2	4	5135	69.08	241	1.5	4	5239	66.56	109	1	4
5032	75.02	260	6.7	4	5136	68.72	243	1.5	4	5240	67.46	360	2.6	4
5033	74.48	252	6.7	4	5137	70.7	130	3.1	4	5241	69.08	1	2.6	4
5034	74.48	252	6.7	4	5138	69.26	127	2.1	4	5242	69.08	2	2.6	4
5035	73.04	231	5.1	4	5139	69.44	130	2.1	4	5243	73.58	253	3.6	4
5036	70.52	229	3.6	5	5140	69.44	130	2.1	4	5244	73.94	260	3.6	2
5037	71.96	238	2.6	6	5141	70.34	129	1.5	6	5245	74.66	246	4.1	2
5038	69.44	230	2.1	6	5142	70.34	131	1.5	6	5246	74.66	257	4.6	2
5039	68.36	245	2.1	6	5143	71.24	129	1.5	3	5247	73.76	264	6.2	4
5040	68.36	240	1.5	6	5144	72.32	127	2.1	4	5248	73.04	266	7.7	4
5041	68.72	192	2.1	6	5145	72.32	135	2.6	4	5249	73.04	268	7.7	4
5042	67.46	248	2.6	6	5146	73.4	139	3.1	4	5250	73.04	271	7.7	4
5043	67.46	258	2.1	6	5147	74.12	136	2.6	4	5251	73.04	266	7.7	4
5044	67.28	246	2.1	6	5148	77.18	114	3.6	3	5252	73.04	266	7.7	4
5045	66.92	262	2.1	6	5149	78.26	160	4.1	2	5253	73.04	268	7.7	4
5046	66.74	254	1.5	6	5150	78.8	209	6.7	2	5254	73.04	271	7.7	4
5047	68.72	43	1	3	5151	77	240	6.2	2	5255	73.04	266	7.7	6
5048	72.68	360	2.1	3	5152	75.74	243	5.7	3	5256	65.84	246	2.1	5
5049	76.46	360	2.1	2	5153	75.02	262	4.6	3	5257	65.66	247	2.1	5
5050	79.7	264	3.6	2	5154	72.32	265	5.1	3	5258	66.2	250	2.1	5
5051	80.06	261	4.6	2	5155	72.32	264	5.1	3	5259	66.74	237	1.5	6
5052	78.44	250	4.1	2	5156	66.56	251	4.6	3	5260	66.56	234	2.6	5
5053	79.16	253	4.6	2	5157	67.64	247	2.6	5	5261	66.74	242	2.6	5
5054	77.72	265	5.1	2	5158	68.36	247	2.6	5	5262	67.1	207	1.5	6
5055	77	261	5.1	3	5159	68.72	247	2.6	5	5263	67.64	226	2.1	4
5056	76.46	252	6.2	3	5160	68.54	250	2.1	5	5264	68.54	229	2.1	4
5057	74.66	249	6.2	4	5161	68.54	246	2.1	5	5265	69.26	239	2.1	4
5058	72.86	254	5.7	4	5162	69.44	249	1.5	6	5266	69.26	244	3.1	4
5059	71.06	254	4.6	4	5163	69.98	257	2.6	5	5267	72.14	264	4.1	3
5060	69.62	230	4.1	4	5164	70.16	138	3.1	5	5268	72.68	256	4.1	3
5061	68.36	241	3.1	6	5165	69.98	129	2.6	5	5269	73.94	258	4.1	3
5062	67.82	236	2.1	6	5166	68.72	242	1.5	5	5270	74.66	245	4.6	3
5063	67.64	227	2.1	6	5167	69.26	237	1.5	3	5271	73.94	251	6.2	4
5064	68.9	224	2.1	6	5168	70.34	243	2.1	4	5272	71.6	262	6.7	4
5065	68.36	179	2.1	6	5169	70.34	238	2.1	4	5273	68.72	251	6.2	4
5066	67.64	173	2.1	6	5170	73.94	114	3.1	4	5274	68.54	228	5.1	4
5067	67.28	148	2.1	6	5171	74.84	227	3.1	4	5275	67.1	238	4.1	4
5068	67.28	152	2.1	5	5172	74.3	238	5.7	4	5276	67.28	230	3.1	5
5069	67.28	180	2.1	6	5173	76.28	229	5.7	3	5277	66.74	227	2.6	5
5070	66.56	242	2.1	6	5174	76.46	237	7.2	3	5278	66.38	231	2.1	5
5071	67.82	245	2.1	4	5175	75.56	233	4.6	3	5279	66.74	228	2.1	5
5072	70.7	250	2.6	4	5176	74.84	248	4.1	3	5280	66.2	348	2.1	5
5073	71.42	252	3.1	4	5177	73.94	258	4.6	3	5281	66.02	247	2.1	5
5074	74.66	246	2.6	2	5178	73.04	262	3.6	3	5282	66.38	222	2.6	5
5075	75.2	255	3.6	2	5179	71.06	262	3.1	4	5283	66.92	235	2.6	5
5076	74.84	256	5.1	2	5180	69.26	242	2.1	5	5284	66.38	281	2.1	5
5077	75.38	252	4.1	2	5181	68.9	245	2.1	5	5285	66.38	268	2.1	5
5078	75.38	264	3.6	2	5182	68.36	245	2.1	5	5286	66.2	254	2.1	5
5079	75.92	260	3.6	2	5183	67.28	243	2.1	5	5287	66.92	253	1.5	3
5080	74.3	254	4.6	2	5184	66.74	239	2.6	5	5288	66.92	254	1.5	4
5081	74.3	255	4.6	2	5185	66.74	240	2.6	5	5289	73.76	253	2.6	4
5082	72.5	265	5.1	3	5186	66.02	82	2.1	5	5290	72.86	249	3.6	2
5083	70.52	256	3.6	4	5187	67.28	114	2.1	5	5291	73.04	263	3.1	4
5084	68.36	236	2.6	6	5188	67.1	85	1.5	6	5292	73.76	260	4.1	2
5085	68.36	228	2.1	6	5189	67.28	71	1.5	6	5293	74.12	253	5.7	3
5086	68	227	1.5	6	5190	67.28	75	1.5	5	5294	74.3	261	6.2	3
5087	67.64	227	2.1	6	5191	68	86	3.6	4	5295	74.3	255	5.7	3
5088	67.82	228	2.1	6	5192	69.44	111	3.1	4	5296	72.86	244	6.2	4
5089	68.54	229	2.1											

HOOR	TEMP	WD	WS	STAB	HOOR	TEMP	WD	WS	STAB	HOOR	TEMP	WD	WS	STAB
5305	67.64	295	2.1	6	5409	83.84	144	2.1	3	5513	73.76	264	5.1	3
5306	67.1	292	2.1	5	5410	80.24	243	4.1	3	5514	71.96	263	5.1	3
5307	66.92	297	2.6	5	5411	80.24	245	4.1	3	5515	69.26	258	5.1	4
5308	66.56	253	1.5	5	5412	80.24	240	4.1	3	5516	67.1	265	4.6	5
5309	66.74	260	1.5	6	5413	82.22	238	4.6	3	5517	66.56	240	3.1	6
5310	66.74	258	1.5	6	5414	81.68	248	4.6	2	5518	66.02	235	3.1	6
5311	66.92	272	1.5	3	5415	80.96	252	5.1	3	5519	66.74	243	1.5	6
5312	66.92	275	1.5	3	5416	79.88	257	5.7	3	5520	68	224	2.1	5
5313	69.62	17	2.1	4	5417	78.98	247	4.1	3	5521	68.72	310	3.1	5
5314	72.32	212	2.6	2	5418	77.72	255	4.6	3	5522	68.72	311	2.1	5
5315	74.84	252	5.1	4	5419	74.66	256	3.6	3	5523	69.08	275	2.1	5
5316	73.58	249	5.1	3	5420	74.66	262	3.6	3	5524	69.08	271	1.5	6
5317	75.2	254	5.1	3	5421	74.66	263	3.6	5	5525	69.08	250	2.1	6
5318	73.94	250	5.7	4	5422	74.66	258	3.6	5	5526	69.44	262	1.5	6
5319	73.76	248	5.1	4	5423	74.66	263	3.6	6	5527	69.44	261	1.5	6
5320	73.04	253	5.1	3	5424	74.66	265	3.6	6	5528	71.24	125	2.1	4
5321	72.32	252	6.2	4	5425	74.66	257	3.6	6	5529	72.14	121	2.1	4
5322	70.34	231	4.6	4	5426	74.66	257	3.6	6	5530	75.38	124	3.1	4
5323	69.26	244	3.6	4	5427	74.66	256	3.6	6	5531	77.18	246	4.6	4
5324	68.72	243	3.1	4	5428	74.66	265	3.6	6	5532	77.36	253	4.6	2
5325	67.82	228	3.1	5	5429	74.66	262	3.6	6	5533	77.72	234	5.7	3
5326	68.18	251	3.6	5	5430	74.66	258	3.6	6	5534	77	242	5.7	3
5327	67.28	241	2.1	5	5431	74.66	257	3.6	4	5535	76.82	232	5.1	3
5328	67.1	228	2.1	5	5432	74.66	259	3.6	3	5536	74.12	253	5.7	3
5329	67.1	254	1.5	6	5433	74.66	264	3.6	3	5537	73.04	258	6.7	4
5330	67.64	248	2.1	5	5434	78.62	256	5.1	3	5538	70.88	259	6.2	4
5331	67.28	282	2.1	5	5435	77	275	4.1	3	5539	69.26	255	5.1	4
5332	67.1	281	2.1	5	5436	82.4	263	2.6	3	5540	67.28	247	4.6	4
5333	67.1	243	2.1	5	5437	82.76	253	4.1	3	5541	66.92	233	3.1	5
5334	67.64	317	2.1	5	5438	80.42	257	5.7	3	5542	66.38	259	2.6	5
5335	68.18	325	1.5	3	5439	79.7	255	4.6	3	5543	66.2	246	2.6	5
5336	69.44	322	1.5	3	5440	80.96	242	4.6	3	5544	65.3	252	2.1	5
5337	73.22	136	2.6	4	5441	78.44	256	4.1	3	5545	64.4	249	2.1	6
5338	76.46	144	2.6	4	5442	78.8	262	3.1	3	5546	65.48	254	2.1	5
5339	76.46	138	2.6	4	5443	77.9	255	2.6	3	5547	64.58	108	1	6
5340	76.82	226	4.6	4	5444	74.84	254	2.1	6	5548	64.94	132	1	6
5341	76.46	237	5.7	3	5445	72.68	246	2.1	6	5549	64.76	226	1	6
5342	76.1	244	5.1	2	5446	73.22	254	2.1	6	5550	65.84	65	1	6
5343	75.74	249	5.7	3	5447	72.86	252	2.1	6	5551	65.66	56	2.1	4
5344	76.46	256	6.2	4	5448	73.22	258	3.1	6	5552	67.64	117	2.1	4
5345	74.12	258	7.2	4	5449	72.5	336	2.6	6	5553	72.14	230	3.1	4
5346	72.68	249	6.2	4	5450	72.14	309	2.6	6	5554	74.12	241	3.6	2
5347	71.42	236	4.1	4	5451	73.58	42	2.6	5	5555	74.48	251	5.1	3
5348	68.72	239	4.1	4	5452	72.86	92	2.6	5	5556	74.3	264	4.6	3
5349	68.54	251	2.6	5	5453	73.22	79	2.1	5	5557	75.92	249	4.6	2
5350	68	238	2.6	5	5454	72.14	66	1.5	6	5558	76.28	246	5.7	3
5351	68.54	246	2.6	5	5455	72.86	99	2.1	4	5559	76.1	247	5.1	3
5352	68.18	243	2.1	5	5456	75.56	98	2.6	4	5560	74.84	258	6.2	3
5353	67.46	243	2.1	5	5457	81.32	100	2.1	3	5561	74.3	252	5.7	4
5354	67.82	238	2.6	5	5458	77.9	245	4.6	3	5562	72.68	257	4.6	4
5355	67.28	297	2.1	6	5459	77	252	4.1	3	5563	70.34	237	4.1	4
5356	66.92	299	2.1	6	5460	80.42	262	3.6	2	5564	69.26	239	3.6	5
5357	67.28	297	2.1	6	5461	79.34	255	5.1	2	5565	68.9	236	2.1	5
5358	67.1	246	1.5	6	5462	79.88	256	4.6	2	5566	68.36	245	2.1	6
5359	67.1	269	2.6	4	5463	79.52	254	4.6	3	5567	67.28	255	2.1	6
5360	68.54	246	3.6	4	5464	78.44	255	5.1	3	5568	66.92	251	2.1	6
5361	72.68	230	3.1	3	5465	76.64	273	5.7	4	5569	67.46	230	1	6
5362	74.84	244	3.6	2	5466	73.76	267	4.6	4	5570	67.82	199	2.1	6
5363	77	246	4.6	3	5467	71.96	255	4.1	4	5571	66.92	292	3	6
5364	77.18	266	5.7	3	5468	70.88	252	4.6	4	5572	65.84	248	1	6
5365	75.92	264	5.7	3	5469	70.16	259	3.6	5	5573	65.3	136	2.1	6
5366	75.02	259	6.7	3	5470	69.44	242	2.1	5	5574	64.4	55	2.1	6
5367	75.02	256	6.2	4	5471	69.08	254	2.1	5	5575	65.3	51	2.1	4
5368	74.84	256	5.7	3	5472	68.54	247	2.1	5	5576	69.26	99	2.6	3
5369	74.48	248	5.7	3	5473	68.36	248	1.5	6	5577	74.12	97	2.1	3
5370	73.04	252	4.6	3	5474	67.64	253	2.1	6	5578	80.42	100	2.1	2
5371	71.6	246	3.6	3	5475	68	250	2.1	5	5579	79.88	251	4.1	3
5372	70.52	229	4.1	3	5476	68.54	246	2.1	5	5580	80.42	262	4.1	3
5373	69.8	235	3.1	3	5477	69.26	248	1.5	6	5581	80.24	244	4.1	2
5374	69.62	252	2.1	6	5478	70.52	247	2.6	5	5582	79.34	249	5.1	2
5375	69.98	251	2.1	6	5479	70.88	254	2.1	4	5583	79.52	253	6.7	4
5376	70.16	252	2.1	6	5480	72.32	249	2.1	4	5584	77.54	255	5.7	3
5377	69.08	252	2.1	6	5481	77.36	254	2.1	4	5585	77.54	248	5.7	3
5378	69.26	255	1.5	6	5482	77.36	238	4.1	4	5586	75.92	254	5.1	3
5379	70.16	183	2.1	6	5483	77.18	238	4.1	4	5587	72.32	250	4.1	4
5380	69.8	225	2.1	6	5484	76.64	246	5.1	2	5588	70.52	237	4.1	5
5381	68.72	259	1.5	6	5485	76.28	254	5.7	3	5589	69.8	245	3.1	6
5382	69.08	250	1	6	5486	74.66	239	6.2	4	5590	70.52	244	2.6	6
5383	69.8	356	1.5	3	5487	74.48	255	5.1	4	5591	69.62	227	2.1	6
5384	73.22	86	1	2	5488	72.5	272	6.2	4	5592	69.44	171	2.6	6
5385	77.54	5	2.1	3	5489	70.52	272	6.2	4	5593	68.72	176	2.1	6
5386	79.88	216	3.1	3	5490	68.72	262	6.2	4	5594	68.72	243	2.6	6
5387	83.66	221	3.1	2	5491	67.82	268	3.6	4	5595	67.64	234	2.1	6
5388	82.4	246	5.7	3	5492	66.56	261	3.1	5	5596	67.28	239	1	6
5389	79.16	243	5.7	3	5493	65.66	269	3.6	5	5597	66.02	257	2.1	6
5390	79.52	246	5.1	2	5494	65.3	232	2.6	5	5598	66.56	236	2.1	6
5391	78.26	252	5.1	3	5495	65.84	247	2.1	5	5599	67.1	243	2.1	4
5392	77.9	280	4.1	3	5496	66.2	237	1.5	6	5600	67.1	238	2.1	3
5393	77.9	258	4.1	3	5497	67.1	288	1.5	6	5601	73.22	243	3.1	3
5394	76.1	264	3.6	3	5498	67.46	255	2.1	5	5602	74.48	245	3.1	3
5395	74.3	258	2.6	4	5499	67.46	254	2.1	5	5603	76.46	241	3.6	2
5396	73.04	247	3.1	5	5500	67.46	248	2.1	5	5604	75.92	241	4.1	2
5397	71.6	243	2.1	5	5501	67.46	251	2.1	5	5605	76.28	248	4.6	2
5398	71.78	230	2.1	6	5502	67.46	250	2.1	5	5606	76.64	252	7.2	2
5399	70.88	239	2.1	5	5503	67.46	252	2.1	4	5607	77.72	245	4.6	2
5400	71.78	243	2.1	5	5504	69.98	94	2.6	4	5608	76.82	265	5.1	3
5401	72.5	11	2.1	5	5505	71.6	94							

HOOR	TEMP	WD	WS	STAB	HOOR	TEMP	WD	WS	STAB	HOOR	TEMP	WD	WS	STAB
5617	67.28	249	2.1	5	5721	75.38	88	2.1	3	5825	78.8	248	5.7	3
5618	66.56	249	2.1	6	5722	80.42	94	2.1	3	5826	75.56	237	3.1	3
5619	67.46	249	2.1	6	5723	78.44	245	4.6	3	5827	72.5	245	3.6	3
5620	66.02	251	1.5	6	5724	77.36	252	5.1	3	5828	71.42	251	2.6	5
5621	65.66	249	1.5	6	5725	77.72	253	5.1	2	5829	71.96	245	2.6	5
5622	66.02	252	2.1	5	5726	77.36	255	5.1	2	5830	71.6	256	2.1	5
5623	67.46	253	2.1	5	5727	78.62	256	5.7	3	5831	72.14	176	1	6
5624	70.16	252	2.6	3	5728	78.44	260	6.2	4	5832	72.68	120	3.1	6
5625	73.4	246	2.6	3	5729	77	252	5.7	4	5833	71.78	110	2.1	6
5626	73.22	262	3.6	2	5730	73.76	249	4.6	3	5834	71.42	94	2.1	6
5627	73.4	265	4.1	2	5731	71.24	252	4.1	3	5835	71.42	88	2.1	6
5628	75.02	237	4.6	2	5732	70.34	244	3.1	6	5836	71.42	88	2.1	5
5629	75.92	248	6.2	3	5733	68.9	254	2.1	6	5837	72.14	94	2.1	5
5630	75.2	251	6.7	3	5734	69.08	229	2.1	6	5838	72.32	88	2.1	5
5631	75.92	258	7.2	4	5735	68.18	241	2.6	6	5839	72.5	94	2.6	4
5632	75.38	254	6.7	4	5736	67.1	254	2.1	6	5840	73.58	86	2.6	4
5633	73.76	238	5.1	4	5737	67.28	246	2.6	6	5841	75.74	114	3.1	4
5634	73.94	242	3.1	3	5738	67.82	302	2.6	6	5842	78.8	156	2.6	2
5635	70.7	255	5.1	4	5739	67.1	271	1	6	5843	82.76	122	3.6	2
5636	68.9	240	5.1	4	5740	66.2	161	1	6	5844	80.24	234	4.1	2
5637	67.64	262	2.6	5	5741	64.76	1	2.1	6	5845	79.7	231	5.1	2
5638	68	245	2.6	6	5742	64.58	57	2.1	6	5846	79.88	233	5.1	2
5639	68	228	2.6	5	5743	64.58	105	3.1	4	5847	78.98	228	5.1	3
5640	67.64	245	2.1	5	5744	70.7	61	2.1	3	5848	77.72	248	4.1	3
5641	67.1	244	2.1	6	5745	73.76	118	2.6	3	5849	75.92	248	3.6	3
5642	66.02	245	2.1	5	5746	81.5	241	4.1	3	5850	74.12	241	4.1	3
5643	65.12	359	1	6	5747	77.9	245	4.1	3	5851	71.42	262	4.1	3
5644	65.48	154	1	6	5748	78.62	254	4.6	3	5852	69.8	264	3.1	5
5645	65.48	116	1	6	5749	80.24	248	5.1	2	5853	67.82	259	2.6	5
5646	66.38	2	1.5	6	5750	79.88	254	4.6	2	5854	68.72	263	2.1	5
5647	66.56	237	2.6	4	5751	79.88	254	4.6	3	5855	68.36	262	2.1	5
5648	67.1	230	2.1	4	5752	79.88	272	6.2	3	5856	68.36	256	2.1	5
5649	69.8	249	3.1	4	5753	77.72	259	5.1	3	5857	68.18	326	2.1	5
5650	73.4	251	4.1	4	5754	75.74	259	4.1	3	5858	68.36	340	2.1	6
5651	73.94	254	4.1	3	5755	73.4	254	4.1	3	5859	68.54	90	1.5	6
5652	77	251	5.1	3	5756	70.52	248	2.6	6	5860	68.36	86	1.5	6
5653	75.56	249	6.2	3	5757	72.14	250	2.6	6	5861	69.44	324	2.1	6
5654	75.56	247	7.7	3	5758	71.6	252	2.6	6	5862	70.52	337	1	6
5655	75.56	250	7.7	3	5759	72.14	253	1.5	6	5863	71.78	5	2.1	6
5656	75.56	249	7.7	4	5760	72.86	236	3.1	6	5864	73.22	80	2.1	4
5657	75.56	250	7.7	4	5761	71.42	13	2.6	6	5865	74.48	84	2.6	4
5658	75.56	255	7.7	3	5762	71.24	3	2.1	6	5866	77	97	2.6	4
5659	75.56	254	7.7	3	5763	69.62	93	1.5	6	5867	78.44	254	3.1	4
5660	68.9	216	3.1	6	5764	70.34	54	2.1	6	5868	78.44	236	4.1	2
5661	68.18	249	2.1	6	5765	69.44	47	2.1	6	5869	78.44	229	5.1	2
5662	68.36	249	2.1	6	5766	69.44	100	2.1	6	5870	77.72	234	5.1	3
5663	68.36	248	2.1	6	5767	69.8	100	2.1	4	5871	75.92	234	6.2	4
5664	68.36	246	2.1	6	5768	73.58	104	2.6	3	5872	75.02	252	6.7	4
5665	67.28	250	2.1	6	5769	79.34	58	2.6	3	5873	72.68	263	6.7	4
5666	66.2	252	2.1	6	5770	84.02	58	2.6	3	5874	69.98	271	6.2	4
5667	66.38	131	1	6	5771	88.52	249	3.6	3	5875	68.9	248	4.6	4
5668	66.38	153	1	6	5772	84.92	217	4.1	2	5876	68.9	256	3.1	5
5669	65.84	88	1	6	5773	84.74	246	5.7	3	5877	68.72	246	2.6	5
5670	64.94	5	2.1	6	5774	82.04	257	5.7	3	5878	68.9	269	2.1	5
5671	65.84	315	1	3	5775	80.6	251	6.7	3	5879	69.26	275	2.1	5
5672	70.52	4	2.1	3	5776	80.06	246	5.7	3	5880	68.54	267	2.1	5
5673	72.32	263	3.6	3	5777	78.98	239	6.2	4	5881	68.9	266	2.1	5
5674	74.84	253	5.1	3	5778	75.38	263	4.6	3	5882	70.16	268	2.1	5
5675	76.1	248	4.1	3	5779	73.22	250	3.6	3	5883	70.7	270	1.5	5
5676	76.82	254	4.6	3	5780	71.42	244	3.1	6	5884	70.7	269	2.1	5
5677	74.66	242	4.6	3	5781	72.86	198	3.1	6	5885	70.34	271	1.5	5
5678	75.2	237	5.1	2	5782	72.86	203	2.1	6	5886	69.98	273	1.5	5
5679	76.1	255	6.7	2	5783	72.68	202	2.1	6	5887	69.8	265	1.5	3
5680	76.1	253	10.3	2	5784	70.7	205	2.1	6	5888	70.52	261	2.1	4
5681	76.28	233	8.2	2	5785	70.88	239	2.1	6	5889	70.7	252	2.1	4
5682	78.08	226	7.7	4	5786	69.98	239	2.1	6	5890	72.14	261	2.1	4
5683	76.64	229	5.7	4	5787	70.88	318	2.1	6	5891	77	319	3.1	4
5684	76.28	227	6.2	4	5788	70.52	316	2.1	6	5892	76.46	246	4.1	2
5685	73.76	231	3.6	4	5789	70.52	319	2.1	6	5893	76.82	246	4.6	2
5686	70.7	218	3.1	6	5790	69.8	318	2.1	6	5894	73.58	245	4.6	2
5687	70.7	228	2.1	6	5791	71.78	320	2.1	4	5895	72.68	246	5.1	2
5688	69.8	193	2.6	6	5792	76.46	97	2.6	3	5896	71.6	247	6.2	2
5689	68.36	193	2.6	6	5793	77.18	94	3.1	3	5897	69.26	266	6.7	2
5690	66.74	192	2.6	6	5794	87.44	21	2.6	2	5898	67.64	256	6.2	2
5691	66.02	192	2.1	6	5795	91.22	20	2.6	2	5899	65.66	245	6.2	2
5692	66.2	190	2.6	6	5796	89.6	243	5.1	2	5900	64.94	242	5.1	4
5693	66.38	188	2.6	6	5797	96.44	222	3.1	2	5901	64.94	242	3.6	5
5694	65.66	187	2.1	6	5798	90.32	252	5.1	2	5902	64.94	240	2.6	5
5695	66.2	191	1.5	3	5799	85.1	247	5.1	3	5903	64.22	258	2.1	5
5696	69.26	139	1	2	5800	81.86	247	5.1	3	5904	64.04	263	2.1	5
5697	73.58	356	2.1	3	5801	80.42	254	4.1	3	5905	63.86	263	2.1	5
5698	77	358	2.1	2	5802	78.44	247	3.6	3	5906	63.86	262	2.1	5
5699	75.02	236	4.1	2	5803	73.76	252	4.1	4	5907	64.04	262	2.1	5
5700	76.46	255	6.2	2	5804	72.14	250	3.1	4	5908	64.22	261	2.1	5
5701	74.12	238	6.7	3	5805	72.68	248	2.1	4	5909	64.4	264	2.1	5
5702	74.12	252	7.2	3	5806	74.48	119	2.1	6	5910	64.22	247	2.1	5
5703	73.4	248	8.7	4	5807	75.02	67	2.6	5	5911	64.04	256	1.5	3
5704	73.4	246	6.7	4	5808	75.92	98	3.1	5	5912	65.12	229	2.1	4
5705	73.76	254	5.7	4	5809	75.2	98	3.1	5	5913	65.3	251	2.1	4
5706	73.04	256	5.7	4	5810	73.76	93	2.1	5	5914	67.1	262	2.1	4
5707	69.8	256	5.1	4	5811	72.5	94	2.1	5	5915	68.72	200	3.1	4
5708	66.74	245	3.1	6	5812	71.96	81	2.1	6	5916	71.24	249	3.6	4
5709	67.82	241	3.1	6	5813	71.6	78	2.1	5	5917	70.88	281	3.6	2
5710	67.28	244	2.6	6	5814	71.6	83	1.5	6	5918	70.16	265	5.7	3
5711	67.28	240	2.6	6	5815	71.78	102	2.1	4	5919	68.9	255	6.7	4
5712	66.92	124	2.1	6	5816	75.2	115	2.6	3	5920	68.72	243	7.2	4
5713	66.38	125	2.1	6	5817	76.64	102	3.1	3	5921	68.36	252	6.2	

HOOR	TEMP	WD	WS	STAB	HOOR	TEMP	WD	WS	STAB	HOOR	TEMP	WD	WS	STAB
5929	63.32	184	1	6	6033	71.06	228	2.6	3	6137	69.44	249	6.7	4
5930	64.4	5	2.1	6	6034	72.86	234	4.1	3	6138	67.64	253	6.7	4
5931	63.86	358	2.1	6	6035	75.02	234	4.6	3	6139	65.48	239	5.7	4
5932	63.86	357	2.1	6	6036	75.92	257	4.6	3	6140	64.76	254	4.1	4
5933	63.86	5	2.1	6	6037	75.56	265	5.7	3	6141	64.04	246	3.6	5
5934	63.5	3	2.1	6	6038	74.3	255	7.2	4	6142	64.22	218	3.6	5
5935	64.22	2	2.1	4	6039	72.5	244	7.2	4	6143	64.58	224	2.1	6
5936	64.22	3	2.1	4	6040	72.14	255	7.2	4	6144	63.86	137	3.1	6
5937	70.52	2	2.6	3	6041	70.7	251	6.7	4	6145	63.5	126	3.1	6
5938	74.48	356	2.6	3	6042	69.44	245	6.2	4	6146	62.42	80	3.1	6
5939	74.48	253	4.6	3	6043	67.82	269	5.1	4	6147	61.88	80	2.6	6
5940	75.02	226	4.1	3	6044	66.38	259	6.2	4	6148	61.52	7	2.6	6
5941	75.56	236	3.6	2	6045	65.84	239	4.1	5	6149	61.7	80	2.6	5
5942	74.84	240	5.1	2	6046	65.3	249	4.1	5	6150	61.7	81	2.1	6
5943	74.84	255	5.7	3	6047	64.76	243	3.6	5	6151	60.8	80	2.1	6
5944	72.68	241	6.2	3	6048	64.76	230	3.6	5	6152	63.5	85	3.1	6
5945	71.42	248	7.7	3	6049	63.68	275	1	6	6153	66.92	118	3.6	3
5946	69.62	261	6.7	3	6050	63.32	249	3.6	5	6154	70.7	101	2.6	2
5947	67.28	248	5.7	4	6051	63.5	239	3.6	5	6155	73.76	148	3.1	2
5948	66.02	237	5.1	4	6052	63.14	240	2.1	5	6156	71.6	230	5.1	2
5949	65.48	240	4.1	4	6053	63.14	360	1	6	6157	73.04	262	5.1	2
5950	65.48	236	4.1	4	6054	62.78	245	1.5	6	6158	72.86	247	5.7	2
5951	65.66	244	3.6	5	6055	62.78	226	2.1	4	6159	72.32	251	4.6	3
5952	65.66	234	3.1	6	6056	63.32	245	3.6	4	6160	70.34	249	5.7	3
5953	65.48	231	2.1	6	6057	65.48	263	5.1	4	6161	69.98	251	4.6	3
5954	65.3	110	1	6	6058	68.54	257	4.6	4	6162	68.18	259	3.6	4
5955	66.02	330	2.1	6	6059	69.62	257	4.6	4	6163	65.84	256	4.1	4
5956	65.48	352	2.6	6	6060	71.24	258	4.6	4	6164	65.3	255	3.1	4
5957	65.48	252	1	6	6061	71.96	251	5.7	3	6165	65.66	227	2.6	6
5958	65.66	60	1.5	6	6062	73.22	246	6.2	3	6166	65.48	340	3.1	6
5959	65.66	273	1	3	6063	73.22	256	8.2	4	6167	65.84	342	2.6	6
5960	69.08	142	2.1	3	6064	72.32	248	8.2	4	6168	66.2	340	2.6	6
5961	73.22	139	2.1	3	6065	71.06	260	6.2	4	6169	65.12	104	4.1	5
5962	74.48	241	4.1	3	6066	69.62	246	6.2	4	6170	64.4	82	4.1	4
5963	75.02	240	4.1	3	6067	67.46	243	5.7	4	6171	64.04	81	4.1	4
5964	76.28	240	4.6	3	6068	66.56	228	4.1	5	6172	64.22	66	3.6	5
5965	76.46	228	5.1	2	6069	66.56	235	3.1	6	6173	63.5	87	3.1	5
5966	76.46	251	5.1	3	6070	64.94	244	3.1	6	6174	64.58	91	2.6	5
5967	76.46	246	6.2	4	6071	64.04	250	3.1	5	6175	65.12	76	3.1	4
5968	75.74	262	6.7	4	6072	64.04	249	3.1	5	6176	66.02	91	3.1	4
5969	75.74	257	6.7	4	6073	64.04	249	3.1	5	6177	67.64	136	3.1	4
5970	72.5	264	6.7	4	6074	64.04	248	3.1	5	6178	72.86	138	2.6	4
5971	70.34	253	6.7	4	6075	64.04	249	3.1	6	6179	70.34	256	5.7	4
5972	69.08	234	5.1	5	6076	64.04	253	3.1	6	6180	72.68	243	5.7	4
5973	68.72	235	5.1	5	6077	64.04	255	3.1	6	6181	73.58	229	5.1	3
5974	69.26	241	3.6	5	6078	64.04	254	3.1	6	6182	73.58	232	5.1	3
5975	68.9	225	3.6	5	6079	64.04	249	3.1	4	6183	73.58	228	5.1	4
5976	68.18	224	1.5	6	6080	64.04	248	3.1	4	6184	73.58	230	5.1	3
5977	68.18	218	2.6	6	6081	64.04	253	3.1	3	6185	73.58	232	5.1	4
5978	68.36	217	1.5	6	6082	64.04	254	3.1	3	6186	73.58	232	5.1	4
5979	67.64	223	2.1	6	6083	69.98	237	4.1	3	6187	66.74	251	5.7	4
5980	67.82	222	2.1	6	6084	75.2	155	2.1	2	6188	65.84	229	4.1	5
5981	67.28	225	1.5	6	6085	71.6	236	6.7	4	6189	64.94	248	3.1	6
5982	67.28	206	1	6	6086	72.32	246	6.7	4	6190	64.94	230	3.1	5
5983	67.64	3	2.1	4	6087	71.24	253	6.7	4	6191	64.76	245	2.6	5
5984	71.42	93	2.1	3	6088	71.6	253	6.7	4	6192	64.58	210	1.5	5
5985	75.2	205	2.1	3	6089	70.88	252	7.2	4	6193	65.66	212	2.6	5
5986	76.1	249	4.1	3	6090	68.72	239	6.2	4	6194	64.76	208	2.1	5
5987	77	261	4.1	3	6091	66.38	253	5.1	4	6195	64.4	178	1	5
5988	77	259	5.1	3	6092	64.22	236	4.1	5	6196	64.4	356	2.6	5
5989	77.72	238	5.7	3	6093	64.76	262	3.1	6	6197	64.4	2	2.1	5
5990	77.72	255	7.2	4	6094	64.76	228	3.1	6	6198	64.04	84	2.1	5
5991	76.82	245	7.2	4	6095	64.94	221	3.1	6	6199	65.12	78	1.5	3
5992	77.54	255	7.2	4	6096	64.4	225	2.6	6	6200	66.2	80	1.5	3
5993	76.1	276	6.7	4	6097	62.78	250	3.6	5	6201	68.18	230	2.1	4
5994	74.12	241	6.2	4	6098	63.32	297	1	5	6202	69.8	144	3.6	4
5995	71.6	238	5.7	4	6099	60.98	83	3.1	6	6203	72.5	231	4.6	4
5996	69.26	239	4.6	5	6100	61.7	56	2.6	6	6204	72.86	240	5.1	4
5997	68.72	246	4.1	5	6101	61.52	155	1	6	6205	73.4	233	6.2	4
5998	67.82	245	3.6	5	6102	61.88	356	1.5	6	6206	73.04	255	6.2	4
5999	67.28	248	3.1	6	6103	62.42	357	2.1	4	6207	72.32	261	6.2	4
6000	65.56	247	3.6	5	6104	62.42	359	2.1	4	6208	70.88	252	6.7	4
6001	66.38	229	3.1	6	6105	68.18	247	3.1	3	6209	69.8	249	6.2	4
6002	65.66	249	3.1	6	6106	70.34	274	3.1	2	6210	68.9	244	5.7	4
6003	65.66	236	3.1	6	6107	70.34	270	3.1	2	6211	66.92	234	4.6	4
6004	65.48	247	2.6	6	6108	70.34	266	3.1	3	6212	67.1	230	4.1	4
6005	66.02	240	2.6	6	6109	70.34	273	3.1	3	6213	66.74	241	3.1	5
6006	65.66	249	2.6	6	6110	72.32	238	6.7	3	6214	66.02	236	3.1	5
6007	65.84	246	2.6	4	6111	72.32	253	6.2	4	6215	65.66	247	3.1	5
6008	68.36	230	2.6	3	6112	72.32	249	6.2	4	6216	64.76	254	2.6	6
6009	71.96	227	2.1	3	6113	69.8	254	5.7	4	6217	63.32	249	2.6	6
6010	73.94	216	3.6	2	6114	69.26	254	4.6	4	6218	63.32	253	2.1	6
6011	74.48	239	5.1	2	6115	67.1	253	5.7	4	6219	62.6	248	2.1	6
6012	74.12	239	5.7	3	6116	67.28	238	6.7	4	6220	62.24	252	2.1	6
6013	73.4	240	6.2	3	6117	67.28	239	6.7	4	6221	62.24	250	2.1	6
6014	75.02	255	6.7	4	6118	67.28	240	6.7	5	6222	61.88	92	2.1	6
6015	75.74	242	6.7	4	6119	64.4	249	5.7	4	6223	61.88	95	2.1	6
6016	73.94	249	6.7	4	6120	64.22	237	3.1	5	6224	61.88	90	2.1	4
6017	73.04	252	7.2	4	6121	63.86	240	3.1	5	6225	68.72	112	2.6	4
6018	70.88	263	6.2	4	6122	63.86	230	3.1	5	6226	68.72	106	2.6	2
6019	68.72	247	5.7	4	6123	64.22	226	3.1	5	6227	73.58	245	3.6	2
6020	67.28	250	5.1	5	6124	63.14	247	3.6	5	6228	73.76	246	6.2	4
6021	67.1	239	4.6	5	6125	63.68	240	2.6	5	6229	73.04	232	6.2	4
6022	66.74	245	3.1	6	6126	64.94	197	2.1	5	6230	73.76	254	6.7	4
6023	66.74	242	3.1	6	6127	65.48	185	3.1	4	6231	73.04	250	7.2	4
6024	66.2	245	2.1	6	6128	66.02	241	2.6	4	6232	72.32	254	7.2	4
6025	65.48	249	3.1	6	6129	66.02	236	2.6						

HOOR	TEMP	WD	WS	STAB	HOOR	TEMP	WD	WS	STAB	HOOR	TEMP	WD	WS	STAB
6241	66.02	9	3.1	6	6345	65.66	234	2.6	4	6449	67.46	270	6.7	4
6242	65.84	40	3.1	5	6346	65.66	232	2.6	4	6450	65.84	247	5.7	4
6243	64.4	49	3.1	5	6347	65.66	231	2.6	4	6451	64.04	273	5.1	4
6244	64.04	70	2.6	5	6348	74.66	228	2.6	2	6452	63.68	257	4.6	4
6245	64.22	57	2.6	5	6349	73.04	253	5.7	2	6453	63.68	259	3.6	5
6246	64.58	61	2.1	6	6350	71.6	242	5.7	3	6454	63.32	262	3.1	5
6247	64.94	69	3.1	4	6351	69.8	242	6.2	3	6455	63.14	264	3.6	5
6248	66.74	67	2.6	4	6352	70.16	240	6.2	3	6456	62.96	258	3.6	5
6249	69.8	85	3.6	3	6353	67.82	256	6.2	4	6457	62.78	275	2.6	5
6250	71.78	100	3.6	4	6354	66.2	251	4.6	4	6458	63.14	322	3.1	5
6251	72.32	102	2.6	4	6355	63.86	261	4.6	4	6459	63.32	297	2.6	5
6252	74.12	245	5.7	4	6356	63.5	250	3.6	4	6460	63.5	303	2.6	5
6253	75.56	249	6.2	4	6357	63.68	238	3.1	4	6461	63.86	300	2.1	5
6254	74.12	236	6.7	4	6358	63.5	240	3.1	5	6462	64.4	298	1.5	5
6255	71.96	250	7.2	4	6359	63.32	217	2.6	5	6463	64.76	302	2.1	5
6256	70.7	248	7.7	4	6360	62.96	260	2.1	5	6464	65.12	305	2.1	4
6257	70.7	248	7.7	4	6361	63.86	262	2.1	5	6465	65.3	297	1.5	4
6258	68	244	6.2	4	6362	64.22	265	3.1	5	6466	66.2	222	3.1	4
6259	66.56	236	5.1	4	6363	64.4	258	2.1	5	6467	66.38	222	3.6	4
6260	66.2	239	4.1	4	6364	64.4	258	2.1	5	6468	68.54	219	3.6	4
6261	65.66	236	3.6	4	6365	64.4	264	2.1	5	6469	71.24	264	4.1	3
6262	65.84	217	3.1	5	6366	64.4	256	2.1	5	6470	71.42	260	6.2	3
6263	65.84	208	2.6	5	6367	64.4	263	2.1	4	6471	69.62	258	7.2	4
6264	65.48	239	2.1	5	6368	64.4	256	2.1	4	6472	69.44	253	6.7	4
6265	65.12	242	2.1	6	6369	64.4	263	2.1	4	6473	67.82	262	6.2	4
6266	64.94	241	2.1	6	6370	64.4	264	2.1	4	6474	66.38	251	5.1	4
6267	64.58	320	2.6	6	6371	64.4	262	2.1	4	6475	66.38	254	5.1	4
6268	64.22	314	2.1	6	6372	64.4	256	2.1	3	6476	66.38	253	5.1	5
6269	63.68	315	2.1	6	6373	64.4	256	2.1	3	6477	66.38	248	5.1	4
6270	63.68	2	1	6	6374	64.4	262	2.1	3	6478	66.38	251	5.1	4
6271	64.4	287	2.6	4	6375	64.4	256	2.1	4	6479	66.38	251	5.1	5
6272	64.4	292	2.6	4	6376	64.4	260	2.1	4	6480	66.38	248	5.1	5
6273	68.54	228	3.1	3	6377	64.4	265	2.1	4	6481	66.38	254	5.1	5
6274	70.34	244	3.6	2	6378	64.4	261	2.1	4	6482	66.38	248	5.1	5
6275	72.5	258	5.1	2	6379	64.76	244	6.2	4	6483	66.38	252	5.1	5
6276	72.68	253	5.1	3	6380	64.22	228	4.1	4	6484	66.38	251	5.1	5
6277	72.86	257	6.2	3	6381	64.04	226	3.1	4	6485	66.38	253	5.1	5
6278	72.5	247	6.7	3	6382	64.04	226	3.1	4	6486	66.38	247	5.1	5
6279	73.4	255	6.2	3	6383	63.86	234	2.6	6	6487	66.38	255	5.1	5
6280	71.06	244	7.2	3	6384	63.68	228	2.6	5	6488	66.38	252	5.1	5
6281	70.16	249	6.7	3	6385	64.76	241	2.6	5	6489	66.38	246	5.1	4
6282	68.54	246	5.1	4	6386	65.48	212	3.1	5	6490	66.38	254	5.1	4
6283	66.74	255	4.6	4	6387	65.3	181	2.1	5	6491	66.38	248	5.1	4
6284	66.56	227	3.1	4	6388	65.12	211	2.1	5	6492	66.38	246	5.1	4
6285	66.74	230	3.1	5	6389	64.94	198	1.5	5	6493	66.38	247	5.1	4
6286	66.2	245	3.1	5	6390	65.12	111	2.1	5	6494	66.38	254	5.1	4
6287	65.84	241	3.1	5	6391	65.12	237	2.1	4	6495	66.38	249	5.1	3
6288	65.12	233	2.6	5	6392	65.84	240	2.6	4	6496	66.38	246	5.1	4
6289	64.76	240	2.1	5	6393	66.02	241	3.1	4	6497	66.38	248	5.1	3
6290	66.38	67	2.1	5	6394	67.28	212	2.6	4	6498	66.38	249	5.1	3
6291	66.92	90	3.6	5	6395	67.82	213	3.6	4	6499	66.38	246	5.1	5
6292	66.92	90	2.6	5	6396	68.18	240	4.1	4	6500	66.38	249	5.1	5
6293	66.56	109	3.1	5	6397	71.06	246	5.7	4	6501	66.38	251	5.1	5
6294	65.3	51	3.1	5	6398	70.7	247	7.7	4	6502	66.38	248	5.1	6
6295	64.76	49	2.6	4	6399	69.62	254	7.7	4	6503	66.38	246	5.1	6
6296	67.28	47	1.5	3	6400	68.9	256	7.2	4	6504	66.38	253	5.1	6
6297	70.52	55	2.6	3	6401	68.18	258	6.2	4	6505	66.38	253	5.1	6
6298	73.22	49	2.6	3	6402	65.66	261	6.2	4	6506	66.38	248	5.1	6
6299	74.3	236	3.6	3	6403	63.68	246	6.7	4	6507	66.38	247	5.1	5
6300	74.12	244	4.6	3	6404	63.5	256	6.2	4	6508	66.38	249	5.1	5
6301	74.3	240	5.1	3	6405	63.5	248	4.6	4	6509	66.38	247	5.1	5
6302	73.76	249	5.1	3	6406	64.04	241	3.1	5	6510	66.38	246	5.1	5
6303	73.76	250	5.7	3	6407	63.5	246	3.1	5	6511	66.38	249	5.1	5
6304	72.86	253	6.7	4	6408	63.86	246	3.1	5	6512	66.38	246	5.1	5
6305	72.86	252	6.7	4	6409	64.4	227	3.1	5	6513	66.38	250	5.1	5
6306	68	245	4.6	4	6410	64.58	230	2.1	5	6514	66.38	254	5.1	3
6307	65.84	254	4.6	4	6411	64.76	199	1	6	6515	66.38	246	5.1	2
6308	66.2	241	4.1	4	6412	64.76	254	3.1	5	6516	66.38	246	5.1	2
6309	66.56	257	3.1	5	6413	64.76	24	1	5	6517	66.38	254	5.1	2
6310	65.84	267	2.6	5	6414	64.94	307	2.1	5	6518	66.38	249	5.1	2
6311	65.48	237	2.6	5	6415	65.12	336	2.6	4	6519	66.38	246	5.1	3
6312	65.66	260	2.6	5	6416	65.66	21	1	4	6520	66.38	246	5.1	3
6313	65.66	256	2.6	5	6417	66.2	249	3.1	4	6521	66.38	248	5.1	3
6314	65.66	259	2.1	5	6418	67.28	254	4.6	4	6522	66.38	252	5.1	4
6315	65.84	177	1	5	6419	69.26	254	3.1	4	6523	66.38	246	5.1	4
6316	64.22	238	2.6	5	6420	70.7	246	5.1	4	6524	66.38	249	5.1	5
6317	64.58	289	2.6	5	6421	71.78	238	6.2	4	6525	63.86	255	2.6	5
6318	64.58	262	2.1	5	6422	70.52	245	5.7	4	6526	64.04	242	2.1	5
6319	64.58	257	2.1	4	6423	71.24	251	7.2	4	6527	64.4	171	2.1	5
6320	65.66	295	1	4	6424	68.9	252	6.7	4	6528	64.76	92	3.1	5
6321	66.92	238	3.6	4	6425	67.28	251	7.2	4	6529	64.04	92	3.1	5
6322	68.18	244	4.1	4	6426	65.66	238	6.7	4	6530	64.22	125	2.1	5
6323	69.26	257	4.1	3	6427	64.58	238	6.2	4	6531	64.04	123	1.5	5
6324	69.26	258	4.1	3	6428	64.4	250	5.1	4	6532	63.68	255	3.1	5
6325	71.06	259	5.7	3	6429	64.22	247	3.6	4	6533	63.68	44	1	5
6326	71.6	237	5.7	3	6430	64.58	251	3.1	5	6534	63.86	3	2.1	5
6327	70.34	263	6.2	4	6431	64.58	258	3.1	5	6535	63.68	116	2.1	5
6328	69.44	258	6.2	4	6432	64.58	268	2.6	5	6536	64.22	86	3.1	5
6329	67.64	248	6.2	4	6433	64.76	267	3.1	5	6537	64.76	95	3.6	5
6330	65.48	252	6.2	4	6434	64.58	252	2.6	5	6538	68	86	1.5	3
6331	64.22	242	5.1	4	6435	64.58	255	2.6	5	6539	70.52	231	3.1	3
6332	64.04	252	3.6	5	6436	64.4	251	2.1	5	6540	69.08	256	4.6	3
6333	64.04	285	3.1	5	6437	64.04	278	2.1	5	6541	70.16	233	5.1	4
6334	63.5	235	2.6	5	6438	63.68	254	3.1	5	6542	69.62	256	5.1	4
6335	63.5	233	2.6	5	6439	63.86	233	2.6	5	6543	69.62	242	5.1	4
6336	63.5	239	2.6	5	6440	64.4	224	2.1	4	6544	69.08	250	4.6	3
6337	63.86	250	2.6	5	6441	65.12	213	2.6						

BOOR	TEMP	WD	WS	STAB	BOOR	TEMP	WD	WS	STAB	BOOR	TEMP	WD	WS	STAB
6553	65.48	131	3.1	5	6657	63.68	134	3.1	4	6761	63.86	264	4.6	4
6554	65.12	145	3.1	5	6658	67.64	153	2.1	3	6762	63.86	257	4.6	4
6555	64.4	126	2.1	5	6659	70.7	238	4.1	3	6763	63.86	261	4.6	4
6556	64.4	128	1.5	5	6660	69.62	231	4.6	3	6764	63.86	263	4.6	4
6557	64.58	86	2.1	5	6661	68.36	252	5.1	4	6765	62.86	261	4.6	5
6558	64.58	86	2.1	5	6662	68.54	260	4.6	4	6766	63.86	256	4.6	5
6559	64.22	90	2.1	5	6663	67.46	261	4.6	4	6767	63.86	256	4.6	5
6560	65.12	92	2.1	4	6664	66.56	271	3.6	4	6768	63.86	264	4.6	5
6561	65.84	84	3.6	4	6665	64.58	244	4.1	4	6769	63.86	259	4.6	5
6562	67.28	93	4.1	4	6666	64.22	243	2.6	4	6770	63.86	259	4.6	6
6563	67.64	115	3.1	4	6667	63.68	248	2.1	5	6771	63.86	264	4.6	5
6564	67.1	180	3.1	4	6668	63.5	255	2.1	5	6772	63.86	261	4.6	5
6565	68.18	208	3.1	4	6669	63.14	250	2.1	5	6773	63.86	259	4.6	5
6566	68.18	208	3.1	4	6670	63.68	285	2.6	5	6774	63.86	262	4.6	6
6567	68.18	212	3.1	4	6671	64.4	253	2.6	5	6775	60.08	113	1.5	6
6568	68.9	247	3.6	3	6672	64.22	254	2.6	5	6776	62.06	222	2.1	4
6569	68	257	5.1	3	6673	63.86	250	2.6	5	6777	62.06	236	3.1	4
6570	66.56	265	3.1	3	6674	64.22	251	2.1	5	6778	65.84	232	3.1	4
6571	64.58	256	5.1	5	6675	63.14	342	1	5	6779	65.84	235	3.1	4
6572	64.58	252	5.7	4	6676	62.42	251	2.1	6	6780	69.08	257	4.6	3
6573	63.68	253	4.6	5	6677	62.42	250	2.1	5	6781	69.08	268	5.1	3
6574	63.5	218	3.1	6	6678	62.24	282	3.1	5	6782	68	261	3.6	3
6575	63.5	233	2.6	6	6679	62.06	271	1.5	6	6783	68.18	258	4.1	3
6576	62.96	320	1	6	6680	62.6	265	2.1	4	6784	69.26	274	4.1	3
6577	62.06	107	2.1	6	6681	64.22	261	2.1	4	6785	68	268	4.6	3
6578	62.42	147	2.1	6	6682	66.38	264	2.6	4	6786	63.86	262	3.1	4
6579	63.32	246	2.1	5	6683	71.78	256	2.1	4	6787	63.14	255	2.1	4
6580	64.22	255	2.6	5	6684	70.16	253	5.1	3	6788	63.68	270	2.1	6
6581	63.86	82	2.1	5	6685	69.98	254	5.7	3	6789	63.86	232	3.1	6
6582	63.14	88	1.5	6	6686	70.34	242	6.2	3	6790	63.5	255	2.1	6
6583	63.86	107	2.1	5	6687	68.54	252	6.7	3	6791	61.88	228	2.1	6
6584	64.4	129	2.1	4	6688	67.64	273	6.2	4	6792	60.62	245	2.6	6
6585	65.66	144	2.1	4	6689	65.48	268	6.2	4	6793	57.2	244	3.1	6
6586	67.46	136	1.5	4	6690	63.32	249	5.7	4	6794	56.66	255	2.1	6
6587	67.64	245	4.1	4	6691	62.96	235	4.1	4	6795	57.2	229	2.1	6
6588	68	253	4.1	4	6692	62.78	237	3.1	5	6796	57.56	67	1.5	6
6589	71.42	253	4.1	4	6693	62.96	193	3.6	5	6797	57.02	74	1.5	6
6590	70.88	247	5.7	3	6694	63.14	239	3.1	5	6798	57.92	72	2.1	6
6591	69.62	245	6.2	4	6695	63.14	176	2.1	5	6799	57.38	67	2.1	5
6592	68.9	262	5.7	4	6696	63.14	122	2.1	5	6800	57.74	120	2.1	5
6593	68	226	5.1	4	6697	63.5	249	1.5	6	6801	57.74	119	2.1	5
6594	66.02	252	6.2	4	6698	63.32	244	1.5	6	6802	66.74	241	3.1	3
6595	64.4	265	6.2	4	6699	63.32	256	1.5	6	6803	67.64	244	4.1	3
6596	63.32	254	4.6	4	6700	63.5	217	1.5	6	6804	69.44	251	4.1	3
6597	63.14	256	3.1	5	6701	62.78	311	2.6	6	6805	69.62	249	4.6	3
6598	62.24	264	2.6	6	6702	62.06	248	2.6	5	6806	68.18	247	5.1	3
6599	62.42	252	2.1	6	6703	61.7	236	2.6	5	6807	68.9	250	5.1	3
6600	61.88	248	1.5	6	6704	62.42	327	2.1	4	6808	68	259	6.2	4
6601	61.88	246	1.5	5	6705	64.4	230	2.1	4	6809	66.56	260	5.1	3
6602	61.34	239	2.1	5	6706	67.64	241	3.6	3	6810	64.58	255	3.6	4
6603	61.52	252	2.1	5	6707	68.54	251	4.6	3	6811	61.88	264	3.6	4
6604	62.06	322	2.1	5	6708	69.08	264	4.6	3	6812	62.78	246	4.1	5
6605	60.8	249	3.1	5	6709	68.36	259	5.7	3	6813	61.88	239	2.1	6
6606	60.98	246	2.1	5	6710	68.36	256	5.7	3	6814	61.7	239	2.1	6
6607	60.98	239	2.1	5	6711	65.84	247	5.7	4	6815	61.34	238	2.1	5
6608	61.88	218	2.1	5	6712	64.76	248	5.7	4	6816	61.16	236	2.1	5
6609	64.94	240	2.6	3	6713	64.76	252	5.7	4	6817	60.26	250	1.5	6
6610	66.74	265	3.1	3	6714	64.76	247	5.7	4	6818	60.26	112	2.1	6
6611	67.82	262	2.6	2	6715	64.76	247	5.7	4	6819	60.8	246	1.5	6
6612	66.74	242	3.1	4	6716	64.76	249	5.7	5	6820	60.98	186	2.1	5
6613	68.18	255	5.1	4	6717	64.76	246	5.7	5	6821	60.98	188	2.1	5
6614	66.92	246	3.6	2	6718	64.76	255	5.7	5	6822	59.36	255	2.1	5
6615	65.84	254	4.6	2	6719	64.76	255	5.7	6	6823	59.72	260	2.1	5
6616	64.76	275	3.6	4	6720	64.76	251	5.7	5	6824	60.62	264	2.6	4
6617	63.86	253	3.1	4	6721	64.76	255	5.7	5	6825	62.6	243	3.6	4
6618	63.5	247	3.1	4	6722	64.76	249	5.7	5	6826	62.6	273	2.6	4
6619	62.42	265	2.6	5	6723	64.76	250	5.7	5	6827	66.92	248	3.6	2
6620	62.24	272	2.1	5	6724	64.76	251	5.7	5	6828	67.1	264	4.1	3
6621	61.88	269	2.1	5	6725	64.76	246	5.7	5	6829	66.38	262	4.1	3
6622	61.52	222	2.1	5	6726	64.76	295	5.7	6	6830	68	247	3.6	3
6623	61.88	134	1.5	6	6727	64.76	251	5.7	6	6831	67.28	255	4.6	3
6624	62.06	107	2.1	5	6728	64.76	249	5.7	3	6832	66.74	253	5.7	3
6625	61.88	128	2.1	5	6729	64.76	247	5.7	4	6833	65.84	253	4.1	3
6626	62.24	133	2.1	5	6730	64.76	250	5.7	4	6834	63.32	256	4.6	4
6627	62.24	22	1	6	6731	64.76	251	5.7	4	6835	62.06	239	3.6	4
6628	61.52	356	2.1	5	6732	64.76	252	5.7	3	6836	62.06	227	3.1	6
6629	61.16	58	2.1	5	6733	64.76	254	5.7	3	6837	62.42	201	3.1	6
6630	60.8	57	2.1	5	6734	64.76	249	5.7	3	6838	62.6	168	2.6	6
6631	60.8	229	1	6	6735	64.76	253	5.7	3	6839	63.14	168	2.1	5
6632	61.7	229	2.6	4	6736	64.76	255	5.7	4	6840	61.88	173	2.1	6
6633	62.78	204	1.5	3	6737	64.76	248	5.7	4	6841	60.44	173	2.1	6
6634	64.76	198	4.1	3	6738	64.76	254	5.7	4	6842	59.9	172	2.6	6
6635	69.08	258	2.6	2	6739	64.76	250	5.7	4	6843	58.28	172	2.6	6
6636	69.26	256	3.1	2	6740	64.76	247	5.7	4	6844	59.36	170	2.6	6
6637	69.08	254	4.1	2	6741	64.76	255	5.7	4	6845	57.2	168	2.6	5
6638	68.36	249	4.6	3	6742	64.76	254	5.7	5	6846	57.92	167	2.1	5
6639	66.92	265	4.6	3	6743	64.76	247	5.7	5	6847	59.18	171	2.1	5
6640	65.12	272	5.1	3	6744	64.76	251	5.7	5	6848	61.16	84	2.1	4
6641	64.04	252	4.1	4	6745	64.76	246	5.7	5	6849	62.42	126	2.1	4
6642	63.5	252	3.1	4	6746	64.76	253	5.7	5	6850	64.94	128	3.1	4
6643	62.96	248	3.1	4	6747	64.76	254	5.7	5	6851	69.62	76	1.5	2
6644	62.96	251	2.6	5	6748	64.76	252	5.7	6	6852	72.14	45	2.1	2
6645	62.6	249	2.6	5	6749	64.76	247	5.7	6	6853	70.16	238	5.7	3
6646	63.14	252	2.6	5	6750	61.34	198	1	6	6854	69.08	242	5.7	3
6647	63.86	247	2.6	5	6751	61.7	318	1	6	6855	69.62	238	4.1	3
6648	64.22	247	2.6	5	6752	62.6	200	1	6	6856	68.72	246	5.1	3
6649	63.32	118	2.1	5	6753	64.								

HOOR	TEMP	WD	WS	STAB	HOOR	TEMP	WD	WS	STAB	HOOR	TEMP	WD	WS	STAB
6865	62.78	235	2.1	5	6969	61.88	332	2.6	4	7073	67.46	242	6.2	6
6866	62.78	231	2.1	5	6970	63.5	257	1.5	3	7074	65.66	244	6.7	6
6867	62.78	232	2.1	5	6971	64.22	263	3.6	4	7075	65.3	264	6.7	6
6868	62.78	234	2.1	5	6972	66.74	252	3.6	4	7076	66.56	284	3.6	6
6869	62.78	231	2.1	5	6973	66.92	248	4.1	3	7077	64.04	261	3.1	6
6870	62.78	229	2.1	5	6974	66.92	240	5.1	3	7078	63.32	5	1	6
6871	62.06	125	2.6	5	6975	67.1	254	5.7	3	7079	61.7	117	3.1	6
6872	62.42	160	2.6	4	6976	65.66	246	5.7	4	7080	57.02	87	3.6	6
6873	64.04	118	3.1	4	6977	64.58	258	5.1	3	7081	55.58	84	2.6	6
6874	67.46	114	3.1	4	6978	62.78	257	4.1	4	7082	55.4	85	2.1	6
6875	70.34	125	2.6	2	6979	62.06	245	4.1	4	7083	55.58	58	2.6	6
6876	68.36	262	2.6	2	6980	62.6	241	4.1	4	7084	55.58	97	2.6	6
6877	68.9	253	5.7	2	6981	61.88	245	4.1	4	7085	52.88	95	2.6	6
6878	68.18	265	5.7	3	6982	61.7	166	3.1	5	7086	54.86	113	1.5	6
6879	69.44	246	4.6	3	6983	62.78	176	1.5	6	7087	53.42	102	3.1	6
6880	68.36	240	3.6	3	6984	62.78	180	2.1	5	7088	53.42	103	3.1	6
6881	67.28	242	4.6	3	6985	63.32	320	3.1	5	7089	59.72	102	4.1	6
6882	65.12	229	4.1	4	6986	63.14	324	2.6	5	7090	64.4	96	3.6	6
6883	63.5	262	3.6	4	6987	63.5	318	2.1	5	7091	68.18	123	4.1	6
6884	62.96	254	2.1	5	6988	63.5	268	1	6	7092	70.88	96	4.1	6
6885	62.96	254	1.5	6	6989	62.96	104	2.1	6	7093	71.78	216	5.1	6
6886	63.32	249	2.1	6	6990	62.78	118	1.5	6	7094	69.08	240	6.2	6
6887	62.78	251	2.1	6	6991	62.78	134	2.1	5	7095	68.54	235	5.1	6
6888	63.5	4	3.1	5	6992	63.14	126	1.5	5	7096	70.52	221	4.1	6
6889	62.06	221	1	6	6993	63.32	296	1	3	7097	67.82	238	3.6	6
6890	60.8	92	2.1	5	6994	64.76	346	4.1	3	7098	65.48	251	3.6	6
6891	60.62	101	2.1	5	6995	70.88	2	4.1	4	7099	63.86	208	3.6	6
6892	59.9	74	2.1	5	6996	73.04	314	3.6	2	7100	64.22	217	3.1	6
6893	59.9	71	1.5	5	6997	71.24	261	6.7	2	7101	62.78	140	2.6	6
6894	59.36	87	2.1	5	6998	68.36	253	7.7	2	7102	62.6	136	1.5	6
6895	60.08	95	2.1	5	6999	68.18	248	7.7	4	7103	62.6	144	1.5	6
6896	61.7	91	2.1	4	7000	67.46	248	10.3	4	7104	59.36	74	3.1	6
6897	63.5	248	2.1	4	7001	66.02	258	10.3	4	7105	58.46	51	3.1	6
6898	63.68	241	3.6	4	7002	63.32	251	8.2	4	7106	57.2	48	3.1	6
6899	65.12	235	4.1	4	7003	62.42	252	6.7	4	7107	56.66	90	2.6	6
6900	67.1	264	3.6	4	7004	64.22	274	4.1	5	7108	56.12	72	2.1	6
6901	67.1	258	3.6	4	7005	64.58	339	5.7	5	7109	55.04	95	2.1	6
6902	67.1	264	3.6	4	7006	63.68	3	5.1	5	7110	54.5	80	2.6	6
6903	67.1	264	3.6	4	7007	62.96	2	7.2	4	7111	54.5	83	2.1	6
6904	67.1	262	3.6	4	7008	62.06	336	4.6	5	7112	57.56	32	2.6	6
6905	67.1	259	3.6	4	7009	62.24	336	6.7	4	7113	59.9	99	3.1	6
6906	67.1	259	3.6	4	7010	61.34	350	4.6	4	7114	64.04	101	4.1	6
6907	67.1	264	3.6	4	7011	59.9	10	3.1	6	7115	66.74	100	3.6	6
6908	67.1	258	3.6	5	7012	59.18	356	4.6	5	7116	70.16	150	2.6	6
6909	67.1	260	3.6	5	7013	57.92	4	3.6	5	7117	71.42	148	2.6	6
6910	67.1	262	3.6	6	7014	57.92	360	4.1	5	7118	71.96	151	2.6	6
6911	67.1	263	3.6	5	7015	55.04	65	2.6	6	7119	71.96	146	2.6	6
6912	67.1	256	3.6	6	7016	58.28	30	3.6	6	7120	71.96	152	2.6	6
6913	67.1	263	3.6	5	7017	62.96	14	3.6	6	7121	71.96	147	2.6	6
6914	67.1	263	3.6	5	7018	65.48	7	3.6	6	7122	71.96	154	2.6	6
6915	67.1	263	3.6	5	7019	68	14	3.1	6	7123	71.96	153	2.6	6
6916	67.1	264	3.6	5	7020	69.62	6	2.6	2	7124	71.96	154	2.6	6
6917	67.1	257	3.6	5	7021	71.6	239	3.1	2	7125	71.96	155	2.6	6
6918	67.1	260	3.6	5	7022	73.22	234	5.7	2	7126	71.96	151	2.6	6
6919	67.1	260	3.6	5	7023	68.72	254	7.2	4	7127	71.96	155	2.6	6
6920	67.1	264	3.6	5	7024	67.46	252	7.7	4	7128	71.96	154	2.6	6
6921	67.1	258	3.6	4	7025	65.84	253	7.2	4	7129	71.96	148	2.6	6
6922	67.1	258	3.6	4	7026	63.86	251	6.7	4	7130	71.96	147	2.6	6
6923	67.1	259	3.6	4	7027	62.78	248	7.7	4	7131	71.96	153	2.6	6
6924	67.1	257	3.6	2	7028	64.58	306	4.1	4	7132	71.96	152	2.6	6
6925	67.1	256	3.6	2	7029	63.14	308	3.1	6	7133	71.96	155	2.6	6
6926	67.1	257	3.6	3	7030	63.14	309	2.1	6	7134	71.96	154	2.6	6
6927	67.1	261	3.6	4	7031	62.78	5	5.1	5	7135	71.96	153	2.6	6
6928	66.2	246	4.1	3	7032	61.16	27	4.1	5	7136	71.96	153	2.6	6
6929	64.94	249	4.1	3	7033	59.9	346	3.1	6	7137	71.96	155	2.6	6
6930	62.96	263	4.1	3	7034	60.62	28	2.6	6	7138	66.74	329	4.6	6
6931	61.7	260	3.6	5	7035	57.02	100	2.1	6	7139	66.74	331	4.6	6
6932	61.52	274	3.6	5	7036	55.94	79	3.6	5	7140	68.54	259	10.3	6
6933	60.44	248	2.6	5	7037	56.3	11	2.1	5	7141	66.92	258	12.3	6
6934	60.62	253	2.6	6	7038	53.06	13	2.1	5	7142	67.1	265	11.3	6
6935	61.7	222	2.1	6	7039	55.94	125	2.1	6	7143	65.84	265	12.3	6
6936	61.88	145	2.6	5	7040	57.38	121	2.6	6	7144	64.04	255	14.4	6
6937	61.7	89	2.6	5	7041	63.68	122	2.6	6	7145	62.24	266	15.4	6
6938	61.7	66	1	5	7042	66.2	121	3.1	6	7146	60.8	251	10.3	4
6939	60.8	88	2.6	5	7043	69.8	139	3.6	6	7147	62.24	308	8.7	4
6940	61.34	86	2.6	5	7044	73.58	136	2.1	6	7148	62.24	309	8.7	4
6941	60.26	89	2.6	5	7045	73.76	226	4.6	6	7149	60.44	256	5.1	5
6942	59.9	88	2.6	5	7046	74.66	245	4.6	6	7150	58.28	315	4.1	4
6943	60.26	150	3.1	5	7047	75.74	266	5.1	6	7151	57.02	328	4.1	4
6944	61.16	127	2.6	5	7048	73.58	267	6.2	6	7152	55.58	327	3.6	5
6945	65.48	34	2.6	4	7049	72.5	246	4.1	6	7153	56.48	319	5.7	4
6946	68	31	2.6	4	7050	68.9	206	5.1	6	7154	56.48	299	4.6	4
6947	69.08	30	2.1	4	7051	65.66	235	4.1	6	7155	56.12	316	8.7	4
6948	70.52	233	3.1	4	7052	66.02	252	3.6	6	7156	55.58	297	6.2	4
6949	70.16	252	5.1	3	7053	65.66	312	3.1	6	7157	55.58	320	6.2	4
6950	69.98	252	5.7	3	7054	64.04	67	1	6	7158	55.76	319	7.2	4
6951	68	257	5.7	3	7055	62.78	218	3.1	6	7159	56.12	306	5.7	4
6952	67.64	247	6.2	4	7056	62.24	243	2.1	6	7160	57.74	330	4.1	4
6953	65.84	244	5.7	4	7057	58.46	25	1	6	7161	61.7	327	6.2	4
6954	64.04	247	4.6	4	7058	55.04	112	3.1	6	7162	63.32	356	6.7	4
6955	62.96	242	3.6	5	7059	55.76	72	1.5	6	7163	65.66	329	5.1	3
6956	62.06	260	2.6	6	7060	54.5	71	2.1	6	7164	67.82	69	3.6	3
6957	62.42	238	2.6	6	7061	53.42	74	2.6	6	7165	70.7	100	3.6	3
6958	62.6	229	2.1	6	7062	56.3	347	3.6	6	7166	72.86	45	6.2	4
6959	62.24	227	2.1	6	7063	55.22	36	3.1	6	7167	71.06	212	5.1	3
6960	61.88	228	2.1	6	7064	57.38	39	2.1	6	7168	72.68	19	5.7	4
6961	61.7	223	1	6	7065	60.62	41	4.1	6	7169	70.88	12	8.2	4

BOUR	TEMP	WD	WS	STAB	BOUR	TEMP	WD	WS	STAB	BOUR	TEMP	WD	WS	STAB
7177	62.78	19	8.7	4	7281	54.5	66	4.1	5	7385	60.44	255	5.1	4
7178	62.78	19	6.2	4	7282	57.56	74	4.1	3	7386	58.1	255	5.7	4
7179	60.26	318	5.1	4	7283	59.36	109	4.1	3	7387	57.2	246	5.1	4
7180	59.36	317	3.6	5	7284	60.98	81	2.6	4	7388	57.2	236	3.6	4
7181	59.54	324	3.6	5	7285	60.08	245	2.1	4	7389	57.38	248	4.1	5
7182	58.82	348	3.6	5	7286	61.16	244	5.7	4	7390	57.38	217	3.1	6
7183	59.72	5	3.6	5	7287	61.52	250	4.1	4	7391	57.02	227	2.6	5
7184	59	22	3.1	4	7288	61.88	251	4.1	4	7392	57.02	228	2.1	6
7185	61.34	128	3.1	3	7289	61.88	249	4.1	4	7393	54.68	99	3.1	5
7186	65.84	114	3.1	3	7290	57.38	253	5.1	4	7394	53.6	90	2.1	5
7187	68.54	194	4.1	3	7291	56.48	249	4.1	5	7395	55.4	89	2.1	5
7188	69.44	147	4.1	3	7292	57.02	274	4.6	5	7396	55.94	112	1	6
7189	69.62	215	6.2	4	7293	56.12	246	3.6	5	7397	56.66	357	2.1	6
7190	69.8	195	6.2	4	7294	55.22	248	2.6	6	7398	56.12	1	2.1	6
7191	69.98	214	6.2	4	7295	55.76	254	2.1	6	7399	55.58	349	2.6	5
7192	66.2	245	7.2	4	7296	55.22	327	2.6	6	7400	54.5	347	2.1	4
7193	63.68	241	9.3	4	7297	54.14	346	2.6	6	7401	57.02	355	3.1	4
7194	62.42	225	5.1	4	7298	54.14	350	2.6	6	7402	60.08	100	3.6	4
7195	62.96	189	5.1	4	7299	53.06	60	2.6	6	7403	62.6	142	3.1	3
7196	63.86	209	5.1	4	7300	50	57	2.6	6	7404	62.24	225	3.6	2
7197	61.52	239	4.1	4	7301	49.64	70	2.6	6	7405	63.68	259	5.7	3
7198	59.9	259	4.1	4	7302	48.56	61	2.1	6	7406	61.88	236	5.7	3
7199	59.9	263	4.1	5	7303	49.46	70	2.1	6	7407	62.06	270	6.2	3
7200	60.08	320	3.1	5	7304	51.44	75	3.1	4	7408	61.34	238	4.6	3
7201	61.16	5	3.6	5	7305	56.3	68	3.1	3	7409	60.44	218	3.1	4
7202	60.08	329	4.6	5	7306	62.06	71	2.1	3	7410	60.44	224	3.1	4
7203	58.28	19	3.1	5	7307	65.84	68	1.5	2	7411	57.92	266	3.6	5
7204	55.76	50	2.6	5	7308	70.16	70	2.1	2	7412	56.84	239	2.6	5
7205	53.42	50	3.6	5	7309	70.88	252	4.1	3	7413	56.84	246	2.6	5
7206	55.04	15	3.1	5	7310	70.7	267	5.1	3	7414	56.3	267	2.1	6
7207	54.32	6	1.5	5	7311	68.9	271	5.7	4	7415	57.38	278	2.1	6
7208	54.5	115	3.1	4	7312	68.36	269	5.7	4	7416	57.02	279	2.1	6
7209	60.62	343	4.1	4	7313	66.02	251	5.1	4	7417	54.14	112	2.1	6
7210	60.62	337	4.1	4	7314	61.7	259	5.1	4	7418	53.6	51	2.1	6
7211	66.92	217	3.6	4	7315	61.52	256	4.6	5	7419	51.44	70	2.1	6
7212	67.28	208	1.5	3	7316	60.8	265	3.6	5	7420	51.44	84	2.1	6
7213	68.72	231	5.1	3	7317	61.7	257	2.1	6	7421	51.44	85	2.1	6
7214	67.82	236	6.7	4	7318	60.98	260	2.1	6	7422	51.44	82	2.1	6
7215	66.02	246	6.2	4	7319	60.62	262	2.1	6	7423	50.72	222	1	6
7216	64.4	248	6.2	4	7320	60.08	100	1.5	6	7424	51.8	92	1	3
7217	62.24	230	6.2	4	7321	58.28	104	1.5	6	7425	56.12	148	3.6	4
7218	59.54	236	6.2	4	7322	59.18	102	2.6	6	7426	64.04	304	3.6	4
7219	58.1	243	6.2	4	7323	55.22	338	1	6	7427	67.64	298	2.6	3
7220	58.1	258	5.1	4	7324	55.04	266	2.1	6	7428	68.36	303	2.1	2
7221	57.92	265	5.1	4	7325	52.88	67	1.5	6	7429	69.8	227	2.6	2
7222	57.56	254	4.1	4	7326	53.06	71	2.1	6	7430	69.98	227	4.1	3
7223	57.38	240	3.1	5	7327	51.62	243	1	6	7431	70.34	165	4.1	3
7224	57.56	239	2.1	5	7328	53.24	81	2.6	4	7432	68.9	174	4.1	3
7225	57.56	239	2.1	5	7329	59	116	2.6	3	7433	65.84	229	3.6	4
7226	56.3	118	3.6	5	7330	64.4	208	4.1	3	7434	62.6	176	3.1	4
7227	53.06	79	3.1	5	7331	64.58	226	4.6	3	7435	61.34	185	2.6	6
7228	53.6	83	3.1	5	7332	66.38	253	5.1	3	7436	59	77	2.6	6
7229	52.16	85	3.1	5	7333	66.02	229	5.7	3	7437	59	70	2.6	6
7230	51.8	94	3.1	5	7334	66.38	242	5.7	3	7438	59	85	2.6	6
7231	52.34	119	2.6	5	7335	65.48	238	6.2	4	7439	59.54	31	2.1	6
7232	53.42	98	2.6	4	7336	63.86	240	5.7	4	7440	59.9	33	2.1	6
7233	54.86	103	3.6	4	7337	62.42	242	4.1	4	7441	57.56	20	2.6	6
7234	54.86	104	3.6	4	7338	61.7	242	3.6	4	7442	55.4	107	3.1	6
7235	62.42	127	6.2	4	7339	60.62	251	3.6	5	7443	52.88	100	2.6	6
7236	65.12	135	6.7	4	7340	60.98	89	1	6	7444	52.16	70	2.6	6
7237	65.48	116	6.7	4	7341	60.8	158	3.1	5	7445	55.58	69	2.1	6
7238	64.94	126	6.7	4	7342	59.9	240	2.1	5	7446	54.32	71	2.1	6
7239	64.94	133	6.2	4	7343	60.08	345	1.5	6	7447	52.16	79	2.1	6
7240	64.58	133	6.2	4	7344	58.1	70	2.6	6	7448	59.18	77	3.1	4
7241	64.04	152	5.1	4	7345	57.2	62	2.6	6	7449	64.04	25	1.5	3
7242	64.04	149	5.1	4	7346	56.3	118	2.6	6	7450	66.38	79	3.6	3
7243	64.04	153	5.1	4	7347	55.22	128	2.1	6	7451	73.22	16	3.6	3
7244	64.04	146	5.1	4	7348	55.58	36	3.1	6	7452	75.56	134	3.1	2
7245	64.04	152	5.1	4	7349	54.86	62	3.1	6	7453	79.16	100	2.6	2
7246	64.04	148	5.1	4	7350	53.96	84	2.1	6	7454	81.32	139	2.6	2
7247	64.04	151	5.1	4	7351	54.86	78	2.6	6	7455	84.2	140	2.6	3
7248	64.04	155	5.1	4	7352	54.68	90	1.5	3	7456	78.26	253	4.6	3
7249	64.04	150	5.1	4	7353	59	90	4.1	3	7457	75.92	282	4.1	4
7250	64.04	155	5.1	4	7354	61.52	114	4.6	3	7458	71.42	295	5.1	4
7251	64.04	153	5.1	4	7355	63.32	131	4.1	3	7459	69.8	304	3.1	6
7252	64.04	146	5.1	4	7356	65.12	90	4.1	3	7460	72.86	351	5.7	4
7253	64.04	148	5.1	4	7357	65.12	93	4.1	3	7461	71.96	347	4.1	5
7254	64.04	146	5.1	4	7358	66.02	135	3.6	3	7462	69.08	87	3.6	5
7255	64.04	147	5.1	4	7359	64.76	231	5.1	4	7463	71.06	87	2.6	6
7256	64.04	149	5.1	4	7360	61.7	242	5.1	4	7464	68	350	3.6	5
7257	64.04	147	5.1	4	7361	60.98	239	4.1	4	7465	66.02	16	3.6	5
7258	64.04	154	5.1	4	7362	59.36	264	3.6	4	7466	62.78	39	2.6	6
7259	64.04	150	5.1	4	7363	58.46	264	2.1	4	7467	61.16	107	2.6	6
7260	64.04	146	5.1	4	7364	58.1	260	2.1	6	7468	61.52	28	2.6	6
7261	64.04	153	5.1	4	7365	58.28	1	2.6	6	7469	60.08	49	2.6	6
7262	64.04	148	5.1	4	7366	57.38	106	1.5	6	7470	61.88	32	2.6	6
7263	64.04	153	5.1	4	7367	58.28	107	2.1	6	7471	57.92	87	2.1	6
7264	59.9	239	7.2	4	7368	57.56	319	1	6	7472	63.32	53	3.6	4
7265	59	254	8.2	4	7369	57.56	89	2.1	5	7473	68	28	4.6	4
7266	56.84	264	7.2	4	7370	57.74	93	2.6	5	7474	75.2	34	5.1	3
7267	55.94	263	7.2	4	7371	56.84	88	2.1	5	7475	79.88	17	4.1	3
7268	55.76	258	7.2	4	7372	57.2	102	2.1	5	7476	83.48	8	3.6	2
7269	55.76	259	6.7	4	7373	57.56	100	2.1	5	7477	87.08	19	3.6	2
7270	55.76	240	6.2	4	7374	57.56	102	2.1	5	7478	89.06	347	3.6	2
7271	56.66	259	6.2	4	7375	58.1	27	1	6	7479	91.04	3	5.1	3
7272	55.22	267	3.6	5	7376	58.1	90	1	4	7480	89.96	358	3.6	3
7273	53.6	340	2.1	6	7377	60.44	2	2.6	4	7481	87.98	318	4.6	4
7274	51.98	90	2.											

HOOR	TEMP	WD	WS	STAB	HOOR	TEMP	WD	WS	STAB	HOOR	TEMP	WD	WS	STAB
7489	68	360	2.6	5	7593	57.92	70	1	3	7697	60.26	238	3.1	4
7490	70.52	342	2.6	5	7594	57.92	119	3.1	4	7698	59.54	254	2.6	4
7491	69.44	344	2.1	6	7595	60.98	133	2.1	4	7699	58.64	248	2.1	5
7492	65.3	345	2.6	6	7596	60.98	130	2.1	4	7700	57.74	237	2.6	5
7493	71.24	21	5.1	5	7597	63.5	253	3.6	4	7701	57.74	243	2.1	5
7494	69.26	25	2.6	6	7598	63.5	251	3.6	4	7702	57.38	250	1.5	6
7495	61.88	86	2.6	5	7599	59	265	3.6	4	7703	57.74	229	1.5	6
7496	69.8	21	4.1	4	7600	58.64	274	2.1	4	7704	57.92	303	1.5	6
7497	69.98	74	3.1	4	7601	58.28	240	2.1	4	7705	58.46	321	2.1	5
7498	79.16	2	5.1	3	7602	58.28	237	2.1	4	7706	58.82	325	1.5	6
7499	83.84	21	3.6	3	7603	57.02	253	2.6	5	7707	58.46	246	2.1	6
7500	86.9	38	4.1	3	7604	56.66	247	2.1	5	7708	58.28	8	2.1	6
7501	90.5	3	4.1	3	7605	55.94	179	2.1	5	7709	57.38	6	1.5	6
7502	93.02	2	3.6	2	7606	55.04	232	2.1	5	7710	56.48	16	1.5	6
7503	91.58	252	5.1	3	7607	55.22	234	1.5	6	7711	54.86	157	1	6
7504	86.54	250	5.1	3	7608	54.5	88	2.1	5	7712	54.86	62	1.5	3
7505	83.84	276	3.6	4	7609	54.5	115	2.1	5	7713	58.82	24	2.6	4
7506	82.94	261	3.1	4	7610	55.22	122	1.5	5	7714	62.6	103	2.6	3
7507	79.52	251	3.6	5	7611	55.58	97	1.5	5	7715	65.3	105	2.6	3
7508	81.32	250	2.1	5	7612	55.58	73	2.1	5	7716	66.02	250	3.1	3
7509	77	238	3.6	5	7613	55.4	80	2.1	5	7717	64.58	248	4.6	3
7510	75.92	30	2.6	5	7614	55.4	78	2.1	5	7718	64.4	238	4.6	3
7511	77.54	17	2.1	5	7615	55.04	82	2.1	5	7719	63.68	262	5.1	3
7512	75.2	50	5.1	4	7616	55.04	85	2.1	4	7720	62.96	257	3.6	3
7513	75.02	2	3.6	5	7617	56.3	77	1.5	3	7721	60.62	237	5.1	4
7514	72.68	25	3.1	5	7618	57.74	122	2.1	4	7722	59.54	255	3.6	5
7515	68.18	88	3.1	5	7619	57.74	122	2.1	4	7723	59.18	246	3.6	5
7516	67.46	78	2.6	5	7620	57.74	119	2.1	3	7724	58.28	262	3.1	5
7517	64.04	74	3.1	5	7621	59.72	234	2.1	3	7725	58.82	253	2.1	5
7518	63.5	66	2.6	5	7622	59.72	230	2.1	4	7726	59.36	248	2.6	5
7519	64.76	103	2.6	5	7623	59.18	238	2.1	4	7727	58.82	233	2.1	5
7520	64.94	76	2.6	4	7624	58.28	243	3.6	4	7728	58.28	255	2.1	5
7521	71.78	43	3.1	4	7625	58.1	242	2.1	4	7729	58.82	217	2.1	5
7522	80.24	34	4.1	3	7626	57.92	241	2.1	4	7730	58.82	57	1.5	5
7523	84.56	32	4.1	3	7627	58.28	194	1.5	6	7731	58.64	56	2.1	5
7524	86.54	16	3.1	2	7628	58.1	213	1.5	6	7732	58.64	105	2.1	5
7525	76.82	256	5.1	3	7629	58.46	108	1.5	6	7733	58.46	72	2.1	5
7526	75.02	252	3.6	2	7630	58.46	1	1	6	7734	58.28	8	2.1	5
7527	75.74	246	4.1	3	7631	58.82	1	2.6	5	7735	57.74	207	1.5	6
7528	73.76	250	4.1	3	7632	57.74	88	1.5	6	7736	58.28	111	1	6
7529	73.76	255	4.1	3	7633	57.38	104	1.5	6	7737	58.82	94	2.1	6
7530	72.14	261	3.1	4	7634	57.2	78	1.5	6	7738	59.72	36	2.1	6
7531	70.34	244	2.6	4	7635	56.84	332	1.5	6	7739	60.62	25	2.1	6
7532	70.52	218	2.6	5	7636	55.76	251	1.5	6	7740	59.54	263	4.6	4
7533	71.78	216	2.6	5	7637	55.22	13	1.5	6	7741	58.82	243	2.1	4
7534	68.72	216	2.6	5	7638	52.88	327	1.5	6	7742	59.9	227	2.1	4
7535	67.82	224	2.1	5	7639	53.42	25	1.5	6	7743	58.64	265	4.1	4
7536	67.82	88	3.6	5	7640	54.68	262	1.5	3	7744	58.28	272	3.1	4
7537	67.82	91	3.6	5	7641	56.84	346	2.1	4	7745	58.46	256	4.6	4
7538	67.82	92	3.6	5	7642	59.18	354	2.1	4	7746	57.92	262	3.6	5
7539	67.82	91	3.6	5	7643	59.18	348	2.1	4	7747	58.82	245	3.6	5
7540	67.82	91	3.6	5	7644	60.26	246	2.6	4	7748	59	234	2.6	5
7541	67.82	88	3.6	6	7645	60.26	247	2.6	4	7749	58.64	266	3.6	5
7542	67.82	91	3.6	5	7646	60.98	254	3.1	4	7750	57.38	14	2.6	5
7543	67.82	87	3.6	6	7647	60.62	249	4.1	4	7751	57.38	12	2.1	5
7544	67.82	90	3.6	3	7648	60.62	246	4.1	4	7752	59.54	348	1.5	6
7545	67.82	91	3.6	3	7649	60.44	258	5.1	4	7753	59.54	346	1.5	6
7546	67.82	92	3.6	3	7650	59.18	259	3.6	4	7754	58.1	339	2.1	6
7547	67.82	93	3.6	3	7651	60.08	266	4.1	4	7755	57.38	352	2.1	6
7548	67.82	90	3.6	2	7652	59.54	269	2.1	4	7756	56.12	42	2.1	6
7549	67.82	86	3.6	3	7653	59.54	341	2.6	4	7757	56.12	69	2.1	6
7550	67.82	87	3.6	3	7654	58.46	338	2.1	4	7758	56.84	96	1.5	6
7551	67.82	94	3.6	3	7655	57.92	246	2.6	4	7759	57.92	59	1.5	6
7552	67.82	86	3.6	3	7656	58.82	283	3.6	4	7760	58.82	98	1.5	3
7553	67.82	88	3.6	4	7657	57.02	283	2.1	4	7761	60.44	100	2.1	4
7554	67.82	91	3.6	4	7658	56.66	258	4.1	4	7762	61.88	105	2.1	4
7555	67.82	86	3.6	6	7659	56.84	307	2.1	4	7763	63.86	192	2.1	4
7556	67.82	86	3.6	6	7660	55.94	309	2.1	4	7764	65.84	262	3.6	3
7557	67.82	88	3.6	6	7661	53.6	297	2.1	4	7765	65.3	255	4.1	3
7558	67.82	91	3.6	6	7662	51.8	16	2.1	4	7766	64.22	246	4.1	4
7559	67.82	86	3.6	6	7663	52.52	79	2.1	4	7767	64.94	244	4.6	4
7560	64.58	86	1.5	6	7664	52.52	76	2.1	4	7768	61.88	245	3.1	4
7561	62.96	87	1.5	6	7665	54.86	60	3.1	4	7769	61.52	253	2.6	4
7562	61.34	135	1	6	7666	57.92	64	3.1	4	7770	60.62	247	2.1	5
7563	60.08	244	1	6	7667	60.26	106	2.6	4	7771	60.44	245	2.1	5
7564	59	341	1	6	7668	63.14	106	3.1	4	7772	60.62	222	2.1	5
7565	60.08	114	1	6	7669	65.12	234	3.1	2	7773	60.98	219	2.1	5
7566	58.82	357	2.1	5	7670	64.22	229	3.1	2	7774	60.62	222	1.5	6
7567	58.28	356	2.1	5	7671	62.96	246	3.1	3	7775	60.98	134	1.5	6
7568	60.8	359	2.1	4	7672	61.52	226	4.6	3	7776	61.16	127	1.5	6
7569	64.94	319	2.6	4	7673	59.9	238	3.6	4	7777	61.34	128	2.1	5
7570	69.44	324	2.1	4	7674	57.56	242	3.6	5	7778	61.7	153	1.5	5
7571	71.96	234	2.1	4	7675	57.02	246	2.1	5	7779	61.34	180	1	5
7572	73.58	236	5.1	3	7676	55.58	249	1.5	5	7780	61.7	126	2.1	5
7573	77.18	248	4.1	3	7677	55.4	255	2.1	5	7781	61.34	128	1.5	5
7574	74.48	245	3.1	2	7678	55.58	252	2.1	5	7782	60.98	267	1	5
7575	69.98	241	3.1	3	7679	56.66	23	1	6	7783	60.98	49	1	6
7576	71.24	272	2.6	3	7680	57.38	137	1	6	7784	60.98	109	2.6	4
7577	70.16	251	2.1	4	7681	57.38	212	2.1	5	7785	61.34	104	1.5	3
7578	65.66	238	2.6	4	7682	57.74	50	1	5	7786	61.88	118	2.1	3
7579	64.04	228	2.1	5	7683	56.84	113	2.1	5	7787	62.42	108	2.1	3
7580	63.68	220	2.1	5	7684	56.66	145	2.1	5	7788	62.42	126	1.5	3
7581	63.14	217	2.1	5	7685	56.3	79	2.1	5	7789	62.42	124	1.5	3
7582	63.68	221	2.1	5	7686	56.3	93	1.5	6	7790	62.6	139	1.5	3
7583	63.68	218	2.1	6	7687	57.2	106	1.5	6	7791	63.14	185	2.6	3
7584	61.34	218	1.5	6	7688	57.02	56	1.5	3	7792	62.78	182	2.1	3
7585	59.36	117	2.1	5	7689	58.1	115	2.1	4	7793	62.6	222	2.1	3
7586	57.2													

HOOR	TEMP	WD	WS	STAB	HOOR	TEMP	WD	WS	STAB	HOOR	TEMP	WD	WS	STAB
7801	62.42	188	2.1	3	7905	55.4	113	2.6	4	8009	61.88	254	8.2	3
7802	62.24	195	5.1	3	7906	59.72	105	2.6	3	8010	61.88	246	8.2	5
7803	61.52	224	4.1	3	7907	68.36	351	2.6	3	8011	61.88	246	8.2	6
7804	60.8	238	5.1	3	7908	72.68	201	2.6	3	8012	61.88	255	8.2	6
7805	60.8	241	4.1	3	7909	68.36	238	4.6	3	8013	56.84	241	3.1	6
7806	59.9	260	7.2	3	7910	69.62	242	3.6	3	8014	55.04	134	3.1	6
7807	58.82	252	7.2	3	7911	72.68	225	3.1	3	8015	53.6	120	2.1	6
7808	58.82	254	6.2	3	7912	73.58	255	3.1	3	8016	55.4	144	2.6	6
7809	60.26	254	7.2	3	7913	75.92	354	4.1	4	8017	50.54	105	3.1	6
7810	61.16	263	8.2	3	7914	73.04	17	5.1	5	8018	50.54	71	2.1	6
7811	62.96	258	7.2	3	7915	70.88	21	3.1	6	8019	48.74	92	2.1	6
7812	62.96	241	6.2	3	7916	70.16	13	4.6	5	8020	47.84	94	2.1	6
7813	63.32	242	6.2	3	7917	68.9	21	2.6	6	8021	46.94	81	2.6	6
7814	63.32	240	6.2	3	7918	68.9	6	2.1	6	8022	46.94	69	2.6	6
7815	62.78	221	6.2	3	7919	65.48	126	2.1	6	8023	45.68	105	2.6	6
7816	61.16	241	5.1	3	7920	65.3	144	2.6	6	8024	44.96	100	3.1	6
7817	59.54	264	6.2	3	7921	66.56	9	2.1	6	8025	48.92	88	4.1	6
7818	60.08	253	7.2	3	7922	63.32	359	2.1	6	8026	54.32	104	3.6	6
7819	60.26	258	3.6	3	7923	61.16	34	2.1	6	8027	57.92	115	3.1	6
7820	59.9	255	5.1	3	7924	59.72	31	2.1	6	8028	61.16	142	2.6	3
7821	59.9	260	7.2	3	7925	52.88	29	2.1	6	8029	63.32	223	3.6	3
7822	59	255	6.2	3	7926	55.4	32	2.1	6	8030	60.8	255	5.1	3
7823	59.18	253	4.1	3	7927	54.86	133	3.1	6	8031	60.44	246	4.6	3
7824	59.36	254	5.1	3	7928	58.64	112	2.1	4	8032	60.08	250	3.6	3
7825	58.28	240	2.6	3	7929	60.62	156	3.1	4	8033	59.36	242	3.1	4
7826	59	271	3.1	3	7930	65.48	152	2.6	4	8034	56.66	239	3.1	6
7827	56.3	245	2.1	3	7931	67.46	145	2.1	3	8035	56.66	222	3.1	6
7828	56.3	241	2.1	3	7932	69.44	147	2.1	3	8036	55.94	244	3.6	5
7829	54.32	240	2.1	3	7933	69.62	248	4.1	3	8037	59.72	334	6.7	4
7830	53.6	242	2.1	3	7934	69.26	241	3.6	3	8038	59.18	339	7.2	4
7831	53.24	241	2.1	3	7935	69.26	228	3.1	3	8039	59.72	331	9.3	4
7832	55.04	245	2.1	3	7936	70.88	184	2.6	3	8040	58.46	324	5.7	4
7833	57.02	91	3.1	3	7937	69.8	188	2.1	4	8041	56.48	346	5.7	4
7834	60.08	94	3.1	3	7938	63.5	232	3.6	5	8042	56.12	2	5.1	5
7835	62.96	86	2.6	3	7939	63.86	225	2.1	6	8043	50	41	2.1	6
7836	65.3	93	2.6	3	7940	63.86	150	2.1	6	8044	46.94	64	2.6	6
7837	67.1	164	2.1	3	7941	61.52	332	2.6	6	8045	53.06	21	3.6	5
7838	65.84	242	4.1	3	7942	59.9	335	2.1	6	8046	52.52	27	3.6	5
7839	65.66	262	4.1	3	7943	59.18	48	2.1	5	8047	48.74	75	3.1	5
7840	65.12	263	3.1	3	7944	59.9	55	2.1	5	8048	51.8	41	4.1	4
7841	62.96	248	3.6	3	7945	56.84	54	2.1	5	8049	52.52	78	3.1	4
7842	59.9	259	3.6	3	7946	54.86	125	2.1	5	8050	58.1	61	4.1	4
7843	59.12	265	2.1	3	7947	51.98	119	2.1	5	8051	61.7	75	4.6	4
7844	58.46	247	2.1	3	7948	49.28	87	2.6	6	8052	65.3	64	5.1	3
7845	58.46	253	1.5	3	7949	49.82	94	2.1	6	8053	69.08	58	3.6	3
7846	58.82	239	1.5	3	7950	48.38	182	1	6	8054	68.54	274	5.1	3
7847	57.74	246	1.5	3	7951	49.1	289	1	6	8055	65.66	264	4.1	3
7848	57.56	252	2.1	3	7952	52.16	330	2.6	4	8056	62.42	242	4.1	3
7849	57.56	299	2.6	3	7953	51.8	99	3.6	4	8057	61.16	249	3.1	4
7850	57.02	304	2.6	3	7954	57.38	111	3.1	3	8058	57.56	239	4.1	4
7851	54.32	296	1.5	3	7955	64.04	114	2.1	3	8059	57.74	224	2.6	4
7852	53.78	67	2.6	3	7956	67.82	111	3.1	3	8060	57.74	198	2.1	6
7853	52.52	91	2.1	3	7957	67.64	249	4.1	3	8061	57.92	200	2.1	6
7854	52.16	88	2.1	3	7958	66.38	217	3.6	3	8062	55.4	102	2.6	6
7855	52.16	86	2.1	3	7959	63.68	240	4.6	3	8063	54.32	103	1.5	6
7856	53.06	107	1.5	3	7960	62.42	239	5.1	4	8064	56.84	16	2.1	6
7857	56.48	90	2.1	3	7961	60.8	240	4.6	4	8065	53.6	53	2.6	6
7858	62.96	51	2.1	3	7962	59.18	245	3.6	4	8066	54.14	23	2.6	6
7859	65.2	241	3.1	3	7963	59.54	254	8.7	4	8067	51.62	13	3.6	5
7860	66.74	254	4.1	3	7964	58.46	246	7.2	4	8068	49.82	54	3.1	5
7861	69.08	249	4.1	3	7965	57.02	339	4.1	5	8069	49.1	47	3.1	6
7862	66.56	246	4.1	3	7966	56.84	19	4.6	5	8070	50.36	60	3.1	6
7863	66.2	257	4.1	3	7967	56.84	18	4.6	5	8071	51.98	20	3.1	6
7864	64.94	258	2.6	3	7968	56.84	16	4.6	5	8072	50.9	74	2.6	4
7865	64.22	252	3.1	3	7969	57.38	10	7.7	4	8073	53.42	68	3.1	4
7866	60.8	247	4.1	4	7970	57.38	12	7.7	4	8074	57.92	58	3.6	3
7867	59.54	247	2.6	5	7971	58.1	346	13.4	4	8075	62.78	49	3.6	3
7868	59.54	249	2.6	5	7972	56.3	356	8.2	4	8076	65.66	107	2.6	3
7869	59.72	236	2.1	5	7973	56.12	348	7.2	4	8077	66.56	246	5.1	3
7870	60.26	205	1.5	6	7974	55.22	5	6.2	4	8078	64.22	257	4.1	3
7871	59.36	125	2.6	5	7975	54.86	360	8.2	4	8079	62.96	261	5.7	3
7872	58.1	141	2.1	5	7976	55.22	354	10.3	4	8080	61.24	266	5.1	3
7873	56.3	95	2.1	6	7977	55.76	353	8.7	4	8081	59.9	249	4.1	4
7874	55.4	89	1.5	6	7978	57.38	3	7.2	4	8082	58.1	243	4.1	5
7875	54.14	202	1	6	7979	59.9	358	5.1	4	8083	57.56	240	2.1	6
7876	53.78	101	1.5	6	7980	61.7	4	6.7	4	8084	58.28	234	3.1	6
7877	52.34	86	1.5	6	7981	63.68	332	7.2	4	8085	55.94	208	2.1	6
7878	51.98	95	2.1	6	7982	63.68	327	7.2	4	8086	56.48	123	2.6	6
7879	52.16	91	2.1	5	7983	62.24	265	7.7	4	8087	55.58	112	2.6	5
7880	54.68	89	2.1	4	7984	61.88	253	8.2	4	8088	55.94	115	2.6	5
7881	57.38	87	2.1	4	7985	61.88	253	8.2	4	8089	54.14	109	2.1	5
7882	62.06	110	3.1	4	7986	61.88	246	8.2	4	8090	51.98	109	2.1	5
7883	67.82	111	2.6	4	7987	61.88	249	8.2	4	8091	50.18	88	2.1	5
7884	68.18	232	4.1	4	7988	61.88	247	8.2	4	8092	50.36	66	2.1	5
7885	68	254	3.6	4	7989	61.88	251	8.2	5	8093	49.28	89	2.1	6
7886	65.66	269	3.1	4	7990	61.88	248	8.2	4	8094	48.38	88	1.5	6
7887	67.1	263	5.7	4	7991	61.88	248	8.2	4	8095	48.02	90	1.5	6
7888	64.58	255	3.6	4	7992	61.88	253	8.2	4	8096	49.1	37	2.1	4
7889	64.22	258	3.1	4	7993	61.88	253	8.2	5	8097	53.42	34	2.1	4
7890	60.8	264	3.1	5	7994	61.88	252	8.2	5	8098	57.02	121	3.1	3
7891	60.98	200	2.6	5	7995	61.88	252	8.2	6	8099	62.6	120	2.1	3
7892	61.34	117	2.6	6	7996	61.88	250	8.2	6	8100	66.02	123	3.1	3
7893	61.52	125	2.1	6	7997	61.88	248	8.2	6	8101	65.48	242	4.1	3
7894	59.54	124	2.1	6	7998	61.88	247	8.2	5	8102	65.48	252	4.1	3
7895	58.46	117	2.1	6	7999	61.88	251	8.2	5	8103	65.3	267	3.6	3
7896	58.28	121	2.1	5	8000	61.88	254	8.2	4	8104	62.6	257	5.1	3
7897	57.74	56	2.1	5	8001	61.88	246	8.2	4	8105	62.6	264	5.1	

HOOR	TEMP	WD	WS	STAB	HOOR	TEMP	WD	WS	STAB	HOOR	TEMP	WD	WS	STAB
8113	54.14	138	2.1	5	8217	55.58	91	3.6	4	8321	57.38	262	2.6	4
8114	53.6	113	3.1	5	8218	56.12	92	2.1	4	8322	56.12	243	2.6	5
8115	51.8	84	2.6	5	8219	57.38	90	2.1	4	8323	56.48	247	1.5	6
8116	51.44	111	2.1	5	8220	58.28	99	2.1	4	8324	56.84	200	1.5	6
8117	50.36	48	2.6	5	8221	57.56	101	3.6	4	8325	56.3	329	2.1	5
8118	48.56	83	2.6	5	8222	57.02	135	3.1	4	8326	56.66	85	2.1	5
8119	50	42	2.1	5	8223	56.66	105	6.2	4	8327	55.76	102	1.5	6
8120	50	45	2.1	4	8224	56.48	113	5.7	4	8328	55.58	95	1.5	6
8121	51.98	52	2.6	4	8225	56.12	112	6.7	4	8329	55.58	89	1.5	6
8122	55.76	87	4.1	4	8226	57.02	144	6.2	4	8330	55.58	89	1.5	6
8123	57.74	113	3.1	4	8227	57.92	144	3.1	5	8331	55.4	88	2.1	6
8124	58.82	112	2.6	4	8228	60.44	224	6.7	5	8332	55.04	77	2.1	6
8125	57.92	148	2.6	4	8229	60.44	201	6.7	4	8333	54.68	84	2.1	6
8126	57.56	150	2.1	4	8230	59.72	215	8.2	4	8334	54.14	88	2.6	6
8127	57.38	154	2.6	4	8231	59.54	217	7.7	4	8335	53.42	95	1.5	6
8128	56.84	116	2.1	4	8232	59.18	197	4.6	4	8336	53.06	82	3.1	6
8129	56.84	108	2.1	4	8233	59.72	214	4.6	4	8337	53.06	78	3.1	6
8130	56.66	117	2.1	5	8234	59.18	175	3.6	4	8338	52.52	124	2.6	4
8131	56.66	95	2.6	5	8235	59	168	3.1	5	8339	58.82	124	1.5	4
8132	56.66	101	3.6	5	8236	58.64	167	3.1	5	8340	67.1	227	2.6	4
8133	56.66	95	3.6	5	8237	58.28	115	2.1	5	8341	68.36	235	4.1	3
8134	56.66	96	3.6	5	8238	55.58	103	2.1	5	8342	69.26	235	3.1	3
8135	56.84	76	3.1	5	8239	57.2	172	2.1	5	8343	73.04	244	3.1	3
8136	56.66	100	3.6	5	8240	57.2	113	3.1	5	8344	72.5	245	2.6	3
8137	56.66	90	3.1	5	8241	58.64	122	3.6	4	8345	70.34	241	2.6	4
8138	56.12	94	2.6	5	8242	59.9	136	4.6	4	8346	70.34	265	2.1	5
8139	56.12	68	2.1	5	8243	61.88	193	4.6	4	8347	67.1	299	2.6	6
8140	56.12	88	2.1	5	8244	60.98	166	3.6	4	8348	70.16	349	4.1	5
8141	56.48	94	2.1	5	8245	61.7	176	4.6	4	8349	64.22	159	2.6	6
8142	56.84	28	3.1	5	8246	61.52	180	4.1	4	8350	63.32	119	2.6	6
8143	56.66	94	2.1	5	8247	61.88	185	3.6	4	8351	63.14	163	3.6	5
8144	57.02	236	2.1	4	8248	61.16	151	2.6	4	8352	62.6	140	2.6	6
8145	57.38	244	2.1	4	8249	60.44	128	3.1	4	8353	62.06	165	2.6	6
8146	57.92	236	2.6	4	8250	59.36	151	2.1	5	8354	57.92	159	2.1	6
8147	59.18	232	3.1	4	8251	59.18	128	2.1	5	8355	56.3	129	2.1	6
8148	61.52	264	3.6	3	8252	58.46	127	2.1	5	8356	57.02	180	3.6	5
8149	61.7	251	3.6	3	8253	58.46	120	1.5	6	8357	56.66	180	2.1	6
8150	61.88	233	3.6	3	8254	58.46	116	1.5	6	8358	52.52	135	2.6	6
8151	61.88	228	3.6	3	8255	58.46	184	2.1	5	8359	48.2	86	3.1	6
8152	60.26	238	2.6	4	8256	58.1	114	2.1	5	8360	48.38	75	2.1	6
8153	59.18	258	2.6	4	8257	58.28	121	2.1	5	8361	55.22	173	5.1	4
8154	58.28	241	2.1	5	8258	58.28	98	2.1	5	8362	60.26	157	3.1	4
8155	58.1	222	2.6	5	8259	58.46	110	3.1	5	8363	62.6	117	3.1	3
8156	57.92	224	2.1	5	8260	58.28	192	2.1	5	8364	68.18	188	3.1	3
8157	58.1	189	2.1	5	8261	56.84	75	5.7	5	8365	70.88	241	3.1	3
8158	57.56	143	2.1	5	8262	56.84	80	5.1	5	8366	70.88	236	4.1	3
8159	57.38	112	2.1	5	8263	57.02	83	4.6	5	8367	70.34	236	3.1	3
8160	56.3	76	2.1	5	8264	56.84	82	3.1	5	8368	69.62	258	2.1	3
8161	55.22	86	1.5	6	8265	57.2	79	3.1	5	8369	68.54	280	3.1	4
8162	55.04	70	2.1	6	8266	57.74	81	2.6	4	8370	65.84	296	4.6	5
8163	52.88	90	2.1	6	8267	58.64	80	4.6	4	8371	63.68	333	2.6	6
8164	52.34	56	2.1	6	8268	58.64	80	4.6	4	8372	60.98	48	2.1	6
8165	51.44	71	1	6	8269	60.08	78	2.1	4	8373	60.26	95	1	6
8166	49.64	80	2.1	6	8270	60.98	191	2.6	4	8374	59.72	334	4.1	4
8167	50.18	75	1.5	6	8271	60.8	216	2.6	4	8375	59.9	320	6.2	4
8168	49.64	80	1.5	3	8272	60.62	222	2.6	4	8376	56.48	89	3.1	5
8169	51.98	114	3.1	3	8273	60.62	227	2.1	4	8377	53.06	89	2.6	5
8170	55.76	57	2.1	3	8274	60.26	254	1.5	6	8378	55.04	18	3.1	6
8171	55.76	64	2.1	3	8275	59.72	213	2.1	5	8379	54.32	19	4.1	5
8172	55.76	56	2.1	3	8276	59.72	244	2.1	5	8380	55.04	13	4.1	5
8173	55.76	59	2.1	3	8277	59.72	195	2.6	5	8381	51.08	65	2.6	6
8174	55.76	64	2.1	3	8278	59.9	211	2.1	5	8382	53.6	24	2.1	6
8175	55.76	64	2.1	3	8279	59.72	195	2.1	5	8383	49.28	29	2.1	6
8176	55.76	62	2.1	3	8280	59.72	194	3.1	5	8384	50.18	335	1	6
8177	60.8	283	4.1	4	8281	59.54	188	2.1	5	8385	56.3	13	2.6	4
8178	56.48	251	3.1	6	8282	59.18	247	2.1	5	8386	60.8	44	2.1	3
8179	56.3	248	2.6	6	8283	59.36	253	1.5	5	8387	66.74	307	2.1	3
8180	56.3	266	3.6	5	8284	59.36	92	1.5	5	8388	66.56	275	3.1	3
8181	56.48	246	3.1	6	8285	59.36	72	1	5	8389	64.4	236	4.1	3
8182	56.48	269	3.6	5	8286	59.18	4	2.1	5	8390	65.48	246	2.6	3
8183	56.3	255	2.6	6	8287	59.36	93	1	6	8391	65.12	253	2.6	3
8184	55.94	237	1.5	6	8288	59.18	263	3.1	5	8392	63.86	243	3.1	3
8185	55.04	246	1.5	6	8289	59.36	225	2.1	5	8393	60.98	252	1.5	3
8186	56.12	348	2.1	6	8290	59.9	219	2.6	5	8394	57.92	249	2.6	5
8187	55.22	10	1.5	6	8291	60.98	241	2.1	5	8395	58.1	233	2.1	5
8188	53.6	59	1.5	6	8292	61.34	269	4.1	4	8396	56.12	236	1.5	6
8189	53.78	71	1.5	6	8293	62.96	298	3.6	4	8397	57.2	242	1.5	6
8190	50.36	93	2.1	6	8294	63.86	225	4.1	3	8398	56.3	228	2.1	5
8191	49.64	105	1.5	6	8295	61.88	235	4.1	4	8399	54.86	271	2.1	5
8192	51.98	331	1.5	6	8296	59.9	245	4.1	4	8400	55.4	225	2.1	5
8193	56.3	322	3.1	4	8297	58.64	226	2.6	4	8401	53.78	226	2.1	6
8194	59.72	251	3.1	3	8298	58.64	251	5.1	4	8402	52.52	25	1.5	6
8195	63.86	229	3.1	3	8299	58.64	249	2.1	5	8403	51.8	133	1.5	6
8196	66.38	226	2.6	3	8300	59	239	2.1	5	8404	49.82	56	2.1	6
8197	67.82	226	4.1	3	8301	59.54	196	2.1	5	8405	49.64	58	1.5	6
8198	66.2	245	3.1	3	8302	59.36	125	2.6	5	8406	49.64	56	1.5	6
8199	66.56	236	3.1	3	8303	59.54	98	2.1	5	8407	49.1	312	1	6
8200	64.94	247	2.6	3	8304	59	67	2.6	5	8408	50.54	119	2.1	5
8201	60.8	246	5.1	4	8305	59	129	2.6	5	8409	51.62	217	2.1	4
8202	58.1	236	3.1	4	8306	59.36	119	2.1	5	8410	61.34	84	2.6	4
8203	57.74	245	4.1	4	8307	59.36	116	2.6	5	8411	65.66	100	2.1	4
8204	57.02	232	3.1	6	8308	59	337	2.6	5	8412	71.42	286	2.6	3
8205	56.3	232	2.6	6	8309	57.92	310	2.1	5	8413	74.12	263	3.6	3
8206	55.4	180	2.1	5	8310	57.02	309	2.1	5	8414	75.56	208	3.1	3
8207	54.68	108	2.1	6	8311	56.48	306	2.1	5	8415	75.56	193	3.1	3
8208	55.76	113	2.1	5	8312	56.48	310	2.6	5	8416	72.5	239	3.1	3
8209	57.02	223	2.1	5	8313	57.02	307	3.1	4	8417	69.26	244	3.1	3
8210														

HOOR	TEMP	WD	WS	STAD	HOOR	TEMP	WD	WS	STAD	HOOR	TEMP	WD	WS	STAD
8425	59.54	110	2.1	5	8529	58.64	182	10.8	4	8633	58.82	118	6.2	4
8426	54.86	220	2.1	5	8530	58.64	196	10.3	4	8634	57.56	162	4.1	4
8427	55.4	146	2.1	6	8531	57.74	205	9.8	4	8635	56.66	132	3.6	5
8428	56.84	147	4.1	5	8532	59	196	10.3	4	8636	57.02	152	2.6	5
8429	54.14	20	1.5	6	8533	60.26	223	8.7	4	8637	56.66	135	3.1	5
8430	47.66	87	1.5	6	8534	60.62	224	7.7	4	8638	56.3	105	3.6	5
8431	47.66	45	2.6	6	8535	61.52	240	6.7	4	8639	56.12	93	3.6	5
8432	46.22	61	2.1	5	8536	60.44	244	5.7	4	8640	55.94	19	3.6	5
8433	47.84	106	2.6	4	8537	59.18	255	5.1	4	8641	55.4	100	3.6	5
8434	59.9	294	2.1	3	8538	57.2	255	4.1	5	8642	53.96	92	2.1	5
8435	62.78	129	3.1	3	8539	55.94	246	5.1	5	8643	54.14	94	4.1	4
8436	62.78	131	3.1	3	8540	55.94	246	6.2	4	8644	54.5	95	2.1	4
8437	66.38	125	4.6	3	8541	55.76	248	5.1	5	8645	54.68	91	2.1	4
8438	68	74	3.1	3	8542	57.2	267	6.2	4	8646	54.5	95	1.5	6
8439	69.26	110	2.6	3	8543	56.12	257	4.1	5	8647	54.68	288	1	6
8440	69.44	111	2.1	3	8544	56.84	288	4.1	4	8648	53.6	91	1.5	6
8441	68	109	2.6	3	8545	55.4	39	2.6	6	8649	54.14	74	2.6	4
8442	63.5	323	3.6	5	8546	52.7	260	1.5	6	8650	53.96	92	2.6	4
8443	62.24	134	1	6	8547	51.08	239	3.1	6	8651	54.5	91	3.6	4
8444	60.26	344	2.1	5	8548	53.42	290	2.6	6	8652	54.68	88	3.6	4
8445	58.28	346	2.1	5	8549	47.84	77	2.6	6	8653	55.04	113	3.6	4
8446	56.66	18	3.1	5	8550	47.48	71	1.5	6	8654	55.22	72	4.1	4
8447	57.02	24	2.1	5	8551	48.38	59	1.5	6	8655	55.58	92	4.1	4
8448	56.48	17	2.6	5	8552	48.38	57	1.5	5	8656	55.76	80	6.7	4
8449	52.34	16	2.1	6	8553	48.38	65	1.5	4	8657	56.3	86	4.6	4
8450	55.22	20	2.1	6	8554	48.38	60	1.5	3	8658	56.3	111	4.6	4
8451	52.52	20	2.1	6	8555	48.38	62	1.5	3	8659	55.94	61	3.6	5
8452	51.26	17	1.5	6	8556	48.38	65	1.5	3	8660	56.48	90	4.1	4
8453	51.62	20	1.5	6	8557	48.38	59	1.5	4	8661	56.12	78	3.6	5
8454	50.54	11	1.5	6	8558	48.38	56	1.5	3	8662	55.58	90	4.6	4
8455	50.54	20	2.1	6	8559	61.7	240	5.1	3	8663	55.94	57	4.1	4
8456	46.94	65	2.1	6	8560	60.44	248	6.7	4	8664	56.3	60	3.6	5
8457	51.44	58	3.1	4	8561	58.64	268	6.2	4	8665	56.3	62	4.1	4
8458	58.46	31	2.6	4	8562	56.3	254	3.6	5	8666	56.3	65	3.6	4
8459	62.6	8	4.1	4	8563	57.02	196	2.1	5	8667	56.3	78	2.1	4
8460	65.48	10	2.1	4	8564	55.76	129	2.1	5	8668	55.94	118	1.5	6
8461	67.1	12	2.1	4	8565	55.94	126	2.6	6	8669	56.12	74	1.5	6
8462	68.18	247	3.6	4	8566	53.78	127	2.1	5	8670	55.94	116	2.6	6
8463	66.38	251	4.6	4	8567	53.78	128	2.1	5	8671	55.76	33	2.6	5
8464	62.6	259	4.6	4	8568	55.22	129	2.6	5	8672	55.58	206	2.6	5
8465	61.16	251	3.6	4	8569	52.7	132	2.1	5	8673	56.3	173	3.1	4
8466	56.66	259	4.1	4	8570	49.82	121	2.6	5	8674	57.92	184	2.1	4
8467	55.22	256	3.1	5	8571	50	70	2.1	5	8675	60.98	182	2.1	4
8468	56.12	255	2.6	6	8572	47.3	104	2.1	5	8676	60.8	86	4.1	4
8469	56.66	327	2.6	5	8573	49.46	35	1.5	5	8677	60.8	186	3.6	4
8470	54.86	50	1.5	6	8574	49.28	72	2.1	5	8678	59	262	5.1	4
8471	54.5	62	2.1	6	8575	51.26	17	2.1	5	8679	60.62	256	4.6	4
8472	55.94	60	2.1	6	8576	49.82	32	2.1	5	8680	59.54	270	5.1	4
8473	52.16	74	3.1	6	8577	55.4	18	4.1	4	8681	58.64	265	4.1	4
8474	53.6	72	2.6	6	8578	56.12	34	3.6	4	8682	56.48	251	4.1	4
8475	51.26	71	1.5	6	8579	60.26	38	3.6	4	8683	55.94	244	3.6	4
8476	49.1	66	1.5	6	8580	62.78	33	4.6	4	8684	55.22	238	2.6	5
8477	45.86	87	2.1	6	8581	64.4	357	3.6	4	8685	56.12	276	3.6	5
8478	48.38	51	2.6	5	8582	66.38	357	2.6	4	8686	55.94	276	2.1	5
8479	47.3	86	2.6	5	8583	67.28	5	3.1	4	8687	56.3	124	3.1	5
8480	46.04	91	2.6	6	8584	70.88	334	4.6	4	8688	55.22	118	3.1	5
8481	52.52	66	3.6	4	8585	65.48	299	4.1	4	8689	54.5	91	4.1	4
8482	56.12	78	3.1	4	8586	59.72	246	3.6	5	8690	54.32	82	3.6	5
8483	60.08	116	3.1	4	8587	61.7	335	4.6	4	8691	55.22	81	2.6	5
8484	64.58	143	1.5	4	8588	60.62	357	4.6	4	8692	55.58	21	2.6	5
8485	64.58	139	1.5	3	8589	60.08	360	4.1	4	8693	55.76	8	3.1	5
8486	64.58	142	1.5	3	8590	59.54	355	4.6	5	8694	55.58	11	1.5	6
8487	64.22	248	5.1	3	8591	58.46	41	4.1	5	8695	54.68	97	3.1	5
8488	63.68	240	3.1	3	8592	57.2	13	4.1	5	8696	55.22	40	3.1	5
8489	60.8	252	2.6	4	8593	56.66	10	4.1	5	8697	53.6	71	4.1	5
8490	56.84	262	4.6	4	8594	57.38	7	4.1	5	8698	55.22	72	3.6	5
8491	55.58	221	2.1	5	8595	56.12	10	3.6	5	8699	57.02	83	2.6	5
8492	56.3	229	2.1	5	8596	49.28	110	3.1	6	8700	62.06	80	2.1	4
8493	56.3	228	2.1	5	8597	48.02	109	3.1	6	8701	62.06	76	2.1	4
8494	54.14	80	2.1	5	8598	48.74	21	3.1	6	8702	62.06	77	2.1	4
8495	53.78	95	1.5	6	8599	48.74	19	2.1	6	8703	62.06	84	2.1	4
8496	53.42	90	3.1	5	8600	49.46	67	3.1	6	8704	62.06	76	2.1	4
8497	52.34	92	3.6	5	8601	51.62	85	4.1	4	8705	62.06	78	2.1	4
8498	51.08	78	2.6	5	8602	59.72	39	1.5	4	8706	62.06	81	2.1	4
8499	49.46	78	2.1	5	8603	64.04	56	3.1	3	8707	62.06	76	2.1	4
8500	49.1	76	1.5	5	8604	67.82	134	2.6	3	8708	62.06	76	2.1	4
8501	49.82	204	1	6	8605	71.96	300	1.5	2	8709	62.06	78	2.1	5
8502	49.82	94	1	6	8606	65.48	249	5.7	2	8710	57.02	251	5.1	4
8503	50.18	98	2.1	5	8607	64.22	250	5.7	4	8711	57.74	286	5.1	4
8504	49.82	80	2.1	5	8608	62.24	273	4.1	3	8712	57.2	256	5.1	4
8505	51.08	90	3.1	4	8609	60.62	262	4.1	4	8713	57.38	277	4.1	4
8506	53.06	104	3.6	4	8610	55.94	265	4.1	5	8714	57.38	250	5.1	4
8507	53.06	101	3.6	4	8611	55.4	254	3.6	5	8715	57.02	267	4.1	4
8508	58.46	100	3.6	4	8612	54.68	261	3.1	6	8716	56.48	244	3.1	5
8509	58.1	123	4.6	4	8613	55.76	187	3.1	6	8717	56.12	72	3.1	5
8510	57.92	185	3.6	4	8614	54.32	177	2.6	6	8718	56.3	97	4.1	5
8511	57.56	231	4.6	4	8615	55.22	127	3.6	5	8719	56.12	66	4.1	4
8512	57.92	232	4.1	4	8616	53.06	70	3.6	5	8720	56.12	169	1.5	6
8513	57.2	209	5.1	4	8617	51.98	76	2.1	5	8721	57.38	169	1.5	3
8514	56.48	194	2.1	5	8618	51.44	79	2.1	5	8722	58.64	264	3.6	4
8515	56.12	134	2.6	5	8619	50.54	87	3.1	5	8723	59	324	4.1	4
8516	56.3	130	3.6	5	8620	50	88	4.1	4	8724	59.54	246	4.6	4
8517	56.12	131	3.1	5	8621	50.72	79	4.1	4	8725	59.72	298	4.1	4
8518	56.12	136	3.6	5	8622	50.9	72	4.6	4	8726	59.72	225	3.6	4
8519	55.76	117	4.1	4	8623	51.8	87	3.1	5	8727	63.32	241	3.6	4
8520	56.48	144	5.1	4	8624	52.7	103	4.1	4	8728	62.6	227	1	3
8521	56.48	139	5.1	4	8625	54.14	58	3.1	4	8729	59.9	261	5.1	4
8522	56.66	153	4.1	4	8626	54.86								

[illegible]

Attachment T

Runway / Taxiway / Queue / Gate Assignments

Aircraft Runway/Taxiway/Gate Assignments
No Action/No Project- 2005

Passenger Aircraft

ID	North					South				
	Runway	Taxiway 1	Taxiway 2	Taxiway 3	Gate	Runway	Taxiway 1	Taxiway 2	Taxiway 3	Gate
100	24L	U (East)	-	-	T1	25R	J (East)	-	-	T7
310	24L	U (East)	-	-	TBIT N	25R	J (East)	-	-	T6
319	24L	U (East)	-	-	T2	25R	U (East)	49	J (East)	T3
320	24L	JTERM	48	U (East)	T7	25R	J (East)	-	-	T5
330	24L	U (East)	-	-	T2	25R	U (East)	49	J (East)	TBIT N
340	24L	U (West)	U (Chr)	U (East)	IWP	25R	J (East)	-	-	TBIT S
72S	24L	JTERM	48	U (East)	T5	25R	75	J (West)	J (East)	IWP
733	24L	U (East)	-	-	T1	25R	U (East)	49	J (East)	T2
734	24L	U (West)	U (Chr)	U (East)	IWP	25R	J (East)	-	-	T5
73S	24L	U (East)	-	-	T1	25R	J (East)	-	-	T8
744	24L	JTERM	48	U (East)	T6	25R	J (East)	-	-	T7
747	24L	U (East)	-	-	T2	25R	75	J (West)	J (East)	IWP
74M	24L	JTERM	48	U (East)	TBIT S	25R	J (East)	-	-	T7
757	24L	JTERM	48	U (East)	T7	25R	J (East)	-	-	T5
763	24L	JTERM	48	U (East)	T4	25R	J (East)	-	-	T6
767	24L	U (East)	-	-	TBIT N	25R	U (East)	49	J (East)	T3
777	24L	U (East)	-	-	T3	25R	J (East)	-	-	T7
AB3	24L	JTERM	48	U (East)	T4	25R	J (East)	-	-	T6
AT7	24L	JTERM	48	U (East)	U2	25R	U (East)	49	J (East)	T3
ATR	24L	48	U (East)	-	R1	25R	J (East)	-	-	R1
BE1	24L	U (East)	-	-	T3	25R	CADEP	-	-	U2
CS0	24R	JTERM	48	U (East)	U2	25R	CADEP	-	-	U2
CNA	-	-	-	-	-	25L	F (East)	-	-	GA1
D10	24L	JTERM	48	U (East)	T4	25R	J (East)	-	-	T6
D8S	24L	JTERM	48	U (East)	T7	-	-	-	-	-
DS7	24L	48	U (East)	-	R1	25R	J (East)	-	-	R1
EM2	24L	JTERM	48	U (East)	U2	25R	U (East)	49	J (East)	T3
EMB	24L	U (East)	-	-	T3	25R	CADEP	-	-	U2
F50	24L	48	U (East)	-	R1	-	-	-	-	-
F70	24L	48	U (East)	-	R1	25R	CADEP	-	-	U2
GAJ	-	-	-	-	-	25L	F (East)	-	-	GA1
ILU	24L	U (East)	-	-	T2	-	-	-	-	-
I31	24L	48	U (East)	-	R1	25R	CADEP	-	-	U2
L10	24L	JTERM	48	U (East)	T6	25R	J (East)	-	-	T7
M11	24L	U (East)	-	-	T2	25R	J (East)	-	-	T5
M80	24L	U (East)	-	-	T2	25R	J (East)	-	-	T4
M87	24L	JTERM	48	U (East)	T5	-	-	-	-	-
M90	24L	U (East)	-	-	T1	25R	U (East)	49	J (East)	T2
M95	24L	U (East)	-	-	T3	25R	J (East)	-	-	T7
S20	24L	JTERM	48	U (East)	U2	25R	CADEP	-	-	U2
S38	24L	JTERM	48	U (East)	U2	25R	CADEP	-	-	U2
SF3	24L	JTERM	48	U (East)	U2	25R	CADEP	-	-	U2
SWM	24L	U (East)	-	-	T3	25R	J (East)	-	-	R1

Aircraft Runway/Taxiway/Gate Assignments
No Action/No Project- 2005

Cargo Aircraft

ID	North					South				
	Runway	Taxiway 1	Taxiway 2	Taxiway 3	Gate	Runway	Taxiway 1	Taxiway 2	Taxiway 3	Gate
300	-	-	-	-	-	25L	F (East)	-	-	CA3
310	-	-	-	-	-	25L	F (East)	-	-	CA3
737	-	-	-	-	-	25L	F (East)	-	-	CA3
744	-	-	-	-	-	25L	F (East)	-	-	CA3
747	-	-	-	-	-	25L	F (East)	-	-	CA3
757	-	-	-	-	-	25L	F (East)	-	-	CA3
767	-	-	-	-	-	25L	F (East)	-	-	CA3
BE1	-	-	-	-	-	25L	F (East)	-	-	CA3
CNA	-	-	-	-	-	25L	F (East)	-	-	CA3
D10	-	-	-	-	-	25L	F (East)	-	-	CA3
M11	-	-	-	-	-	25L	F (East)	-	-	CA3

Aircraft Runway/Taxiway/Gate Assignments
All Alternatives - 2005

Passenger Aircraft

ID	North				Gate	South				Gate
	Runway	Taxiway 1	Taxiway 2	Taxiway 3		Runway	Taxiway 1	Taxiway 2	Taxiway 3	
100	24L	T20/T30	W (West)	W (East)	T3CS	25R	W (East)	48/49	JDEP	T7
310	24L	T20/T30	W (West)	W (East)	T30N	25R	JDEP	-	-	TBIT-S
319	24L	J (Ctr)	48/49	W (East)	T7	25R	W (East)	48/49	JDEP	T1
320	24L	W (East)	-	-	TBIT-N	25R	JDEP	-	-	T8
330	24L	W (East)	-	-	T2	25R	T20/T30	J (West)	JDEP	T20S
340	24L	J (Ctr)	48/49	W (East)	T5	25R	T20/T30	J (West)	JDEP	T30N
72S	24R	W (East)	-	-	T1	25R	JDEP	-	-	T5
733	24L	J (Ctr)	48/49	W (East)	T8	25R	JDEP	-	-	T7
734	24L	W (East)	-	-	T1	25R	JDEP	-	-	TBIT-S
73S	24L	T20/T30	W (West)	W (East)	T30S	25R	W (East)	48/49	JDEP	T1
744	24L	W (East)	-	-	T2	25R	W (East)	48/49	JDEP	TBIT-N
747	24L	J (Ctr)	48/49	W (East)	TBIT-S	25R	T20/T30	J (West)	JDEP	T20S
74M	24L	W (East)	-	-	TBIT-N	25L	T20/T30	J (West)	JDEP	T20S
757	24L	J (Ctr)	48/49	W (East)	T4	25R	T20/T30	J (West)	JDEP	T20N
763	24L	W (East)	-	-	T3	25R	JDEP	-	-	T3
767	24L	W (East)	-	-	TBIT-N	25R	T20/T30	J (West)	JDEP	T30S
777	24L	W (East)	-	-	TBIT-N	25R	T20/T30	J (West)	JDEP	T30S
AB3	24L	J (Ctr)	48/49	W (East)	T6	25R	W (East)	48/49	JDEP	T2
A77	24L	W (East)	-	-	T3	25R	T20/T30	J (West)	JDEP	T20N
ATR	24L	W (East)	-	-	T3	25R	JDEP	-	-	TBIT-S
BE1	24L	W (East)	-	-	T3	25R	T20/T30	J (West)	JDEP	T20N
C50	24L	W (East)	-	-	T3	25R	JDEP	-	-	TBIT-S
CNA	-	-	-	-	-	25R	CA3/GA East	-	-	GA
D10	24L	W (East)	-	-	T2	25R	T20/T30	J (West)	JDEP	T20N
D9S	24L	J (Ctr)	48/49	W (East)	T7	-	-	-	-	-
DS7	24L	W (East)	-	-	T3	25R	W (East)	48/49	JDEP	T3
EM2	24L	T20/T30	W (West)	W (East)	T20N	25R	W (East)	48/49	JDEP	T3
EMB	24L	W (East)	-	-	T3	25R	T20/T30	J (West)	JDEP	T20N
F50	24L	J (Ctr)	48/49	W (East)	TBIT-S	-	-	-	-	-
F70	24L	W (East)	-	-	T3	25R	JDEP	-	-	TBIT-S
GAJ	-	-	-	-	-	25R	CA3/GA East	-	-	GA
ILU	24L	W (East)	-	-	T2	-	-	-	-	-
J31	24L	W (East)	-	-	T3	25R	T20/T30	J (West)	JDEP	T20N
L10	24L	J (Ctr)	48/49	W (East)	T4	25R	JDEP	-	-	T5
M11	24L	W (East)	-	-	T2	25R	W (East)	48/49	JDEP	TBIT-N
M80	24L	T20/T30	W (West)	W (East)	T20S	25L	JDEP	-	-	T8
M87	24L	T20/T30	W (West)	W (East)	T30S	25R	JDEP	-	-	T4
M90	24L	J (Ctr)	48/49	W (East)	T5	25R	JDEP	-	-	T8
M95	24R	J (Ctr)	48/49	W (East)	T4	25R	W (East)	48/49	JDEP	T1
S20	24R	W (East)	-	-	T3	25R	JDEP	-	-	TBIT-S
S38	24L	J (Ctr)	48/49	W (East)	TBIT-S	25R	T20/T30	J (West)	JDEP	T20S
SF3	24L	J (Ctr)	48/49	W (East)	TBIT-S	25R	W (East)	48/49	JDEP	T3
SWM	24L	W (East)	-	-	T3	25R	JDEP	-	-	TBIT-S

Aircraft Runway/Taxiway/Gate Assignments
All Alternatives - 2005

Cargo Aircraft

ID	North				Gate	South				Gate
	Runway	Taxiway 1	Taxiway 2	Taxiway 3		Runway	Taxiway 1	Taxiway 2	Taxiway 3	
300	-	-	-	-	-	25R	CA3/GA East	-	-	CA3
310	24L	CA1	-	-	CA1	25R	CA3/GA East	-	-	CA3
72S	-	-	-	-	-	25R	CA3/GA East	-	-	CA3
737	24L	JDEP	48/49	W (East)	CA2	25R	CA3/GA East	-	-	CA3
744	24L	CA1	-	-	CA1	25R	J (East)	-	-	CA2
747	24L	JDEP	48/49	W (East)	CA2	25R	CA3/GA East	-	-	CA3
757	-	-	-	-	-	25R	CA3/GA East	-	-	CA3
767	-	-	-	-	-	25R	CA3/GA East	-	-	CA3
BE1	24R	CA1	-	-	CA1	25R	J (East)	-	-	CA2
CNA	24L	CA1	-	-	CA1	25R	J (East)	-	-	CA2
D10	-	-	-	-	-	25R	CA3/GA East	-	-	CA3
D9S	24L	CA1	-	-	CA1	25R	CA3/GA East	-	-	CA3
M11	24L	CA1	-	-	CA1	25R	CA3/GA East	-	-	CA3

Aircraft Runway/Taxiway/Gate Assignments
No Action/No Project - 2015

Passenger Aircraft

ID	North					South				
	Runway	Taxiway 1	Taxiway 2	Taxiway 3	Gate	Runway	Taxiway 1	Taxiway 2	Taxiway 3	Gate
100	24L	U (East)	-	-	T2	25R	J (East)	-	-	T4
310	24L	U (West)	U (Cir)	U (East)	IWP	25R	J (East)	-	-	T4
319	24L	U (East)	-	-	T1	25R	U (East)	49	J (East)	T1
320	24L	ITERM	48	U (East)	T7	25R	J (East)	-	-	T6
330	24L	ITERM	48	U (East)	T7	25R	U (East)	49	J (East)	T1
340	24L	U (East)	-	-	T2	25R	U (East)	49	J (East)	T3/T N
733	24L	ITERM	48	U (East)	T8	25R	J (East)	-	-	T4
734	24L	U (East)	-	-	T1	25R	U (East)	49	J (East)	T1
735	24L	U (East)	-	-	T3	25R	J (East)	-	-	T7
744	24L	ITERM	48	U (East)	T5	25R	J (East)	-	-	T6
747	24L	U (West)	U (Cir)	U (East)	IWP	25R	U (East)	49	J (East)	T3/T N
74M	24L	U (East)	-	-	T3/T N	25R	75	J (West)	J (East)	IWP
74X	-	-	-	-	-	25L	75	J (West)	J (East)	IWP
757	24L	U (East)	-	-	T2	25R	J (East)	-	-	T6
763	24L	U (East)	-	-	T3	25R	U (East)	49	J (East)	T2
767	24L	U (East)	-	-	T3	25R	J (East)	-	-	T6
777	24L	ITERM	48	U (East)	T3/T S	25R	J (East)	-	-	T7
AB3	24L	U (East)	-	-	T3	25R	J (East)	-	-	T4
AT7	24L	ITERM	48	U (East)	UZ	25R	CADEP	-	-	UZ
ATR	24R	ITERM	48	U (East)	UZ	25R	J (East)	-	-	R1
BE1	24L	ITERM	48	U (East)	UZ	25R	CADEP	-	-	UZ
C50	24L	ITERM	48	U (East)	UZ	25R	CADEP	-	-	UZ
C70	24L	ITERM	48	U (East)	UZ	-	-	-	-	-
CNA	-	-	-	-	-	25L	F (East)	-	-	GA1
DS7	24L	ITERM	48	U (East)	UZ	25R	CADEP	-	-	UZ
EM2	24L	U (East)	-	-	T3	25R	U (East)	49	J (East)	T1
EMB	24L	ITERM	48	U (East)	UZ	25R	CADEP	-	-	UZ
F50	24L	48	U (East)	-	R1	25R	CADEP	-	-	UZ
F70	24L	ITERM	48	U (East)	UZ	25R	CADEP	-	-	UZ
GA1	-	-	-	-	-	25L	F (East)	-	-	GA1
J31	24L	U (East)	-	-	T3	25R	CADEP	-	-	UZ
M11	24L	ITERM	48	U (East)	T3/T S	25R	J (East)	-	-	T5
M80	24L	U (East)	-	-	T2	25R	U (East)	49	J (East)	T1
M87	24L	ITERM	48	U (East)	T7	-	-	-	-	-
M90	24L	ITERM	48	U (East)	T7	25R	J (East)	-	-	T5
M96	24L	ITERM	48	U (East)	T7	25R	75	J (West)	J (East)	IWP
S20	24L	48	U (East)	-	R1	25R	U (East)	49	J (East)	T3
S36	24L	ITERM	48	U (East)	UZ	25R	CADEP	-	-	UZ
SF3	24L	ITERM	48	U (East)	UZ	25R	CADEP	-	-	UZ
SWM	24L	48	U (East)	-	R1	25R	J (East)	-	-	R1

Aircraft Runway/Taxiway/Gate Assignments
No Action/No Project - 2015

Cargo Aircraft

ID	North					South				
	Runway	Taxiway 1	Taxiway 2	Taxiway 3	Gate	Runway	Taxiway 1	Taxiway 2	Taxiway 3	Gate
300	-	-	-	-	-	25L	F (East)	-	-	CA3
310	-	-	-	-	-	25L	F (East)	-	-	CA3
737	-	-	-	-	-	25L	F (East)	-	-	CA3
744	-	-	-	-	-	25L	CADEP	-	-	CA1
747	-	-	-	-	-	25L	CADEP	-	-	CA1
757	-	-	-	-	-	25L	F (East)	-	-	CA2
767	-	-	-	-	-	25L	F (East)	-	-	CA2
BE1	-	-	-	-	-	25L	CADEP	-	-	CA1
CNA	-	-	-	-	-	25L	CADEP	-	-	CA1
D10	-	-	-	-	-	25L	F (East)	-	-	CA3
M11	-	-	-	-	-	25L	F (East)	-	-	CA3

Aircraft Runway/Taxiway/Gate Assignments
Alternative A - 2015

Passenger Aircraft

ID	North					South				
	Runway	Taxiway 1	Taxiway 2	Taxiway 3	Gate	Runway	Taxiway 1	Taxiway 2	Taxiway 3	Gate
100	24L	J (Ctr)	48	W (East)	T7	25R	J (East)	-	-	T7
310	24L	W (East)	-	-	New W	25R	49	J (East)	-	New W
319	24L	J (Ctr)	48	W (East)	T7	25R	T10/T20	T20DEPS	J (East)	T10NW
320	-	-	-	-	-	25R	J (East)	-	-	TBIT S
330	24L	W (East)	-	-	T10NE	25R	T20/T30	T20DEPS	J (East)	T20N
340	24L	T10/T20	T20DEPN	W (East)	T10SW	25R	T20DEPS	J (East)	-	T10SW
733	24L	48	W (East)	-	T10SE	25R	W (East)	49	J (East)	New C
734	24L	J (Ctr)	48	W (East)	T7	25R	T20/T30	T20DEPS	J (East)	T20N
735	24L	J (Ctr)	48	W (East)	T8	25R	T20/T30	T20DEPS	J (East)	T20N
744	24L	W (West)	W (East)	-	T30NW	25R	J (East)	-	-	T5
747	24L	W (East)	-	-	T10NE	25R	T10/T20	T20DEPS	J (East)	T20N
74M	24L	W (East)	-	-	New W	25R	J (East)	-	-	T8
74X	24L	T10/T20	T20DEPN	W (East)	T10SW	-	-	-	-	-
757	24L	W (East)	-	-	New C	25R	J (West)	J (East)	-	T30SE
763	24L	48	W (East)	-	TBIT S	25R	T20/T30	T20DEPS	J (East)	T30NE
767	24L	T20/T30	T20DEPN	W (East)	T30SE	25R	J (East)	-	-	T8
777	24L	J (Ctr)	48	W (East)	T7	25R	J (East)	-	-	TBIT S
AB3	24L	T20/T30	T20DEPN	W (East)	T30SE	25R	49	J (East)	-	T10NE
AT7	24L	W (East)	-	-	T10C	25L	J (East)	-	-	T7
ATR	24C	W (East)	-	-	T10C	25L	49	J (East)	-	T10C
BE1	24L	W (West)	W (East)	-	T30NW	25L	T20/T30	T20DEPS	J (East)	T30NW
C50	24C	T20/T30	T20DEPN	W (East)	T30SW	25L	49	J (East)	-	T10C
C70	24C	W (East)	-	-	T10C	-	-	-	-	-
CNA	24L	GA	J (East)	W (East)	GA	25R	GA	-	-	GA
DS7	24L	J (Ctr)	48	W (East)	T7	25L	49	J (East)	-	T10C
EM2	24L	W (East)	-	-	T10C	25L	J (East)	-	-	T8
EMB	24L	J (Ctr)	48	W (East)	T7	25R	J (East)	-	-	T8
F50	24L	W (East)	-	-	T10C	25R	J (East)	-	-	T7
F70	24L	W (East)	-	-	T10C	25R	49	J (East)	-	T10C
GAJ	24L	GA	J (East)	W (East)	GA	25R	GA	-	-	GA
J31	24L	W (East)	-	-	T10C	25L	J (East)	-	-	T8
M11	24L	W (East)	-	-	T10NE	25R	T20DEPS	J (East)	-	T20S
M80	24L	J (Ctr)	48	W (East)	T5	25R	W (East)	49	J (East)	New E
M87	24L	J (Ctr)	48	W (East)	T7	25R	J (East)	-	-	T5
M90	24L	J (Ctr)	48	W (East)	T8	25R	T10/T20	T20DEPS	J (East)	T10NW
M95	24L	T20/T30	T20DEPN	W (East)	T20S	25R	T10/T20	T20DEPS	J (East)	T10NW
S20	24L	J (Ctr)	48	W (East)	T7	25L	T20/T30	T20DEPS	J (East)	T30NW
S36	24L	W (West)	W (East)	-	T30NW	25R	J (West)	J (East)	-	T30SW
SF3	24L	W (West)	W (East)	-	T30NW	25R	J (West)	J (East)	-	T30SW
SWM	24L	J (Ctr)	48	W (East)	T7	25L	J (East)	-	-	T8

Aircraft Runway/Taxiway/Gate Assignments
Alternative A - 2015

Cargo Aircraft

ID	North					South				
	Runway	Taxiway 1	Taxiway 2	Taxiway 3	Gate	Runway	Taxiway 1	Taxiway 2	Taxiway 3	Gate
300	24L	J (East)	48	W (East)	CA2	25R	GA	-	-	CA3
310	24L	J (East)	48	W (East)	CA2	25R	GA	-	-	CA3
737	24L	J (East)	48	W (East)	CA2	25R	GA	-	-	CA3
744	24L	J (East)	48	W (East)	CA2	25R	GA	-	-	CA3
747	24L	J (East)	48	W (East)	CA2	25R	GA	-	-	CA3
757	24L	J (East)	48	W (East)	CA2	25R	GA	-	-	CA3
767	-	-	-	-	-	25R	GA	-	-	CA3
BE1	-	-	-	-	-	25R	GA	-	-	CA3
CNA	24C	J (East)	48	W (East)	CA2	25R	GA	-	-	CA3
D10	24L	J (East)	48	W (East)	CA2	25R	GA	-	-	CA3
M11	24L	J (East)	48	W (East)	CA2	25R	GA	-	-	CA3

Aircraft Runway/Taxiway/Gate Assignments
Alternative B – 2015

Passenger Aircraft

ID	North					South				
	Runway	Taxiway 1	Taxiway 2	Taxiway 3	Gate	Runway	Taxiway 1	Taxiway 2	Taxiway 3	Gate
100	24L	W (Ctr)	-	-	T10NE	-	-	-	-	-
310	24L	T20/T30	T20DEPN	W (Ctr)	T30SW	25R	T20DEPS	J (East)	-	T30SE
319	24L	J (Ctr)	48	W (Ctr)	New W	25R	J (West)	J (East)	-	T30SW
320	24L	W (Ctr)	-	-	T10NE	25R	T20DEPS	J (East)	-	T10SW
330	24L	T10/T20	T20DEPN	W (Ctr)	T10SW	25R	T10/T20	T20DEPS	J (East)	T10NW
340	24L	T20DEPN	W (Ctr)	-	T20N	25R	W (Ctr)	49	J (East)	New T2
733	24L	T20/T30	T20DEPN	W (Ctr)	T30SE	25R	J (East)	-	-	New W
734	24L	48	W (Ctr)	-	T10SE	25R	T10/T20	T20DEPS	J (East)	T10NW
73S	24L	J (Ctr)	48	W (Ctr)	New W	25R	J (West)	J (East)	-	T30SW
744	24L	T20DEPN	W (Ctr)	-	T20N	25R	J (East)	-	-	New C
747	24L	W (West)	W (Ctr)	-	T30NW	25R	W (Ctr)	49	J (East)	New T2
74M	24L	W (Ctr)	-	-	TBIT-N	25R	W (Ctr)	49	J (East)	New T1
74X	24L	T10/T20	T20DEPN	W (Ctr)	T10SW	-	-	-	-	-
757	24L	W (Ctr)	-	-	New T4	25R	W (Ctr)	49	J (East)	New T1
763	24L	T20/T30	T20DEPN	W (Ctr)	T30SW	25R	J (East)	-	-	New C
767	24L	48	W (Ctr)	-	T10SE	25R	T20DEPS	J (East)	-	T30SE
777	24L	J (Ctr)	48	W (Ctr)	New C	25R	T20/T30	T20DEPS	J (East)	T30NW
AB3	24L	W (Ctr)	-	-	TBIT-N	25R	T20DEPS	J (East)	-	T10SW
AT7	24L	W (Ctr)	-	-	T10CTR	25C	J (East)	-	-	New E
ATR	24R	W (Ctr)	-	-	T10CTR	25C	J (East)	-	-	New E
BE1	24L	J (Ctr)	48	W (Ctr)	New E	25C	J (West)	J (East)	-	T30SW
C50	24R	W (West)	W (Ctr)	-	T30NW	25R	49	J (East)	-	T10CTR
C70	24R	J (Ctr)	48	W (Ctr)	New E	-	-	-	-	-
CNA	24L	J (East)	48	W (Ctr)	GA	25C	GA	Rwy 25 Link	-	GA
DS7	24L	W (West)	W (Ctr)	-	T30NW	25C	T20/T30	T20DEPS	J (East)	T30NW
EM2	24L	W (Ctr)	-	-	TBIT-N	25C	T20/T30	T20DEPS	J (East)	T30NW
EMB	24L	W (Ctr)	-	-	T10CTR	25C	J (West)	J (East)	-	T30SW
F5J	24L	T20/T30	T20DEPN	W (Ctr)	T30SW	25R	J (East)	-	-	New E
F70	24L	W (Ctr)	-	-	T10CTR	25C	J (West)	J (East)	-	T30SW
GAJ	24L	J (East)	48	W (Ctr)	GA	25R	GA	Rwy 25 Link	-	GA
J31	24L	W (Ctr)	-	-	T10CTR	25C	49	J (East)	-	T10CTR
M11	24L	W (Ctr)	-	-	New T4	25R	W (Ctr)	49	J (East)	New T3
M80	24L	48	W (Ctr)	-	T10SE	25R	J (West)	J (East)	-	T30SW
M87	-	-	-	-	-	25R	T20DEPS	J (East)	-	T20S
M90	24L	T20DEPN	W (Ctr)	-	T20N	25R	J (East)	-	-	New W
M95	24L	T20DEPN	W (Ctr)	-	T20N	25R	49	J (East)	-	T10NE
S20	24L	J (Ctr)	48	W (Ctr)	New E	25C	49	J (East)	-	T10CTR
S35	24L	W (Ctr)	-	-	New T1	25C	W (Ctr)	49	J (East)	New T1
SF3	24L	W (West)	W (Ctr)	-	T30NW	25C	49	J (East)	-	TBIT-N
SWM	24L	J (Ctr)	48	W (Ctr)	New E	25C	J (East)	-	-	New E

Aircraft Runway/Taxiway/Gate Assignments
Alternative B – 2015

Cargo Aircraft

ID	North					South				
	Runway	Taxiway 1	Taxiway 2	Taxiway 3	Gate	Runway	Taxiway 1	Taxiway 2	Taxiway 3	Gate
300	24L	J (East)	48	W (Ctr)	CA2	25R	Rwy 25 Link	-	-	CA3
310	24L	W (East)	-	-	CA1	25R	Rwy 25 Link	-	-	CA3
737	24L	J (East)	48	W (Ctr)	CA2	25R	CA2DEP	-	-	CA2
744	24L	J (East)	48	W (Ctr)	CA2	25R	CA2DEP	-	-	CA2
747	24L	W (East)	-	-	CA1	25R	Rwy 25 Link	-	-	CA3
757	24L	W (East)	-	-	CA1	25R	Rwy 25 Link	-	-	CA3
767	-	-	-	-	-	25R	CA2DEP	-	-	CA2
BE1	-	-	-	-	-	25C	Rwy 25 Link	-	-	CA3
CNA	24L	W (East)	-	-	CA1	25C	Rwy 25 Link	-	-	CA3
D10	24L	J (East)	48	W (Ctr)	CA2	25R	Rwy 25 Link	-	-	CA3
M11	24L	W (East)	-	-	CA1	25R	CA2DEP	-	-	CA2

Aircraft Runway/Taxiway/Gate Assignments
Alternative C - 2015

Passenger Aircraft

ID	North					South				
	Runway	Taxiway 1	Taxiway 2	Taxiway 3	Gate	Runway	Taxiway 1	Taxiway 2	Taxiway 3	Gate
100	24L	J (Chr)	48	W (East)	T7	25R	J (East)	-	-	T7
310	24L	W (East)	-	-	New W	25R	49	J (East)	-	New W
319	24L	J (Chr)	48	W (East)	T7	25R	T10/T20	T20DEPS	J (East)	T10NW
320	24L	48	W (East)	-	TBIT S	-	-	-	-	-
330	24L	W (East)	-	-	T10NE	25R	T20/T30	T20DEPS	J (East)	T20N
340	24L	T10/T20	T20DEPN	W (East)	T10SW	25R	T20DEPS	J (East)	-	T10SW
733	24L	48	W (East)	-	T10SE	25R	W (East)	49	J (East)	New C
734	24L	J (Chr)	48	W (East)	T7	25R	T20/T30	T20DEPS	J (East)	T20N
735	24L	J (Chr)	48	W (East)	T8	25R	T20/T30	T20DEPS	J (East)	T20N
744	24L	W (West)	W (East)	-	T30NW	25R	J (East)	-	-	T5
747	24L	W (East)	-	-	T10NE	25R	T10/T20	T20DEPS	J (East)	T20N
74M	24L	W (East)	-	-	New W	25R	J (East)	-	-	T8
74X	24L	T10/T20	T20DEPN	W (East)	T10SW	-	-	-	-	-
757	24L	W (East)	-	-	New C	25R	J (West)	J (East)	-	T30SE
763	24L	48	W (East)	-	TBIT S	25R	T20/T30	T20DEPS	J (East)	T30NE
767	24L	T20/T30	T20DEPN	W (East)	T30SE	25R	J (East)	-	-	T8
777	24L	J (Chr)	48	W (East)	T7	25R	J (East)	-	-	TBIT S
AB3	24L	T20/T30	T20DEPN	W (East)	T30SE	25R	49	J (East)	-	T10NE
AT7	24L	W (East)	-	-	T10C	25L	J (East)	-	-	T7
ATR	24C	W (East)	-	-	T10C	25L	49	J (East)	-	T10C
BE1	24L	W (West)	W (East)	-	T30NW	25L	T20/T30	T20DEPS	J (East)	T30NW
CS0	24C	T20/T30	T20DEPN	W (East)	T30SW	25L	49	J (East)	-	T10C
C70	24C	W (East)	-	-	T10C	-	-	-	-	-
CNA	24L	GA	J (East)	W (East)	GA	25R	GA	-	-	GA
DS7	24L	J (Chr)	48	W (East)	T7	25L	49	J (East)	-	T10C
EM2	24L	W (East)	-	-	T10C	25L	J (East)	-	-	T8
EMB	24L	J (Chr)	48	W (East)	T7	25R	J (East)	-	-	T8
F50	24L	W (East)	-	-	T10C	25R	J (East)	-	-	T7
F70	24L	W (East)	-	-	T10C	25R	49	J (East)	-	T10C
GAJ	24L	GA	J (East)	W (East)	GA	25R	GA	-	-	GA
J31	24L	W (East)	-	-	T10C	25L	J (East)	-	-	T8
M11	24L	W (East)	-	-	T10NE	25R	T20DEPS	J (East)	-	T20S
M80	24L	J (Chr)	48	W (East)	T5	25R	W (East)	49	J (East)	New E
M87	24L	J (Chr)	48	W (East)	T7	25R	J (East)	-	-	T5
M90	24L	J (Chr)	48	W (East)	T8	25R	T10/T20	T20DEPS	J (East)	T10NW
M95	24L	T20/T30	T20DEPN	W (East)	T20S	25R	T10/T20	T20DEPS	J (East)	T10NW
S20	24L	J (Chr)	48	W (East)	T7	25L	T20/T30	T20DEPS	J (East)	T30NW
S36	24L	W (West)	W (East)	-	T30NW	25R	J (West)	J (East)	-	T30SW
SF3	24L	W (West)	W (East)	-	T30NW	25R	J (West)	J (East)	-	T30SW
SWM	24L	J (Chr)	48	W (East)	T7	25L	J (East)	-	-	T8

Aircraft Runway/Taxiway/Gate Assignments
Alternative C - 2015

Cargo Aircraft

ID	North					South				
	Runway	Taxiway 1	Taxiway 2	Taxiway 3	Gate	Runway	Taxiway 1	Taxiway 2	Taxiway 3	Gate
300	24L	J (East)	48	W (East)	CA2	25R	GA	-	-	CA3
310	24L	J (East)	48	W (East)	CA2	25R	GA	-	-	CA3
737	24L	J (East)	48	W (East)	CA2	25R	GA	-	-	CA3
744	24L	J (East)	48	W (East)	CA2	25R	GA	-	-	CA3
747	24L	J (East)	48	W (East)	CA2	25R	GA	-	-	CA3
757	24L	J (East)	48	W (East)	CA2	25R	GA	-	-	CA3
767	-	-	-	-	-	25R	GA	-	-	CA3
BE1	-	-	-	-	-	25R	GA	-	-	CA3
CNA	24C	J (East)	48	W (East)	CA2	25R	GA	-	-	CA3
D10	24L	J (East)	48	W (East)	CA2	25R	GA	-	-	CA3
M11	24L	J (East)	48	W (East)	CA2	25R	GA	-	-	CA3

Attachment U

Arrival / Departure / Queue Assignments

Arrival/Departure/Queue Assignments for ISCST3 Modeling

No Action/No Project 2005

Arrival	Runway 24L			Runway 24R			Runway 25L			Runway 25R		
	Large	Med.	Small	Large	Med.	Small	Large	Med.	Small	Large	Med.	Small
0	0	0	2	0	0	0	0	0	0	0	1	2
1	0	0	0	0	0	0	0	0	0	0	1	3
2	0	0	2	0	0	0	0	0	0	0	0	4
3	0	0	1	0	0	0	0	0	0	0	2	3
4	0	0	0	0	0	0	0	0	0	0	2	0
5	7	0	0	0	0	0	0	0	0	0	1	4
6	1	8	1	0	0	0	4	0	0	9	1	3
7	2	4	1	0	9	8	5	10	13	3	1	0
8	1	0	0	1	12	3	3	3	3	0	0	0
9	5	0	0	3	16	5	6	14	13	0	5	2
10	6	0	0	3	18	8	9	12	14	0	9	3
11	10	0	0	7	14	8	3	19	19	0	8	3
12	11	0	0	2	12	4	7	14	7	0	1	2
13	7	0	0	9	8	2	9	12	11	0	1	0
14	8	0	0	3	15	8	7	9	22	0	0	2
15	7	0	0	1	17	6	4	12	13	0	0	2
16	3	0	0	6	12	5	4	13	12	0	2	2
17	1	0	0	6	21	6	7	14	16	0	5	4
18	3	0	0	3	17	4	4	8	18	0	1	2
19	9	0	0	5	18	5	4	15	17	0	3	4
20	6	0	0	7	11	5	7	12	11	0	3	5
21	1	0	0	9	18	8	6	18	13	0	6	6
22	2	0	3	2	14	1	2	12	6	2	1	2
23	2	0	7	0	0	0	0	0	0	8	2	2

Arrival/Departure/Queue Assignments for ISCST3 Modeling

No Action/No Project 2005

Departure and Queue	Runway 24L				Runway 24R				Runway 25L				Runway 25R			
	Large	Med.	Small	Queue Depth (# aircraft)	Large	Med.	Small	Queue Depth (# aircraft)	Large	Med.	Small	Queue Depth (# aircraft)	Large	Med.	Small	Queue Depth (# aircraft)
0	2	3	0	0.33	0	0	0	0.00	0	0	0	0.00	6	7	0	0.79
1	0	1	0	0.13	0	0	0	0.00	0	0	0	0.00	2	4	0	0.63
2	3	1	0	0.32	0	0	0	0.00	3	1	1	0.37	4	4	0	0.62
3	2	0	0	0.16	0	0	0	0.00	2	2	2	0.39	1	2	0	0.16
4	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.01
5	0	1	0	0.08	0	0	0	0.00	2	1	0	0.24	0	0	0	0.00
6	1	7	0	0.68	0	0	0	0.00	3	4	0	0.43	0	1	0	0.08
7	0	18	7	2.34	0	3	0	0.28	2	1	6	1.65	10	8	5	2.14
8	6	18	11	6.14	0	2	5	1.47	2	1	6	0.80	13	8	10	5.19
9	5	24	3	3.37	0	2	0	0.31	1	2	4	1.15	13	10	4	7.30
10	7	12	8	2.97	0	1	1	0.30	1	2	5	1.46	5	11	8	3.96
11	4	17	4	7.79	0	1	3	0.79	0	0	2	3.77	7	10	5	5.05
12	6	16	5	10.55	1	4	4	2.97	3	7	6	4.17	9	11	7	8.38
13	10	19	5	12.41	0	0	6	3.63	4	5	4	3.68	13	9	6	10.21
14	14	12	4	7.04	1	1	1	0.51	0	2	2	3.78	17	10	4	6.72
15	6	18	7	8.67	1	1	5	2.01	1	2	9	4.15	15	5	10	5.72
16	8	24	4	6.65	0	2	3	1.38	3	1	2	1.37	11	9	7	4.75
17	4	17	4	2.79	0	2	0	0.40	2	0	3	0.83	9	8	3	1.93
18	5	20	10	4.77	0	3	6	1.44	2	1	4	0.70	5	11	8	2.37
19	1	17	10	3.35	0	3	1	0.59	1	0	1	1.50	3	6	5	1.45
20	2	15	6	1.76	0	2	5	0.55	7	2	5	3.92	1	4	7	1.18
21	5	9	3	1.65	0	1	0	0.30	3	0	3	0.74	3	2	6	1.32
22	5	12	6	1.85	0	1	2	0.20	0	1	2	0.31	12	10	11	2.73
23	4	7	5	1.56	0	0	0	0.03	0	1	2	0.29	5	8	1	1.89

Arrival/Departure/Queue Assignments for ISCST3 Modeling

All Alternatives 2005

Arrival	Runway 24L			Runway 24R			Runway 25L			Runway 25R		
	Large	Med.	Small	Large	Med.	Small	Large	Med.	Small	Large	Med.	Small
0	0	1	0	0	0	0	0	0	0	1	2	1
1	0	0	0	0	0	0	0	0	0	3	1	0
2	0	1	0	0	0	0	0	0	0	4	2	0
3	0	1	0	0	0	0	0	0	0	2	3	0
4	0	0	0	0	0	0	0	0	0	2	2	0
5	7	0	0	0	0	0	0	0	0	5	0	0
6	3	1	6	0	0	0	1	0	1	3	2	14
7	1	3	4	3	5	7	4	11	11	0	2	1
8	0	0	0	1	7	1	4	9	5	0	0	0
9	3	3	1	4	12	4	5	14	13	3	4	1
10	0	5	1	9	14	9	10	18	10	4	6	0
11	3	2	3	10	11	6	8	14	16	1	11	0
12	5	3	0	6	7	6	5	15	10	3	3	0
13	5	1	0	9	8	1	11	7	11	3	4	0
14	1	4	3	4	10	6	8	8	17	4	5	1
15	3	2	3	8	9	4	6	12	13	2	4	0
16	0	5	0	6	8	4	6	9	14	1	4	1
17	0	7	1	8	11	7	7	16	12	3	7	0
18	1	6	0	7	6	4	6	8	16	0	4	0
19	2	6	2	11	5	5	3	19	15	3	8	1
20	3	3	0	13	5	4	9	14	9	3	8	0
21	1	7	0	10	8	8	7	12	17	4	8	0
22	1	6	0	2	9	3	2	15	4	3	4	2
23	2	4	0	0	0	0	0	0	0	3	12	0

Arrival/Departure/Queue Assignments for ISCST3 Modeling

All Alternatives 2005

Departure and Queue	Runway 24L				Runway 24R				Runway 25L				Runway 25R			
	Large	Med.	Small	Queue Depth (# aircraft)	Large	Med.	Small	Queue Depth (# aircraft)	Large	Med.	Small	Queue Depth (# aircraft)	Large	Med.	Small	Queue Depth (# aircraft)
0	1	2	0	0.11	0	0	0	0.00	1	3	0	0.04	6	6	0	0.87
1	0	1	0	0.09	0	0	0	0.00	0	0	0	0.00	2	3	0	0.45
2	5	1	0	0.49	0	0	0	0.00	0	0	0	0.00	5	8	0	0.86
3	0	2	0	0.16	0	0	0	0.00	0	0	0	0.00	1	2	2	0.47
4	2	0	0	0.16	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
5	2	0	0	0.16	0	0	0	0.00	0	0	0	0.00	1	2	0	0.23
6	1	5	0	0.64	0	0	0	0.00	0	0	0	0.00	4	5	1	0.78
7	2	14	8	2.28	0	6	3	0.76	0	0	1	0.08	12	8	10	3.26
8	7	12	11	3.30	0	6	3	1.02	0	4	2	0.83	12	14	11	4.33
9	7	10	4	2.19	0	7	0	0.64	1	2	0	0.45	14	9	9	8.13
10	6	7	8	1.74	0	4	1	0.54	1	3	1	1.50	4	16	12	3.47
11	3	17	5	3.26	0	5	2	0.46	1	4	2	3.18	8	14	5	6.16
12	7	11	3	7.22	1	2	6	0.81	2	6	1	2.63	9	16	10	5.79
13	11	11	7	8.93	1	4	6	1.16	1	3	3	2.01	14	12	7	9.67
14	18	9	1	3.32	0	2	0	0.12	1	5	1	1.72	14	7	8	9.73
15	9	11	10	3.97	1	4	6	1.43	1	2	1	1.03	12	10	14	6.18
16	8	10	3	2.19	0	8	1	0.84	0	2	2	0.58	12	14	9	6.09
17	4	5	4	1.57	0	3	0	0.29	1	2	0	0.50	9	9	6	2.62
18	7	12	9	3.55	0	8	7	1.31	2	3	2	2.09	5	19	9	3.67
19	1	8	10	1.98	0	6	2	0.72	0	0	0	0.03	5	13	8	2.32
20	2	5	10	1.37	0	4	2	0.65	0	0	1	0.12	5	13	11	2.35
21	4	6	3	0.92	0	1	0	0.06	1	0	0	0.12	7	5	8	1.41
22	6	11	8	1.84	0	3	2	0.35	0	1	2	0.37	10	11	8	2.98
23	6	5	3	1.34	0	1	1	0.06	0	1	0	0.22	6	9	4	2.20

Arrival/Departure/Queue Assignments for ISCST3 Modeling

No Action/No Project 2015

<u>Arrival</u>	Runway 24L			Runway 24R			Runway 25L			Runway 25R		
	Large	Med.	Small	Large	Med.	Small	Large	Med.	Small	Large	Med.	Small
0	0	3	0	0	0	0	0	0	0	1	1	0
1	0	1	0	0	0	0	0	0	0	2	1	0
2	0	1	0	0	0	0	0	0	0	4	0	0
3	0	0	0	0	0	0	0	0	0	4	2	0
4	0	0	0	0	0	0	0	0	0	1	2	0
5	6	0	0	0	0	0	0	0	0	4	1	0
6	0	0	7	0	0	0	6	0	1	2	2	9
7	2	0	0	0	11	3	3	11	14	0	0	1
8	2	0	0	3	14	2	7	9	5	0	0	0
9	6	0	0	4	15	4	4	16	12	1	3	0
10	5	0	0	7	15	10	10	11	12	5	3	0
11	7	0	0	9	16	7	6	13	19	4	4	0
12	10	0	0	4	11	3	9	10	12	5	1	0
13	10	0	0	6	10	1	7	8	16	1	0	0
14	7	0	0	6	12	9	8	7	18	2	5	0
15	10	0	0	5	16	7	9	13	11	0	0	0
16	8	0	0	2	12	9	8	12	11	2	0	0
17	4	0	0	8	14	7	10	6	12	2	6	0
18	5	0	0	4	19	2	7	11	13	5	3	0
19	9	0	0	3	21	3	6	14	16	3	4	0
20	6	0	0	12	12	1	9	12	14	1	3	0
21	3	0	0	12	15	5	7	12	16	3	2	0
22	3	3	0	5	10	2	5	10	4	2	5	1
23	2	4	0	0	0	0	1	0	0	1	10	1

Arrival/Departure/Queue Assignments for ISCST3 Modeling

No Action/No Project 2015

<u>Departure and Queue</u>	Runway 24L				Runway 24R				Runway 25L				Runway 25R			
	Large	Med.	Small	Queue Depth (# aircraft)	Large	Med.	Small	Queue Depth (# aircraft)	Large	Med.	Small	Queue Depth (# aircraft)	Large	Medium	Small	Queue Depth (# aircraft)
0	2	0	0	0.23	0	0	0	0.00	0	0	0	0.00	6	13	0	1.45
1	1	1	0	0.16	0	0	0	0.00	0	0	0	0.00	2	5	0	0.68
2	7	0	0	0.42	0	0	0	0.00	3	0	1	0.24	0	4	0	0.41
3	2	0	0	0.16	0	0	0	0.00	2	2	2	0.55	2	1	0	0.24
4	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
5	0	1	0	0.18	0	0	0	0.00	2	1	0	0.24	0	0	0	0.00
6	1	5	0	0.42	0	0	0	0.00	3	5	0	0.62	0	1	0	0.06
7	5	21	3	2.50	0	3	2	0.43	4	0	7	1.92	9	9	4	2.25
8	9	24	6	6.48	0	2	3	0.90	0	0	4	0.66	10	17	6	7.19
9	9	15	2	4.78	1	1	2	0.82	1	0	4	2.07	11	14	5	7.93
10	8	18	4	4.35	1	2	3	1.42	2	0	5	1.68	8	8	10	6.63
11	5	15	5	4.10	0	1	4	0.85	0	0	2	1.14	7	14	8	11.05
12	14	12	4	8.84	0	2	3	0.85	1	0	3	0.95	11	12	6	10.71
13	7	16	7	10.55	2	5	6	2.59	3	1	2	1.24	18	8	8	18.95
14	10	14	4	6.32	2	2	1	1.05	3	0	5	1.86	12	11	6	17.80
15	13	7	4	10.21	1	4	4	2.69	2	0	5	1.42	14	10	8	11.46
16	11	13	5	13.53	1	4	5	2.12	2	0	4	1.25	7	10	7	3.83
17	10	17	4	7.88	1	5	3	1.40	3	0	2	0.94	9	6	4	2.09
18	10	12	8	5.06	0	2	6	1.56	1	0	4	0.83	7	11	9	3.21
19	2	23	4	2.78	0	1	3	0.64	3	1	2	1.22	5	3	2	1.19
20	2	15	5	1.52	1	1	2	0.71	6	1	5	4.79	1	3	5	0.96
21	8	15	1	2.10	0	4	0	0.53	4	0	2	0.96	4	4	6	1.24
22	10	4	8	1.92	0	0	4	0.61	3	1	2	0.53	9	6	7	1.86
23	6	1	2	1.11	0	0	0	0.04	0	0	2	0.20	12	4	2	1.84

Arrival/Departure/Queue Assignments for ISCST3 Modeling

Alternative A 2015

<u>Arrival</u>	Runway 24C			Runway 24R			Runway 25L			Runway 25R		
	Large	Med.	Small	Large	Med.	Small	Large	Med.	Small	Large	Med.	Small
0	1	2	0	--	0	0	0	0	0	0	1	1
1	1	1	0	--	0	0	0	0	0	0	3	0
2	0	2	0	--	0	0	0	0	0	5	1	0
3	0	2	0	--	0	0	0	0	0	2	1	0
4	0	0	0	--	0	0	0	0	0	2	3	0
5	6	1	0	--	0	0	0	0	0	5	0	0
6	4	1	16	--	0	1	4	2	0	3	0	3
7	4	3	1	--	4	17	2	21	4	0	2	0
8	7	0	0	--	5	13	0	15	3	0	0	0
9	18	4	0	--	13	17	10	15	5	0	0	0
10	29	1	0	--	18	17	15	13	4	0	0	0
11	26	4	0	--	19	17	16	13	3	0	0	0
12	16	7	0	--	14	21	10	19	3	0	0	0
13	22	0	0	--	10	15	15	10	4	0	0	0
14	22	6	0	--	7	25	13	11	6	0	0	0
15	20	2	0	--	15	10	8	12	8	0	0	0
16	16	3	0	--	12	16	5	19	9	0	0	0
17	22	6	0	--	12	20	10	20	4	0	0	0
18	11	0	0	--	11	13	5	15	5	0	0	0
19	21	6	0	--	12	22	8	20	7	0	0	0
20	19	5	0	--	9	14	13	12	3	0	0	0
21	22	7	0	--	11	21	8	23	2	0	0	0
22	12	8	0	--	12	3	1	13	4	0	3	2
23	4	8	0	--	0	0	0	0	0	0	6	0

Arrival/Departure/Queue Assignments for ISCST3 Modeling

Alternative A 2015

<u>Departure and Queue</u>	Runway 24C				Runway 24L				Runway 25L				Runway 25R			
	Large	Med.	Small	Queue Depth (# aircraft)	Large	Med.	Small	Queue Depth (# aircraft)	Large	Med.	Small	Queue Depth (# aircraft)	Large	Med.	Small	Queue Depth (# aircraft)
0	--	--	2	0.22	0	3	0	0.15	--	--	0	0.00	8	9	0	0.71
1	--	--	0	0.01	0	0	0	0.02	--	--	0	0.00	3	6	0	0.64
2	--	--	0	0.13	8	0	0	0.65	--	--	0	0.00	5	9	1	1.02
3	--	--	0	0.05	4	0	0	0.26	--	--	0	0.00	3	1	2	0.47
4	--	--	0	0.01	0	1	0	0.07	--	--	0	0.00	0	0	0	0.00
5	--	--	0	0.04	3	0	0	0.20	--	--	0	0.00	0	2	0	0.08
6	--	--	0	0.06	0	4	0	0.20	--	--	0	0.00	5	5	0	0.76
7	--	--	5	0.70	3	19	8	1.44	--	--	6	1.21	13	14	4	2.76
8	--	--	10	1.92	8	26	9	4.19	--	--	6	1.14	14	20	4	6.11
9	--	--	5	1.41	15	14	6	3.89	--	--	5	1.21	20	12	1	5.94
10	--	--	5	1.16	10	9	10	2.29	--	--	7	1.42	12	21	4	4.93
11	--	--	2	1.31	14	20	5	5.18	--	--	6	1.41	11	22	3	7.44
12	--	--	7	2.32	17	13	4	6.77	--	--	8	2.33	11	21	5	6.65
13	--	--	6	3.14	16	17	5	14.59	--	--	7	2.73	17	15	7	12.93
14	--	--	2	2.21	21	10	6	11.97	--	--	4	1.73	17	16	4	13.89
15	--	--	7	3.33	20	9	7	12.92	--	--	8	3.36	16	17	5	19.27
16	--	--	2	1.90	13	20	9	11.29	--	--	8	3.36	21	9	7	14.80
17	--	--	3	1.77	14	17	10	4.29	--	--	5	1.70	18	13	1	6.79
18	--	--	9	2.34	6	20	5	2.72	--	--	9	2.03	13	20	5	5.97
19	--	--	6	1.07	2	13	7	1.28	--	--	4	0.82	8	15	0	2.09
20	--	--	6	0.99	0	14	11	1.37	--	--	9	1.07	12	11	1	1.97
21	--	--	2	0.49	7	7	3	0.92	--	--	5	0.90	8	9	0	1.07
22	--	--	2	0.90	11	8	7	1.56	--	--	7	2.03	15	13	5	3.01
23	--	--	2	0.28	11	6	0	0.82	--	--	3	0.24	9	10	2	1.89

Arrival/Departure/Queue Assignments for ISCST3 Modeling

Alternative B 2015

<u>Arrival</u>	Runway 24L			Runway 24R			Runway 25C			Runway 25L		
	Large	Med.	Small	Large	Med.	Small	Large	Med.	Small	Large	Med.	Small
0	1	--	1	0	0	0	0	3	0	--	0	0
1	2	--	0	0	0	0	2	1	0	--	0	0
2	2	--	0	0	0	0	3	3	0	--	0	0
3	1	--	0	0	0	0	1	3	0	--	0	0
4	1	--	0	0	0	0	1	3	0	--	0	0
5	8	--	0	0	0	0	3	1	0	--	0	0
6	10	--	2	1	0	0	0	2	18	--	1	1
7	0	--	0	6	3	0	0	19	7	--	9	14
8	0	--	0	7	0	0	0	14	2	--	7	12
9	0	--	0	22	3	0	7	12	11	--	16	12
10	0	--	0	27	3	0	17	11	4	--	18	18
11	0	--	0	25	5	0	14	11	8	--	20	14
12	0	--	0	18	6	0	9	12	10	--	19	12
13	0	--	0	24	3	0	14	7	7	--	13	14
14	0	--	0	23	4	0	11	4	15	--	15	14
15	0	--	0	22	3	0	8	11	5	--	15	13
16	0	--	0	18	4	1	4	10	11	--	18	12
17	0	--	0	18	8	0	9	16	8	--	15	17
18	0	--	0	12	3	1	6	14	5	--	10	13
19	0	--	0	23	4	0	6	16	14	--	19	14
20	0	--	0	27	2	0	7	12	6	--	14	11
21	0	--	0	19	9	0	10	13	8	--	18	15
22	4	--	1	9	3	0	0	20	4	--	11	4
23	4	--	0	0	1	0	0	13	0	--	0	0

Arrival/Departure/Queue Assignments for ISCST3 Modeling

Alternative B 2015

Departure and Queue																			
Runway 24L					Runway 24R					Runway 25C					Runway 25R				
		Queue Depth					Queue Depth					Queue Depth					Queue Depth		
Hour	Large	Med.	Small	(# aircraft)	Large	Med.	Small	(# aircraft)	Large	Med.	Small	(# aircraft)	Large	Med.	Small	(# aircraft)			
0	0	3	2	0.30	--	--	0	0.00	--	--	0	0.36	6	9	0	0.83			
1	0	0	0	0.06	--	--	0	0.00	--	--	0	0.13	5	6	0	0.54			
2	6	0	0	0.47	--	--	0	0.00	--	--	1	0.20	5	7	0	0.61			
3	5	1	0	0.46	--	--	0	0.00	--	--	2	0.24	2	3	0	0.29			
4	1	0	0	0.06	--	--	0	0.00	--	--	0	0.04	1	0	0	0.06			
5	2	0	0	0.18	--	--	0	0.00	--	--	0	0.02	0	1	0	0.06			
6	2	6	0	0.51	--	--	0	0.00	--	--	0	0.20	4	6	0	0.66			
7	1	18	9	2.27	--	--	2	0.24	--	--	7	1.33	13	15	3	2.20			
8	9	24	8	8.02	--	--	11	1.65	--	--	6	2.27	17	17	1	3.81			
9	15	15	8	5.83	--	--	2	0.24	--	--	7	2.67	16	14	2	4.14			
10	11	9	11	3.75	--	--	5	0.57	--	--	7	2.49	11	19	2	3.01			
11	16	20	4	6.36	--	--	3	0.38	--	--	6	3.76	12	21	6	4.13			
12	15	16	3	7.62	--	--	7	1.12	--	--	8	4.65	10	20	5	3.90			
13	16	14	6	19.74	--	--	4	1.06	--	--	8	3.37	17	18	4	11.59			
14	18	13	7	16.86	--	--	4	0.64	--	--	5	2.54	20	16	3	9.98			
15	23	3	4	19.81	--	--	7	1.51	--	--	12	4.47	17	16	3	11.16			
16	13	20	11	18.92	--	--	2	0.28	--	--	9	2.64	20	11	5	9.16			
17	15	18	9	10.19	--	--	1	0.50	--	--	4	2.41	17	13	0	3.48			
18	7	22	8	5.07	--	--	10	1.40	--	--	8	3.65	11	20	5	3.90			
19	2	13	4	1.87	--	--	7	0.70	--	--	5	1.93	9	14	2	1.99			
20	1	14	14	2.54	--	--	5	0.45	--	--	7	2.00	11	12	1	1.28			
21	7	7	2	1.27	--	--	2	0.20	--	--	6	0.96	7	7	2	1.01			
22	14	10	7	2.80	--	--	1	0.19	--	--	6	2.02	11	14	3	2.12			
23	10	8	1	1.46	--	--	2	0.15	--	--	5	0.93	11	7	0	1.11			

Arrival/Departure/Queue Assignments for ISCST3 Modeling

Alternative C 2015

Arrival													
Runway 24L				Runway 24R				Runway 25L				Runway 25R	
Hour	Large	Med.	Small	Large	Med.	Small	Large	Med.	Small	Large	Med.	Small	
0	0	1	0	0	0	0	0	0	0	1	3	1	
1	0	0	0	0	0	0	0	0	0	4	2	0	
2	0	0	0	0	0	0	0	0	0	5	2	0	
3	0	0	0	0	0	0	0	0	0	1	2	0	
4	0	0	0	0	0	0	0	0	0	3	3	0	
5	5	0	0	0	0	0	0	0	0	5	1	0	
6	4	0	8	0	0	0	1	2	6	2	5		
7	1	3	3	1	9	2	7	9	11	0	3	0	
8	0	3	0	7	7	0	3	15	5	0	1	0	
9	3	5	0	12	8	1	8	14	10	3	4	1	
10	1	5	1	13	8	4	13	10	9	3	7	1	
11	1	5	2	14	11	3	11	18	7	7	3	1	
12	4	1	0	14	4	4	9	18	7	3	4	0	
13	5	3	0	12	5	0	10	9	10	4	2	1	
14	2	4	1	10	7	3	8	9	18	2	6	0	
15	3	4	0	16	8	4	12	14	9	1	8	0	
16	5	3	1	6	8	2	9	17	8	3	2	0	
17	2	4	2	12	9	3	9	15	10	2	8	1	
18	1	2	2	9	7	3	10	14	6	2	1	2	
19	2	3	2	12	13	2	8	18	12	1	9	1	
20	3	6	0	17	5	1	11	14	8	2	7	0	
21	5	3	1	12	4	4	8	16	11	2	3	2	
22	3	4	0	5	7	1	7	14	1	0	3	3	
23	3	4	0	0	0	0	0	0	0	2	12	0	

Source: Camp Dresser & McKee, Inc., 1998

Arrival/Departure/Queue Assignments for ISCST3 Modeling

Alternative C 2015

Departure and Queue																
Runway 24L					Runway 24R					Runway 25L					Runway 25R	
Hour	Large	Med.	Small	Queue Depth (# aircraft)	Large	Med.	Small	Queue Depth (# aircraft)	Large	Med.	Small	Queue Depth (# aircraft)	Large	Med.	Small	Queue Depth (# aircraft)
0	3	1	0	0.31	0	0	0	0.00	1	4	0	0.43	5	9	0	0.76
1	1	2	0	0.27	0	0	0	0.00	0	0	0	0.00	2	3	0	0.41
2	9	0	0	0.54	0	0	0	0.00	0	0	0	0.04	3	5	1	0.56
3	5	2	0	0.55	0	0	0	0.00	0	0	0	0.00	2	1	2	0.31
4	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
5	3	1	0	0.31	0	0	0	0.00	0	0	0	0.00	0	2	0	0.16
6	1	7	0	0.75	0	0	0	0.00	0	0	0	0.00	4	5	0	0.79
7	7	12	7	3.09	0	12	2	1.48	0	0	0	0.05	10	7	9	1.96
8	11	15	4	6.29	0	7	3	1.40	1	4	1	1.25	12	14	8	6.47
9	8	17	3	7.72	0	7	1	0.81	0	4	0	0.99	12	10	7	8.92
10	14	10	4	5.51	0	4	1	0.64	1	7	0	2.25	11	7	7	6.46
11	8	12	5	4.27	0	8	0	0.99	2	5	3	3.23	6	8	8	4.85
12	16	11	2	8.38	0	7	2	1.10	4	3	0	2.48	10	13	3	6.37
13	18	5	4	12.77	0	8	2	0.99	3	6	2	6.30	13	7	7	12.24
14	21	7	3	10.57	0	3	0	0.29	1	6	0	4.18	12	6	8	14.66
15	13	7	4	12.03	0	6	4	1.36	1	6	0	3.15	14	7	9	11.27
16	14	11	3	14.93	0	8	2	1.25	2	3	1	1.79	12	10	8	9.33
17	15	10	3	13.40	0	8	0	0.81	1	3	0	0.70	10	7	4	3.06
18	12	17	3	7.31	0	4	4	0.81	5	3	1	1.70	8	11	10	3.90
19	4	10	7	2.75	1	7	2	1.68	2	2	0	1.27	8	6	3	2.11
20	1	11	6	1.84	0	7	1	1.05	1	0	0	0.21	10	6	10	1.79
21	7	11	2	1.94	2	4	0	0.58	0	0	0	0.03	4	4	5	0.82
22	16	5	6	2.35	0	2	3	0.41	0	0	0	0.01	8	7	5	1.40
23	10	5	2	1.66	0	1	0	0.06	1	0	0	0.17	10	3	5	1.85

Source: Camp Dresser & McKee, Inc., 1999

Attachment V

Incremental Emissions by Alternative and Year

ESTIMATED ANNUAL NOx EMISSIONS
ALTERNATIVES A, B, C, NO ACTION/NO PROJECT, & ENVIRONMENTAL BASELINE FOR 2005 (tons/year)
LAX Master Plan

Source Classification	Alternative A		Alternative B		Alternative C		No Project		1995 Baseline		Increase/ (Decrease) Alt. A vs NP	Increase/ (Decrease) Alt. B vs NP	Increase/ (Decrease) Alt. C vs NP	Increase/ (Decrease) Alt. A vs BASE	Increase/ (Decrease) Alt. B vs BASE	Increase/ (Decrease) Alt. C vs BASE	Increase/ (Decrease) NP vs BASE
	71.2 MAP		71.2 MAP		71.2 MAP		68.5 MAP		68.0 MAP		2.7	2.7	2.7	13.2	13.2	13.2	10.5
	TPY	%	TPY	%	TPY	%	TPY	%	TPY	%	TPY	TPY	TPY	TPY	TPY	TPY	TPY
MOBILE SOURCES:																	
Aircraft Operations																	
Approach	532.6	9.30%	532.6	9.30%	532.6	9.24%	528.8	8.87%	399.1	7.71%	3.8	3.8	3.8	133.5	133.5	133.5	129.7
Climbout	1,760.7	30.74%	1,760.7	30.74%	1,760.7	30.53%	1,743.0	28.67%	1,364.2	26.36%	17.7	17.7	17.4	396.4	396.4	396.4	378.8
Takeoff	1,677.4	29.25%	1,677.4	29.25%	1,677.4	29.09%	1,660.0	27.21%	1,310.9	25.33%	17.4	17.4	17.4	366.5	366.5	366.5	349.1
Taxi	709.3	12.38%	709.3	12.39%	709.3	12.30%	697.2	11.43%	488.8	9.45%	12.1	12.1	12.1	220.5	220.5	220.5	208.4
Queue	186.6	3.26%	186.6	3.26%	186.6	3.23%	186.6	3.23%	158.4	3.08%	(38.8)	(38.8)	(38.8)	28.1	28.1	28.1	66.9
Aircraft Operations Subtotal	4,866.5	84.96%	4,866.5	84.96%	4,866.5	84.38%	4,854.4	79.83%	3,721.6	71.91%	12.2	12.2	12.2	1,145.0	1,145.0	1,145.0	1,132.8
Aircraft Support																	
GSE	356.8	6.23%	356.8	6.23%	356.8	6.19%	603.3	9.89%	386.9	7.48%	(246.5)	(246.5)	(246.5)	(30.0)	(30.0)	(30.0)	216.5
APU	49.7	0.87%	49.7	0.87%	49.7	0.86%	49.4	0.81%	34.0	0.66%	0.3	0.3	0.3	15.7	15.7	15.7	15.4
Aircraft Support Subtotal	406.5	7.10%	406.5	7.10%	406.5	7.05%	652.7	10.70%	420.9	8.13%	(246.2)	(246.2)	(246.2)	(14.3)	(14.3)	(14.3)	231.9
On-Airport Traffic																	
CTA Area																	
Traffic	101.9	1.78%	107.1	1.87%	115.6	2.00%	206.6	3.39%	243.2	4.70%	(104.8)	(98.6)	(91.1)	(141.3)	(136.1)	(127.6)	(36.6)
Parking	18.4	0.32%	14.7	0.25%	22.6	0.38%	40.2	0.66%	53.1	1.03%	(21.8)	(25.5)	(17.6)	(34.6)	(38.4)	(30.5)	(12.9)
CTA Area Subtotal	120.3	2.10%	121.8	2.13%	138.2	2.40%	246.9	4.05%	296.3	5.73%	(126.6)	(125.1)	(108.7)	(175.9)	(174.5)	(158.1)	(49.4)
West Terminal Area																	
Traffic	43.7	0.76%	43.7	0.76%	38.2	0.65%	0.0	0.00%	0.00%	0.00%	43.7	43.7	38.2	43.7	43.7	38.2	0.0
Parking	8.7	0.15%	12.6	0.22%	7.5	0.13%	0.0	0.00%	0.00%	0.00%	8.7	12.8	7.5	8.7	12.8	7.5	0.0
West Terminal Area	52.4	0.91%	56.3	0.99%	45.7	0.79%	0.0	0.00%	0.0	0.00%	52.4	56.5	45.7	52.4	56.5	45.7	0.0
Miscellaneous On-Airport Traffic																	
Cargo/Ancillary	82.5	1.44%	75.0	1.31%	115.8	2.01%	142.5	2.34%	138.2	2.67%	(60.0)	(67.4)	(26.6)	(55.7)	(63.1)	(22.3)	4.3
Acquisition Areas	0.0	0.00%	0.0	0.00%	0.0	0.00%	5.1	0.08%	0.0	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAX Northside/Continental City	0.0	0.00%	0.0	0.00%	0.0	0.00%	5.1	0.08%	0.0	0.00%	(5.1)	(5.1)	(5.1)	0.0	0.0	0.0	5.1
Westchester Southside	3.0	0.06%	3.6	0.06%	2.3	0.04%	0.0	0.00%	0.0	0.00%	3.0	3.6	2.3	3.0	3.6	2.3	0.0
Miscellaneous On-Airport Traffic	85.5	1.48%	78.7	1.37%	118.1	2.05%	147.6	2.42%	138.2	2.67%	(62.0)	(68.9)	(29.4)	(52.7)	(59.5)	(20.0)	9.4
On-Airport Traffic Subtotal	258.2	4.51%	255.9	4.49%	302.0	5.24%	394.4	6.47%	434.5	8.40%	(136.2)	(137.5)	(92.4)	(176.2)	(177.5)	(132.4)	(40.0)
MOBILE SUBTOTAL (LAX Local Area)	5,531.3	96.66%	5,530.0	96.56%	5,575.1	96.67%	5,901.5	96.74%	4,576.8	88.44%	(370.2)	(371.5)	(326.4)	954.4	953.1	998.2	1,324.6
STATIONARY:																	
Airport																	
Airline Maintenance	20.4	0.36%	20.4	0.36%	20.4	0.35%	20.2	0.33%	355.1	6.86%	0.1	0.1	0.1	(334.8)	(334.8)	(334.8)	(334.8)
Flight Kitchens	10.6	0.18%	10.6	0.18%	10.6	0.18%	10.2	0.17%	8.6	0.17%	0.4	0.4	0.4	2.0	2.0	2.0	1.8
Existing CUP/Boilers/Generators/CTs	39.4	0.68%	39.4	0.68%	39.4	0.68%	39.5	0.65%	111.2	2.15%	(0.0)	(0.0)	(0.0)	(71.8)	(71.8)	(71.8)	(71.8)
West CUP/CTs	1.4	0.02%	1.4	0.02%	0.8	0.01%	0.0	0.00%	0.0	0.00%	1.4	1.4	0.8	1.4	1.4	0.8	0.0
Fuel Farm	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	2.0	0.04%	0.0	0.0	0.0	(2.0)	(2.0)	(2.0)	(2.0)
Aircraft Fueling	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Restaurants	3.5	0.06%	3.5	0.06%	3.5	0.06%	3.3	0.05%	2.8	0.05%	0.1	0.1	0.1	0.6	0.6	0.6	0.5
Engine Testing	118.9	2.08%	118.9	2.08%	114.8	1.99%	118.9	1.95%	118.4	2.29%	0.0	0.0	(4.1)	0.5	0.5	(3.6)	0.5
Airport Subtotal	194.2	3.39%	194.2	3.39%	189.5	3.29%	192.1	3.15%	598.2	11.56%	2.0	2.0	(2.6)	(404.1)	(404.1)	(408.7)	(406.1)
Collateral/Acquisition Areas (Nat. gas use)																	
Acquisition Areas	0.0	0.00%	0.0	0.00%	0.0	0.00%	6.6	0.11%	0.0	0.00%	(6.6)	(6.6)	(6.6)	0.0	0.0	0.0	6.6
LAX Northside/Continental City	2.6	0.05%	2.6	0.05%	2.6	0.05%	0.0	0.00%	0.0	0.00%	2.6	2.6	2.6	2.6	2.6	2.6	0.0
Westchester Southside	2.6	0.05%	2.6	0.05%	2.6	0.05%	0.0	0.00%	0.0	0.00%	(4.0)	(4.0)	(4.0)	2.6	2.6	2.6	6.6
Collateral/Acquisition Areas Subtotal	5.2	0.09%	5.2	0.09%	5.2	0.10%	6.6	0.11%	0.0	0.00%	(4.0)	(4.0)	(4.0)	5.2	5.2	5.2	13.2
STATIONARY SUBTOTAL	199.4	3.44%	199.4	3.44%	194.7	3.39%	198.7	3.26%	598.2	11.56%	(2.0)	(2.0)	(6.7)	(401.5)	(401.5)	(408.1)	(395.5)
CONSTRUCTION SUBTOTAL **	3,715.0		4,249.0		3,847.0		405.0				3,310.0	3,844.0	3,442.0	3,715.0	4,249.0	3,847.0	405.0
**Subtotal is for construction which occurs in 2005 only.																	
GRAND TOTAL (LAX Local Area)***	5,728.1	100.0%	5,728.8	100.0%	5,767.2	100.0%	6,100.2	100.0%	5,175.1	100.0%	(372.2)	(373.5)	(333.1)	553.0	551.7	592.1	925.1
***Does not include construction.																	

Off-Airport Traffic (Unmitigated)																	
Tier I (included in SCAB)	815.9		794.5		813.3		831.6		581.1		(15.7)	(37.1)	(18.3)	234.8	213.4	232.2	250.5
South Coast Air Basin (SCAB)	5,358.4		5,681.1		5,658.8		5,540.1		3,658.9		(180.7)	141.0	118.7	1,700.5	2,022.2	1,999.9	1,891.2
Outside of SCAB	43.4		42.1		41.1		43.2		34.2		0.2	(1.1)	(2.1)	9.2	7.9	6.9	9.0
Off-Airport Traffic	5,402.8		5,723.2		5,699.9		5,583.3		3,693.1		(180.5)	139.9	116.6	1,709.7	2,030.1	2,006.8	1,899.2
UNMITIGATED MOBILE SUBTOTAL (Regional)	10,934.1		11,253.2		11,276.0		11,484.8		8,269.9		(550.7)	(231.6)	(209.9)	2,664.1	2,583.2	3,005.0	3,214.8
UNMITIGATED GRAND TOTAL (Regional)	11,130.9		11,450.0		11,467.1		11,663.5		8,868.2		(552.7)	(233.6)	(216.5)	2,262.7	2,581.8	2,598.9	2,815.3

Data revised 4/18/00 from files dated 3/27/00.

**ESTIMATED ANNUAL HC (or VOC) EMISSIONS
ALTERNATIVES A, B, C, NO ACTION/NO PROJECT, & ENVIRONMENTAL BASELINE FOR 2005 (tons/year)
LAX Master Plan**

	Alternative A		Alternative B		Alternative C		No Project		1996 Baseline		Increase/ (Decrease) Alt. A vs NP	Increase/ (Decrease) Alt. B vs NP	Increase/ (Decrease) Alt. C vs NP	Increase/ (Decrease) Alt. A vs BASE	Increase/ (Decrease) Alt. B vs BASE	Increase/ (Decrease) Alt. C vs BASE	Increase/ (Decrease) NP vs BASE
	71.2 MAP		71.2 MAP		71.2 MAP		68.5 MAP		58.0 MAP		2.7	2.7	2.7	13.2	13.2	13.2	10.5
	TPY	%	TPY	%	TPY	%	TPY	%	TPY	%	TPY	TPY	TPY	TPY	TPY	TPY	TPY
Source Classification																	
MOBILE SOURCES:																	
Aircraft Operations																	
Approach	20.0	1.14%	20.0	1.14%	20.0	1.14%	19.5	0.99%	28.4	1.28%	0.4	0.4	0.4	(6.4)	(6.4)	(6.4)	(6.9)
Climbout	12.5	0.71%	12.5	0.71%	12.5	0.71%	12.1	0.61%	17.8	0.86%	0.4	0.4	0.4	(5.3)	(5.3)	(5.3)	(5.7)
Takeoff	9.2	0.53%	9.2	0.53%	9.2	0.53%	9.0	0.46%	12.5	0.60%	0.3	0.3	0.3	(3.2)	(3.2)	(3.2)	(3.5)
Taxi	878.3	49.91%	878.3	50.08%	878.3	49.96%	857.0	43.54%	809.5	39.13%	19.3	19.3	19.3	66.8	66.8	66.8	47.5
Queue	241.0	13.72%	241.0	13.77%	241.0	13.74%	275.0	13.97%	262.4	12.68%	(34.1)	(34.1)	(34.1)	(21.4)	(21.4)	(21.4)	12.7
Aircraft Operations Subtotal	1,159.0	66.01%	1,159.0	66.23%	1,159.0	66.08%	1,172.6	59.57%	1,128.6	54.55%	(13.7)	(13.7)	(13.7)	50.4	50.4	50.4	44.0
Aircraft Support																	
GSE	202.0	11.51%	202.0	11.54%	202.0	11.52%	248.5	12.63%	198.3	9.58%	(46.5)	(46.5)	(46.5)	3.7	3.7	3.7	50.3
APU	4.3	0.24%	4.3	0.25%	4.3	0.25%	4.3	0.22%	3.9	0.19%	0.0	0.0	0.0	0.4	0.4	0.4	0.4
Aircraft Support Subtotal	206.3	11.75%	206.3	11.79%	206.3	11.76%	252.8	12.84%	202.1	9.77%	(46.5)	(46.5)	(46.5)	4.2	4.2	4.2	50.7
On-Airport Traffic																	
CTA Area																	
Traffic	112.1	6.38%	109.8	6.28%	111.1	6.34%	257.4	13.08%	300.9	14.54%	(145.3)	(147.6)	(148.3)	(188.8)	(191.1)	(189.8)	(43.5)
Parking	85.9	4.89%	83.8	3.64%	89.2	5.08%	113.9	5.79%	207.5	10.03%	(28.0)	(50.2)	(24.7)	(121.5)	(143.7)	(118.2)	(93.5)
CTA Area Subtotal	198.0	11.28%	173.6	9.92%	200.4	11.42%	371.4	18.87%	508.4	24.57%	(173.3)	(197.8)	(171.0)	(310.3)	(334.8)	(308.0)	(137.0)
West Terminal Area																	
Traffic	24.4	1.39%	20.2	1.15%	21.4	1.22%	0.0	0.00%	0.0	0.00%	24.4	20.2	21.4	24.4	20.2	21.4	0.0
Parking	27.9	1.59%	51.5	2.94%	22.2	1.27%	0.0	0.00%	0.0	0.00%	27.9	51.5	22.2	27.9	51.5	22.2	0.0
West Terminal Area	52.3	2.98%	71.7	4.10%	43.6	2.49%	0.0	0.00%	0.0	0.00%	52.3	71.7	43.6	52.3	71.7	43.6	0.0
Miscellaneous On-Airport Traffic																	
Cargo/Ancillary	51.2	2.91%	49.8	2.84%	56.9	3.24%	85.0	4.32%	86.5	4.18%	(33.9)	(35.4)	(28.1)	(35.3)	(36.9)	(29.6)	(1.5)
Acquisition Areas	0.0	0.00%	0.0	0.00%	0.0	0.00%	4.9	0.25%	0.0	0.00%	(4.9)	0.0	(4.9)	0.0	0.0	0.0	4.9
LAX Northside/Continental City	2.9	0.16%	3.5	0.20%	2.2	0.12%	0.0	0.00%	0.0	0.00%	2.9	3.5	2.2	2.9	3.5	2.2	0.0
Westchester Southside	54.0	3.08%	53.1	3.04%	59.1	3.37%	89.9	4.57%	86.5	4.18%	(35.8)	(36.8)	(30.8)	(32.5)	(33.4)	(27.4)	3.4
Miscellaneous On-Airport Traffic	108.1	6.15%	106.4	6.08%	118.2	6.63%	179.8	9.24%	173.0	8.36%	(38.7)	(38.7)	(30.8)	(35.4)	(36.9)	(29.6)	(1.5)
On-Airport Traffic Subtotal	306.4	17.33%	294.4	17.05%	303.0	17.28%	461.3	23.43%	594.1	28.75%	(158.9)	(162.9)	(158.3)	(290.6)	(296.6)	(291.6)	(133.9)
MOBILE SUBTOTAL (LAX Local Area)	1,669.6	95.09%	1,663.7	95.07%	1,668.3	95.12%	1,896.7	95.85%	1,925.6	93.07%	(217.1)	(223.0)	(218.4)	(296.0)	(292.0)	(257.4)	(38.9)
STATIONARY:																	
Airport																	
Airline Maintenance	21.7	1.24%	21.7	1.24%	21.7	1.24%	21.8	1.10%	82.5	3.02%	0.1	0.1	0.1	(40.7)	(40.7)	(40.7)	(40.9)
Flight Kitchens	4.4	0.25%	4.4	0.25%	4.4	0.25%	4.2	0.21%	3.6	0.17%	0.2	0.2	0.2	0.8	0.8	0.8	0.7
Existing CUP/Bollards/Generators	18.0	1.02%	18.0	1.03%	18.0	1.02%	18.0	0.91%	18.0	0.87%	0.0	0.0	0.0	(0.0)	(0.0)	(0.0)	(0.0)
West CUP	1.2	0.07%	1.2	0.07%	0.7	0.04%	0.0	0.00%	0.0	0.00%	1.2	1.2	0.7	1.2	1.2	0.7	0.0
Fuel Farm	4.1	0.23%	4.1	0.23%	4.1	0.23%	3.8	0.19%	8.0	0.39%	0.3	0.3	0.3	(3.9)	(3.9)	(3.9)	(4.2)
Aircraft Fueling	31.0	1.77%	31.0	1.77%	31.0	1.77%	28.4	1.44%	24.4	1.18%	2.7	2.7	2.7	6.6	6.6	6.6	4.0
Restaurants	2.4	0.14%	2.4	0.14%	2.4	0.14%	2.3	0.12%	1.9	0.09%	0.1	0.1	0.1	0.4	0.4	0.4	0.4
Engine Testing	3.3	0.19%	3.3	0.19%	3.2	0.18%	3.2	0.16%	25.0	1.21%	0.0	0.0	(0.1)	(21.7)	(21.7)	(21.8)	(21.8)
Airport Subtotal	86.1	4.90%	86.1	4.92%	86.6	4.88%	81.4	4.14%	143.4	6.93%	4.6	4.7	4.1	(57.3)	(57.3)	(57.8)	(61.9)
Collateral/Acquisition Areas (Net. gas use)																	
Acquisition Areas	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.3	0.01%	0.0	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAX Northside/Continental City	0.1	0.01%	0.1	0.01%	0.1	0.01%	0.0	0.00%	0.0	0.00%	0.1	0.1	0.1	0.1	0.1	0.1	0.0
Westchester Southside	0.1	0.01%	0.1	0.01%	0.1	0.01%	0.3	0.01%	0.0	0.00%	(0.2)	(0.2)	(0.2)	0.1	0.1	0.1	0.3
Collateral/Acquisition Areas Subtotal	0.2	0.01%	0.2	0.01%	0.2	0.01%	0.3	0.01%	0.0	0.00%	(0.2)	(0.2)	(0.2)	0.1	0.1	0.1	0.3
STATIONARY SUBTOTAL	86.2	4.91%	86.2	4.93%	86.7	4.89%	81.7	4.15%	143.4	6.93%	4.5	4.6	3.9	(57.2)	(57.1)	(57.7)	(61.6)
CONSTRUCTION SUBTOTAL**	411.0		488.0		423.0		908.0				(498.0)	(441.0)	(486.0)	411.0	468.0	423.0	908.0
**Subtotal is for construction which occurs in 2005 only.																	
GRAND TOTAL (LAX Local Area)***	1,755.8	100.0%	1,749.9	100.0%	1,753.9	100.0%	1,968.4	100.0%	2,069.6	100.0%	(212.6)	(218.5)	(214.5)	(313.2)	(318.1)	(315.0)	(100.6)
***Does not include construction.																	

Off-Airport Traffic (Unmitigated)																	
Tier I (included in SCAB)	4,918.0	4,674.2	4,473.5	5,020.7	3,383.8	(102.7)	(346.5)	(547.2)	1,534.2	1,290.4	1,089.7	1,636.9					
South Coast Air Basin (SCAB)	9,131.2	8,831.5	8,513.0	9,288.9	6,346.8	(157.7)	(457.4)	(775.9)	2,784.4	2,434.7	2,166.2	2,942.1					
Outside of SCAB	45.3	43.2	41.9	43.8	34.1	1.5	(0.6)	(1.9)	11.2	9.1	7.8	8.7					
Off-Airport Traffic	9,178.5	8,874.7	8,554.9	9,332.7	6,390.9	(156.2)	(458.0)	(777.8)	2,795.6	2,493.8	2,174.0	2,951.8					
UNMITIGATED MOBILE SUBTOTAL (Regional)	10,846.1	10,539.4	10,223.2	11,219.4	8,396.5	(373.3)	(581.0)	(996.2)	2,530.6	2,231.8	1,916.6	2,912.9					
UNMITIGATED GRAND TOTAL (Regional)	10,932.3	10,624.6	10,308.8	11,301.1	8,449.9	(368.8)	(676.5)	(992.3)	2,482.4	2,174.7	1,859.0	2,851.2					

Data revised 4/18/00 from files dated 3/27/00.

ESTIMATED ANNUAL CO EMISSIONS
ALTERNATIVES A, B, C, NO ACTION/NO PROJECT, & ENVIRONMENTAL BASELINE FOR 2005 (tons/year)
LAX Master Plan

	Alternative A		Alternative B		Alternative C		No Project		1996 Baseline		Increase/ (Decrease)	Increase/ (Decrease)	Increase/ (Decrease)	Increase/ (Decrease)	Increase/ (Decrease)	Increase/ (Decrease)
	71.2 MAP		71.2 MAP		71.2 MAP		68.5 MAP		58.0 MAP		Ait. A vs NP	Ait. B vs NP	Ait. C vs NP	Ait. A vs BASE	Ait. B vs BASE	Ait. C vs BASE
Source Classification	TPY	%	TPY	%	TPY	%	TPY	%	TPY	%	TPY	TPY	TPY	TPY	TPY	TPY
MOBILE SOURCES:																
Aircraft Operations																
Approach	147.7	1.15%	147.7	1.16%	147.7	1.15%	145.8	0.89%	133.7	0.81%	1.9	1.9	1.9	14.0	14.0	14.0
Climbout	45.0	0.36%	45.0	0.35%	45.0	0.35%	44.5	0.27%	43.7	0.26%	0.5	0.5	0.5	1.3	1.3	1.3
Takeoff	29.8	0.23%	29.8	0.23%	29.8	0.23%	29.4	0.18%	30.4	0.18%	0.4	0.4	0.4	(0.6)	(0.6)	(0.6)
Taxi	4,533.3	35.32%	4,533.3	35.58%	4,533.3	35.26%	4,418.5	26.67%	3,502.8	21.11%	114.8	114.8	114.8	1,030.6	1,030.6	1,030.6
Queue	1,195.3	9.31%	1,195.3	9.38%	1,195.3	9.30%	1,432.1	8.71%	1,135.3	6.84%	(236.8)	(236.8)	(236.8)	60.0	60.0	60.0
Aircraft Operations Subtotal	5,951.1	46.37%	5,951.1	46.71%	5,951.1	46.28%	6,076.3	36.91%	4,845.9	29.21%	(119.2)	(119.2)	(119.2)	1,105.2	1,105.2	1,105.2
Aircraft Support																
GSE	4,118.0	32.08%	4,118.0	32.32%	4,118.0	32.03%	6,219.8	37.82%	5,702.0	34.37%	(2,101.8)	(2,101.8)	(2,101.8)	(1,584.1)	(1,584.1)	(1,584.1)
APU	92.6	0.72%	92.6	0.73%	92.6	0.72%	91.8	0.56%	77.6	0.47%	0.7	0.7	0.7	15.0	15.0	15.0
Aircraft Support Subtotal	4,210.6	32.80%	4,210.6	33.05%	4,210.6	32.75%	6,311.6	38.38%	5,779.6	34.84%	(2,101.1)	(2,101.1)	(2,101.1)	(1,569.1)	(1,569.1)	(1,569.1)
On-Airport Traffic																
CTA Area																
Traffic	1,316.7	10.26%	1,275.0	10.01%	1,302.2	10.13%	2,799.5	17.02%	3,794.9	22.88%	(1,482.8)	(1,524.5)	(1,497.4)	(2,478.2)	(2,519.9)	(2,492.7)
Parking	354.5	2.76%	274.1	2.15%	361.6	2.81%	493.4	3.00%	1,155.8	6.97%	(136.9)	(218.3)	(131.8)	(801.0)	(881.4)	(794.0)
CTA Area Subtotal	1,671.3	13.02%	1,549.2	12.16%	1,663.8	12.94%	3,293.0	20.02%	4,950.5	29.84%	(1,621.7)	(1,743.8)	(1,629.2)	(3,279.2)	(3,401.3)	(3,286.7)
West Terminal Area																
Traffic	350.2	2.73%	302.3	2.37%	347.2	2.70%	0.0	0.00%	0.0	0.00%	350.2	302.3	347.2	350.2	302.3	347.2
Parking	127.0	0.99%	211.4	1.69%	108.5	0.84%	0.0	0.00%	0.0	0.00%	127.0	211.4	108.5	108.5	211.4	108.5
West Terminal Area	477.1	3.72%	513.7	4.03%	455.8	3.54%	0.0	0.00%	0.0	0.00%	477.1	513.7	455.8	477.1	513.7	455.8
Miscellaneous On-Airport Traffic																
Cargo/Ancillary	383.3	2.83%	344.3	2.70%	427.9	3.33%	589.3	3.58%	720.5	4.34%	(226.1)	(245.0)	(181.4)	(367.3)	(376.2)	(282.6)
Acquisition Areas	0.0	0.00%	0.0	0.00%	0.0	0.00%	70.2	0.43%	0.0	0.00%	0.0	0.0	0.0	0.0	0.0	0.0
LAX Northside/Continental City	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	(70.2)	(70.2)	(70.2)	0.0	0.0	70.2
Westchester Southside	41.6	0.32%	50.3	0.39%	31.5	0.24%	0.0	0.00%	0.0	0.00%	41.6	50.3	31.5	41.6	50.3	31.5
Miscellaneous On-Airport Traffic	404.8	3.15%	394.6	3.10%	459.4	3.57%	659.5	4.01%	720.5	4.34%	(254.7)	(265.0)	(200.2)	(315.7)	(326.0)	(281.2)
On-Airport Traffic Subtotal	2,553.3	19.89%	2,457.5	19.29%	2,578.9	20.06%	3,952.5	24.03%	5,671.0	34.16%	(1,399.3)	(1,495.1)	(1,373.6)	(3,117.7)	(3,213.5)	(3,092.1)
MOBILE SUBTOTAL (LAX Local Area)	12,714.9	99.06%	12,619.1	99.06%	12,740.6	99.05%	16,334.5	99.32%	16,296.5	99.24%	(3,619.6)	(3,715.4)	(3,593.9)	(3,581.6)	(3,677.4)	(3,555.9)
STATIONARY:																
Airport																
Airline Maintenance	16.5	0.13%	16.5	0.13%	16.5	0.13%	16.4	0.10%	167.8	1.01%	0.1	0.1	0.1	(151.2)	(151.2)	(151.2)
Flight Kitchens	9.8	0.08%	9.8	0.08%	9.8	0.08%	9.4	0.06%	8.0	0.05%	0.4	0.4	0.4	1.8	1.8	1.8
Existing CUP/Bollers/Generators/CTs	57.9	0.45%	57.0	0.45%	57.9	0.45%	57.9	0.35%	58.0	0.35%	0.0	0.0	0.0	(0.1)	(0.1)	(0.1)
West CUP/CTs	8.3	0.06%	8.3	0.07%	5.1	0.04%	0.0	0.00%	0.0	0.00%	8.3	8.3	5.1	8.3	8.3	5.1
Fuel Farm	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.4	0.00%	0.0	0.0	0.0	(0.4)	(0.4)	(0.4)
Aircraft Fueling	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.0	0.0	0.0	0.0	0.0
Restaurants	8.2	0.05%	8.2	0.05%	6.2	0.05%	6.0	0.04%	5.0	0.03%	0.2	0.2	0.2	1.2	1.2	0.9
Engine Testing	21.1	0.18%	21.1	0.17%	21.0	0.16%	21.1	0.13%	53.5	0.32%	0.0	0.0	0.0	(32.4)	(32.4)	(32.4)
Airport Subtotal	119.8	0.93%	119.8	0.94%	116.6	0.91%	110.8	0.67%	292.7	1.76%	9.0	9.0	5.8	(172.9)	(172.9)	(176.2)
Collateral/Acquisition Areas (Not on use)																
Acquisition Areas	0.0	0.00%	0.0	0.00%	0.0	0.00%	1.1	0.01%	0.0	0.00%	(1.1)	(1.1)	(1.1)	0.0	0.0	1.1
LAX Northside/Continental City	0.4	0.00%	0.4	0.00%	0.4	0.00%	0.0	0.00%	0.0	0.00%	0.4	0.4	0.4	0.4	0.4	0.0
Westchester Southside	0.4	0.00%	0.4	0.00%	0.4	0.00%	1.1	0.01%	0.0	0.00%	(0.7)	(0.7)	(0.7)	0.4	0.4	1.1
Collateral/Acquisition Areas Subtotal	0.4	0.00%	0.4	0.00%	0.4	0.00%	1.1	0.01%	0.0	0.00%	(0.7)	(0.7)	(0.7)	0.4	0.4	1.1
STATIONARY SUBTOTAL	120.2	0.94%	120.3	0.94%	117.0	0.91%	111.9	0.68%	292.7	1.76%	8.3	8.4	5.1	(172.5)	(172.5)	(176.7)
CONSTRUCTION SUBTOTAL**	1,991.0		2,276.0		2,061.0		667.0				1,324.0	1,609.0	1,394.0	1,991.0	2,276.0	2,061.0
**Subtotal is for construction which occurs in 2005 only.																
GRAND TOTAL (LAX Local Area)***	12,835.1	100.0%	12,739.3	100.0%	12,857.5	100.0%	16,446.4	100.0%	16,589.2	100.0%	(3,611.3)	(3,707.0)	(3,588.8)	(3,754.1)	(3,849.8)	(3,731.8)
***Does not include construction.																

Off-Airport Traffic (Unmitigated)

Tier I (included in SCAB)	7,180.8	5,992.2	6,832.9	7,539.4	5,053.0	(358.5)	(547.2)	(709.5)	2,127.9	1,939.2	1,779.9	2,496.4
South Coast Air Basin (SCAB)	38,888.0	39,579.3	38,967.6	39,128.5	27,403.9	(242.5)	450.8	(160.9)	11,482.1	12,175.4	11,593.7	11,724.6
Outside of SCAB	586.8	587.7	555.7	561.5	442.8	25.3	6.2	(5.8)	144.0	124.9	112.9	118.7
Off-Airport Traffic	39,472.8	40,147.0	39,523.3	39,690.0	27,947.7	(217.2)	457.0	(166.7)	11,526.1	12,300.3	11,676.6	11,843.3
UNMITIGATED MOBILE SUBTOTAL (Regional)	52,187.7	52,786.1	52,263.9	56,024.6	44,143.2	(3,836.9)	(3,258.4)	(3,760.9)	8,044.5	8,622.9	8,126.7	11,881.3

UNMITIGATED GRAND TOTAL (Regional)

UNMITIGATED GRAND TOTAL (Regional)	52,307.9	52,886.3	52,380.8	56,136.4	44,435.9	(3,826.5)	(3,250.0)	(3,755.5)	7,872.0	8,450.5	7,945.0	11,700.5
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Data revised 4/18/00 from files dated 3/27/00.

**ESTIMATED ANNUAL SO₂ EMISSIONS
ALTERNATIVES A, B, C, NO ACTION/NO PROJECT, & ENVIRONMENTAL BASELINE FOR 2005 (tons/year)
LAX Master Plan**

	Alternative A 71.2 MAP		Alternative B 71.2 MAP		Alternative C 71.2 MAP		No Project 68.5 MAP		1996 Baseline 58.0 MAP		Increase/ (Decrease) Alt. A vs NP	Increase/ (Decrease) Alt. B vs NP	Increase/ (Decrease) Alt. C vs NP	Increase/ (Decrease) Alt. A vs BASE	Increase/ (Decrease) Alt. B vs BASE	Increase/ (Decrease) Alt. C vs BASE	Increase/ (Decrease) NP vs BASE
	TPY	%	TPY	%	TPY	%	TPY	%	TPY	%	TPY	TPY	TPY	TPY	TPY	TPY	TPY
Source Classification																	
MOBILE SOURCES:																	
Aircraft Operations																	
Approach	28.6	12.84%	28.6	12.84%	28.6	12.83%	28.3	12.15%	22.9	12.51%	0.3	0.3	0.3	5.7	5.7	5.7	5.5
Climb	38.5	17.26%	38.5	17.29%	38.5	17.27%	38.1	16.35%	30.7	16.77%	0.4	0.4	0.4	7.8	7.8	7.8	7.5
Takeoff	28.9	12.99%	28.9	12.99%	28.9	12.98%	28.7	12.28%	23.2	12.69%	0.3	0.3	0.3	5.7	5.7	5.7	5.4
Taxi	50.9	40.80%	50.9	40.81%	50.9	40.77%	49.0	38.16%	67.2	36.75%	1.9	1.9	1.9	23.7	23.7	23.7	21.8
Queue	23.8	10.70%	23.8	10.71%	23.8	10.70%	23.8	12.35%	21.8	11.91%	(5.0)	(5.0)	(5.0)	2.1	2.1	2.1	7.0
Aircraft Operations Subtotal	210.8	94.62%	210.8	94.63%	210.8	94.58%	213.0	97.30%	165.8	90.63%	(2.2)	(2.2)	(2.2)	45.0	45.0	45.0	47.2
Aircraft Support																	
GSE	4.2	1.88%	4.2	1.88%	4.2	1.88%	12.1	5.17%	8.1	4.42%	(7.9)	(7.9)	(7.9)	(3.9)	(3.9)	(3.9)	4.0
APU	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Aircraft Support Subtotal	4.2	1.88%	4.2	1.88%	4.2	1.88%	12.1	5.17%	8.1	4.42%	(7.9)	(7.9)	(7.9)	(3.9)	(3.9)	(3.9)	4.0
On-Airport Traffic																	
CTA Area																	
Traffic	1.1	0.47%	1.1	0.48%	1.1	0.50%	1.8	0.79%	1.4	0.75%	(0.8)	(0.8)	(0.7)	(0.3)	(0.3)	(0.3)	0.5
Parking	0.1	0.04%	0.1	0.04%	0.1	0.05%	0.2	0.07%	0.2	0.10%	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.0)
CTA Area Subtotal	1.2	0.52%	1.1	0.51%	1.2	0.54%	2.0	0.86%	1.5	0.84%	(0.8)	(0.8)	(0.8)	(0.4)	(0.4)	(0.4)	0.5
West Terminal Area																	
Traffic	0.5	0.21%	0.5	0.20%	0.5	0.24%	0.0	0.00%	0.0	0.00%	0.5	0.5	0.5	0.5	0.5	0.5	0.0
Parking	0.0	0.02%	0.1	0.03%	0.0	0.02%	0.0	0.00%	0.0	0.00%	0.0	0.1	0.0	0.0	0.0	0.0	0.0
West Terminal Area	0.5	0.23%	0.5	0.23%	0.6	0.26%	0.0	0.00%	0.0	0.00%	0.5	0.5	0.6	0.5	0.5	0.6	0.0
Miscellaneous On-Airport Traffic																	
Cargo/Ancillary	0.3	0.15%	0.3	0.13%	0.5	0.23%	0.6	0.25%	0.4	0.21%	(0.2)	(0.3)	(0.1)	(0.0)	(0.1)	0.1	0.2
Acquisition Areas	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAX Northside/Continental City	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Westchester Southside	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Miscellaneous On-Airport Traffic	0.3	0.15%	0.3	0.13%	0.5	0.23%	0.6	0.25%	0.4	0.21%	(0.2)	(0.3)	(0.1)	(0.0)	(0.1)	0.1	0.2
On-Airport Traffic Subtotal	2.0	0.90%	2.0	0.88%	2.3	1.03%	2.6	1.10%	1.9	1.05%	(0.6)	(0.6)	(0.5)	0.1	0.0	0.4	0.6
MOBILE SUBTOTAL (LAX Local Area)	217.0	97.39%	218.9	97.39%	217.3	97.47%	227.6	97.57%	175.8	96.10%	(10.6)	(10.7)	(10.3)	41.2	41.1	41.5	51.8
STATIONARY:																	
Airport																	
Airline Maintenance	0.2	0.09%	0.2	0.09%	0.2	0.09%	0.2	0.09%	8.7	3.66%	0.0	0.0	0.0	(6.5)	(6.5)	(6.5)	(6.5)
Flight Kitchens	0.1	0.03%	0.1	0.03%	0.1	0.03%	0.1	0.02%	0.0	0.03%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Existing CUP/Bollards/Generators/CTs	0.3	0.14%	0.3	0.14%	0.3	0.14%	0.3	0.14%	0.3	0.18%	0.0	0.0	0.0	(0.0)	(0.0)	(0.0)	(0.0)
West CUP/CTs	0.1	0.06%	0.1	0.06%	0.1	0.04%	0.0	0.00%	0.0	0.00%	0.1	0.1	0.1	0.1	0.1	0.1	0.0
Fuel Farm	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Aircraft Fueling	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Restaurants	0.0	0.02%	0.0	0.02%	0.0	0.02%	0.0	0.02%	0.0	0.02%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Engine Testing	5.1	2.27%	5.1	2.27%	4.9	2.21%	5.1	2.17%	0.0	0.00%	0.0	0.0	(0.1)	5.1	5.1	4.9	5.0
Airport Subtotal	5.8	2.61%	5.8	2.61%	5.6	2.53%	5.7	2.43%	7.1	3.90%	0.1	0.1	(0.0)	(1.3)	(1.3)	(1.5)	(1.5)
Collateral/Acquisition Areas (Nat. use use)																	
Acquisition Areas	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAX Northside/Continental City	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Westchester Southside	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Collateral/Acquisition Areas Subtotal	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STATIONARY SUBTOTAL	5.8	2.61%	5.8	2.61%	5.6	2.53%	5.7	2.43%	7.1	3.90%	0.1	0.1	(0.0)	(1.3)	(1.3)	(1.5)	(1.5)
CONSTRUCTION SUBTOTAL**	369.0		408.0		369.0		87.0				272.0	321.0	282.0	369.0	408.0	369.0	87.0
**Subtotal is for construction which occurs in 2005 only.																	
GRAND TOTAL (LAX Local Area)***	222.8	100.0%	222.7	100.0%	222.9	100.0%	233.3	100.0%	182.9	100.0%	(10.5)	(10.5)	(10.3)	39.8	39.8	40.0	50.3
***Does not include construction.																	

Off-Airport Traffic (Unmitigated)

Tier I (Included in SCAB)	23.7	23.2	23.7	23.8	18.6	(0.1)	(0.6)	(0.7)	7.1	6.8	7.1	7.2
South Coast Air Basin (SCAB)	158.8	168.5	167.9	164.5	117.4	(5.7)	4.0	3.4	41.4	51.1	50.5	47.1
Outside of SCAB	1.2	1.2	1.2	1.3	1.0	(0.0)	(0.0)	(0.1)	0.2	0.2	0.2	0.3
Off-Airport Traffic	160.9	189.7	189.1	165.8	118.4	(5.7)	4.0	3.3	41.6	51.3	50.7	47.4

UNMITIGATED MOBILE SUBTOTAL (Regional)

	377.0	366.7	386.4	383.3	294.2	(16.3)	(6.7)	(7.0)	82.8	92.4	92.2	88.1
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UNMITIGATED GRAND TOTAL (Regional)

	382.8	392.5	392.0	399.0	301.3	(16.2)	(6.5)	(7.0)	81.5	91.1	90.7	97.7
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Data revised 4/18/00 from files dated 3/27/00.

**ESTIMATED ANNUAL PM10 EMISSIONS
ALTERNATIVES A, B, C, NO ACTION/NO PROJECT, & ENVIRONMENTAL BASELINE FOR 2005 (tons/year)
LAX Master Plan**

Source Classification	Alternative A		Alternative B		Alternative C		No Project		1996 Baseline		Increase/ (Decrease) Alt. A vs NP	Increase/ (Decrease) Alt. B vs NP	Increase/ (Decrease) Alt. C vs NP	Increase/ (Decrease) Alt. A vs BASE	Increase/ (Decrease) Alt. B vs BASE	Increase/ (Decrease) Alt. C vs BASE	Increase/ (Decrease) NP vs BASE
	71.2 MAP		71.2 MAP		71.2 MAP		68.5 MAP		58.0 MAP		2.7	2.7	2.7	13.2	13.2	13.2	10.5
	TPY	%	TPY	%	TPY	%	TPY	%	TPY	%	TPY	TPY	TPY	TPY	TPY	TPY	TPY
MOBILE SOURCES:																	
Aircraft Operations																	
Approach	6.9	4.97%	6.9	5.03%	6.9	4.82%	6.9	4.21%	5.5	3.47%	0.1	0.1	0.1	1.4	1.4	1.4	1.4
Climbout	17.1	12.21%	17.1	12.35%	17.1	11.85%	18.9	10.33%	14.5	9.14%	0.2	0.2	0.2	2.5	2.5	2.5	2.4
Takeoff	15.0	10.71%	15.0	10.84%	15.0	10.39%	14.8	9.06%	13.0	8.20%	0.1	0.1	0.1	1.9	1.9	1.9	1.8
Taxi	16.9	12.12%	16.9	12.26%	16.9	11.76%	16.5	10.12%	13.8	8.72%	0.4	0.4	0.4	3.1	3.1	3.1	2.7
Queue	4.3	3.05%	4.3	3.09%	4.3	2.96%	5.2	3.15%	4.3	2.72%	(0.9)	(0.9)	(0.9)	(0.1)	(0.1)	(0.1)	0.8
Aircraft Operations Subtotal	60.2	43.05%	60.2	43.57%	60.2	41.79%	60.3	36.87%	51.2	32.28%	(0.1)	(0.1)	(0.1)	8.9	8.9	8.9	8.0
Aircraft Support																	
GSE	5.6	4.02%	5.6	4.07%	5.6	3.90%	22.6	13.85%	12.7	7.97%	(17.0)	(17.0)	(17.0)	(7.0)	(7.0)	(7.0)	10.0
APU	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Aircraft Support Subtotal	5.6	4.02%	5.6	4.07%	5.6	3.90%	22.6	13.85%	12.7	7.97%	(17.0)	(17.0)	(17.0)	(7.0)	(7.0)	(7.0)	10.0
On-Airport Traffic																	
CTA Area																	
Traffic	20.5	14.67%	19.9	14.43%	20.2	14.07%	33.0	20.18%	23.7	14.89%	(12.5)	(13.1)	(12.7)	(3.2)	(3.7)	(3.4)	9.3
Parking	0.4	0.31%	0.4	0.27%	0.5	0.35%	0.9	0.57%	1.2	0.74%	(0.5)	(0.6)	(0.4)	(0.7)	(0.8)	(0.7)	(0.2)
CTA Area Subtotal	20.9	14.98%	20.3	14.69%	20.6	14.42%	33.9	20.74%	24.8	15.63%	(13.0)	(13.6)	(13.2)	(3.9)	(4.5)	(4.1)	9.1
West Terminal Area																	
Traffic	8.8	6.31%	8.5	6.17%	11.0	7.63%	0.0	0.00%	0.0	0.00%	8.8	8.5	11.0	8.8	8.5	11.0	0.0
Parking	0.2	0.15%	0.3	0.22%	0.2	0.15%	0.0	0.00%	0.0	0.00%	0.2	0.3	0.2	0.2	0.3	0.2	0.0
West Terminal Area	9.0	6.46%	8.8	6.39%	11.2	7.78%	0.0	0.00%	0.0	0.00%	9.0	8.8	11.2	9.0	8.8	11.2	0.0
Miscellaneous On-Airport Traffic																	
Cargo/Ancillary	6.6	4.75%	5.8	4.20%	9.8	6.83%	12.1	7.42%	16.5	10.39%	(6.5)	(6.3)	(2.3)	(9.9)	(10.7)	(6.7)	(4.4)
Acquisition Areas	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.4	0.23%	0.0	0.00%	(0.4)	(0.4)	(0.4)	0.0	0.0	0.0	0.4
LAX Northside/Continental City	0.2	0.16%	0.3	0.20%	0.2	0.12%	0.0	0.00%	0.0	0.00%	0.2	0.3	0.2	0.2	0.3	0.2	0.0
Westchester Southside	6.9	4.92%	6.1	4.40%	10.0	6.95%	12.5	7.66%	16.5	10.39%	(5.6)	(6.4)	(2.5)	(9.6)	(10.4)	(6.5)	(4.0)
Miscellaneous On-Airport Traffic	36.8	26.37%	35.2	25.49%	42.0	29.15%	46.4	28.40%	41.3	26.02%	(9.6)	(11.2)	(4.5)	(4.5)	(6.2)	0.8	5.1
On-Airport Traffic Subtotal	102.6	73.45%	100.9	73.12%	107.7	74.84%	129.3	79.13%	105.2	66.24%	(26.7)	(28.4)	(21.6)	(2.8)	(4.3)	2.8	24.1
MOBILE SUBTOTAL (LAX Local Area)	162.6	73.45%	100.9	73.12%	107.7	74.84%	129.3	79.13%	105.2	66.24%	(26.7)	(28.4)	(21.6)	(2.8)	(4.3)	2.8	24.1
STATIONARY:																	
Airport																	
Airline Maintenance	17.0	12.15%	17.0	12.29%	17.0	11.79%	16.9	10.31%	39.5	24.89%	0.1	0.1	0.1	(22.6)	(22.6)	(22.6)	(22.7)
Flight Kitchens	11.4	8.14%	11.4	8.24%	11.4	7.90%	10.9	6.69%	9.2	5.80%	0.4	0.4	0.4	2.2	2.2	2.2	1.7
Existing CUP/Boilers/Generators	1.2	0.85%	1.2	0.86%	1.2	0.82%	1.2	0.73%	1.2	0.77%	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)
West CUP	2.3	1.63%	2.3	1.65%	1.4	0.97%	0.0	0.00%	0.0	0.00%	2.3	2.3	1.4	2.3	2.3	1.4	0.0
Fuel Farm	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.1	0.09%	0.0	0.0	0.0	(0.1)	(0.1)	(0.1)	(0.1)
Aircraft Fueling	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Restaurants	4.3	3.09%	4.3	3.13%	4.3	3.00%	4.2	2.54%	3.5	2.21%	0.2	0.2	0.2	0.8	0.8	0.8	0.6
Engine Testing	1.0	0.70%	1.0	0.71%	1.0	0.66%	1.0	0.60%	0.0	0.00%	(0.0)	(0.0)	(0.0)	1.0	1.0	1.0	1.0
Airport Subtotal	37.1	26.55%	37.1	26.88%	36.2	25.16%	34.1	20.87%	53.6	33.76%	3.0	3.0	2.1	(16.5)	(16.5)	(17.4)	(18.5)
Collateral/Acquisition Areas (Nat. gas use)																	
Acquisition Areas	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAX Northside/Continental City	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Westchester Southside	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Collateral/Acquisition Areas Subtotal	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STATIONARY SUBTOTAL	37.1	26.55%	37.1	26.88%	36.2	25.16%	34.1	20.87%	53.6	33.76%	3.0	3.0	2.1	(16.5)	(16.5)	(17.4)	(18.5)
CONSTRUCTION SUBTOTAL **	875.0		999.0		908.0		69.0				806.0	930.0	836.0	875.0	999.0	905.0	69.0
**Subtotal is for construction which occurs in 2006 only.																	
GRAND TOTAL (LAX Local Area)**	139.7	100.0%	138.1	100.0%	143.9	100.0%	163.5	100.0%	158.9	100.0%	(23.7)	(25.4)	(18.5)	(19.1)	(20.8)	(14.9)	4.8
***Does not include construction.																	
Off-Airport Traffic (Unmitigated)																	
Tier 1 (included in SCAB)	42.7		41.9		41.5		45.3		30.5		(2.6)	(3.4)	(3.8)	12.2	11.4	11.0	14.8
South Coast Air Basin (SCAB)	371.4		383.6		380.4		252.5		269.8		118.9	131.1	127.9	101.6	113.8	110.6	(17.3)
Outside of SCAB	2.8		2.8		2.7		2.8		2.2		0.1	(0.0)	(0.1)	0.7	0.6	0.5	0.6
Off-Airport Traffic	374.3		386.4		383.1		255.3		272.0		119.0	131.1	127.8	102.3	114.4	111.1	(16.7)
UNMITIGATED MOBILE SUBTOTAL (Regional)	476.9		487.3		490.9		394.7		377.2		92.2	102.7	106.2	99.7	110.1	113.6	7.4
UNMITIGATED GRAND TOTAL (Regional)	514.0		524.5		527.1		418.8		430.9		95.2	105.7	108.3	83.1	93.8	96.2	(12.1)

Data revised 4/18/00 from M&S dated 3/27/00.

ESTIMATED ANNUAL NO_x EMISSIONS
ALTERNATIVES A, B, C, NO ACTION/NO PROJECT, & ENVIRONMENTAL BASELINE FOR 2015 (tons/year)
LAX Master Plan

Source Classification	Alternative A		Alternative B		Alternative C		No Project		1996 Baseline		Increase/ (Decrease) Alt. A vs NP	Increase/ (Decrease) Alt. B vs NP	Increase/ (Decrease) Alt. C vs NP	Increase/ (Decrease) Alt. A vs BASE	Increase/ (Decrease) Alt. B vs BASE	Increase/ (Decrease) Alt. C vs BASE	Increase/ (Decrease) NP vs BASE
	87.9 MAP		87.9 MAP		89.6 MAP		79.8 MAP		58.0 MAP		18.1	19.1	10.5	38.9	39.9	31.5	20.5
	TPV	%	TPV	%	TPV	%	TPV	%	TPV	%	TPV	TPV	TPV	TPV	TPV	TPV	TPV
MOBILE SOURCES:																	
Aircraft Operations																	
Approach	729.9	10.17%	729.9	10.04%	675.7	9.98%	578.7	8.14%	399.1	7.71%	153.2	153.2	99.0	330.8	330.8	276.6	177.6
Climbout	2,347.1	32.71%	2,347.1	32.28%	2,179.1	32.20%	1,806.1	26.63%	1,364.2	28.36%	541.0	541.0	373.0	982.9	982.9	814.9	441.9
Takeoff	2,230.4	31.08%	2,230.4	30.68%	2,072.7	30.63%	1,708.4	27.08%	1,319.9	25.33%	522.0	522.0	364.3	919.5	919.4	761.8	397.5
Taxi	791.9	11.04%	860.6	11.84%	893.8	13.06%	723.3	11.47%	488.6	9.45%	68.5	137.3	160.4	303.0	371.8	394.0	234.5
Queue	420.4	5.94%	443.4	6.10%	378.8	5.80%	340.4	5.40%	158.4	3.08%	86.0	103.0	38.4	267.9	284.9	220.3	191.9
Aircraft Operations Subtotal	6,525.7	90.95%	6,511.4	90.84%	6,190.0	91.47%	5,164.9	81.71%	3,721.6	71.61%	1,370.7	1,456.5	1,635.1	2,804.1	2,890.8	2,468.5	1,433.4
Aircraft Support																	
GSE	163.3	2.28%	163.7	2.25%	138.8	2.05%	618.7	9.81%	386.9	7.48%	(455.5)	(455.0)	(480.0)	(223.6)	(223.1)	(248.1)	231.9
APU	65.4	0.91%	85.3	0.90%	55.7	0.82%	53.8	0.85%	34.0	0.66%	11.7	11.6	2.0	31.4	31.4	21.6	19.8
Aircraft Support Subtotal	228.7	3.19%	229.0	3.15%	194.5	2.87%	672.5	10.66%	420.8	8.15%	(443.8)	(443.4)	(478.0)	(192.2)	(191.8)	(226.3)	251.7
On-Airport Traffic																	
CTA Area																	
Traffic	43.4	0.60%	48.2	0.66%	53.4	0.79%	160.3	2.54%	243.2	4.70%	(116.8)	(112.1)	(109.9)	(199.8)	(195.0)	(188.8)	(82.9)
Parking	9.6	0.13%	7.7	0.11%	8.8	0.13%	28.1	0.44%	53.1	1.03%	(18.4)	(20.4)	(19.4)	(43.4)	(45.4)	(44.5)	(25.0)
CTA Area Subtotal	53.0	0.74%	55.9	0.77%	62.0	0.92%	188.4	2.99%	296.3	5.73%	(135.3)	(132.5)	(129.3)	(243.2)	(240.4)	(233.3)	(107.9)
West Terminal Area																	
Traffic	58.7	0.82%	55.4	0.78%	39.5	0.58%	29.8	0.47%	0.00%	0.00%	29.1	25.8	9.9	58.7	55.4	39.5	29.6
Parking	9.0	0.13%	8.6	0.13%	8.3	0.12%	0.0	0.00%	0.00%	0.00%	9.0	9.6	8.3	9.0	8.6	8.3	0.0
West Terminal Area Subtotal	67.7	0.94%	65.0	0.89%	47.8	0.71%	29.8	0.47%	0.00%	0.00%	38.1	35.4	18.2	67.7	65.0	47.8	29.6
Miscellaneous On-Airport Traffic																	
Cargo/Andlary	64.8	0.90%	67.9	0.93%	64.0	0.95%	46.8	0.74%	138.2	2.67%	18.0	21.1	17.2	(73.4)	(70.3)	(74.2)	(91.4)
Acquisition Areas	0.0	0.00%	0.0	0.00%	0.0	0.00%	6.4	0.10%	0.0	0.00%	(6.4)	(6.4)	(8.4)	0.0	0.0	0.0	6.4
LAX Northside/Continental City	2.3	0.03%	2.3	0.03%	2.3	0.03%	0.0	0.00%	0.0	0.00%	2.3	2.3	2.3	2.3	2.3	2.3	0.0
Westchester Southside	67.1	0.94%	70.2	0.97%	66.3	0.98%	53.2	0.84%	138.2	2.67%	13.9	17.0	13.1	(71.1)	(68.0)	(71.9)	(65.0)
Miscellaneous On-Airport Traffic Subtotal	187.9	2.62%	191.1	2.63%	176.1	2.60%	271.1	4.30%	434.5	8.40%	(83.3)	(80.0)	(95.0)	(248.6)	(243.4)	(258.4)	(163.9)
MOBILE SUBTOTAL (LAX Local Area)	6,842.2	96.75%	7,031.5	96.71%	6,560.5	96.95%	6,098.5	96.67%	4,576.8	88.44%	843.7	933.0	462.1	2,365.4	2,454.7	1,983.8	1,521.7
STATIONARY:																	
Airport																	
Airline Maintenance	24.3	0.34%	24.3	0.33%	20.7	0.31%	20.3	0.32%	355.1	6.88%	3.9	3.9	0.4	(330.9)	(330.8)	(334.4)	(334.8)
Flight Kitchens	14.6	0.20%	14.6	0.20%	13.3	0.20%	11.7	0.19%	8.6	0.17%	2.8	2.8	1.6	5.9	5.9	4.7	3.1
Existing CUP/Boilers/Generators/CTs	39.4	0.55%	39.4	0.54%	38.4	0.58%	39.5	0.63%	111.2	2.15%	(0.0)	(0.0)	(0.0)	(71.8)	(71.8)	(71.8)	(71.8)
West CUP/CTs	2.0	0.03%	1.8	0.02%	1.1	0.02%	0.0	0.00%	0.00%	0.00%	2.0	1.8	1.1	2.0	1.8	1.1	0.0
Fuel Farm	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	2.0	0.04%	0.0	0.0	0.0	(2.0)	(2.0)	(2.0)	(2.0)
Aircraft Fueling	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Restaurants	4.8	0.07%	4.8	0.07%	4.4	0.06%	3.8	0.06%	2.8	0.05%	0.9	0.9	0.5	1.9	1.9	1.5	1.0
Engine Testing	142.8	1.99%	148.8	2.05%	122.5	1.81%	121.3	1.92%	118.4	2.29%	21.5	27.5	1.2	24.4	30.4	4.1	2.9
Airport Subtotal	227.8	3.18%	233.7	3.21%	201.4	2.98%	196.7	3.12%	598.2	11.56%	31.2	37.0	4.7	(370.4)	(364.6)	(396.8)	(401.6)
Collateral/Acquisition Areas (Nat. gas use)																	
Acquisition Areas	0.0	0.00%	0.0	0.00%	0.0	0.00%	13.2	0.21%	0.0	0.00%	(13.2)	(13.2)	(13.2)	0.0	0.0	0.0	13.2
LAX Northside/Continental City	5.2	0.07%	5.2	0.07%	5.2	0.08%	0.0	0.00%	0.0	0.00%	5.2	5.2	5.2	5.2	5.2	5.2	0.0
Westchester Southside	5.2	0.07%	5.2	0.07%	5.2	0.08%	13.2	0.21%	0.0	0.00%	(8.0)	(8.0)	(8.0)	5.2	5.2	5.2	13.2
Collateral/Acquisition Areas Subtotal	5.2	0.07%	5.2	0.07%	5.2	0.08%	13.2	0.21%	0.0	0.00%	(8.0)	(8.0)	(8.0)	5.2	5.2	5.2	13.2
STATIONARY SUBTOTAL	233.1	3.26%	238.9	3.29%	206.6	3.05%	209.9	3.33%	598.2	11.56%	23.2	29.0	(3.3)	(365.2)	(359.4)	(391.6)	(388.3)
CONSTRUCTION SUBTOTAL **	556.0		634.0		574.0		0.0		0.0		556.0	634.0	574.0	556.0	634.0	574.0	0.0
**Subtotal is for construction which occurs in 2015 only.																	
GRAND TOTAL (LAX Local Area)***	7,175.3	100.0%	7,270.4	100.0%	6,767.3	100.0%	6,308.4	100.0%	5,175.1	100.0%	866.8	961.9	458.8	2,000.2	2,095.3	1,592.2	1,133.4
***Does not include construction emissions.																	

Off-Airport Traffic (Unmitigated)																	
Tier I (included in SCAB)	659.8		660.0		678.7		596.3		373.1		63.3	63.7	82.4	286.5	286.9	305.6	223.2
South Coast Air Basin (SCAB)	4,661.1		4,669.8		4,672.6		3,767.8		2,556.2		853.3	902.0	904.8	2,104.9	2,113.6	2,116.4	1,211.6
Outside of SCAB	26.2		26.3		25.7		21.2		15.7		5.0	5.1	4.5	10.5	10.6	10.0	5.5
Off-Airport Traffic	4,687.3		4,696.1		4,698.3		3,789.0		2,571.9		898.3	907.1	909.3	2,115.4	2,124.2	2,126.4	1,217.7
UNMITIGATED MOBILE SUBTOTAL (Regional)	11,629.5		11,727.5		11,268.9		9,887.5		7,148.7		1,742.0	1,840.1	1,371.4	4,480.8	4,578.9	4,110.2	2,738.8
UNMITIGATED GRAND TOTAL (Regional)	11,862.6		11,966.5		11,485.6		10,087.4		7,747.0		1,785.1	1,869.0	1,368.1	4,415.6	4,219.5	3,718.6	2,950.5

Data revised 4/18/00 from files dated 3/27/00.

ESTIMATED ANNUAL HC (or VOC) EMISSIONS
ALTERNATIVES A, B, C, NO ACTION/NO PROJECT, & ENVIRONMENTAL BASELINE FOR 2015 (tons/year)
LAX Master Plan

Source Classification	Alternative A		Alternative B		Alternative C		No Project		1996 Baseline		Increase/ (Decrease) Alt. A vs NP	Increase/ (Decrease) Alt. B vs NP	Increase/ (Decrease) Alt. C vs NP	Increase/ (Decrease) Alt. A vs BASE	Increase/ (Decrease) Alt. B vs BASE	Increase/ (Decrease) Alt. C vs BASE	Increase/ (Decrease) NP vs BASE
	87.9 MAP	87.9 MAP	97.9 MAP	97.9 MAP	89.8 MAP	89.8 MAP	78.8 MAP	78.8 MAP	58.9 MAP	58.9 MAP	19.1	19.1	10.8	39.9	39.9	31.6	20.8
	TPY	%	TPY	%	TPY	%	TPY	%	TPY	%	TPY	TPY	TPY	TPY	TPY	TPY	TPY
MOBILE SOURCES:																	
Aircraft Operations																	
Approach	19.8	1.18%	19.8	1.12%	18.8	1.10%	16.7	0.93%	26.4	1.28%	3.1	3.1	2.1	(6.5)	(8.5)	(7.6)	(9.7)
Climb-out	11.8	0.70%	11.8	0.67%	11.3	0.66%	10.3	0.57%	17.8	0.86%	1.8	1.8	1.0	(8.0)	(6.0)	(6.5)	(7.6)
Takeoff	9.5	0.57%	9.5	0.54%	9.0	0.53%	8.2	0.46%	12.5	0.60%	1.4	1.3	0.9	(2.9)	(2.9)	(3.4)	(4.3)
Taxi	804.7	47.92%	870.8	49.24%	895.4	52.35%	784.9	44.43%	809.5	39.13%	8.8	75.9	100.5	(4.9)	61.3	86.9	(14.8)
Queue	433.3	25.75%	449.6	25.36%	383.7	22.43%	374.1	20.91%	282.4	12.68%	59.2	74.5	9.7	170.9	186.2	121.3	111.7
Aircraft Operations Subtotal	1,279.1	76.02%	1,360.8	76.93%	1,318.3	77.07%	1,204.1	67.30%	1,128.6	54.55%	75.0	156.5	114.7	150.5	232.0	165.7	75.5
Aircraft Support																	
GSE	106.9	6.35%	108.0	6.11%	91.8	5.37%	240.4	13.44%	198.3	9.58%	(133.5)	(132.4)	(149.5)	(91.4)	(90.2)	(108.4)	42.1
APU	5.3	0.31%	5.3	0.30%	4.8	0.28%	4.4	0.25%	3.9	0.19%	0.9	0.9	0.4	1.4	1.4	0.9	0.5
Aircraft Support Subtotal	112.2	6.67%	113.3	6.41%	96.6	5.65%	244.8	13.68%	202.1	9.77%	(132.6)	(131.5)	(149.2)	(90.0)	(88.8)	(105.5)	42.7
On-Airport Traffic																	
CTA Area																	
Traffic	26.1	1.55%	29.3	1.68%	42.6	2.49%	117.9	6.59%	300.9	14.54%	(91.8)	(88.6)	(76.3)	(274.8)	(271.6)	(258.3)	(183.0)
Parking	37.9	2.25%	27.5	1.55%	34.6	2.02%	65.2	3.64%	207.5	10.03%	(27.3)	(37.7)	(30.6)	(169.6)	(180.0)	(172.9)	(142.3)
CTA Area Subtotal	64.0	3.80%	56.8	3.21%	77.2	4.51%	183.1	10.23%	508.4	24.57%	(119.1)	(126.3)	(106.9)	(444.4)	(451.6)	(431.2)	(325.3)
West Terminal Area																	
Traffic	29.8	1.77%	27.1	1.53%	20.8	1.20%	14.2	0.79%	0.00%	0.00%	15.6	12.9	6.4	29.8	27.1	20.8	14.2
Parking	40.9	2.43%	54.2	3.07%	49.8	2.92%	0.0	0.00%	0.00%	0.00%	40.9	54.2	49.8	54.2	49.8	49.8	0.0
West Terminal Area	70.7	4.20%	81.3	4.60%	70.6	4.12%	14.2	0.79%	0.0	0.00%	56.5	67.1	55.3	70.7	81.3	70.5	14.2
Miscellaneous On-Airport Traffic																	
Cargo/Anchorage	51.4	3.05%	51.4	2.91%	51.0	2.98%	48.5	2.72%	86.5	4.18%	2.8	2.8	2.4	(35.1)	(35.1)	(35.5)	(37.9)
Acquisition Areas	0.0	0.00%	0.0	0.00%	0.0	0.00%	3.8	0.21%	0.0	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAX Northside/Continental City	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	(3.8)	(3.8)	(3.8)	0.0	0.0	0.0	3.8
Westchester Southside	1.4	0.08%	1.4	0.08%	1.4	0.08%	0.0	0.00%	0.0	0.00%	1.4	1.4	1.4	1.4	1.4	1.4	0.0
Miscellaneous On-Airport Traffic	52.8	3.14%	52.8	2.99%	52.4	3.06%	52.4	2.93%	86.5	4.18%	0.4	0.4	0.0	(33.7)	(33.7)	(34.1)	(34.1)
On-Airport Traffic Subtotal	187.5	11.14%	190.9	10.79%	200.1	11.70%	249.7	13.96%	594.9	28.75%	(62.2)	(58.6)	(49.6)	(407.4)	(404.0)	(384.8)	(345.2)
MOBILE SUBTOTAL (LAX Local Area)	1,578.8	93.83%	1,664.8	94.13%	1,614.9	94.41%	1,598.6	94.94%	1,925.6	83.07%	(119.9)	(33.9)	(83.7)	(346.5)	(260.8)	(310.7)	(227.0)
STATIONARY:																	
Airport																	
Airline Maintenance	25.9	1.54%	25.9	1.46%	22.1	1.29%	21.7	1.21%	62.5	3.02%	4.2	4.2	0.4	(36.6)	(36.6)	(40.4)	(40.8)
Flight Kitchens	6.0	0.36%	6.0	0.34%	5.5	0.32%	4.8	0.27%	3.6	0.17%	1.2	1.2	0.7	2.5	2.5	1.9	1.3
Existing CUP/Boilers/Generators	18.0	1.07%	18.0	1.02%	18.0	1.05%	18.0	1.00%	18.0	0.87%	0.0	0.0	0.0	(0.0)	(0.0)	(0.0)	(0.0)
West CUP	1.8	0.11%	1.6	0.09%	0.9	0.05%	0.0	0.00%	0.00%	0.00%	1.8	1.8	0.9	1.8	1.6	0.9	0.0
Fuel Farm	4.1	0.24%	4.1	0.23%	4.4	0.26%	4.8	0.26%	8.0	0.39%	(0.6)	(0.6)	(0.6)	(4.0)	(3.6)	(3.6)	(3.4)
Aircraft Fueling	40.7	2.42%	40.7	2.30%	38.1	2.23%	34.9	1.95%	24.4	1.18%	5.8	5.8	3.3	16.3	16.3	13.7	10.4
Restaurants	3.3	0.19%	3.3	0.19%	3.0	0.18%	2.8	0.15%	1.9	0.09%	0.6	0.6	0.4	1.3	1.3	1.1	0.7
Engine Testing	3.9	0.23%	4.1	0.23%	3.3	0.20%	3.3	0.19%	25.0	1.21%	0.6	0.6	0.0	(21.1)	(20.6)	(21.7)	(21.7)
Airport Subtotal	103.8	6.18%	103.8	5.86%	95.3	5.57%	89.9	5.03%	143.4	6.93%	13.7	13.8	5.4	(39.8)	(39.8)	(48.0)	(53.4)
Collateral/Acquisition Areas (Nat. gas use)																	
Acquisition Areas	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.6	0.03%	0.0	0.00%	(0.6)	(0.6)	(0.6)	0.0	0.0	0.0	0.6
LAX Northside/Continental City	0.2	0.01%	0.2	0.01%	0.2	0.01%	0.0	0.00%	0.0	0.00%	0.2	0.2	0.2	0.2	0.2	0.2	0.0
Westchester Southside	0.2	0.01%	0.2	0.01%	0.2	0.01%	0.6	0.03%	0.0	0.00%	(0.4)	(0.4)	(0.4)	0.2	0.2	0.2	0.6
Collateral/Acquisition Areas Subtotal	0.2	0.01%	0.2	0.01%	0.2	0.01%	0.6	0.03%	0.0	0.00%	(0.4)	(0.4)	(0.4)	0.2	0.2	0.2	0.6
STATIONARY SUBTOTAL	103.8	6.17%	103.8	5.87%	95.5	5.59%	90.5	5.06%	143.4	6.93%	13.3	13.3	5.0	(39.5)	(39.6)	(47.8)	(52.8)
CONSTRUCTION SUBTOTAL**	126.0		142.0		128.0		0.0		0.0		126.0	142.0	128.0	126.0	142.0	128.0	0.0
**Subtotal is for construction which occurs in 2015 only.																	
GRAND TOTAL (LAX Local Area)***	1,682.5	100.0%	1,788.6	100.0%	1,710.5	100.0%	1,789.2	100.0%	2,069.0	100.0%	(106.6)	(20.6)	(78.7)	(386.4)	(300.4)	(358.5)	(279.8)
***Does not include construction emissions.																	
Off-Airport Traffic (Unmitigated)																	
Tier I (included in SCAB)	5,239.7		5,175.4		5,131.4		5,043.7		2,859.9		198.0	131.7	87.7	2,379.8	2,315.5	2,271.5	2,183.8
South Coast Air Basin (SCAB)	5,061.1		4,963.1		4,876.5		4,510.2		4,988.3		550.9	452.9	366.3	4,092.8	3,994.8	3,908.2	3,541.9
Outside of SCAB	29.3		29.1		29.1		25.5		17.1		3.8	3.6	3.6	12.2	12.0	12.0	8.4
Off-Airport Traffic	10,330.1		10,167.6		10,036.0		9,579.4		7,865.3		552.7	488.2	357.6	4,484.8	4,322.3	4,291.5	3,733.1
UNMITIGATED MOBILE SUBTOTAL (Regional)	10,689.2		10,657.0		10,520.5		10,234.3		6,911.0		434.8	422.6	286.2	3,758.1	3,746.8	3,609.5	3,323.3
UNMITIGATED GRAND TOTAL (Regional)	10,899.0		10,802.8		10,745.1		10,324.9		7,064.4		574.1	577.9	420.2	3,844.8	3,848.4	3,690.7	3,270.5

Data revised 4/18/00 from files dated 3/27/00.

ESTIMATED ANNUAL CO EMISSIONS
ALTERNATIVES A, B, C, NO ACTION/NO PROJECT, & ENVIRONMENTAL BASELINE FOR 2015 (tons/year)
LAX Master Plan

	Alternative A 97.9 MAP		Alternative B 97.9 MAP		Alternative C 89.6 MAP		No Project 79.8 MAP		1996 Baseline 58.0 MAP		Increase/ (Decrease) Alt. A vs NP	Increase/ (Decrease) Alt. B vs NP	Increase/ (Decrease) Alt. C vs NP	Increase/ (Decrease) Alt. A vs BASE	Increase/ (Decrease) Alt. B vs BASE	Increase/ (Decrease) Alt. C vs BASE	Increase/ (Decrease) NP vs BASE
	TPY	%	TPY	%	TPY	%	TPY	%	TPY	%	TPY	TPY	TPY	TPY	TPY	TPY	TPY
Source Classification																	
MOBILE SOURCES:																	
Aircraft Operations																	
Approach	174.2	1.58%	174.2	1.51%	160.4	1.44%	151.0	1.04%	133.7	0.81%	23.2	23.2	9.4	40.5	40.5	28.7	17.3
Climbout	52.2	0.47%	52.2	0.45%	48.2	0.43%	45.0	0.31%	43.7	0.26%	7.2	7.2	3.1	8.5	8.5	4.5	1.4
Takeoff	34.0	0.31%	34.0	0.30%	31.4	0.28%	29.1	0.20%	30.4	0.18%	4.8	4.9	2.3	3.6	3.6	1.0	(1.2)
Taxi	4,601.3	41.78%	4,998.4	43.45%	5,190.9	46.60%	4,381.6	30.16%	3,502.8	21.11%	218.7	614.8	808.3	1,088.5	1,493.6	1,688.1	878.8
Queue	2,477.6	22.49%	2,573.9	22.38%	2,224.7	19.97%	2,061.9	14.19%	1,135.3	6.84%	415.7	512.0	162.7	1,342.3	1,438.6	1,089.3	926.6
Aircraft Operations Subtotal	7,339.3	66.63%	7,630.7	68.09%	7,855.6	68.72%	6,668.7	45.90%	4,845.9	29.21%	670.6	1,162.0	986.9	2,483.4	2,984.8	2,808.7	1,822.8
Aircraft Support																	
CSE	1,911.5	17.35%	1,892.6	16.46%	1,623.5	14.57%	5,685.9	39.13%	5,702.0	34.37%	(3,774.3)	(3,783.3)	(4,062.4)	(3,790.5)	(3,809.4)	(4,078.5)	(16.2)
APU	118.5	1.08%	118.5	1.03%	109.3	0.97%	98.7	0.68%	77.8	0.47%	19.8	19.7	9.8	41.0	40.9	30.8	21.2
Aircraft Support Subtotal	2,030.0	18.43%	2,011.1	17.49%	1,732.8	15.55%	5,784.6	39.81%	5,779.6	34.84%	(3,754.6)	(3,773.5)	(4,052.8)	(3,749.5)	(3,788.5)	(4,047.8)	5.0
On-Airport Traffic																	
CTA Area																	
Traffic	332.0	3.01%	355.8	3.09%	543.0	4.87%	1,209.8	8.33%	3,794.9	22.88%	(877.8)	(854.0)	(666.8)	(3,462.9)	(3,439.1)	(3,251.9)	(2,595.1)
Parking	146.6	1.33%	110.9	0.96%	140.1	1.26%	262.2	1.80%	1,155.6	6.97%	(115.6)	(151.3)	(122.1)	(1,009.0)	(1,044.7)	(1,015.5)	(893.4)
CTA Area Subtotal	478.6	4.35%	466.7	4.06%	683.1	6.13%	1,472.0	10.13%	4,950.5	29.84%	(993.4)	(1,005.3)	(788.9)	(4,471.9)	(4,483.8)	(4,267.4)	(3,478.5)
West Terminal Area																	
Traffic	461.1	4.19%	440.1	3.83%	359.0	3.22%	117.1	0.81%		0.00%	344.0	323.0	241.9	461.1	440.1	359.0	117.1
Parking	178.1	1.62%	224.0	1.95%	201.3	1.81%	0.0	0.00%		0.00%	178.1	224.0	201.3	178.1	224.0	201.3	0.0
West Terminal Area	639.2	5.80%	664.1	5.77%	560.3	5.03%	117.1	0.81%	0.0	0.00%	522.1	547.0	443.2	639.2	664.1	560.3	117.1
Miscellaneous On-Airport Traffic																	
Cargo/Ancillary	364.3	3.31%	385.0	3.17%	350.6	3.24%	302.9	2.08%	720.5	4.34%	61.4	62.1	57.7	(356.2)	(355.5)	(359.9)	(417.6)
Acquisition Areas	0.0	0.00%	0.0	0.00%	0.0	0.00%	69.1	0.48%	0.0	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAX Northside/Continental City	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	(69.1)	(69.1)	(69.1)	0.0	0.0	0.0	69.1
Westchester Southside	24.9	0.23%	24.9	0.22%	24.9	0.22%	0.0	0.00%	0.0	0.00%	24.9	24.9	24.9	24.9	24.9	24.9	0.0
Miscellaneous On-Airport Traffic	389.2	3.53%	389.8	3.39%	385.5	3.46%	372.0	2.56%	720.5	4.34%	17.2	17.8	13.5	(331.4)	(330.7)	(335.1)	(348.5)
On-Airport Traffic Subtotal	1,507.6	13.68%	1,520.7	13.22%	1,628.9	14.62%	1,961.7	13.50%	5,671.0	34.18%	(464.1)	(446.4)	(332.2)	(4,164.0)	(4,150.3)	(4,042.1)	(3,709.9)
MOBILE SUBTOTAL (LAX Local Area)	10,876.3	98.75%	11,392.4	98.80%	11,016.2	98.89%	14,414.4	89.20%	16,296.5	98.24%	(3,538.1)	(3,052.0)	(3,398.2)	(5,420.1)	(4,834.0)	(5,280.2)	(1,882.0)
STATIONARY:																	
Airport																	
Airline Maintenance	19.7	0.18%	18.7	0.17%	16.8	0.15%	15.5	0.11%	167.8	1.01%	3.2	3.2	0.3	(148.1)	(148.1)	(151.0)	(151.3)
Flight Kitchens	13.5	0.12%	13.5	0.12%	12.4	0.11%	10.9	0.07%	8.0	0.05%	2.6	2.6	1.5	5.5	5.5	4.4	2.9
Existing CUP/Boilers/Generators	57.9	0.53%	57.9	0.50%	57.9	0.52%	57.9	0.40%	58.0	0.35%	0.0	0.0	0.0	(0.1)	(0.1)	(0.1)	(0.1)
Fuel Farm	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Aircraft Fueling	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.4	0.00%	0.0	0.0	0.0	(0.4)	(0.4)	(0.4)	(0.4)
West CUP	12.3	0.11%	11.0	0.10%	6.4	0.06%	0.0	0.00%	0.0	0.00%	12.3	11.0	6.4	12.3	11.0	6.4	0.0
Restaurants	8.5	0.08%	8.5	0.07%	7.8	0.07%	6.9	0.05%	5.0	0.03%	1.7	1.7	0.9	3.5	3.5	2.8	1.8
Engine Testing	25.3	0.23%	28.4	0.23%	21.7	0.19%	21.5	0.15%	53.5	0.32%	3.8	4.9	0.2	(28.2)	(27.1)	(31.8)	(32.0)
Airport Subtotal	137.2	1.25%	137.0	1.19%	122.9	1.10%	113.6	0.78%	292.7	1.78%	23.6	23.3	9.3	(159.5)	(159.8)	(169.6)	(179.1)
Collateral/Acquisition Areas (Net gas use)																	
Acquisition Areas	0.0	0.00%	0.0	0.00%	0.0	0.00%	2.2	0.02%	0.0	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAX Northside/Continental City	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	(2.2)	(2.2)	(2.2)	0.0	0.0	0.0	2.2
Westchester Southside	0.9	0.01%	0.9	0.01%	0.9	0.01%	0.0	0.00%	0.0	0.00%	0.9	0.9	0.9	0.9	0.9	0.9	0.0
Collateral/Acquisition Areas Subtotal	0.9	0.01%	0.9	0.01%	0.9	0.01%	2.2	0.02%	0.0	0.00%	(1.3)	(1.3)	(1.3)	0.9	0.9	0.9	2.2
STATIONARY SUBTOTAL	138.1	1.25%	137.8	1.20%	123.8	1.11%	115.8	0.80%	292.7	1.76%	22.3	22.0	8.0	(154.6)	(154.9)	(168.9)	(176.9)
CONSTRUCTION SUBTOTAL**	635.0		745.0		675.0		0.0		0.0		635.0	745.0	675.0	635.0	745.0	675.0	0.0
**Subtotal is for construction which occurs in 2015 only.																	
GRAND TOTAL (LAX Local Area)***	11,014.4	100.0%	11,500.3	100.0%	11,140.0	100.0%	14,530.2	100.0%	16,589.2	100.0%	(3,515.8)	(3,030.0)	(3,390.2)	(5,574.8)	(5,088.9)	(5,449.1)	(2,058.9)
***Does not include construction emissions.																	

Off-Airport Traffic (Unmitigated)																	
Tier 1 (Included in SCAB)	4,659.2		4,640.8		4,672.7		4,425.2		2,525.3		233.0	215.6	247.5	2,132.9	2,115.5	2,147.4	1,899.9
South Coast Air Basin (SCAB)	25,239.1		25,158.9		25,071.3		20,644.5		13,147.9		4,594.6	4,514.4	4,426.8	12,091.2	12,011.0	11,923.4	7,496.6
Outside of SCAB	326.9		329.0		321.7		253.3		182.6		75.6	75.7	68.4	146.3	146.4	139.1	70.7
Off-Airport Traffic	25,565.0		25,469.9		25,393.0		20,897.8		13,330.5		4,670.2	4,590.1	4,492.2	12,237.6	12,157.4	12,062.5	7,567.3
UNMITIGATED MOBILE SUBTOTAL (Regional)	36,444.3		36,450.3		36,409.2		35,312.2		29,627.0		1,132.1	1,538.1	1,097.0	6,817.4	7,223.4	6,782.3	5,685.3
UNMITIGATED GRAND TOTAL (Regional)	37,217.4		37,733.2		37,208.0		35,426.0		29,919.7		1,789.4	2,305.1	1,780.0	7,297.7	7,813.5	7,288.4	5,508.4

Data revised 4/18/00 from files dated 3/27/00.

**ESTIMATED ANNUAL SO₂ EMISSIONS
ALTERNATIVES A, B, C, NO ACTION/NO PROJECT, & ENVIRONMENTAL BASELINE FOR 2015 (tons/year)
LAX Master Plan**

	Alternative A		Alternative B		Alternative C		No Project		1996 Baseline		Increase/ (Decrease) Alt. A vs NP	Increase/ (Decrease) Alt. B vs NP	Increase/ (Decrease) Alt. C vs NP	Increase/ (Decrease) Alt. A vs BASE	Increase/ (Decrease) Alt. B vs BASE	Increase/ (Decrease) Alt. C vs BASE	Increase/ (Decrease) NP vs BASE
	97.5 MAP		87.6 MAP		89.6 MAP		73.6 MAP		58.0 MAP		19.1	19.1	10.5	38.9	38.9	31.6	20.5
Source Classification	TPY	%	TPY	%	TPY	%	TPY	%	TPY	%	TPY	TPY	TPY	TPY	TPY	TPY	TPY
MOBILE SOURCES:																	
Aircraft Operations																	
Approach	37.3	13.04%	37.3	12.57%	34.5	12.20%	30.2	11.97%	22.9	12.51%	7.2	7.2	4.4	14.4	14.4	11.6	7.3
Climbout	50.7	17.71%	50.7	17.06%	47.1	16.85%	40.1	15.81%	30.7	16.77%	10.6	10.6	7.0	20.0	20.0	16.4	9.4
Takeoff	38.1	13.31%	38.1	12.83%	35.5	12.54%	30.1	11.94%	23.2	12.69%	8.0	8.0	5.4	14.9	14.9	12.3	6.9
Taxi	96.7	33.81%	105.2	35.42%	108.8	38.46%	89.9	35.66%	67.2	36.75%	6.9	15.3	18.9	29.5	38.0	41.6	22.6
Queue	52.1	18.20%	54.2	18.24%	46.6	16.48%	42.3	16.78%	21.8	11.81%	9.9	11.9	4.3	30.3	32.4	24.6	20.5
Aircraft Operations Subtotal	274.9	96.07%	285.4	96.11%	272.5	96.33%	232.5	92.25%	165.8	90.53%	42.5	53.0	40.1	109.1	119.7	106.7	66.7
Aircraft Support																	
GSE	1.8	0.64%	1.8	0.61%	1.5	0.55%	1.4	0.52%	8.1	4.42%	(9.6)	(9.6)	(9.9)	(6.3)	(6.3)	(6.5)	3.3
APU	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Aircraft Support Subtotal	1.8	0.64%	1.8	0.61%	1.5	0.55%	1.4	0.52%	8.1	4.42%	(9.6)	(9.6)	(9.9)	(6.3)	(6.3)	(6.5)	3.3
On-Airport Traffic																	
CTA Area																	
Traffic	0.6	0.22%	0.7	0.23%	0.9	0.32%	1.7	0.66%	1.4	0.75%	(1.0)	(1.0)	(0.7)	(0.7)	(0.7)	(0.5)	0.3
Parking	0.1	0.03%	0.1	0.02%	0.1	0.03%	0.2	0.08%	0.2	0.10%	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.0)
CTA Area Subtotal	0.7	0.24%	0.7	0.25%	1.0	0.35%	1.8	0.72%	1.5	0.84%	(1.1)	(1.1)	(0.8)	(0.8)	(0.8)	(0.5)	0.3
West Terminal Area																	
Traffic	1.2	0.43%	1.2	0.42%	1.4	0.49%	0.2	0.09%	0.0	0.00%	1.0	1.0	1.2	1.2	1.2	1.4	0.2
Parking	0.1	0.04%	0.1	0.04%	0.1	0.04%	0.0	0.00%	0.0	0.00%	0.1	0.1	0.1	0.1	0.1	0.1	0.0
West Terminal Area	1.4	0.47%	1.4	0.46%	1.5	0.53%	0.2	0.09%	0.0	0.00%	1.1	1.2	1.3	1.4	1.4	1.5	0.2
Miscellaneous On-Airport Traffic																	
Cargo/Ancillary	0.4	0.14%	0.4	0.15%	0.4	0.14%	0.3	0.12%	0.4	0.21%	0.1	0.1	0.1	0.0	0.1	0.0	(0.1)
Acquisition Areas	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAX Northside/Continental City	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Westchester Southside	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Miscellaneous On-Airport Traffic	0.4	0.14%	0.4	0.15%	0.4	0.14%	0.3	0.12%	0.4	0.21%	0.1	0.1	0.1	0.0	0.1	0.0	(0.1)
On-Airport Traffic Subtotal	2.5	0.86%	2.6	0.86%	2.9	1.02%	2.3	0.83%	1.9	1.05%	0.1	0.2	0.5	0.6	0.6	1.0	0.4
MOBILE SUBTOTAL (LAX Local Area)	279.2	97.56%	289.8	97.68%	277.0	97.90%	246.2	97.71%	176.8	96.10%	33.0	43.6	30.8	103.4	114.0	107.2	70.4
STATIONARY:																	
Airport																	
Airline Maintenance	0.2	0.08%	0.2	0.08%	0.2	0.07%	0.2	0.08%	6.7	3.66%	0.0	0.0	0.0	(6.5)	(6.5)	(6.5)	(6.5)
Flight Kitchens	0.1	0.03%	0.1	0.03%	0.1	0.02%	0.1	0.02%	0.0	0.03%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Existing CUP/Boilers/Generators	0.3	0.11%	0.3	0.11%	0.3	0.11%	0.3	0.13%	0.3	0.18%	0.0	0.0	0.0	(0.0)	(0.0)	(0.0)	(0.0)
Fuel Farm	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Aircraft Fueling	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.0	0.0	(0.0)	(0.0)	(0.0)	(0.0)
West CUP	0.2	0.07%	0.2	0.08%	0.1	0.04%	0.0	0.00%	0.0	0.00%	0.2	0.2	0.1	0.2	0.2	0.1	0.0
Restaurants	0.1	0.02%	0.1	0.02%	0.0	0.01%	0.0	0.02%	0.0	0.02%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Engine Testing	6.1	2.12%	6.3	2.13%	5.2	1.84%	5.2	2.05%	0.0	0.00%	0.9	1.2	0.0	6.1	6.3	5.2	5.2
Airport Subtotal	7.0	2.44%	7.2	2.42%	6.0	2.10%	5.8	2.29%	7.1	3.90%	1.2	1.4	0.2	(0.2)	0.1	(1.2)	(1.3)
Collateral/Acquisition Areas (Nat. use only)																	
Acquisition Areas	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAX Northside/Continental City	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Westchester Southside	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Collateral/Acquisition Areas Subtotal	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STATIONARY SUBTOTAL	7.0	2.44%	7.2	2.42%	6.0	2.10%	5.8	2.29%	7.1	3.90%	1.2	1.4	0.2	(0.2)	0.1	(1.2)	(1.3)
CONSTRUCTION SUBTOTAL**											0.9	0.9	0.0	0.0	0.0	0.0	0.0
**Subtotal is for construction which occurs in 2015 only.																	
GRAND TOTAL (LAX Local Area)***	286.2	100.0%	297.0	100.0%	282.9	100.0%	252.0	100.0%	182.9	100.0%	34.2	45.0	30.9	103.2	114.1	102.0	69.0
***Does not include construction emissions.																	
Off-Airport Traffic (Unmitigated)																	
Tier 1 (Included in SCAB)	31.6		31.6		29.5		27.2		17.3		4.4	4.6	2.3	14.3	14.5	12.2	6.9
South Coast Air Basin (SCAB)	221.6		222.5		203.9		176.5		120.0		45.1	46.0	27.4	101.6	102.5	83.9	56.5
Outside of SCAB	1.6		1.5		1.5		1.3		0.9		0.3	0.2	0.2	0.7	0.6	0.6	0.4
Off-Airport Traffic	223.2		224.0		205.4		177.8		120.9		45.4	46.2	27.6	102.3	103.1	84.5	56.9
UNMITIGATED MOBILE SUBTOTAL (Regional)	502.4		513.8		482.4		424.0		296.7		78.4	89.8	58.4	206.7	217.1	185.7	127.3
UNMITIGATED GRAND TOTAL (Regional)	509.4		521.0		488.3		429.8		303.8		79.6	91.2	58.5	205.5	217.2	184.5	125.9

Data revised 4/18/00 from files dated 3/27/00.

**ESTIMATED ANNUAL PM10 EMISSIONS
ALTERNATIVES A, B, C, NO ACTION/NO PROJECT, & ENVIRONMENTAL BASELINE FOR 2015 (tons/year)
LAX Master Plan**

	Alternative A		Alternative B		Alternative C		No Project		1995 Baseline		Increase/ (Decrease) Alt. A vs NP	Increase/ (Decrease) Alt. B vs NP	Increase/ (Decrease) Alt. C vs NP	Increase/ (Decrease) Alt. A vs BASE	Increase/ (Decrease) Alt. B vs BASE	Increase/ (Decrease) Alt. C vs BASE	Increase/ (Decrease) NP vs BASE
	97.9 MAP		97.9 MAP		99.8 MAP		78.8 MAP		58.0 MAP		18.1	18.1	10.8	39.9	39.9	31.8	20.5
	TPY	%	TPY	%	TPY	%	TPY	%	TPY	%	TPY	TPY	TPY	TPY	TPY	TPY	TPY
Source Classification																	
MOBILE SOURCES:																	
Aircraft Operations																	
Approach	9.1	5.27%	9.1	5.18%	8.4	5.03%	12.3	7.08%	5.5	3.47%	(3.2)	(3.2)	(3.9)	3.6	3.6	2.9	6.7
Climbout	21.6	12.53%	21.6	12.31%	19.8	11.90%	17.5	10.09%	14.5	8.14%	4.1	4.1	2.3	7.1	7.1	5.3	2.9
Takeoff	18.8	10.90%	18.8	10.70%	17.3	10.38%	15.3	8.82%	13.0	8.20%	3.5	3.5	2.0	5.8	5.8	4.3	2.2
Taxi	18.8	10.90%	20.5	11.70%	21.3	12.78%	17.8	10.29%	13.8	8.72%	1.0	2.7	3.4	4.9	6.7	7.4	4.0
Queue	8.4	5.44%	9.6	5.45%	7.8	4.66%	7.4	4.27%	4.3	2.72%	2.0	2.2	0.4	5.1	5.3	3.4	3.1
Aircraft Operations Subtotal	77.6	46.04%	79.6	45.34%	74.5	44.74%	70.2	40.55%	51.2	32.25%	7.4	9.3	4.2	26.4	26.3	23.2	19.0
Aircraft Support																	
GSE	1.0	0.58%	1.0	0.57%	1.0	0.60%	24.0	13.88%	12.7	7.97%	(23.0)	(23.0)	(23.0)	(11.7)	(11.7)	(11.7)	11.3
APU	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Aircraft Support Subtotal	1.0	0.58%	1.0	0.57%	1.0	0.60%	24.0	13.88%	12.7	7.97%	(23.0)	(23.0)	(23.0)	(11.7)	(11.7)	(11.7)	11.3
On-Airport Traffic																	
CTA Area																	
Traffic	13.2	7.66%	13.8	7.87%	19.3	11.80%	33.0	19.06%	23.7	14.89%	(19.8)	(19.2)	(13.7)	(10.5)	(9.9)	(4.4)	9.3
Parking	0.3	0.17%	0.2	0.13%	0.3	0.17%	0.7	0.38%	1.2	0.74%	(0.4)	(0.4)	(0.4)	(0.9)	(0.9)	(0.9)	(0.5)
CTA Area Subtotal	13.5	7.82%	14.0	8.00%	19.6	11.77%	33.7	19.44%	24.9	15.63%	(20.2)	(19.6)	(14.1)	(11.3)	(10.8)	(5.2)	8.8
West Terminal Area																	
Traffic	26.1	15.14%	26.7	15.22%	24.0	14.42%	3.2	1.85%	0.0	0.00%	22.9	23.5	20.8	26.1	26.7	24.0	3.2
Parking	0.4	0.25%	0.5	0.28%	0.4	0.25%	0.0	0.00%	0.0	0.00%	0.4	0.5	0.4	0.4	0.5	0.4	0.0
West Terminal Area	26.5	15.40%	27.2	15.50%	24.4	14.67%	3.2	1.85%	0.0	0.00%	23.3	24.0	21.2	26.5	27.2	24.4	3.2
Miscellaneous On-Airport Traffic																	
Cargo/Ancillary	5.9	3.40%	6.2	3.51%	5.7	3.42%	4.7	2.73%	18.5	10.39%	1.1	1.4	1.0	(10.6)	(10.3)	(10.8)	(11.8)
Acquisition Areas	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.8	0.49%	0.0	0.00%	(0.8)	(0.8)	(0.8)	0.0	0.0	0.0	0.8
LAX Northside/Continental City	0.3	0.18%	0.3	0.17%	0.3	0.18%	0.0	0.00%	0.0	0.00%	0.3	0.3	0.3	0.3	0.3	0.3	0.0
Westchester Southside	6.2	3.59%	6.5	3.68%	6.0	3.61%	5.8	3.21%	18.5	10.39%	0.6	0.9	0.4	(10.3)	(10.0)	(10.5)	(10.9)
Miscellaneous On-Airport Traffic	12.4	7.24%	13.0	7.36%	12.0	7.21%	10.5	6.04%	19.0	11.78%	1.0	1.6	1.7	(10.0)	(9.7)	(10.1)	(11.6)
On-Airport Traffic Subtotal	46.2	26.80%	47.7	27.18%	50.0	30.06%	47.4	24.50%	41.3	26.02%	3.8	5.3	7.6	4.9	6.4	8.7	1.1
MOBILE SUBTOTAL (LAX Local Area)	124.8	72.42%	128.2	73.09%	125.5	75.59%	136.6	78.91%	105.2	66.24%	(11.8)	(8.4)	(11.2)	19.6	23.0	20.2	31.4
STATIONARY:																	
Airport																	
Airline Maintenance	20.2	11.73%	20.2	11.53%	17.2	10.36%	18.9	9.78%	39.5	24.89%	3.3	3.3	0.3	(19.3)	(19.3)	(22.3)	(22.9)
Flight Kitchens	15.8	8.06%	15.6	8.90%	14.3	8.80%	12.6	7.27%	9.2	5.80%	3.0	3.0	1.7	6.4	6.4	5.1	3.4
Existing CUP/Bollers/Generators	1.2	0.69%	1.2	0.68%	1.2	0.72%	1.2	0.69%	1.2	0.77%	0.0	0.0	0.0	(0.0)	(0.0)	(0.0)	(0.0)
Fuel Farm	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Aircraft Fueling	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.1	0.09%	0.0	0.0	0.0	(0.1)	(0.1)	(0.1)	(0.1)
West CUP	3.4	1.98%	3.0	1.72%	1.8	1.05%	0.0	0.00%	0.0	0.00%	3.4	3.0	1.8	3.4	3.0	1.8	0.0
Restaurants	5.9	3.45%	5.9	3.39%	5.4	3.27%	4.8	2.76%	3.5	2.21%	1.2	1.2	0.7	2.4	2.4	1.9	1.3
Engine Testing	1.2	0.68%	1.2	0.69%	1.0	0.61%	1.0	0.58%	0.0	0.00%	0.2	0.2	0.0	1.2	1.2	1.0	1.0
Airport Subtotal	47.8	27.57%	47.2	26.90%	40.9	24.60%	36.5	21.08%	53.6	33.75%	11.0	10.7	4.4	(6.1)	(6.4)	(12.7)	(17.1)
Collateral/Acquisition Areas (Nat. gas use)																	
Acquisition Areas	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.01%	0.0	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAX Northside/Continental City	0.0	0.00%	0.0	0.00%	0.0	0.01%	0.0	0.00%	0.0	0.00%	(0.0)	(0.0)	(0.0)	0.0	0.0	0.0	0.0
Westchester Southside	0.0	0.00%	0.0	0.00%	0.0	0.01%	0.0	0.01%	0.0	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Collateral/Acquisition Areas Subtotal	0.0	0.00%	0.0	0.00%	0.0	0.01%	0.0	0.01%	0.0	0.00%	(0.0)	(0.0)	(0.0)	0.0	0.0	0.0	0.0
STATIONARY SUBTOTAL	47.8	27.58%	47.2	26.91%	40.9	24.61%	36.5	21.09%	53.6	33.76%	11.0	10.7	4.4	(6.1)	(6.4)	(12.7)	(17.1)
CONSTRUCTION SUBTOTAL**																	
**Subtotal is for construction which occurs in 2015 only.																	
GRAND TOTAL (LAX Local Area)***	172.4	100.0%	175.4	100.0%	166.4	100.0%	173.2	100.0%	158.8	100.0%	(0.8)	2.3	(6.8)	13.5	16.6	7.8	14.3
***Does not include construction emissions.																	

Off-Airport Traffic (Unmitigated)																	
Tier I (Included in SCAB)	58.2		58.5		59.2		56.6		32.9		1.6	1.9	2.6	25.3	25.6	26.3	23.7
South Coast Air Basin (SCAB)	526.3		526.3		526.9		434.9		283.8		91.4	91.4	92.0	242.5	242.5	243.1	151.1
Outside of SCAB	4.3		4.3		4.2		3.3		2.4		1.0	1.0	0.9	1.9	1.9	1.8	0.9
Off-Airport Traffic	588.8		589.1		590.3		494.8		319.1		93.0	93.3	95.5	269.7	270.0	271.2	175.7
UNMITIGATED MOBILE SUBTOTAL (Regional)	655.4		658.7		656.7		574.8		381.4		80.6	84.0	81.7	284.0	287.4	265.1	183.4
UNMITIGATED GRAND TOTAL (Regional)	703.0		706.0		697.5		611.4		445.1		91.5	94.7	86.1	257.9	261.0	252.5	186.3

Data revised 4/19/00 from files dated 3/27/00.

Attachment W

LAX Master Plan Interim Year Emissions

LAX Operational Emissions for Interim Years										
Alternative C (Unmitigated)										
VOC Emissions										
	Years									
	1996	2000	2002	2003	2005	2006	2007	2008	2010	2015
Aircraft Total, tpy	1,129	1142	1149	1152	1,159	1,175	1,191	1,207	1,239	1,318
GSE Total, tpy	202	204	205	205	206	195	184	173	151	97
Stationary Total, tpy	143	118	105	99	86	87	88	89	91	96
Total MV On Airport, tpy	595	465	400	368	303	293	282	272	252	200
Operations Total, tpy	2,069	1,929	1,859	1,824	1,754	1,750	1,745	1,741	1,732	1,710
Operations Total, lbs/day	11,337	10,570	10,186	9,994	9,611	9,587	9,563	9,539	9,492	9,372
CO Emissions										
	Years									
	1996	2000	2002	2003	2005	2006	2007	2008	2010	2015
Aircraft Total, tpy	4,846	5337	5583	5705	5,951	6,122	6,292	6,462	6,803	7,656
GSE Total, tpy	5,780	5082	4734	4559	4,211	3,963	3,715	3,467	2,971	1,732
Stationary Total, tpy	293	215	176	156	117	118	118	119	120	124
Total MV On Airport, tpy	5,671	4297	3610	3266	2,579	2,484	2,389	2,294	2,104	1,629
Operations Total, tpy	16,589	14,931	14,101	13,687	12,858	12,686	12,514	12,342	11,999	11,140
Operations Total, lbs/day	90,900	81,812	77,268	74,996	70,452	69,511	68,570	67,629	65,747	61,041
NO _x Emissions										
	Years									
	1996	2000	2002	2003	2005	2006	2007	2008	2010	2015
Aircraft Total, tpy	3,722	4230	4485	4612	4,867	4,999	5,131	5,264	5,528	6,190
GSE Total, tpy	421	414	411	410	407	385	364	343	301	195
Stationary Total, tpy	598	418	327	282	192	194	195	196	199	207
Total MV On Airport, tpy	434	376	346	331	302	289	277	264	239	176
Operations Total, tpy	5,175	5,438	5,570	5,636	5,767	5,867	5,967	6,067	6,267	6,767
Operations Total, lbs/day	28,357	29,799	30,520	30,880	31,601	32,149	32,697	33,245	34,341	37,081
PM ₁₀ Emissions										
	Years									
	1996	2000	2002	2003	2005	2006	2007	2008	2010	2015
Aircraft Total, tpy	51	55	57	58	60	62	63	64	67	74
GSE Total, tpy	13	10	8	7	6	5	5	4	3	1
Stationary Total, tpy	54	46	42	40	36	37	37	38	39	41
Total MV On Airport, tpy	41	42	42	42	42	43	44	44	46	50
Operations Total, tpy	159	152	149	147	144	146	148	151	155	166
Operations Total, lbs/day	870	834	816	807	788	801	813	825	850	911
SO _x Emissions										
	Years									
	1996	2000	2002	2003	2005	2006	2007	2008	2010	2015
Aircraft Total, tpy	166	186	196	201	211	217	223	229	242	273
GSE Total, tpy	8	6	5	5	4	4	4	3	3	2
Stationary Total, tpy	7	6	6	6	6	6	6	6	6	6
Total MV On Airport, tpy	2	2	2	2	2	2	2	2	3	3
Operations Total, tpy	183	201	209	214	223	229	235	241	253	283
Operations Total, lbs/day	1,002	1,099	1,148	1,172	1,221	1,254	1,287	1,320	1,386	1,551

Attachment X
Comprehensive List of Air Quality Mitigation
Measures Considered for the LAX Master Plan

LAX MASTER PLAN EIR/EIS AIR QUALITY MITIGATION OPTIONS

(March 8, 2000 Draft)

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IN PLACE OR IN PROGRESS

Primary Strategy	Source	I.D. No. & Description		Comment(s)	Resolution
		I. Highways & Roadways			
On-Airport LAX Access	LAWA	B05.	On-Airport Ground Transportation Improvement Program	In progress; includes increased roadway and intersection capacity, improved signage, changed parking rates to encourage use of long-term lots, modified curbside allocations, increased curbside enforcement, enhanced ITS and establish traffic management center, closed circuit TV cameras for traffic management, and improved coordination with LADOT.	In progress
		VI. Landside			
On-Airport LAX Access	MP Team	F06.	Aggressively ticket and tow vehicles in the terminal areas as necessary for curb-side regulation compliance.	Already in place	In place
Signage	LAWA		"Gateway LAX"	Improved signage & lighting program initiated in 1999	In place
		VIII. Aircraft & Airlines			
Aircraft			Ban Stage 2 Aircraft	In place.	In place
		X. APU's			
	AAA	32	Preconditioned air	In place.	In place.
	AAA/CARB/AQMD	30	Provide central ground power & air	In place & part of M.P.	In place
	EDF/Caltrans	1	Minimize use of APUs	In place & part of M.P.	In place
		XI. Stationary Sources			
Energy production	AAA	27	Boilers	In place as co-generation plant for CTA operated on natural gas.	In place.
Energy			Green Power Program	Long-term agreement with LA Dept. of Power to purchase non-polluting energy (announced Aug. 1999)	In progress
		XII. Construction			
			Taxiway Improvement Projects	Use of new excavation & pavement methods requiring less time	In place
		XIII. Miscellaneous			
	AQMD	2	Clean fuel stations (CNG/LN, battery charges) to support alt-fuel vehicle utilization		In place.
Employee Trip Reduction	AAA	36	Encourage employee ridesharing	In place for LAWA	In place
Employee Trip Reduction	AAA	34	Encourage compressed/flexible work week for employees	In place for LAWA	In place
Vapor Recovery	EPA	1	Vapor recovery of fuel emissions	Not required for jet fuel; in-place for gasoline.	In place.

Source: The source of the option.

MP Team, this means options compiled by members of the Master Plan consultants team as part of the EIR/EIS process.

AAA means from the ACI-AAAE-ATA Mitigation Options RFP

LAX MASTER PLAN EIR/EIS AIR QUALITY MITIGATION OPTIONS

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IN MASTER PLAN

Primary Strategy	Source	I.D. No. & Description		Comment(s)	Resolution
	L.A. DOT	I. Highways & Roadways			
		—	Minimize use of local streets to access LAX	Expy. access/egress and Ring Road will help.	In M.P.
		II. Transit and Intermodal Facilities			
	MP Team	B02/B03	Intermodal Center at CTA or West Terminal - Allow clean-fuel transit/shuttle and people mover only.		In M.P.
		V. Truck Cargo & Air Freight			
On-Airport LAX Access-Cargo	MP Team	C01	LAX Expressway - Include cargo truck lanes connecting directly to Alt 3 Cargo Area.	Already In M.P. in Alt. 3	In M.P.
Off-Airport LAX Access-Cargo	MP Team	C02	I-405/I-105 HOV/HOT Connector Lanes - Include cargo HOT access to/from LAX.	???	In M.P.
On-Airport LAX Access-Cargo	MP Team	C03	I-405/I-105 Connector Lanes - Include cargo lane direct connections to Alt 3 Cargo areas.	In Master Plan	In M.P.
Off-Airport LAX Access-Cargo	MP Team	C10	I-405 Airport Access Connector - Include dedicated cargo truck route to La Cienega Cargo Area.	In Master Plan	In M.P.
		VI. Landside			
Parking	El Segundo COC	2	Provide adequate parking with efficient shuttle services	In Master Plan	In M.P.
		VII. Airside			
Airfield Operation			Optimize airfield runway/taxiway configurations	In Master Plan.	In M.P.
Airfield Operation	AAA		Aircraft movement control		In M.P.
Airport Infrastructure	AAA		(Optimize) runway orientation		In M.P.
Airfield Design	AAA	17	(Provide) dual taxiways		In M.P.
Airfield design	AAA		Make infrastructure improvements		In M.P.
Airfield Design	AAA	18	High-speed runway/taxiway turn-offs		In M.P.
	Redondo Bch.	2	Evaluate "No new runway" alternative.	Part of MP as Alternative C.	In M.P.
	EDF	1	Implement air traffic control and ground control systems for efficiency of operations & reducing ground & airborne delays.		In M.P.
		VIII. Aircraft & Airlines			
Airlines	CARB	5	Use larger aircraft		In M.P.
	CARB	8	Increase number of seats		In M.P.
	AQMD	1	Schedule flights to avoid airport congestion & aircraft queuing		In M.P.
	Redondo Bch.	3	Consider regional alternatives to Master Plan.		In M.P.
	Redondo Bch.	1	Comprehensive prog. to reduce traffic & upgrade regional roadways in S. Bay		In M.P.
		XI. Stationary Sources			
Efficient buildings	AAA	26	Airport terminals		In M.P.
Energy conservation	AAA	28	Energy conservation programs		In M.P.
Aircraft maintenance	AAA	29	Aircraft maintenance	Most major maintenance facilities moved to other airports.	In M.P.
		XIII. Miscellaneous			
	L.A. DOT	3	Conformity to the Coastal Transportation Corridor Specific Plan		In M.P.

Source: The source of the option.

MP Team, this means options compiled by members of the Master Plan consultants team as part of the EIR/EIS process.

AAA means from the ACI-AAAE-ATA Mitigation Options RFP

LAX MASTER PLAN EIR/EIS AIR QUALITY MITIGATION OPTIONS

(March 8, 2000 Draft)

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WILL BE ASSESSED FOR AQ BENEFIT

Primary Strategy	Source	I.D. No. & Description	Comment(s)	Resolution
II. Transit and Intermodal Facilities				
LAX Transit	MP Team	B04. Implement clean-fuel "smart shuttles" for local trips to/from local businesses and LAX.	Will be assessed.	Applicable (A)
Off-Airport LAX Access	MP Team	B06. Link ITS system with off-airport parking facilities, with ability to divert/direct trips to these facilities.	Will be assessed.	Applicable (A)
LAX Transit	MP Team	B10. Establish network of strategically placed, off-airport intermodal check-in terminals serviced by LAX dedicated clean-fuel buses.	Requires airlines cooperation; under study by LAWA Transportation Office	Applicable (A)
LAX Transit	MP Team	B11. Implement clean-fuel "smart shuttles" for sub-regional trips to/from South Bay, OC, South Central L.A., Westside and LAX.	Requires cooperation from private operators	Applicable (A)
Off-Airport LAX Access	MP Team	B12. Expand ITS/ATCS system, concentrating on I-405 and I-106 corridors, extending into South Bay and Westside surface street corridors.	Requires cooperation from MTA and Caltrans; reduces VMT	Applicable (A)
Intermodal	MP Team	B13. Provide low-priced parking to LAX users of off-airport intermodal terminal facilities.	Complements concepts of remote terminals (see B10.).	Applicable (A)
Regional Transit	MP Team	B15. Implement clean-fuel "smart shuttles" for trips to/from regional airports.	Potential to expand to business centers. (see B14)	Applicable (A)
Technology	MP Team	B18. Convert all on-airport LAWA and commercial buses, shuttles, and vans to ZEV/SULEV engines.	Currently being implemented; accelerate the program	Applicable (A)
V. Truck Cargo & Air Freight				
Off-Airport LAX Access-Cargo	MP Team	C06. Link LAX traffic management system with airport cargo facilities, with ability to reroute cargo trips to/from these facilities.	Marginal potential benefit to reduce VMT.	Applicable (A)
Pricing	MP Team	C07. Promote use of clean-fueled cargo vehicles through on-airport access pricing at cargo facilities.		Applicable (A)
VI. Landside				
On-Airport LAX Access	MP Team	NEW On-airport roadway improvement: widen lower level loop ramp to Northbound Sepulveda; add eastbound right turn lanes to World Way, at Center Way, and one right turn lane to Center Way; provide pedestrian tunnel and additional pedestrian bridge to eliminate pedestrian signals.		Applicable (A)
Technology	MP Team	F03. Provide free parking, charging stations and preferential parking locations for electric vehicles in all (including employee) LAX lots.	Already in place; expand.	Applicable (A)
Technology	MP Team	F04. Promote "best engine" technology for rental cars using on-airport RAC facilities.		Applicable (A)
	MP Team	F18. Pay-on-foot (before getting into car) to minimize idle time		Applicable (A)
On-Airport LAX Access	MP Team	F07. Consolidate non-rental car shuttles.	Consolidate shuttle services from hotels & GTC	Applicable (A)
Technology	MP Team	F17. Fueling Facilities (Truck Stop) for clean fuel trucks (CNG, LNG).		Applicable (A)
VII. Airside				
Airfield Operation	MP Team	G01. Preferential runway/taxiway coordination system.	Requires FAA approval	Applicable (A)
Airfield Operation	MP Team	G02. Aircraft towed to/from maintenance.	Requires FAA approval	Applicable (A)
Airfield Operation	MP Team	G04. Single/reduced engine taxiing.	Requires FAA approval	Applicable (A)
Airlines	MP Team	G05. Incentives to replace older aircraft engines with cleaner ones (e.g., emission fees).		Applicable (A)
Airfield Operation	MP Team	G09. Runway/taxiway intersection departure for select aircraft.		Applicable (A)
IX. GSE				
Operation/technology	MP Team/CARB	G07. Convert GSE to electric power (or extremely low emission technology, such as fuel cells).	Partially in-place. Accelerate full conversion.	Applicable (A)
XII. Construction				
Technology	MP Team	F14. Specify Clean Fuel construction equipment.		Applicable (A)
Technology	MP Team	F15. Require all construction deliveries to be made with clean fuel vehicles.		Applicable (A)
Technology	MP Team	F19. Use soil stabilization and/or watering to reduce fugitive dust emissions during construction.		Applicable (A)
Technology	MP Team	F20. Use on-site rock crushing facility to reuse rock/concrete and minimize truck haul trips.		Applicable (A)
<p>Source: The source of the option.</p> <p>MP Team, this means options compiled by members of the Master Plan consultants team as part of the EIR/EIS process.</p> <p>AAA means from the ACI-AAAE-ATA Mitigation Options RFP</p>				

LAX MASTER PLAN EIR/EIS AIR QUALITY MITIGATION OPTIONS

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MAY BE ASSESSED FOR AQ BENEFIT

Primary Strategy	Source	I.D. No. & Description	Comment(s)	Resolution
II. Transit and Intermodal Facilities				
Pricing Incentive	MP Team	B09. Implement parking pricing mechanisms to reduce SOV use and encourage HOV(3+)/shuttle use.		Applicable (B)
Regional Transit	MP Team	B14. Expand off-airport Intermodal terminal facility service to other regional airports.	Requires cooperation with other airports (see B10, B13).	Applicable (B)
Regional Access	MP Team	B16. Expand ITS/ATCS system, concentrating on regional airport access, with objective to reduce airport trips/VMT.	Requires cooperation with other airports (See B15).	Applicable (B)
Regional Transit	MP Team	B17. Provide free ride and parking to all (regional) airport users of off-airport Intermodal terminal facilities.	See also B10, B13)	Applicable (B)
V. Truck Cargo & Air Freight				
On-Airport LAX Access-Cargo	M.P Team	C11. Ban Non-LAX Cargo Activity on Airport Property		Applicable (B)
VI. Landside				
Technology	MP Team	F01. Require or promote commercial vehicles/trucks/vans using terminal areas (LAX and regional Intermodal) to install SULEV/ZEV engines.		Applicable (B)
On-Airport LAX Access	MP Team	F05. Maintain enough parking lot attendants and open pay gates to minimize idle time.		
On-Airport LAX Access	MP Team	NEW Parking pricing policies to encourage single trips (use of long-term lots by travelers) or minimize idle time at curb (by using short-term lots).		Applicable (B)
VIII. Aircraft & Airlines				
Airfield Operation	MP Team	G03. Engines may not be started until take-off slot is approved.	Already in place	In-place
Aircraft Operation	AAA	G08. Minimization of reverse thrust during landing		Applicable (B)
IX. GSE				
Operation	MP Team	1. Establish operating rules & requirements for GSEs	Reduce the number and improve the condition of GSEs	Applicable (B)
	MP Team	2. Introduce permitting requirements		Applicable (B)
XII. Construction				
Off-airport traffic	L.A. School Dist.	1. Prevent Const. traffic past Dist. Schs. or restrict hauling to times when Schs. not in session.		Applicable (B)
Off-airport traffic	L.A. School Dist.	2. Prevent staging or parking of const. veh. (including workers veh.) on streets adjacent to Dist. Schs.		Applicable (B)
XIII. Miscellaneous				
Technology	MP Team	F12. Convert School Buses (LAUSD, ESUSD, etc) to clean fuel.	FAA funding restriction. Emission trading possible	Applicable (B)
Technology	MP Team	F13. Convert Municipal Service (LA, El Segundo, etc) Equipment (Garbage Trucks, Street Sweepers, Police Cars, Fire Trucks, etc.) to Alt Fuel.	FAA funding restriction. Emission trading possible	Applicable (B)
On-airport traffic	AAA	37. Motor vehicle Idle restrictions (at terminal)		Applicable (B)
Employee Trip Reduction	AAA	35. Encourage employee telecommuting		Applicable (B)
Vegetation	El Segundo	1. Tree-planting program for mitigation of noise, air & water pollution		Applicable (B)
Alternate energy	El Segundo	2. Sites for solar & wind energy units		Applicable (B)
Community Improvements	St. Anastasia	1. Unmitigated impacts result in payments to trust fund for community improvements		Applicable (B)

Source: The source of the option.

MP Team, this means options compiled by members of the Master Plan consultants team as part of the EIR/EIS process.

AAA means from the ACI-AAAE-ATA Mitigation Options RFP

LAX MASTER PLAN EIR/EIS AIR QUALITY MITIGATION OPTIONS

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SUPPORTIVE BY LAWA, THOUGH NO AQ BENEFIT WILL BE QUANTIFIED

Primary Strategy	Source	I.D. No. & Description	Comment(s)	Resolution
I. Highways & Roadways				
"	MP Team	A06. I-405/I-105 HOV/HOT Connector Lanes - Include passenger HOT access to/from LAX.	Connector lanes in M.P.; HOT access not under LAWA control.	Supportive
"	MP Team	A08. I-405 HOV Lanes - Accelerate construction, including HOV lanes from U.S. 101 and I-110.	Applicable regionally; not under LAWA control.	Supportive
Regional Access	MP Team	A09. Promote/participate in accelerated completion of HOV network and "gap closure" improvements.	Difficult to quantify and not under LAWA control.	Supportive
"	MP Team	A10. I-405/I-105 HOV/HOT Lanes - Expand HOV lane to I-405 @ I-10 and I-105 @ I-110.	Not under LAWA control.	Supportive
"	MP Team	A11. Expand HOT lanes along I-105 and I-110.	Not under LAWA control.	Supportive
II. Transit and Intermodal Facilities				
LAX Transit	MP Team	B19. Provide "Eco Transit Incentive Program" for HOV users.	???	Supportive
"	MP Team	B22. Subsidize (LAWA & tenant) employee transit use		Supportive
"	MP Team	B23. Transportation Management Organization		Supportive
Regional Transit	EDF	7. Rapid bus network and county-wide bus improvement plan (as in MTA)		Supportive
III. Green Line Facilities				
LAX Transit	L.A. Co. MTA	2. Green Line Extension, or equivalent rail system from LAX terminals to Westchester Pkwy.		Supportive
IV. High-Speed Rail				
Rail Transit (MAGLEV)	MP Team	E01. Design CTA or West Terminal Intermodal station to accommodate future high-speed rail system.	MTA control	Supportive
Rail Transit (MAGLEV)	MP Team	E02. Include high-speed rail connection from Ontario to Union Station, with transit connection from Union Station to LAX.	MTA control.	Supportive
VIII. Aircraft & Airlines				
Aircraft - Technology	AAA	1. New airplane design		Supportive
Aircraft - Technology	AAA/EDF	3. Initiate program to develop clean aircraft engine design	Underway by airlines, NASA, et.al.	Supportive
Aircraft - Technology	AAA	4. Modify aircraft engines currently in production		Supportive
Aircraft - Technology	AAA	5. Change (jet/aircraft) fuel chemistry (to be less polluting)		Supportive
ATM	AAA	15. CNS/ATM/ Free flight		Supportive
	CARB	4. Establish new engine emission std's		Supportive
IX. GSE				
Technology	AAA	19. Catalytic converters (retrofit)		Supportive
Technology	AAA	20. Particulate traps (retrofit)		Supportive
	AAA	21. Cleaner engine technology		Supportive
	AAA	22. Engine/Unit retirement		Supportive
	AAA	23. Sharing of GSE		Supportive
	AAA	24. Sharing of refueling stations		Supportive
	AAA	25. More efficient use		Supportive
X. APU's				
	AAA	33. New APU Design		Supportive
XIII. Miscellaneous				
Off-airport traffic	L.A. DOT	2. Integration with Congestion Management Program & oppor. to obtain CMP credits		Supportive
Toxic air pollutants	EDF	4. Reduce use of toxic chemicals and the emissions from aircraft engines, diesel vehicles, solvents & coatings	Master Plan includes many AQ emission reduction measures.	Supportive.
Conference	LAWA	Annual conference to encourage use of Alt. fuel vehicle / equipment		Supportive.

Source: The source of the option.

MP Team, this means options compiled by members of the Master Plan consultants team as part of the EIR/EIS process.

AAA means from the ACI-AAAE-ATA Mitigation Options RFP

LAX MASTER PLAN EIR/EIS AIR QUALITY MITIGATION OPTIONS

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EVALUATED AND CONSIDERED NOT APPLICABLE OR NOT FEASIBLE

Primary Strategy	Source	I.D. No. & Description	Comment(s)	Resolution
I. Highways & Roadways				
Local Access	MP Team	A01. LAX Expressway - Include shuttle/HOV(3+) connection with I-405.	The expressway is in M.P. and HOV lanes are considered unnecessary.	Not applicable.
"	MP Team	A03. Arbor Vitae - Include shuttle/HOV(3+) lanes from I-405 to Westchester Parkway.	The "Ring Road" is in M.P. and HOV lanes are considered unnecessary.	Not applicable.
"	MP Team	A04. I-105/Imperial Highway Extension - Include shuttle/HOV(3+) lanes.	The extension is in M.P. and HOV lanes are considered unnecessary.	Not applicable.
"	MP Team	A05. I-405 Airport Access Connector - Include dedicated HOV/cargo truck to La Cienega Cargo Area.	The connector is in Alt. 3 of M.P. and HOV lanes are considered unnecessary.	Not applicable.
Technology	MP Team	F11. Reduce speed limit on Ring Road to maintain optimum emission level (~35 mph).	Applies to NOx. Defeats purpose of ring road to move traffic into airport quickly.	Not applicable
II. Transit and Intermodal Facilities				
Intermodal	MP Team	B01. Ban private vehicle (or SOV) access to Central Terminal Area (CTA) and West Terminal.	Not practical and is inconsistent with terminal plans.	Not applicable
"	MP Team	B07. Install ground transportation kiosks with both real-time information and personal "trip coordinators/managers."	Low level of VMT reduction effectiveness.	Not applicable
Pricing Incentive	MP Team	B08. Install toll both at entrances to CTA and West Terminal Area.	Encourages doubling the number of trips per flight - no AQ benefit.	Not applicable
Pricing	MP Team	B20. Make long-term parking free and short-term parking prohibitively expensive to minimize drop-off and pick-up trips.	Considered ineffective for reducing VMT	Not applicable
LAX Transit	MP Team	B21. Provide long-term parking lot baggage tram and return	Requires airlines cooperation; and involves security issues	Not applicable.
III. Green Line Facilities				
LAX Transit	MP Team	D01. Green Line Extension - Include passenger/baggage amenities, direct connections, etc. for passengers using Green Line.	Low cost-benefit; MTA control.	Not applicable
LAX Transit	MP Team	D02. Green Line Extension - Include "airport friendly" cars on Long Beach-Los Angeles Line to promote transfers of airport to Green Line-LAX.	Low cost-benefit; MTA control.	Not applicable
LAX Transit	MP Team	D03. Green Line Extension - Provide free Green Line entry from LAX Station to promote use of Green Line.	Low cost-benefit; MTA control.	Not applicable
LAX Transit	MP Team	D04. Green Line Extension - Extend Green Line service toward Santa Monica or into Crenshaw Corridor.	Low cost-benefit; MTA control.	Not applicable
V. Truck Cargo & Air Freight				
Off-Airport LAX Access-Cargo	MP Team	C04. Aviation Blvd. - Include surface street cargo lane access between LAX and I-105.	Marginal potential benefit to reduce VMT.	Not applicable.
Off-Airport LAX Access-Cargo	MP Team	C05. Install clean-fuel cargo truck/rail corridor along existing SP and Florence railroad ROWs.	Reduced VHT (Not VMT)	Not applicable
Technology	MP Team	C08. Require On-Airport cargo operators to receive only vehicles with lower emission profiles.	May involve interstate commerce issues.	Not applicable
LAX Transit	MP Team	C09. Require On-Airport cargo operators to meet minimum employee rideshare requirements.	Incentives may be more acceptable.	Not applicable
"	City of Hawthorne	1. Move all freight operations out of LAX	Doesn't reduce regional emissions.	Not applicable
"	Manchester Sq.	1. Transfer cargo facilities (to extent possible) to regional airports; with connecting rail service.	Doesn't reduce regional emissions.	Not applicable
VI. Landside				
LAX Transit	MP Team	F02. Do not allow private vehicles on the curb.	Not practical/enforceable.	Not applicable
On-Airport LAX Access	MP Team	F08. Provide people movers to remote parking lots (including private lots).	Low cost-benefit.	Not applicable
Pricing	MP Team	F09. Charge fees for additional looping of terminal areas, or don't allow looping to occur.	Potentially expensive method to enforce.	Not applicable
Technology	MP Team	F10. Allow only California registered vehicles in the terminal areas.	Low feasibility	Not applicable

LAX MASTER PLAN EIR/EIS AIR QUALITY MITIGATION OPTIONS

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EVALUATED AND CONSIDERED NOT APPLICABLE OR NOT FEASIBLE

Primary Strategy	Source	I.D. No. & Description		Comment(s)	Resolution
LAX Transit	MP Team	F16.	Curb side baggage check for clean fuel shuttles and taxi only.	Not practical and is inconsistent with terminal plans.	Not applicable
VII. Airside					
Aircraft	MP Team/CARB	G06.	Derated takeoff/climbout thrust.	Requires FAA approval. Not much AQ benefit.	Not applicable
	CARB	1	Tow aircraft to runway	Requires FAA approval. Not safe.	Not applicable
Airfield Operation	CARB	2	Transport passengers to aircraft parked at runway end(s)	Requires FAA approval. Not safe.	Not applicable
VIII. Aircraft & Airlines					
Aircraft Operation	AAA	13	Reduced landing flap	Minimal AQ benefit, not quantifiable.	Not applicable
Aircraft Operation	AAA	14	Optimum flap retraction	Minimal AQ benefit, not quantifiable.	Not applicable
Airlines	CARB	6	Increase load factor	Load factors are determined by the market.	Not applicable
Airlines	CARB	7	Limit operations	May increase use of larger aircraft - no AQ benefit. Not legally enforceable.	Not applicable
XIII. Miscellaneous					
Air Monitoring	Man. Sq. Prop. Owns.	2	Monitor pollutant levels; establish acceptable levels with penalties for exceeding limits	Cannot directly relate monitored levels to specific sources - not technologically feasible.	Not applicable.
			Water Taxi's	No AQ benefit.	Not applicable.
De-icing practices	AAA	8	Design and/or practice deicing operations to minimize VOCs	Minimal AQ benefit.	Not applicable.
Other Environmental Constraints.	AAA	9	Modification of other environmentally-based constraints (that affect air quality)	Noise mitigation measures. Not under LAWA's control.	Not applicable.

Source: The source of the option.

MP Team, this means options compiled by members of the Master Plan consultants team as part of the EIR/EIS process.

AAA means from the ACI-AAAE-ATA Mitigation Options RFP

LAX MASTER PLAN EIR/EIS AIR QUALITY MITIGATION OPTIONS

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SAME AS ANOTHER OPTION

Primary Strategy	Source	I.D. No. & Description		Comment(s)	Resolution
I. Highways & Roadways					
Off-Airport Traffic	El Segundo COC	1	Provide traffic synchronization system	Reduces stop & go driving conditions. Same as B05, B06, B12.	
II. Transit and Intermodal Facilities					
LAX Transit	EPA	2	Entrance & parking policies to encourage passenger & employee use of transit, shuttles, carpools/vanpools	Same as B09.	
LAX Transit	EPA	3	Integrate transit and shuttles into M.P. alternatives.	Same as B04, B10, B11, B13.	
Regional transit	L.A. Co. MTA	1	Multimodal transit center at or near existing MTA facility and/or the City Bus Center.	Same as B10, B14.	
Regional Transit	EDF	5	Consider other transit alternatives to Green Line	Same as E01/E02, B02/B03, B10.	
Regional Transit	EDF	6	Improved bus system serving LAX as part of the county multi-modal transportation system	Same as B04, B10, B11, B14, B15.	
Regional Transit	EDF	8	System of busways with a feeder system of buses, shuttles, taxis and other transit services that serve LAX & region (as in SCAG)	Same as B10, B14.	
VI. Landside					
On-Airport Traffic	EDF	3	Implement low-emissions approaches to parking operations	Limited-access roadways, reduce stop & go driving, etc. Same as B09, A01.	
On-Airport Traffic	CARB	9	Idle & circulation management	Same as B05.	
Technology	CARB	10	Alt. fuels for rental cars	Same as F04.	
VII. Airside					
Airfield Operation	MP Team/EDF		Emission-based landing fees (for NOx & CO2)	Same as G05.	
Airfield Operation	AAA	16	Slot control	Same as G03.	
Airfield Operation	AAV/EDF	11	Minimize aircraft engine use while idling & taxiing	Same as G04.	
VIII. Aircraft & Airlines					
Airlines	AAA	2	Retrofits engines in production	Same as G05.	
Airlines	AAA	6	(Encourage) early engine/aircraft retirement	Same as G05.	
Airlines	AAA	7	Order lowest emission engines available.	Same as G05.	
Airlines	AAA	12	Reduced thrust take-offs	Same as G06.	
Airlines	AAA	39	Contact incentives to airlines with lower-emission fleets	Same as G05.	
Airlines	CARB	3	Modernize fleet	Same as G05.	
XIII. Miscellaneous					
Off-airport traffic	AQMD	3	Incentives for transportation alternatives to SOV for airport trips.	Same as B09.	
Off-airport traffic	L.A. DOT	1	Transportation Demand Management & ITS	Same as B05, B06, B12, B16.	
Technology	AAA	38	Cleaner engine technology - ground access	Same as F03, F04, B04, B11.	
On-airport traffic	MP Team	3	Use T.V. & Internet to relay access options	Same as B05.	In progress

Source: The source of the option.

MP Team, this means options compiled by members of the Master Plan consultants team as part of the EIR/EIS process.

AAA means from the ACI-AAAE-ATA Mitigation Options RFP

Attachment Y
Technical Reports – Ambient Monitoring and
Deposition Monitoring

LAX Master Plan

TECHNICAL REPORT AMBIENT MONITORING

March 1998

Prepared for:

Los Angeles World Airports

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Draft Version #1

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Attachment A: Air Quality and Meteorological Monitoring Program Measurements Report
Attachment B: Air Monitoring Quality Assurance Audit

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Ambient Monitoring

1.0 INTRODUCTION

The original purpose of the ambient monitoring station was to provide confirmation of problems found in FAA's Emissions and Dispersion Modeling System (EDMS) air dispersion model. It was later decided to continue the monitoring effort until at least March 6th, 1998, to include the majority of the winter carbon monoxide (CO) season. This report supercedes a preliminary report of the monitoring data through December 1997 that was prepared for submittal to SCAQMD.

2.0 METHODOLOGY

Ambient monitoring for CO, nitrogen oxide (NO), nitrogen dioxide (NO₂), total nitrogen oxides (NO_x), sulfur dioxide (SO₂) and particulate matter under 10 microns (PM₁₀) concentrations was performed from August 14th, 1997, and is scheduled to be completed on March 6th, 1998. The monitoring station, depicted on Figure 1, is located approximately 2020 feet east of the eastern end of Runway 25R on the approach/departure midline. This location was selected due to the significant departure emissions from Runway 25R, the taxi and queue emission from the parallel northern taxiway, and its prevalent downwind location from Runway 25R.

Continuous emission monitors were used to determine hourly CO, NO, and SO₂ concentrations. Twenty-four hour PM₁₀ concentrations were determined every other day using volumetrically flow controlled PM₁₀ samplers. Hourly meteorological conditions (wind speed and direction, wind sigma theta, 3-meter and 10-meter temperature, and solar radiation) were also monitored. Atmospheric stability was calculated using the monitored meteorological conditions. A more detailed description of the monitoring station is provided in the AeroVironment Environmental Services Inc. report provided as Attachment A. Additionally, a third party quality assurance audit of the monitoring station, performed by Mr. Dennis Haase of Visibility Services, Inc., is provided as Attachment B.

3.0 RESULTS

The hourly pollutant and meteorological monitoring data and 24-hour PM₁₀ data is detailed in Attachment A. The final monitoring station data, including all data collected through March 6th, 1998, will be forwarded in computer file format by the end of March. A summary of the maximum pollutant concentration data recorded at the monitoring station from 4:00 p.m. August 14th, 1997, through 10:00 a.m. February 23rd, 1998, and 24-hour PM₁₀ data available through February 3rd, 1998, along with the corresponding National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) are shown on Table 1 as follows:

Table 1
Monitored Concentrations and Ambient Air Quality Standards

Pollutant	Averaging Period	Maximum Monitored Concentration	NAAQS	CAAQS
Carbon Monoxide	1-hour	10.6 ppm	35 ppm	20 ppm
	8-hour	8.6 ppm	9 ppm	9.0 ppm
Nitrogen Dioxide	1-hour	0.15 ppm	-	0.25 ppm
	annual	0.038 ^a	0.053 ppm	-
PM ₁₀	24-hour	80.2 µg/m ³	150 µg/m ³	50 µg/m ³
	annual	36.3, 33.9 ^{a,b} µg/m ³	50 µg/m ³	30 µg/m ³
Sulfur Dioxide	1-hour	0.021 ppm	-	0.25 ppm
	3-hour	0.017 ppm	0.5 ppm	-
	24-hour	0.007 ppm	0.14 ppm	0.04 ppm
	annual	na	0.03 ppm	-

^aNot a true annual average, the average listed is from available monitoring data.

^bThe first value given is the annual average mean to be compared to the NAAQS, and the second value is the geometric mean to be compared with the CAAQS.

AMBIENT MONITORING

The ambient monitoring period included approximately half of the "summer NO_x season" and more than three quarters of the winter CO season. There were no observed exceedances of NAAQS or CAAQS for CO, NO_x, or SO₂, and no recorded exceedances of NAAQS for PM₁₀. The monitoring data collected indicates that the area of the monitoring station would likely not exceed annual NAAQS for NO_x, SO₂, and PM₁₀. A total of 15 separate exceedances of the 24-hour PM₁₀ CAAQS were observed out of a total of 83 non-duplicate samples. The available PM₁₀ data indicates that it is likely that the annual PM₁₀ CAAQS would be exceeded at the monitoring station. The South Coast Air Basin is currently in non-attainment of the PM₁₀ CAAQS; therefore, the observed exceedances were expected.

4.0 ANALYSIS OF RESULTS

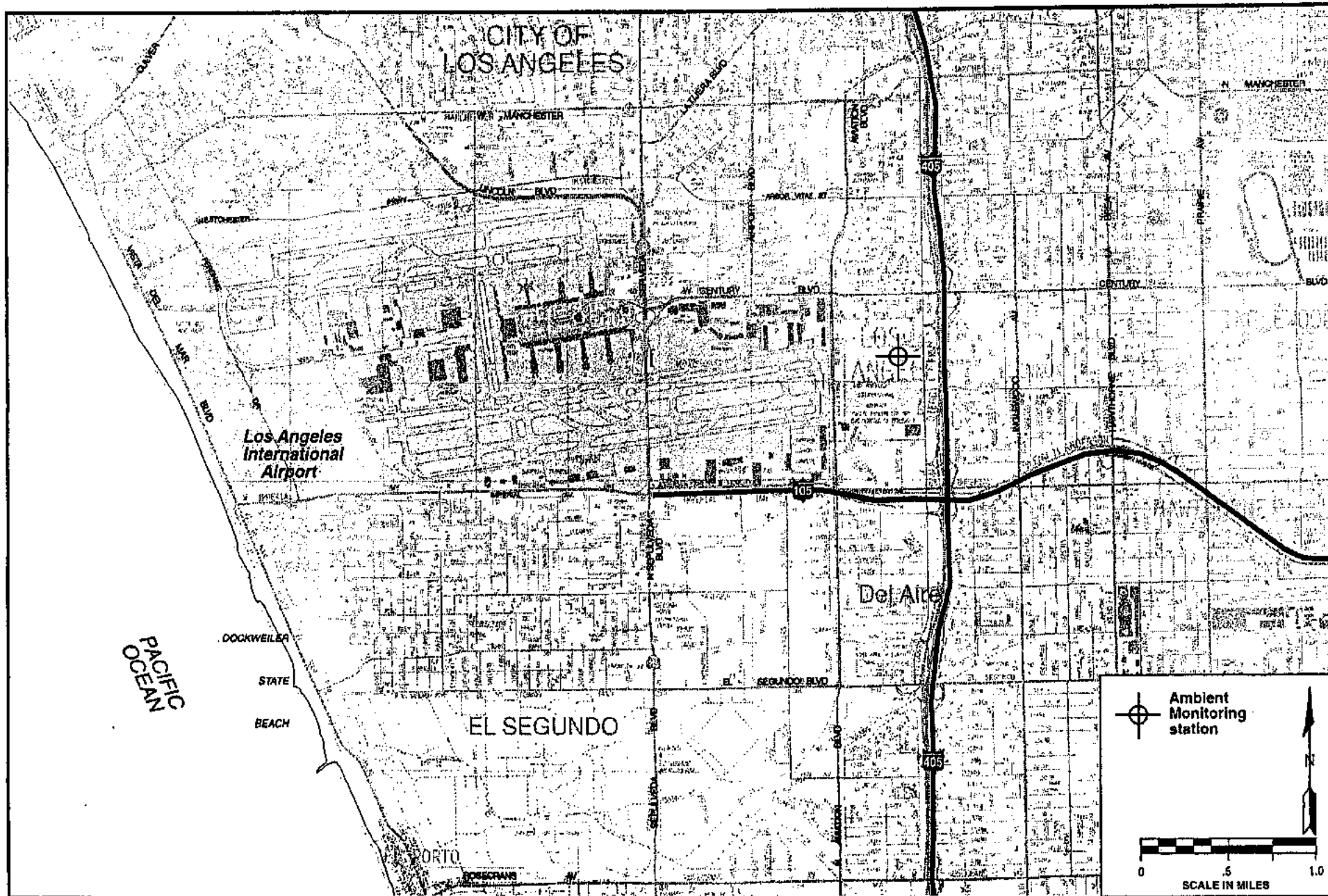
The maximum CO and NO_x concentrations generally occurred during night-time hours when the wind direction was not from the airport. The observed daytime CO and NO_x concentration results, consistent with winds on-airport were generally lower than the observed nighttime results. A comparison of maximum, average, and median concentrations observed during specific hourly average wind directions, where winds from 250 to 310 degrees are considered from on-airport and all other winds are considered to be from off-airport, are shown on Table 2.

Table 2
Wind Direction Specific 1-Hour Concentrations and Wind Speeds

Pollutant	Period	On-Airport	Wind Direction			
			Off-Airport	0 - 180 Degrees	45 - 135 Degrees	
Carbon Monoxide	Maximum	5.3 ppm	10.6 ppm	10.6 ppm	10.6 ppm	
	Average	1.1 ppm	2.1 ppm	2.5 ppm	2.7 ppm	
	Median	1.0 ppm	1.8 ppm	2.2 ppm	2.4 ppm	
Nitrogen Oxide	Maximum	0.379 ppm	0.560 ppm	0.560 ppm	0.560 ppm	
	Average	0.018 ppm	0.080 ppm	0.103 ppm	0.113 ppm	
	Median	0.011 ppm	0.039 ppm	0.074 ppm	0.088 ppm	
Nitrogen Dioxide	Maximum	0.140 ppm	0.149 ppm	0.138 ppm	0.125 ppm	
	Average	0.031 ppm	0.041 ppm	0.045 ppm	0.046 ppm	
	Median	0.027 ppm	0.040 ppm	0.043 ppm	0.044 ppm	
Total Nitrogen Oxides	Maximum	0.440 ppm	0.637 ppm	0.637 ppm	0.637 ppm	
	Average	0.049 ppm	0.122 ppm	0.148 ppm	0.158 ppm	
	Median	0.039 ppm	0.085 ppm	0.121 ppm	0.134 ppm	
Sulfur Dioxide	Maximum	0.018 ppm	0.021 ppm	0.021 ppm	0.012 ppm	
	Average	0.0022 ppm	0.0021 ppm	0.0022 ppm	0.0027 ppm	
	Median	0.0015 ppm	0.0016 ppm	0.0016 ppm	0.0024 ppm	
		Wind Speed				
		Maximum	11.6 m/s	10.9 m/s	7.7 m/s	7.7 m/s
		Average	4.4 m/s	2.0 m/s	1.8 m/s	1.8 m/s
		Median	4.3 m/s	1.6 m/s	1.5 m/s	1.5 m/s

The wind direction sorted concentration data indicates that the highest CO and NO_x air quality impacts are related to wind directions that are off-airport. Evaluating wind directions that are from the direction of the I-405 Freeway and I-105 Freeway east of the I-405 (0 - 180 degrees and 45 - 135 degrees) indicate that the freeways and associated arterial road traffic are likely responsible for the high concentrations seen when wind directions are from off-airport. Additionally, the average off-airport meteorological conditions, namely wind speed and stability class, are less favorable for emission dispersion.

Additionally, the NO_x and CO concentration results indicate that some modification to dispersion modeling inputs are warranted to properly model aircraft taxi, queue, and departure emissions. Current modeling procedures can grossly overestimate the downwind pollutant concentrations near airport runways and taxiways. The highest NO_x and CO concentrations, during persistent on-airport wind conditions, were generally observed during high wind speed conditions. This indicates that the buoyant plume rise, and mechanical plume rise from runway blast gates, need to be included in dispersion analyses for airports.



**Los Angeles International Airport
Master Plan**

Ambient Monitoring Station Location

**Figure
1**

AMBIENT MONITORING

Additionally, the high NO/NO₂ ratios seen at the monitoring station indicate that, to properly assess maximum NO₂ impacts from airports, initial NO/NO₂ ratios from aircraft should be used to assess the maximum potential NO₂ concentrations near the runways and taxiways. However, more analysis is required to determine proper jet engine plume height adjustments and jet engine NO/NO₂ emission ratios.

5.0 SUMMARY AND CONCLUSIONS

The pollutant concentration data collected at the monitoring station from August 14th, 1997, to February 23rd, 1998, observed no exceedances of non-annual NAAQS for CO, NO_x, SO₂, and PM₁₀ and CAAQS for CO, NO_x, and SO₂. The monitoring data collected indicates that the local area of the monitoring station is likely to be in attainment of annual NAAQS for NO_x, SO₂, and PM₁₀. As expected, several violations of the 24-hour PM₁₀ CAAQS were observed and the available data indicates likely non-attainment of the annual PM₁₀ CAAQS.

The pollutant concentration and meteorological data, when evaluated together, indicate that the highest NO_x and CO pollutant concentrations are observed when the wind directions are off-airport. Therefore, the highest pollutant concentrations, in the area of the monitoring station, are likely attributable to non-airport emission sources, likely mobile sources from the I-405 Freeway, I-105 Freeway and surrounding arterial roads and collector streets.

The monitoring data indicates that current air dispersion modeling procedures and the source input assumptions used to model jet aircraft emissions are inadequate and further study is necessary to evaluate plume rise and NO/NO₂ emission ratios from jet engines.

Attachment A

Air Quality and Meteorological Monitoring Program

Measurements Report

Prepared By:

AeroVironment Environmental Services, Inc.

AVES-R-50185-0001 (rev)
Project 50185-0001

LOS ANGELES INTERNATIONAL AIRPORT
MASTER PLAN PHASE III
ENVIRONMENTAL IMPACT SURVEY/REPORT
PREPARATION AIR QUALITY AND METEOROLOGICAL
MONITORING PROGRAM

MEASUREMENTS REPORT

Prepared for

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By

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May 1998

EXECUTIVE SUMMARY

Between August 13, 1997 and March 31, 1998, AeroVironment Environmental Services, Inc. (AVES) conducted continuous criteria air quality and meteorological monitoring at the Los Angeles International Airport (LAX). The monitoring was conducted as part of the LAX Master Plan Phase III Environmental Impact Survey/Report (EIS/R) preparation. The scope of this program involved the following:

- Installing one new site at LAX to measure carbon monoxide (CO), sulfur dioxide (SO₂), nitrogen dioxide (NO/NO₂/NO_x), particulate smaller than 10 microns (PM-10), and meteorological conditions (wind speed, wind direction, sigma theta, ambient temperature, delta temperature, and total solar radiation).
- Collecting and processing the data into hourly averages.
- Performing two quarterly calibrations.
- Performing two quarterly audits.
- Retrieving the data daily.
- Providing bimonthly summaries of the data to other project participants.
- Validating the data and providing a final data and measurements report.

This report summarizes the criteria air quality and meteorological data collected at this site.

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SECTION 1

INTRODUCTION

Between August 13, 1997 and March 31, 1998, AeroVironment Environmental Services, Inc. (AVES) conducted continuous criteria air pollutant and meteorological monitoring at the Los Angeles International Airport (LAX) (see Figure 1-1). The monitoring was conducted as part of the LAX Master Plan Phase III Environmental Impact Survey/Report (EIS/R) preparation. This report summarizes the data collected between August 13, 1997 and March 31, 1998 for this program.

1.1 PROJECT OBJECTIVE

The primary objective of this project was to measure the temporal and spatial concentrations for the carbon monoxide, sulfur dioxide, nitrogen dioxide (NO₂), particulate smaller than 10 microns (PM-10), and meteorological conditions at LAX during summer, fall and winter conditions.

1.2 SCOPE OF WORK

The project scope involved the following:

- Installing one new site at LAX to measure carbon monoxide (CO), sulfur dioxide (SO₂), nitrogen dioxide (NO/NO₂/NO_x), particulate smaller than 10 microns (PM-10), and meteorological conditions (wind speed, wind direction, sigma theta, ambient temperature, delta temperature, and total solar radiation).
- Collecting and processing the data into hourly averages.
- Performing two quarterly calibrations.
- Performing two quarterly audits.
- Retrieving the data daily.
- Providing bimonthly summaries of the data to other project participants.
- Validating the data and providing a final data and measurements report.

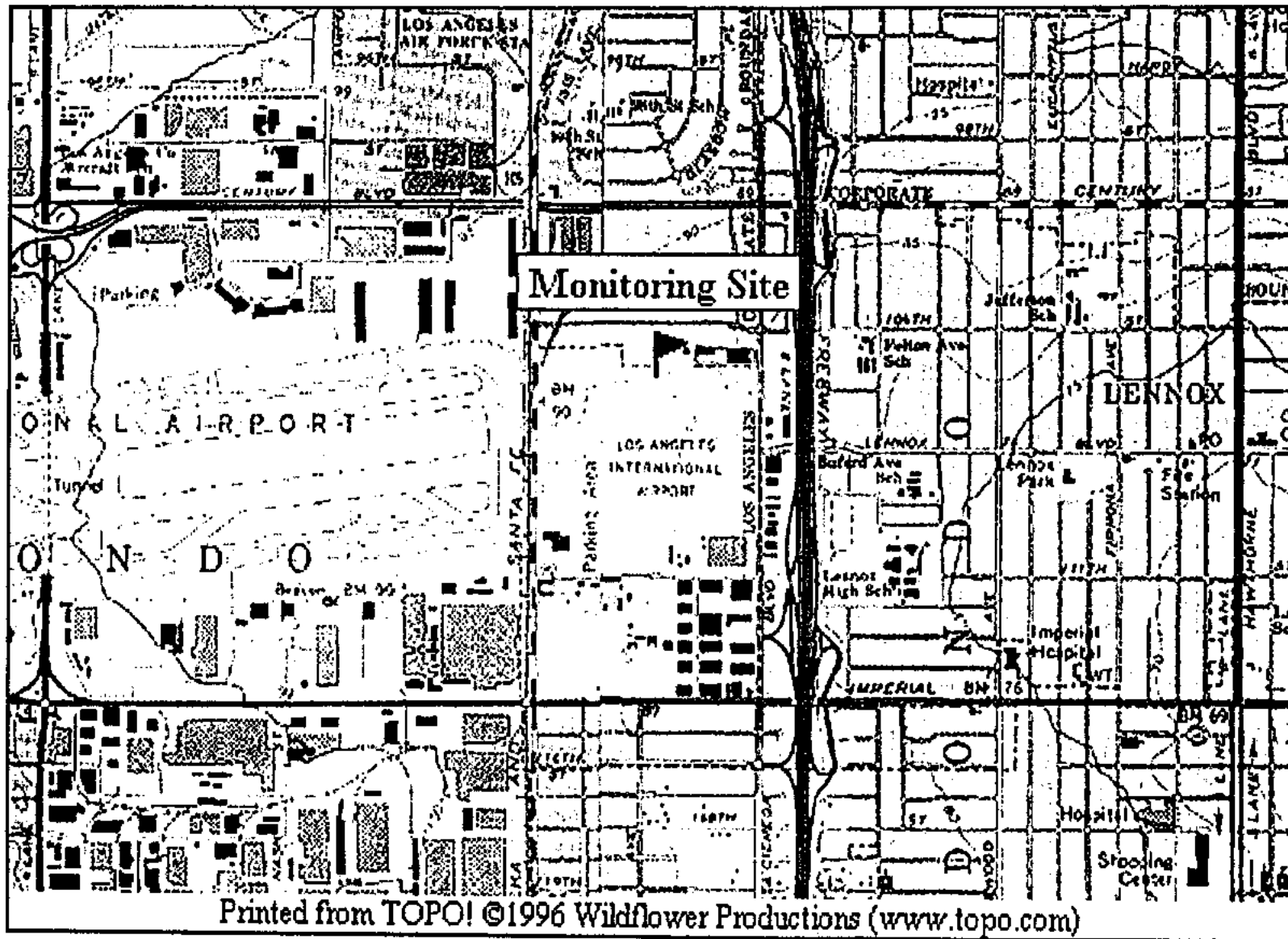


Figure 1-1. Site Map

Section 2

MEASUREMENT PROGRAM

The sampling equipment and conditions present during the field study, the quality control procedures, and quality assurance program used to perform the tasks presented in Section 1.2 are described in this section.

2.1 SITE SELECTION AND DESCRIPTIONS

2.1.1 Selection Criteria

The runway 25 right (25R) site was designated by Planning Consultants Research (PCR) as the location for the air quality and meteorological data required for the purposes of their study. AVES surveyed the site to determine if the characteristics of the site would allow for sensor and inlet exposure that were consistent with U.S. EPA Prevention of Significant Deterioration (PSD) criteria (EPA, 1987). Although the air quality measurements were not meant to be regional in their scope, the siting of the meteorological measurements were consistent with large-scale wind and temperature patterns.

2.1.2 Site Description

This site was located in a field east of the end of 25R. The field contained lights and other Federal Aviation Administration equipment associated with the runway approach. The field was bounded by Aviation Boulevard on the west, La Cienega Boulevard on the east, and an airport parking lot and the Proud Bird Restaurant on the south. The monitoring shelter was placed on an asphalt pad directly under the 25R approach approximately 300 meters east of Aviation Boulevard. The wind sensors were mounted on a 10-meter tower that was placed 10 meters south of the monitoring trailer, between 25R and runway 25 left approaches. Figure 1-1 shows a map of the area and the site. Figures 2-1 through 2-3 present photographs of this site. Other than the runway approach lights, light mounting platforms, and equipment sheds, there were no other structures in the area.

The site location was at:
33°56' 25" N latitude
118°22' 27" W longitude
21 meters elevation



Figure 2-1. View of Monitoring Site

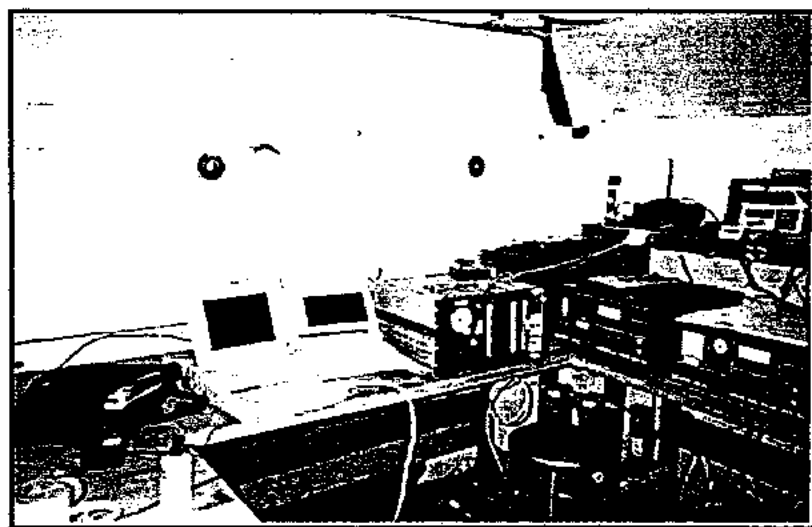


Figure 2-2. Inside view of monitoring shelter

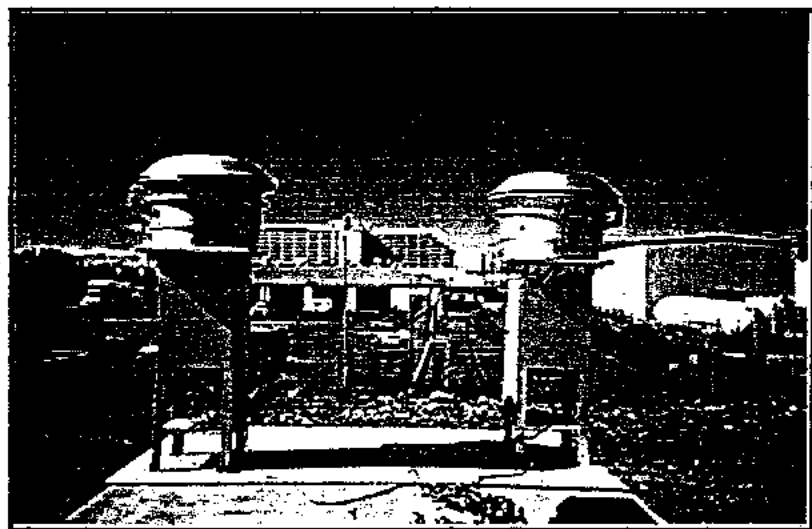


Figure 2-3. PM-10 Samplers

2.1.3. Monitoring Station

The air quality and meteorological monitoring station consisted of:

- An air-conditioned air quality shelter for the monitoring equipment that maintained an indoor temperature of $25^{\circ} \pm 5^{\circ}\text{C}$. The air quality shelter was sufficiently large which allowed numerous personnel into the shelters at the same time.
- A ten-meter tower for mounting the meteorological sensors.
- Commercial power was supplied by the airport and was sufficient for the instrumentation, air conditioning and lighting.
- A cellular telephone for operator use and for remote modem access to the site data logger.

2.2 AIR QUALITY MEASUREMENTS

Air quality monitoring was conducted in accordance with the U.S. EPA monitoring guidelines for prevention of significant deterioration (PSD) (EPA, 1987). These monitoring guidelines cover all aspects of the data collection process including site selection, sensor and inlet exposure, instrument performance, data collection intervals, averaging periods, quality control checks, data processing and archiving, audits, and reporting. Instrument procedures were specified in the EPA guidance documentation for air quality and meteorological data collection (EPA, 1994b).

Table 2-1 lists the continuous air quality sampling, particulate and meteorological monitoring equipment and methods that were employed during this monitoring program.

2.2.1 Carbon Monoxide

The continuous carbon monoxide measurement was performed using an EPA reference method analyzer: Dasibi Model 3003 (EPA Reference number RFCA-0381-051). The analysis method was gas filter correlation. The detection limit and sensitivity was 0.5 ppm. An inlet filter made from TFE Teflon was installed to eliminate particulate.

2.2.2 Sulfur Dioxide

The sulfur dioxide measurement was performed using an EPA reference method analyzer: Monitor Laboratories, Inc. Model 8850 (EPA Reference number EQSA-0779-039). The analysis method was pulsed fluorescence. The detection limit and sensitivity was 0.5 ppb. An inlet filter made of TFE Teflon was used to eliminate particulate.

TABLE 2-1. Air Quality Samplers.

Observable	Instrument Manufacturer and Model	Measurement Method	Operating Statistics (Range)	EPA Equivalency Designation
Carbon Monoxide	Dasibi 3003	Gas Filter Correlation	0 - 50 ppm	RFCA-0381-051
Sulfur Dioxide	Monitor Labs 8850	Pulsed Fluorescence	0 - 0.5 ppm	EQSA-0779-039
Nitrogen Dioxide	Monitor Labs 8840	Chemiluminescence	0 - 0.5 ppm	RFNA-0677-021
PM-10 (4)	Graseby/Anderson	Size-selective inlet and volumetric flow controller	0 - 10 μm	RFPS-1287-063
Wind Speed	RM Young 5305AQ	Propeller Anemometer	0 - 50 m/sec	
Wind Direction	RM Young 5305AQ	Directional Tail	0 - 360 deg	
Temperature	RM Young 107	Thermistor	-40 to + 50 C	
Delta Temperature	RM Young ASPTC	Thermocouple	-5 to +5 C	
Solar Radiation	Eppley Pyranometer	Silicon Pyranometer	0 - 1200 W/M ²	
Calibrator	Monitor Labs 8800	Rotameter & Pressure flowmeter dilution	Full range of analyzers	
Calibrator	CSI 1600	Mass flowmeter	Full range of analyzers	
Data Logger	Campbell 21X	N/A	Full range of analyzers	

2.2.3 Nitrogen Dioxide

The nitrogen dioxide measurement was performed using an EPA reference method analyzer: Monitor Laboratories, Inc. Model 8840 (EPA Reference number RFNA-0677-021). The analysis method was a single photomultiplier (Chemiluminescence) and solenoid system that switched every ten seconds between NO and NO_x measurements. NO₂ was obtained from the calculated difference between NO_x and NO. The detection limit and sensitivity was 0.5 ppb. An inlet filter made of TFE Teflon was used to eliminate particulate.

2.2.4 Particulate Smaller than 10 Microns (PM-10)

Four Graseby/Anderson PM-10 samplers (EPA Reference number RFPS-1287-063) were mounted on the roof of the sampling shelter. Particles larger than 10 μm were excluded by means of a constant flow rate (40 cfm) through a Sierra/Anderson Model 1200 PM-10 size-selective sample head. The flow rate was kept constant by drawing air through a critical venturi meter volumetric flow controller. Eight- by ten-inch quartz sample filters were used to collect the particulate samples that were run for 24 hours, every other day. Every third day, a collocated sample was collected that was used to determine the measurement precision.

2.3 METEOROLOGICAL MEASUREMENTS

Meteorological monitoring was conducted in accordance with the U.S. EPA monitoring guidelines for prevention of significant deterioration (PSD) (EPA, 1987). These monitoring guidelines cover all aspects of the data collection process including site selection, sensor and inlet exposure, instrument performance, data collection intervals, averaging periods, quality control checks, data processing and archiving, audits, and reporting. Instrument procedures were specified in the EPA guidance documentation for air quality and meteorological data collection (EPA, 1994d).

2.3.1 Wind Speed, Wind Direction, and Sigma Theta

The wind speed and direction measurements were made using an R.M. Young Model 05305 wind sensor. This wind system is comprised of a propeller anemometer mounted on a directional wind vane. The model 05305 was designed to meet the starting threshold and accuracy specifications recommended in the EPA PSD Guidelines (EPA, 1987). The wind sensors were mounted on top of a three-section, ten-meter tall, "crank-up" tower. The wind speed and direction signals were scanned once per second by the data loggers for each site and processed into 15- and 60-minute averages. The data logger processed the data into averages and calculated sigma thetas based on the Yamartino method (Campbell, 1996).

2.3.2 Ambient and Delta Temperature

Ambient and delta temperature measurements were made using a Campbell Scientific, Inc. Model ASPTC aspirated thermocouple system. The system consisted of two matched thermocouples mounted individually in fan aspirated sun shields. The temperature sensors were mounted on the meteorological sensor tower at two and nine meters above ground level. The signals were scanned once per second by the data logger and processed into 15- and 60-minute averages.

2.3.3 Total Solar Radiation

Solar radiation was measured using an Eppley Model PSP pyranometer. The sensor was mounted and leveled on a four-foot-tall post approximately 10 meters south of the meteorological sensor tower. The sensor placement was such that shadows from the tower, tower guy wires, or other objects would not impact the measurements. The signals were scanned once per second by the data logger and processed into 15- and 60-minute averages.

2.4 DATA LOGGING EQUIPMENT

A Campbell Model 21X data logger was used to scan, process, and record data from the sensors. The data logger scanned each parameter once per second and then digitally processed these data using running average algorithms into the appropriate 15- and 60-minute values (i.e., average or sigma theta). The data logger had sufficient

internal memory capability to retain the processed data for a week or more. The data logger was connected via modem to a cellular telephone to allow access to the instantaneous data and for daily downloading of the data. A site computer allowed direct manual access to the instantaneous data to conduct data checks and calibrations. The computer was also used for downloading the recorded data.

2.5 CALIBRATION EQUIPMENT

2.5.1 Air Quality Measurements

The site was equipped with a modified Monitor Labs Model 8500 dilution calibrator. The calibrator performed daily automated zero and span checks, and was used, in the manual mode for weekly zero, span and precision checks by the site operator. An internal ozone generator was used for gas-phase titration (GPT) with nitric oxide for generation of the nitrogen dioxide calibration standard concentrations. The span gases were supplied by a multiblend cylinder of nitric oxide, sulfur dioxide, and carbon monoxide, that were analyzed before the field study by Scott-Marrin, Inc. to an accuracy of $\pm 1\%$ against EPA- or ASTM-approved reference standards.

2.5.2 Meteorological Measurements

• Wind Measurements

The wind sensors were calibrated during set up and quarterly thereafter. An R.M. Young Model 18801 selectable speed anemometer drive was used to spin the wind speed sensor at rates equivalent to known wind speeds. An R.M. Young Model 18310 torque disc was used to check and quantify the starting threshold for both the wind speed and wind direction sensors. A tripod-mounted Brunton magnetic transit was used to check the sensor orientation relative to magnetic and true north. True north was determined using the local declination angle provided by the pertinent 7.5-minute USGS quadrangle map.

• Temperature Measurements

A mercury-in-glass reference thermometer was used to perform single point checks of the temperature sensors. The reference thermometer was compared with AVE's ASTM-Certified standard thermometer and determined to be accurate within the manufacturer's specifications.

• Total Solar Radiation Measurements

The solar radiation sensor was calibrated by AVE's prior to deployment to the field study by collocating the sensors over several days with a reference pyranometer that was maintained by AVE's Measurement Standards Laboratory.

2.6 SITE OPERATING PROCEDURES, QUALITY CONTROL CHECKS AND CALIBRATION

2.6.1 Station Check Procedures

• Site Operator

Weekly station checks were performed by the AVES station operator. The AVES station operator has more than 20 years' experience with the maintenance repair operation of meteorological instrumentation, as well as the set up and operation of air quality and meteorological monitoring stations.

• Station Checks

The purpose of the station check was to ensure that the air monitoring station was operating properly, to provide adequate warning of developing equipment problems, and to identify instrument problems. During each station check, the station operator visually inspected the ambient air sampling inlet system, air sampling equipment and data loggers for proper operation.

A bound logbook was kept at the station for narrative comments concerning the station operation as well as for maintaining a record of station visits. AVES's procedures require that a logbook entry be made whenever a station shelter is entered and left, and for all actions taken at the site. It serves as a legal record of all activities at the station and is used to substantiate the integrity of the collected data. Once a month, the site technician sent copies of all recorded data and logbook pages to AVES-Monrovia for processing.

2.6.2 Quality Control Checks and Frequency

The quality control checks included periodic operational checks of the field instruments by the station operator coupled with computerized outlier screening during data processing operations. The site technician performed manual zero, span and precision checks once a week on all air quality instruments. Each air quality analyzer was subjected to a daily automated zero and span check. Each morning, the data were downloaded via telephone and the zero and span check data were reviewed by an AVES data technician.

2.6.3 Calibrations

Calibrations verify instrument operation and response, and are used to determine calibration factors which are applied to the data by AVES's data processing group to obtain the final corrected data. Calibration guidelines for air quality and meteorological instrumentation are recommended by the EPA (*Quality Assurance Handbook for Air Pollution Measurement Systems, Volumes II and IV* (EPA, 1994b, 1994d)). Scheduled calibrations were performed at the beginning and end of the field study. Otherwise,

calibrations were performed when repairs were made that affected instrument response, if the audits found the equipment to be out of tolerance, and whenever the zero or span checks indicated that the operating criteria had been exceeded.

2.7 DATA REDUCTION AND VALIDATION

The objective of the data processing and validation effort is a quality assured data base containing the air quality and meteorological monitoring data in a consistent format. The procedures that AVES implemented for data processing and validation ensure that reported data are valid and comparable to those collected by federal, state and local air pollution agencies. These procedures meet the requirements and guidelines of the Environmental Protection Agency; e.g., Appendices A and B of 40 CFR 58; Quality Assurance Handbook for Air Pollution Measurement Systems, Volumes I and II (1994a, 1994b). A summary of the data processing effort is presented below.

At the beginning of the project, AVES set up a database for the project data. The database was set up in AVES's VAX computer and included the following information:

- project name
- site number(s)
- site name(s)
- component number (e.g., NO₂= 44201)
- reporting period
- status code
- units (ppm)
- reporting precision (specifies number of decimal places)
- outlier flags
- date of last access and update

The field data were polled by AVES using Campbell data logger software onto desktop PCs. These data were manually screened on the PCs for completeness and obvious outliers. The data were then transferred over AVES's computer network to the VAX computer. Within the VAX system, data processing activities, including data screening and filtering, universal data editing and handling, and data file indexing and protection were conducted with the aid of the AeroVironment Environmental Database Management System (AVEDMS). The AVEDMS database system has been tested and documented completely. The AVEDMS data system screened the data for outliers and also formatted the data into the "standardized" output format as presented in the appendices to this report. Outliers found by AVEDMS were flagged for review. These flagged data were reviewed by both project scientists and data aides (Level 1 data review).

The Level I reviewed data were output both electronically and in hard copy for further data review. The further (Level II) data review included an intercomparison data review for consistency (parameter-to-parameter comparisons for consistency and trends). This data review was performed by project scientists who were familiar with the

interrelationships of air quality and meteorological parameters, and potential local influences at the sites.

The Level II validated data represent the "final data" produced by AVES for this project. These final data are included in hard copy form in the appendices of this report and have also been submitted to other project contractors in electronic format.

2.8 PERFORMANCE AND SYSTEM AUDITS

Audits are an independent check of the station operations, and the accuracy of the measurement systems. The audits were performed by a person who was not associated with the day-to-day operations of the monitoring station, using equipment that was not used to perform routine calibrations, and zero and span checks. The audit standards were certified against higher standards maintained or certified by organizations such as the U.S. EPA and/or the National Institute of Standards and Technology (NIST).

The first quarterly audit was performed by VSI of Phoenix, Arizona, on October 15, 1997, and the second audit was performed on March 3, 1998. The audits consisted of both system and performance audits of the air quality station, meteorological sensors, gaseous analyzers, and particulate samplers. A description of the audits and the corresponding findings are contained in the reports submitted by the auditor (Appendix A). A summary of the audit findings is presented in Section 3.2.

Section 3

RESULTS

3.1 STUDY PERIOD

The station was set up the week of August 11, 1997. The instruments were turned on, stabilized, calibrated and collecting viable data for all parameters on August 13, 1997. The measurement program is scheduled to end and be demobilized on March 31, 1998. This data report includes the data collected through March 31, 1998.

3.2 DATA ACCURACY AND COMPLETENESS

3.2.1 Data Accuracy

Accuracy is the difference between the analyzer response and the reference value obtained during the instrument audit. Twice during the study, the air quality analyzers and meteorological measurement systems were audited. The results of the audits performed on October 15, 1997 and March 5 and 6, 1998 are presented in the audit reports from VSI (Appendix A). For instruments that failed the initial audit, the site operator determined the reason for the failure, corrected the problem and calibrated the measurement system. A summary of the problems noted by the auditor during the first audit and the subsequent steps taken to correct these problems are as follows:

Auditor Comments

- The total solar radiation sensor outputs differed from the collocated audit pyranometer by 5.2%, which exceeded the audit criteria of $\pm 5.0\%$. It was found that the data logger scaling factor was not correct for this sensor. The correct scaling factor was entered into the data logger program to correct the problem. All total solar radiation data collected before the audit were corrected using the geometric difference between the incorrect and correct scaling factors.

3.2.2 Data Completeness

Data were collected over a 231-day period from August 13, 1997 through March 31, 1998. The number of validated hourly average data for each parameter varied from 4,794 to 5,335 (87% to 97%). The average data recovery for the continuous air quality parameters was 88%. The data recovery for the PM-10 sampling was 97%, and the average data recovery for the meteorological parameters was 96%. Table 3-1 presents a summary of the valid data periods for all parameters by site.

TABLE 3.1 Data Recovery Percentage and Number of Valid Data Points

	Percent Recovery	Hours of valid data
Wind Speed (scalar)	97	5332
Wind Direction (scalar)	97	5332
Wind Speed (vector)	95	5216
Wind Direction (vector)	95	5216
Wind Direction/ Hourly Standard Deviation	97	5332
Stability Class (Based on Delta T)	95	5216
Stability Class (Based on σ_θ)	90	4975
Ambient Temperature	95	5215
Delta Temperature	88	4856
Solar Radiation	97	5321
Carbon Monoxide	87	4794
Sulfur Dioxide	87	4796
Oxides of Nitrogen	87	4794
		Number of 24-hour samples
PM-10	97	84

Note: Data recovery was based on the total hours of data ambient air quality data collected during the program versus the total hours of the program. Scheduled instrument calibrations, audits and maintenance were counted as data loss as well as periods when equipment failed.

3.3 DATA SUMMARY

Preliminary (Level I validated) data were sent by e-mail to the PCR project manager every two weeks during the measurement period. These data have since been further reviewed, corrected, and Level II validated. These Level II validated data are presented in Appendix C. Appendix B presents a tabulation of the data codes used for missing data and figures with descriptive details for understanding the structure and information in the hard copy data outputs. Appendix D presents the wind roses and wind frequency tables. Appendix E presents the PM-10 gravimetric data through March 31, 1998.

3.3.1 Carbon Monoxide

The hourly average ambient carbon monoxide concentration measured at the site varied from 0 ppm (parts per million) to a maximum hourly average of 11 ppm. Neither the California one-hour standard of 20 ppm nor the eight-hour standard of 9 ppm were exceeded. All but one of the 5,504 hourly average CO concentrations were below 10 ppm. The average one-hour CO concentration was 2 ppm. The maximum 8-hour CO concentration was 8 ppm.

3.3.2 Sulfur Dioxide

The hourly average ambient sulfur dioxide concentration measured at the site varied from 0 ppb (parts per billion) to a maximum hourly average of 20 ppb. Neither the California one-hour standard of 250 ppb nor the federal three-hour standard of 500 ppb were exceeded. All but 41 of the 5,504 hourly average SO₂ concentrations were below 10 ppb. The average SO₂ concentration was 2 ppb.

3.3.3 Nitrogen Dioxide

The hourly average ambient nitrogen dioxide concentration measured at the site varied from 2 ppb to a maximum hourly average of 149 ppb. Neither the California one-hour standard of 250 ppb nor the federal annual average standard of 50 ppb were exceeded. All but 22 of the 5,504 hourly average NO₂ concentrations were below 100 ppb. The average NO₂ concentration was 37 ppb.

3.3.4 Meteorology Data

Hourly average wind speeds during the program varied from 0.3 meters per second (m/s) to a high of 11.9 m/s. The average wind speed was 2.8 m/s. Temperatures during the study varied from 6 to 38 degrees Celsius. The average temperature at the site during the program was 19.0°C.

3.3.5 Respirable Particulate Matter (PM-10)

The 24-hour PM-10 concentration varied from 7 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) to $82 \mu\text{g}/\text{m}^3$. The 24-hour California standard of $50 \mu\text{g}/\text{m}^3$ was exceeded on 14 occasions. The $150 \mu\text{g}/\text{m}^3$ federal 24-hour PM-10 standard was not exceeded. The average 24-hour PM-10 concentration was $33 \mu\text{g}/\text{m}^3$.

SECTION 4

REFERENCES

- 40 CFR 58 (1987): Code of Federal Regulations: Protection of the Environment, Title 40, Parts 53 to 60.
- Campbell Scientific (1996): CR10X Measurement and Control Module: Operator's Manual. Unnumbered Campbell Document, Revised 7/96.
- United States Environmental Protection Agency (1987): Ambient Monitoring Guidelines for Prevention of Significant Deterioration (PSD). EPA Document EPA-450/4-87-007, Environmental Monitoring Systems Laboratory, Research Triangle Park, North Carolina.
- United States Environmental Protection Agency (1994a): Quality Assurance Handbook for Air Pollution Measurement Systems, Volume I, A Field Guide to Environmental Quality Assurance. EPA Document EPA/600/R-94/038a, Environmental Monitoring Systems Laboratory, Research Triangle Park, North Carolina.
- United States Environmental Protection Agency (1994b): Quality Assurance Handbook for Air Pollution Measurement Systems, Volume II, Ambient Air Specific Methods. EPA Document EPA/600/R-94/038b, Environmental Monitoring Systems Laboratory, Research Triangle Park, North Carolina.
- United States Environmental Protection Agency (1994d): Quality Assurance Handbook for Air Pollution Measurement Systems, Volume IV, Meteorological Measurements. EPA Document EPA/600/R-94/038d, Environmental Monitoring Systems Laboratory, Research Triangle Park, North Carolina.

Appendix A
AUDIT REPORTS

OCTOBER 15, 1997

REPORT
AIR MONITORING QUALITY ASSURANCE AUDIT
at the
LOS ANGELES INTERNATIONAL AIRPORT
for
AEROVIRONMENT ENVIRONMENTAL SERVICES

CONTRACT NO. 101097

October 1997

by

VISIBILITY SERVICES, INC



October 29, 1997

AeroVironment Environmental Services, Inc.
222 E. Huntington Drive
Suite 200
Monrovia, CA 91016

Attn: Mr. Alex Barnett

Report: Air Monitoring Quality Assurance Audit
Los Angeles International Airport
Contract No. 101097

Dear Mr. Barnett:

Enclosed please find 5 copies of the report on the performance audit of the air quality and meteorological monitoring systems at the Los Angeles International Airport performed by VSI on October 15, 1997. This report describes the audit activities performed by VSI, the results of the audit, and recommendations; included in the appendices are copies of the certificates of traceability for the audit devices and copies of the completed audit forms.

Thank you for the opportunity to work with your organization. I hope the work performed by VSI during this audit has been to your satisfaction. Please call me if you have any questions.

Sincerely,



Dennis Haase
VSI

OVERVIEW

A performance audit of the air monitoring network at the Los Angeles International Airport was performed on October 15, 1997. Results of the performance audit of the four (4) PM₁₀ samplers indicated compliance with the EPA Guidelines as outlined in *EPA-600/R-94/038b, Section 2.11.7*. Results of the performance audit of the continuous gas analyzers indicated compliance with the EPA Guidelines as outlined in *EPA-600/R-94/038b, Section 2.0.12*.

The performance audit of the meteorological monitoring system indicated general compliance with the PSD Tolerances as outlined in *EPA-450/4-87-007* and *EPA-454/B-95-005*. Of the five (5) meteorological parameters audited, only the solar radiation was at the limit of the PSD Tolerance. Details of the audit results and corrective actions are discussed in latter sections of this report.

INTRODUCTION

A quality assurance performance audit of an air monitoring network at the Los Angeles International Airport was accomplished on October 15, 1997. The network consists of four (4) VFC-PM₁₀ samplers; continuous gas analyzers for carbon monoxide, sulfur dioxide, and oxides of nitrogen; and a 10-meter tower instrumented with wind speed, wind direction, ambient temperature, delta temperature and total solar radiation sensors. In attendance during the audit were Mr. David B. Wright of AeroVironment Environmental Services, Inc. (AVES) and Mr. Dennis Haase of VSI, who performed the audits. All equipment and forms required for the audits were provided by VSI. Copies of the certificates of traceability to the National Institute of Standards and Technology (NIST) for the audit devices are included in Appendix A; copies of the completed audit forms are provided in Appendix B.

The procedures and tolerances used during the audit followed the general guidelines of *EPA-600/R-94/038b, Quality Assurance Handbook for Air Pollution Measurement Systems: Volume II*; *EPA-600/R-94/038d, Quality Assurance Handbook for Air Pollution Measurement Systems: Volume IV, Meteorological Measurements*; *EPA-450/4-87-007, Ambient Monitoring Guidelines for Prevention of Significant Deterioration (PSD)*; *EPA-454/B-95-005, On-Site Meteorological Program Guidance for Regulatory Modeling Applications*; and equipment manufacturer recommendations.

The discussions that follow describe those activities performed by VSI in the completion of the audit, the associated results, and recommendations.

AUDIT ACTIVITIES AND RESULTS

AIR QUALITY MONITORING NETWORK

PM₁₀

Four volumetric flow-controlled (VFC) PM₁₀ samplers were audited on October 15, 1997. The audit of a sampler does not involve the size-selective inlet; during the audit, the SSI was released from the main structure and tilted back to allow the installation of the audit orifice. The audit orifice and faceplate were placed directly on the filter cassette and a new, clean filter.

After allowing each sampler to operate for approximately 5 minutes, a manometer reading was taken from the audit orifice and, based on the calibration relationship for the orifice, an audit flow rate was determined for the site conditions, Q_a . The audit flow (Q_a) was then compared with the indicated flow ($Q_{\text{indicated}}$), derived by the operator from the manometer reading taken at the stagnation port during the audit.

The audit of the four samplers showed that the indicated flow rates ($Q_{\text{indicated}}$) were well within the EPA requirements. The indicated flow rates were within 1.5% of the audit flow rate (Q_a); $\pm 6.0\%$ is required. Indicated flow rates without the orifice in place were within 3.5% of the design flow of 1.13 m³/min; $\pm 7.0\%$ is required. A summary of the audit results for the samplers is provided in Table 1; copies of the audit forms are included in Appendix B.

GAS ANALYZERS

The audit of each of the gas analyzers was accomplished by inputting known concentrations of the respective gas at approximately 10, 20, 40, and 80% of the analyzer's full scale plus "zero air" and comparing the analyzer's corrected response with these concentrations. The corrected responses were based on the most recent calibration relationship for the analyzer provided by the site operator. The inputted concentrations were obtained through the dilution of a certified gas cylinder not associated with this network. The dilution source was a Rockwell blender and the "zero

TABLE 1
AUDIT SUMMARY: PM₁₀
Los Angeles International Airport
October 15, 1997

<u>Sampler I.D.</u>	<u>FLOW RATE (m³/min)</u>		<u>% DIFFERENCE</u>	
	<u>Audit</u>	<u>Indicated*</u>	<u>Indicated</u>	<u>Design</u>
P2865	1.134	1.135/1.150	0.11	1.66
P2866	1.140	1.143/1.158	0.28	2.19
P2872	1.155	1.138/1.151	-1.45	3.34
P2873	1.145	1.144/1.159	-0.12	2.69
Guidelines:			<u>+6%</u>	<u>+7%</u>

*with orifice installed/without orifice installed
Reference: EPA-600/R-94/038b, Section 2.11.7

air" source was a cylinder of ultra-pure air. Copies of the cylinder certification, blender flow calibrations, and derivation of the audit concentrations are included in Appendix A.

The audit of the analyzers began with the introduction of "zero air" into the analyzers through the normal sampling line and particulate filter, allowing the analyzers to stabilize, then recording the data logger's responses. This was followed by the introduction of a gas concentration equivalent to approximately 80% of the analyzers' full scales and again allowing the analyzers to stabilize, then recording the data logger responses. This was repeated for each of the remaining points. The recorded responses were then corrected using the latest calibration relationships. A linear regression equation between the inputted concentrations and the corrected responses and the average absolute percent difference for each audit point were then calculated. Each of the analyzer's responses is discussed in the following paragraphs, a summary of the audit results for the gas analyzers is provided in Table 2, and copies of the audit forms are included in Appendix B.

CARBON MONOXIDE

The carbon monoxide analyzer audited was a Dasibi Model 3003. The audit of the analyzer indicated some drift. As the audit proceeded from the high point (80% of full scale) to each lower audit point, the percent difference between the corrected response and the inputted concentration increased until reaching nearly 15% at the last point. A recheck of the zero following the audit indicated the analyzer zero had drifted up by 0.8 ppm. The average absolute difference between the inputted concentrations and the corrected responses was 6.1%. The linear regression values of slope, intercept and correlation coefficient were excellent to satisfactory.

TABLE 2
AUDIT SUMMARY: GAS ANALYZERS
Los Angeles International Airport
October 15, 1997

Analyzer	Average Absolute % Diff. From Audit Conc.	Slope	Intercept	Correlation Coefficient	Date of Last Calib.
Carbon Monoxide	6.1	1.0040	0.5174	0.99992	10/10/97
Sulfur Dioxide	1.5	0.9955	0.0001	0.99986	10/10/97
Oxides of Nitrogen:					
NO	2.4	0.9585	0.0022	0.99999	10/10/97
NO ₂	2.0	0.9696	0.0018	0.99999	10/10/97
NO _x	1.8	0.9570	0.0031	0.99999	10/10/97
Guidelines:					
Excellent:	≤ + 5%				
Satisfactory:	+ 6% to + 15%				
Unsatisfactory:	> 15%				

SULFUR DIOXIDE

The sulfur dioxide analyzer audited was a Monitor Labs Model 8850. The audit of the analyzer indicated very close agreement between the inputted concentrations and the corrected values. The average absolute difference between the two sets of values was 1.5%, with a maximum difference of -2.4%. The linear regression values of slope, intercept, and correlation coefficient were excellent to satisfactory.

NITROGEN DIOXIDE

The oxides of nitrogen analyzer audited was a Monitor Labs Model 8840. The audit of the analyzer indicated very close agreement between the inputted concentrations and the corrected values. The average absolute difference between the two sets of values was 2.4%, 2.0%, and 1.8% for NO, NO_x, and NO₂, respectively. The linear regression values of slope, intercept, and correlation coefficient for the three gases was excellent to satisfactory. The converter efficiency was calculated to be 99.63%, which meets the EPA requirements.

METEOROLOGICAL MONITORING NETWORK

WIND SPEED

The audit of the wind speed system was performed by rotating the sensor shaft at known rates and recording the data logger responses. Shaft rotations corresponding to speeds of 0.0, 1.02, 2.05, 5.12, 10.24, and 30.71 meters per second (mps) were applied to the sensor; responses of the data logger were within the PSD tolerances at all speeds.

The sensor propeller was inspected and found to be in good condition with no deformities. Sensor bearing wear was checked by measuring the force necessary to initiate rotation of the propeller shaft. The manufacturer indicates that the propeller shaft should begin rotation with a force of less than 1.0 gm-cm, corresponding to a starting threshold of 0.5 mps or less. Measurement with the R.M. Young torque wheel indicated that the sensor bearing torque was within the manufacturer's recommendations. A summary of the audit results are provided in Table 3; a copy of the audit form is included in Appendix B.

WIND DIRECTION

The wind direction system was audited by aligning the sensor to reference points in each of the four quadrants. The bearing of each reference point was obtained with a compass corrected for the magnetic declination of the area. The declination, approximately 14° east, was obtained from a *VFR Terminal Area: Los Angeles, NOAA, July 17, 1997*. Results of the audit indicated that the responses of the data logger were within the PSD tolerances.

The sensor vane was inspected and found to be in good conditions with no deformities. Sensor bearing wear was checked by measuring the force necessary to move the vane from a static position. A gram-gauge was applied to the vane at a distance of 5 cm from the vane center and a reading taken when the vane began to move. The manufacturer indicated that the vane should move with a force of less than 11.0 gm-cm, corresponding to a starting threshold of 0.5 mps or less. Measurement

TABLE 3
AUDIT SUMMARY: METEOROLOGICAL SENSORS
Los Angeles International Airport
October 15, 1997

<u>Sensor</u>	<u>Range</u>	<u>DAS Response</u>	<u>PSD Tolerance</u>
Wind Speed	< 5 mps > 5 mps	± 0.01 mps +0.0% / -0.4%	± 0.25 mps $\pm 5\%$ not to exceed 2.5 mps
Wind Direction	0 - 360°	+0.0° / -2.6°	$\pm 5.0^\circ$
Temp(2m)	- 50 to +50°C	+0.40°C / -0.00°C	$\pm 0.50^\circ\text{C}$
Temp(9m)	- 50 to +50°C	+0.20°C / -0.00°C	$\pm 0.50^\circ\text{C}$
Δ Temp(2-9m)	- 5 to +5°C	+0.064°C / -0.000°C	$\pm 0.10^\circ\text{C}$
Solar Radiation	0 to 2000W/m ²	+5.2% / -0.0%	$\pm 5.0\%$

Reference: EPA-450/4-87-007
EPA-454/B-95-005

with the gauge indicated that the sensor bearing met the manufacturer's recommendations. A summary of the audit results is provided in Table 3; a copy of the audit form is included in Appendix B.

AMBIENT / DELTA TEMPERATURES

The audit of the ambient/delta temperature systems was accomplished by removing the upper aspirator assembly containing the thermocouple and attaching it to the lower assembly. The inability to immerse the thermocouples in a liquid bath precluded auditing the system at temperatures other than ambient. Discussions with the manufacturer indicated that the thermocouples typically don't drift and that without a temperature-controlled chamber, a single-point audit is typical for field audits. Monitoring of the ambient temperature adjacent to the thermocouples was accomplished using a NIST-certified digital thermometer with a resolution of 0.1° F. Results of the audit indicated that the data logger responses were within PSD tolerances. A summary of the audit results is provided in Table 3; copies of the audit forms are included in Appendix B.

SOLAR RADIATION

The audit of the solar radiation sensor began by covering the sensor to block all light and recording the output of the sensor and data logger response. Following this, the output of the sensor was monitored with a NIST-certified digital multi-meter and using the calibration relationship for the sensor, an expected value calculated. This value was then compared with the actual data logger response. The results of the audit indicated that the data logger was approximately 5% high, which is at the PSD tolerance limit. Discussion with the Project Manager for the monitoring network indicated that an error in the data logger program had been discovered and that this accounted for the 5% discrepancy. Subsequent to this discussion, all data collected prior to the audit have been adjusted accordingly. A summary of the audit results is provided in Table 3; a copy of the audit form is included in Appendix B.

RECOMMENDATIONS

Solar Radiation

Results of the audit indicated that the solar radiation data were approximately 5% high. A recommendation, which has already been accomplished by AVES, is that the data be adjusted to correct for the discrepancy.

Carbon Monoxide

Although the audit results for the carbon monoxide analyzer were within the EPA Guidelines, the analyzer drift observed during the audit should be closely monitored and the data corrected using the calibration checks done daily.

GRASEBY Orifice Transfer Standard Certification Worksheet

page 1

Date: 08/18/1997 Rootmeter S/N: 9738553 Ta: 22.00 C
Operator: Jim Tisch Calibrator S/N: G73 Pa: 755.4 mm Hg
Calibrator Model #: G25A Placed in service:

Run	Vol. Init. (m3)	Vol. Final (m3)	Δ Vol. (m3)	Δ Time (min)	ΔP (mm Hg)	ΔH (in H ₂ O)
1	1.00	2.00	1.00	1.355	3.18	2.00
2	3.00	4.00	1.00	0.951	6.17	4.00
3	5.00	6.00	1.00	0.856	7.75	5.00
4	7.00	8.00	1.00	0.820	8.50	5.50
5	9.00	10.00	1.00	0.678	12.33	8.00

Data Tabulation

Vstd (m3)	Qstd (x-axis)	$\sqrt{\Delta H \left(\frac{P_a}{P_{std}} \right) \left(\frac{T_{std}}{T_a} \right)}$ (y-axis)	Va	Qa (x-axis)	$\sqrt{\Delta H (T_a / P_a)}$ (y-axis)
1.000	0.738	1.417	0.996	0.735	0.884
0.996	1.036	2.004	0.992	1.032	1.250
0.994	1.161	2.241	0.990	1.155	1.398
0.993	1.211	2.350	0.989	1.206	1.486
0.988	1.457	2.834	0.984	1.451	1.768
m = 1.9705			m = 1.2342		
b = -0.038719			b = -0.024155		
r = 0.999959			r = 0.999959		

Calculations

$$V_{std} = \Delta Vol \left((P_a - \Delta P) / P_{std} \right) (T_{std} / T_a)$$

$$V_a = \Delta Vol \left((P_a - \Delta P) / P_a \right)$$

$$Q_{std} = V_{std} / \Delta Time$$

$$Q_a = V_a / \Delta Time$$

For subsequent flow rate calculations:

$$Q_{std} = 1 / m \left(\left(\sqrt{\Delta H \left(\frac{P_a}{P_{std}} \right) \left(\frac{T_{std}}{T_a} \right)} \right) - b \right)$$

$$Q_a = 1 / m \left(\left(\sqrt{\Delta H (T_a / P_a)} \right) - b \right)$$

Standard Conditions:

Tstd: 298.15 °K
Pstd: 750 mm Hg

where:

ΔH: calibrator manometer reading (in H₂O)
ΔP: rootmeter manometer reading (mm Hg)
Ta: actual absolute temperature (°K)
Pa: actual barometric pressure (mm Hg)
b: intercept
m: slope

For additional information consult:

- The Federal Register, Vol. 47, No. 234, pp. 54896-54921, Dec. 6, 1982
- Quality Assurance Handbook, Vol II (EPA 600/4-77-277a), Section 2.11
- Graseby/GMW/Andersen Instruction Manual

Notes:

- Copies of this calibration are not kept on file.
- EPA recommends calibrators should be recalibrated after one year of use.

CALIBRATION: MASS FLOW CONTROLLER
RANGE: 0-10 UNITS: LPM

CALIBRATOR: ROCKWELL
MODEL: BLENDER
SERIAL NO.: 006

OWNER: AeroVironment, Inc.
LOCATION: LAB
DATE: 10/9/97
BY: dh/VSI

DATE: 10/9/97
BY: dh/VSI

FLOW CONTROLLER: TYLAN
MODEL: FC-261
SERIAL NO.: 1303

FLOW METER: BIOS

BASE:

CELL:

Temp.: 22.9 deg.Cent.

Pr.: 732 mm Hg.

MODEL: DC1B REV 2.05E MODEL: DC1HC REV E

SERIAL NO.: B1182

SERIAL NO.: H331

POINT:	CALIB. DISPLAY	AVERAGE FLOW RATE (TEN/AVG)					SITE FLOW	STP FLOW
1	0.500	1.682	1.683	1.685	1.687	1.686		
		1.686	1.686	1.687	1.687	1.688	1.686	1.634
2	1.000	2.979	2.979	2.980	2.980	2.981		
		2.981	2.983	2.984	2.984	2.984	2.982	2.890
3	1.500	4.263	4.266	4.265	4.260	4.264		
		4.262	4.264	4.262	4.261	4.262	4.263	4.133
4	2.000	5.527	5.529	5.528	5.529	5.529		
		5.534	5.531	5.530	5.531	5.532	5.530	5.361
5	2.500	6.779	6.778	6.779	6.777	6.783		
		6.785	6.786	6.786	6.785	6.787	6.783	6.575

PAGE1

	CALIB. DISPLAY	AVERAGE FLOW RATE (TEN/AVG)					SITE FLOW	STP FLOW
6	3.000	8.050	8.049	8.051	8.049	8.051		
		8.049	8.054	8.057	8.060	8.053	8.052	7.806
7	3.500	9.319	9.322	9.322	9.319	9.320		
		9.325	9.322	9.326	9.333	9.329	9.324	9.039
8	4.000	10.600	10.600	10.600	10.590	10.600		
		10.600	10.600	10.600	10.600	10.600	10.599	10.275
9	4.500	11.860	11.860	11.880	11.880	11.890		
		11.880	11.890	11.880	11.890	11.890	11.880	11.517
10		---	---	---	---	---		
		---	---	---	---	---	#DIV/0!	

X VALUES: 9.000 Y VALUES: 9.000

STP FLOW = 2.463 (DISPLAY) + 0.4193 R2: 0.99999

PAGE2

CALIBRATION: MASS FLOW CONTROLLER
RANGE: 0-100 UNITS: CCM

CALIBRATOR: ROCKWELL
MODEL: BLENDER
SERIAL NO.: 006

OWNER: AeroVironment, Inc.
LOCATION: LAB
DATE: 10/9/97
BY: dh/VSI

FLOW CONTROLLER: TYLAN
MODEL: FC-260
SERIAL NO.: AA005005

FLOW METER: BIOS
BASE: CELL:
MODEL: DC1B REV 2.05E MODEL: DC1LC REV E
SERIAL NO.: B1182 SERIAL NO.: L268

Temp.: 23.4 deg.Cent.
Pr.: 732 mm Hg.

POINT:	CALIB. DISPLAY	AVERAGE FLOW RATE (TEN/AVG)					SITE FLOW	STP FLOW
1	0.500	7.508	7.512	7.510	7.504	7.498		
		---	---	---	---	---	7.506	7.265
2	1.000	14.900	14.910	14.930	14.930	14.930		
		---	---	---	---	---	14.920	14.440
3	1.500	22.410	22.370	22.370	22.330	22.320		
		---	---	---	---	---	22.360	21.641
4	2.000	29.480	29.510	29.460	29.470	29.470		
		---	---	---	---	---	29.478	28.530
5	2.500	37.050	37.010	37.050	37.060	37.070		
		---	---	---	---	---	37.048	35.856

DATE: 10/9/97
BY: dh/VSI

	CALIB. DISPLAY	AVERAGE FLOW RATE (TEN/AVG)					SITE FLOW	STP FLOW
6	3.000	44.160	44.100	43.990	44.070	43.900		
		---	---	---	---	---	44.044	42.627
7	3.500	51.750	51.650	51.730	51.730	51.790		
		---	---	---	---	---	51.730	50.066
8	4.000	58.280	58.300	58.330	58.380	58.330		
		---	---	---	---	---	58.324	56.448
9	4.500	65.490	65.370	65.580	65.630	65.620		
		---	---	---	---	---	65.538	63.430
10	5.000	73.960	73.950	73.890	73.870	73.890		
		---	---	---	---	---	73.912	71.535

X VALUES: 10.000 Y VALUES: 10.000

STP FLOW = 14.143 (DISPLAY) + 0.2914 R2: 0.99979

CALIBRATION: MASS FLOW CONTROLLER
 RANGE: 0 - 10 UNITS: LPM

CALIBRATOR: ROCKWELL
 MODEL: BLENDER
 SERIAL NO.: 006

OWNER: AeroVironment, Inc.
 LOCATION: LAB
 DATE: 10/9/97
 BY: dh/VSI

DATE: 10/9/97
 BY: dh/VSI

FLOW CONTROLLER: TYLAN
 MODEL: FC-261
 SERIAL NO.: 1303

FLOW METER: BICS

Temp.: 24.0 deg.Cent.
 Pr.: 729 mm Hg.

BASE: CELL:
 MODEL: DC1B REV 2.05E MODEL: DC1HC REV E
 SERIAL NO.: R1182 SERIAL NO.: H531

POINT:	CALIB. DISPLAY	AVERAGE FLOW RATE (TEN/AVG)					SITE FLOW	STP FLOW
1	2.500	6.753	6.755	6.757	6.755	6.754		
		6.759	6.756	6.758	6.758	6.760	6.757	6.499
2							#DIV/0!	
3							#DIV/0!	
4							#DIV/0!	
5							#DIV/0!	

	CALIB. DISPLAY	AVERAGE FLOW RATE (TEN/AVG)					SITE FLOW	STP FLOW
6							#DIV/0!	
7							#DIV/0!	
8							#DIV/0!	
9							#DIV/0!	
10							#DIV/0!	

X VALUES: 1.000 Y VALUES: 1.000

STP FLOW = #DIV/0! (DISPLAY) + #DIV/0! R2: #DIV/0!

CALIBRATION: MASS FLOW CONTROLLER
 RANGE: 0 - 100 UNITS: CCM

CALIBRATOR: ROCKWELL
 MODEL: BLENDER
 SERIAL NO.: 006

OWNER: AeroVironment, Inc.
 LOCATION: LAB
 DATE: 10/9/97
 BY: dh/VSI

FLOW CONTROLLER: TYLAN
 MODEL: FC-260
 SERIAL NO.: AA005005

FLOW METER: BIOS
 BASE: MODEL: DC1B REV 2.05E
 SERIAL NO.: B1182
 CELL: MODEL: DC1LC REV E
 SERIAL NO.: L268

Temp.: 23.7 deg.Cent.
 Pr.: 729 mm Hg.

POINT:	CALIB. DISPLAY	AVERAGE FLOW RATE (TEN/AVG)					SITE FLOW	STP FLOW
1	0.400	5.975	5.974	5.974	5.970	5.977	5.974	5.752
2	0.900	13.460	13.440	13.440	13.440	13.460	13.448	12.949
3	1.400	20.850	20.910	20.920	20.910	20.960	20.910	20.134
4	3.250	47.980	47.920	47.940	47.990	47.940	47.954	46.175
5	3.450	50.720	50.690	50.660	50.680	50.720	50.694	48.813

DATE: 10/9/97
 BY: dh/VSI

	CALIB. DISPLAY	AVERAGE FLOW RATE (TEN/AVG)					SITE FLOW	STP FLOW
6							#DIV/0!	
7							#DIV/0!	
8							#DIV/0!	
9							#DIV/0!	
10							#DIV/0!	

X VALUES: 5.000 Y VALUES: 5.000

STP FLOW = 14.117 (DISPLAY) + 0.2241 R2: 0.99996

EMI SCOTT-MARRIN, INC.

6531 BOX SPRINGS BLVD. • RIVERSIDE, CA 92507
TELEPHONE (909) 653-6780 • FAX (909) 653-2430

REPORT OF ANALYSIS CALIBRATION GAS MIXTURES

AERO21
TO: ALEX BARNETT
AEROVIRONMENT INC
222 E HUNTINGTON DR #200
MONROVIA, CA 91816-

DATE : 08/15/97

CUSTOMER ORDER NUMBER: ES98-8128

PAGE 1

CYLINDER NO.: JJ15108

CYLINDER NO.:

COMPONENT	CONCENTRATION (v/v)	COMPONENT	CONCENTRATION (v/v)
Nitric oxide	68.8 ± 0.6 ppm		
Sulfur dioxide	61.7 ± 0.6 ppm		
Carbon monoxide	6868 ± 61 ppm		
Methane	1173 ± 12 ppm		
Nitrogen, O2-Free	Balance		

ppm = umole/mole

± = mole-%

Analyst: M. Dodd-Davison
M. Dodd-Davison

Approved: J.T. Marrin
J.T. Marrin

The only liability of this company for gas which fails to comply with this analysis shall be replacement or reanalysis thereof by the company without extra cost.

AUDIT CONCENTRATIONS

CYLINDER: JJ15108
NO: 60.80 PPM
SO2: 61.70 PPM
CO: 6060 PPM

OWNER: AeroVironment, Inc
LOCATION: LAX
DATE: 10/15/97
BY: dh/VSI

CALIBRATOR: ROCKWELL/006	FLOW	GAS: SETTING (SCCM)	FLOW
DILUTION: SETTING (SCCM)	2.50	6500	3.250 46.17
			1.400 20.13
			0.900 12.95
			0.400 5.75
			3.450 48.81

SETTINGS	DILUTION	GAS	NO (PPM)	SO2 (PPM)	CO (PPM)
	2.50	3.25	0.429	0.435	42.7
	2.50	1.40	0.188	0.190	18.7
	2.50	0.90	0.121	0.123	12.0
	2.50	0.40	0.054	0.055	5.4
		3.45	0.453		

*** CERTIFICATE OF CALIBRATION ***		Cert # 57852	
COMPANY V S I 729 West Lynwood Avenue Phoenix, AZ 85007		DATE OF TEST	DATE DUE
		05/01/97	05/01/98
		LAST CALIBRATION DATE	LAST CERTIFICATE #
		05/03/96	49614
CONTACT		PHYSICAL LOCATION	
Dennis Haase			
MANUFACTURER	DESCRIPTION	MODEL	SERIAL
Fluke	Digital Multimeter	8060A	4515375
TEMPERATURE	HUMIDITY	PERMISSIBLE ERROR	INTERVAL
25 °C	34%	See data sheet	12 months

CONDITION AS FOUND: PHYSICAL { GOOD
FUNCTIONAL { WITHIN TOLERANCE }
AFTER CALIBRATION: FUNCTIONAL [WITHIN TOLERANCE]

REMARKS: See attached data sheets (2)

<< CALIBRATION EQUIPMENT USED >>					
MANUFACTURER	MODEL	SERIAL	DUE DATE	REPORT #	UNCERTAINTY
Fluke	5500A	6470035	07/09/97	163135	See comments/data

PROCEDURE USED: Manufacturer's

NOTES: Page 1 + 2 pages of data

COMMENTS:

<< INSTRUMENT HISTORY >>

LAST CAL	CERT #	FREQ	FUNCTIONAL CONDITION AS FOUND	FUNCTIONAL CONDITION AFTER CALIBRATION	PERMISSIBLE ERROR
05/03/96	49614	12	CALIBRATION REJECTED - REQUIRES REPAIR	WITHIN TOLERANCE	See data sheet
05/06/96	42991	12	WITHIN TOLERANCE	WITHIN TOLERANCE	Nfg Specs
04/07/96	36386	12	WITHIN TOLERANCE	WITHIN TOLERANCE	Nfg Specs
03/05/93	31175	12	WITHIN TOLERANCE	WITHIN TOLERANCE	Nfg Specs
09/20/90	20338	12	REQUIRES REPAIR OR REPLACEMENT	WITHIN TOLERANCE	Nfg Specs

Collective uncertainty does not exceed 25% of tolerance for any parameter tested unless annotated under "Remarks".
No allowance has been made for the instability of the tested unit due to use, time, etc.
Measurement results relate only to the item tested above. The standards used for the calibration of this equipment were calibrated in compliance with ISO Guide 25, ISO 10012, ANSI/MC81.2540-1-1994, NIST Std 45642A, and with the intent of ISO 9000-series specifications. Calibration is traceable to the NIST through documents on file at:
Field Calibrations, Inc.
116 N. Roosevelt Ave., Ste 116
Chandler, AZ 85226-3432
(602) 961-0360

Michael Machock, Tech/Lab Mgr (BPF)

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The Quality People
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3757 East Broadway Road, No. 6
Phoenix, Arizona 85040
(602) 437-0114 • fax 437-8897

CALIBRATION REPORT

Client	VSI	Service Order No.	71030
729 W. LYNWOOD AVE.		Test Date	10/7/97
PHOENIX, AZ. 85007		Recall Date	10/7/98
Equipment Type	DIGITAL ULTIMETER	Manufacturer	PEET BROS.
Model No.	12+	Accuracy	± 0.1° C
Serial No.	VSI 1	Capacity	SEE REPORT
		Calibration Technician	SDY

G. PIKEY

EQUIPMENT

Test Equipment Reading	Equipment Reading	Error	Test Equipment Reading	Equipment Reading	Error
°C	°C	°C			
4.2	4.2	0.0			
24.2	24.2	0.0			
27.1	27.0	-0.1			
38.3	38.4	+0.1			
44.0	44.1	+0.1			
49.0	49.1	+0.1			
88.8	88.9	+0.1			
99.6	99.7	+0.1			

The accuracy of this instrument has been verified under conditions stated above per ISO/EC Guide 25 and ANSI Regulation 2540-1. Our standards have traceability to NIST and evidence is on file at our Metrology Laboratory. This certificate shall not be reproduced, except in full, without the written approval of NATIONAL CALIBRATION, INC.

READINGS ARE AS FOUND

Equipment Condition Upon Arrival:	<input checked="" type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor	<input type="checkbox"/> Other
Test Equipment Used:	PRECISION THERMOMETERS	Traceability:	7000192	
Recall Date:	1/98	Procedure Section:	4.0	
Ambient Temperature:	23°C ± 3°C	Relative Humidity:	LESS THAN 50%	

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CHECK OF BAROMETRIC PRESSURE SENSOR

Manuf./Model: Peet Bros./Ultimeter 12+
Serial No.: VSI-1

DATE	READING	NWS-PHX	ULTIMETER
10/13/97	Alt. Setting Station Prs.	767 mmHg 737	767 mmHg 738
10/17/97	Alt. Setting Station Prs.	759 729	759 730



R. M. YOUNG COMPANY

TYPICAL TORQUE VALUES

For Checking Anemometer Bearing and Transducer Condition

Instrument (Standard Models)	Sensor	Transducer	New Instrument		Max torque for threshold of:	
			Torque gm-cm	Threshold m/s	0.5 m/s gm-cm	1.0 m/s gm-cm
03101-5 Wind Sentry Anemometer	03110	AC Coil	0.3	0.5	0.3	1.0
05103 Wind Monitor	08234	AC Coil	2.4	1.0		2.6
05106 Wind Monitor - MA	08234	AC Coil	2.6	1.0		2.6
05505 Wind Monitor - AQ	08254	AC Coil	0.3	0.3	1.0	2.6
05701 Wind Monitor - RE	08274	AC Coil	0.3	0.2	1.3	5.0
12102 Cup Anemometer	12170C	2400 mV Tach-Gen	0.4	0.5	0.4	1.4
12102DCup Anemometer/Photo Chopper	12170C	Photo Chopper	0.1	0.3	0.4	1.4
21003 Anemometer Bivane	08274	2400 mV Tach-Gen	0.6	0.3	1.3	5.0
27108 Propeller Anemometer	08274	500 mV Tach-Gen	0.5	0.3	1.3	5.0
27108T Propeller Anemometer	08254	500 mV Tach-Gen	0.5	0.4	1.0	3.8
27108DPropeller Anem / Photo Chopper	08274	Photo Chopper	0.3		1.3	5.0

NOTES:

1. New instrument torque and threshold specifications are maximum values
2. Values shown are maximum torque to maintain instrument threshold at or below 0.5 m/s and 1.0 m/s respectively.
3. EPA and NRC instrument specifications designate 0.5 m/s wind speed starting threshold. ASTM D5096-90 "Standard Test Method for Determining the Performance of a Cup Anemometer or Propeller Anemometer" defines "starting threshold" and outlines a method for its determination.

SENSORS:

03110 Wind Sentry 75 cm Cup Wheel Assembly
08234 18 X 30 cm Polypropylene Propeller (PP)
~~08254 20 X 30 cm Carbon Fiber Thermoplastic Propeller (CFT)~~
08274 22 X 30 cm Expanded Polystyrene Propeller (EPS)
12170C 100 cm Cup Wheel Assembly

STANDARD BEARINGS:

Model 05103 Wind Monitor - Double Teflon seals & lubricated with M-28 low torque grease
Model 05106 Wind Monitor - MA - Double Teflon seals & lubricated with "Sta-lube" waterproof grease.
All other models - Double metal shields & lubricated with LOI instrument oil.

**R. M. YOUNG COMPANY****TYPICAL TORQUE VALUES**

For Checking Windvane Bearing and Transducer Condition

Instrument (Standard Models)	New Instrument		Max torque for threshold of:	
	Torque gm-cm	Threshold m/s @ 10"	0.5 m/s @ 10" gm-cm	1.0 m/s @ 10" gm-cm
05103 Wind Monitor	30	1.1		
05106 Wind Monitor-MA	30	1.1		
05305 Wind Monitor-AQ	9	0.5	11	40
05701 Wind Monitor-RE	7	0.4	11	40
12302/5 Microvane	11	0.4	18	66
17003 Bivane	11	0.4	16	58
21003 Anemometer Bivane	11	0.5	14	51

NOTES:

1. New instrument torque and threshold specifications are maximum values
2. Values shown are maximum torque permitted to maintain instrument threshold at or below 0.5 m/s and 1.0 m/s respectively at 10" displacement.
3. EPA and NRC instrument specifications designate windvane threshold measurement at 10" displacement from equilibrium position. ASTM D5368-93 "Standard Test Method for Determining the Dynamic Performance of a Wind Vane" defines "starting threshold" and outlines a method for its determination.

STANDARD BEARINGS:

Model 05103 Wind Monitor & 05106 Wind Monitor-MA - Double Teflon seals lubricated with LY-48 wide temperature range grease

Models 05305 Wind Monitor-AQ and 05701 Wind Monitor-RE - Double metal shields lubricated with LOI instrument oil

All other models - Double Teflon seals lubricated with LOI instrument oil

PERFORMANCE AUDIT: PM10 SAMPLER (VFC)**SAMPLER:**

MANUF./MODEL: SA/76-100

SERIAL NO: P2865

TABLE DATE: 7/31/95

ASSET NO: NA

ETI READING BEGIN: 66864.5

END: 66868.5

OWNER: AeroVironment, Inc.

LOCATION: LAX

DATE: 10/15/97

BY: dh/VSI

SITE OPERATOR: DBW

INITIAL FINAL AVERAGE

ORIFICE MODEL: 25A TEMPERATURE (T₀): 18.5 21.8 20.2 °C

SERIAL NO.: G73 PRESSURE (P₀): 760 760 760 mmHg

CAL DATE: 9/18/96 SAMPLER CALIB:

SLOPE (m): 1.2342 SLOPE: NA

INTERCEPT (b): -0.02416 INTERCEPT: NA

CORRELATION (r): 0.999590 DATE: NA

ORIFICE			STAGNATION		FLOWS				
MANOMETER (in. H ₂ O)			PORT (AP)						
LEFT	RIGHT	TOTAL	(in. H ₂ O)	(mm H ₂ O)	P ₁	P ₁ /P ₀	Q _a (cm ³ /min)	Q _{ind} (cm ³ /min)	Q _{corr} (cm ³ /min)
2.30	2.60	4.90	23.3	43.5	716.5	0.9427	1.134	1.135	NA
W/O ORIFICE			18.6	34.7	725.3	0.9543	NA	1.150	NA

AUDIT

% DIFF.

Table Estimate

W/O ORIFICE

0.11

NA

GUIDELINE:

± 6%

DESIGN FLOW

% DIFF.

Table Estimate

W/O ORIFICE

1.66

NA

GUIDELINE:

± 7%

T₀: Ambient Temperature (°C)

°C = (°F-32)*5/9

P₀: Ambient Pressure (mm Hg)

mm Hg * inches Hg * 25.4

P₁ = P₀ - ΔPΔH = Total Manometer (inches H₂O)Q_a = [1/m]*[(ΔH*(T₀+273.15)/P₀)^{1/2} - b]Audit % Difference = [(Q_{ind} - Q_a)/Q_a] * 100Q_{corr} = Q_{ind} * [(100 - Audit % Diff.)/100]Design Flow % Difference = [(Q_{corr} - 1.13)/1.13] * 100where: Q_a = audit flow (from orifice)Q_{ind} = indicated flow (from table or regression equation)Q_{corr} = corrected flow

Source: EPA-600/R-94/038b, Section 2.11.7

MAR 1995
TDSKSUM2.PM4

PERFORMANCE AUDIT: PM10 SAMPLER (VFC)

SAMPLER:

MANUF./MODEL: SA/76-100

SERIAL NO: P2866

TABLE DATE: 7/31/95

ASSET NO: NA

ETT READING BEGIN: 56765

END: 56771

OWNER: AeroVironment, Inc.

LOCATION: LAX

DATE: 10/15/97

BY: dh/VSI

SITE OPERATOR: DBW

	INITIAL	FINAL	AVERAGE
ORIFICE MODEL: 25A	TEMPERATURE (T ₀): 22.5	24.1	23.3 °C
SERIAL NO.: G73	PRESSURE (P ₀): 760	760	760 mmHg
CAL DATE: 9/18/96	SAMPLER CALIB:		
SLOPE (m): 1.2342	SLOPE: NA		
INTERCEPT (b): -0.02416	INTERCEPT: NA		
CORRELATION (r): 0.999590	DATE: NA		

ORIFICE			STAGNATION		FLOWS				
MANOMETER (in. H ₂ O)			PORT (ΔP)			Q _a	Q _{table}	Q _{act}	
LEFT	RIGHT	TOTAL	(in. H ₂ O)	(mm H ₂)	P ₁	P ₁ /P ₀	(cmn)	(cmn)	(cmn)
2.30	2.60	4.90	23.4	43.7	716.3	0.9425	1.140	1.143	NA
W/O ORIFICE			18.3	34.2	725.8	0.9550	NA	1.158	NA

AUDIT			DESIGN FLOW		
% DIFF.			% DIFF.		
Table	Estimate		Table	Estimate	
W/O ORIFICE	0.28	NA	W/O ORIFICE	2.19	NA
GUIDELINE: ± 6%			GUIDELINE: ± 7%		

T₀: Ambient Temperature (°C)

°C = (°F-32)*5/9

P₀: Ambient Pressure (mm Hg)

mm Hg = inches Hg * 25.4

P₁ = P₀ - ΔP

ΔH = Total Manometer (inches H₂O)

Source: EPA-600/R-94/038b, Section 2.11.7

Q_a = [1/m]*[(ΔH*(T₀+273.16)/P₀)^{1/2} - b]

Audit % Difference = [(Q_{aud} - Q_a)/Q_a] * 100

Q_{corr} = Q_{aud} * [(100 - Audit % Diff.)/100]

Design Flow % Difference = [(Q_{corr} - 1.13)/1.13] * 100

where: Q_a = audit flow (from orifice)

Q_{aud} = indicated flow (from table or regression equation)

Q_{corr} = corrected flow

PERFORMANCE AUDIT: PM10 SAMPLER (VFC)

SAMPLER:

MANUF./MODEL: SA/76-100

SERIAL NO: P2872

TABLE DATE: 8/4/95

ASSET NO: NA

ETT READING BEGIN: 76857.7

END: 76871.7

OWNER: AeroVironment, Inc.

LOCATION: LAX

DATE: 10/15/97

BY: dh/VSI

SITE OPERATOR: DBW

	INITIAL	FINAL	AVERAGE
ORIFICE MODEL: 25A	TEMPERATURE (T ₀): 24.7	25.7	25.2 °C
SERIAL NO.: G73	PRESSURE (P ₀): 760	760	760 mmHg
CAL DATE: 9/18/96	SAMPLER CALIB:		
SLOPE (m): 1.2342	SLOPE: NA		
INTERCEPT (b): -0.02416	INTERCEPT: NA		
CORRELATION (r): 0.999590	DATE: NA		

ORIFICE			STAGNATION		FLOWS				
MANOMETER (in. H ₂ O)			PORT (ΔP)			Q _a	Q _{table}	Q _{act}	
LEFT	RIGHT	TOTAL	(in. H ₂ O)	(mm H ₂)	P ₁	P ₁ /P ₀	(cmn)	(cmn)	(cmn)
2.10	2.60	5.00	23.4	43.7	716.3	0.9425	1.155	1.138	NA
W/O ORIFICE			19.3	36.0	724.0	0.9526	NA	1.151	NA

AUDIT			DESIGN FLOW		
% DIFF.			% DIFF.		
Table	Estimate		Table	Estimate	
W/O ORIFICE	-1.45	NA	W/O ORIFICE	3.34	NA
GUIDELINE: ± 6%			GUIDELINE: ± 7%		

T₀: Ambient Temperature (°C)

°C = (°F-32)*5/9

P₀: Ambient Pressure (mm Hg)

mm Hg = inches Hg * 25.4

P₁ = P₀ - ΔP

ΔH = Total Manometer (inches H₂O)

Source: EPA-600/R-94/038b, Section 2.11.7

Q_a = [1/m]*[(ΔH*(T₀+273.16)/P₀)^{1/2} - b]

Audit % Difference = [(Q_{aud} - Q_a)/Q_a] * 100

Q_{corr} = Q_{aud} * [(100 - Audit % Diff.)/100]

Design Flow % Difference = [(Q_{corr} - 1.13)/1.13] * 100

where: Q_a = audit flow (from orifice)

Q_{aud} = indicated flow (from table or regression equation)

Q_{corr} = corrected flow

PERFORMANCE AUDIT: PM10 SAMPLER (VFC)

SAMPLER:

MANUF./MODEL: SA/76-100

SERIAL NO: P2873

TABLE DATE: 8/4/95

ASSET NO: NA

ETI READING BEGIN: 5277.9

END: 5290.9

OWNER: AcroVironment, Inc.

LOCATION: LAX

DATE: 10/15/97

BY: dh/VSI

SITE OPERATOR: DBW

	INITIAL	FINAL	AVERAGE
ORIFICE MODEL: 25A	TEMPERATURE (T ₀): 25.4	27.2	26.3 °C
SERIAL NO.: G73	PRESSURE (P ₀): 760	760	760 mmHg
CAL DATE: 9/18/96	SAMPLER CALIB:		
SLOPE (m): 1.2342	SLOPE: NA		
INTERCEPT (b): -0.02416	INTERCEPT: NA		
CORRELATION (r): 0.999590	DATE: NA		

ORIFICE			STAGNATION		FLOWS				
MANOMETER (in. H ₂ O)			PORT (ΔP)						
LEFT	RIGHT	TOTAL	(in. H ₂ O)	(mm H ₂ O)	P ₁	P ₂ /P ₀	Q _a (cc/min)	Q _{table} (cc/min)	Q _{cor} (cc/min)
2.30	2.60	4.90	23.6	44.1	715.9	0.9420	1.145	1.144	NA
W/O ORIFICE			18.9	35.3	724.7	0.9536	NA	1.159	NA

AUDIT
% DIFF.
Table Estimate

W/ORIFICE -0.12 NA

GUIDELINE:
± 6%

DESIGN FLOW
% DIFF.
Table Estimate

W/O ORIFICE 2.69 NA

GUIDELINE:
± 7%

T₀: Ambient Temperature (°C)

°C = (°F-32)*5/9

P₀: Ambient Pressure (mm Hg)

mm Hg = inches Hg * 25.4

P₁ = P₀ - ΔP

ΔH = Total Manometer (inches H₂O)

Source: EPA-600/R-94/038b, Section 2.11.7

$Q_a = [1/m] * [(\Delta H * (T_0 + 273.15) / P_0)^{1/2} - b]$

Audit % Difference = $[(Q_{ind} - Q_a) / Q_a] * 100$

$Q_{cor} = Q_{ind} * [(100 - \text{Audit \% Diff.}) / 100]$

Design Flow % Difference = $[(Q_{cor} - 1.13) / 1.13] * 100$

where: Q_a = audit flow (from orifice)

Q_{ind} = indicated flow (from table or regression equation)

Q_{cor} = corrected flow

PERFORMANCE AUDIT: CARBON MONOXIDE

ANALYZER MODEL: DASIBJ 3003

SERIAL NO: 138

RANGE: 0-50 ppm

OWNER: AcroVironment, Inc.

LOCATION: LAX

DATE: 10/18/97

BY: dh/VSI

AUDIT DEVICE:

MANUF./ MODEL: ROCKWELL/BLENDER

SERIAL NO.: 006

SITE OPERATOR: DBW

GAS CYL MANUF: Scott-Marrin

CYL SERIAL NO.: JJ15108

CYL CONC: 6060 ppm

LAST CALIBRATION

SLOPE: 0.977

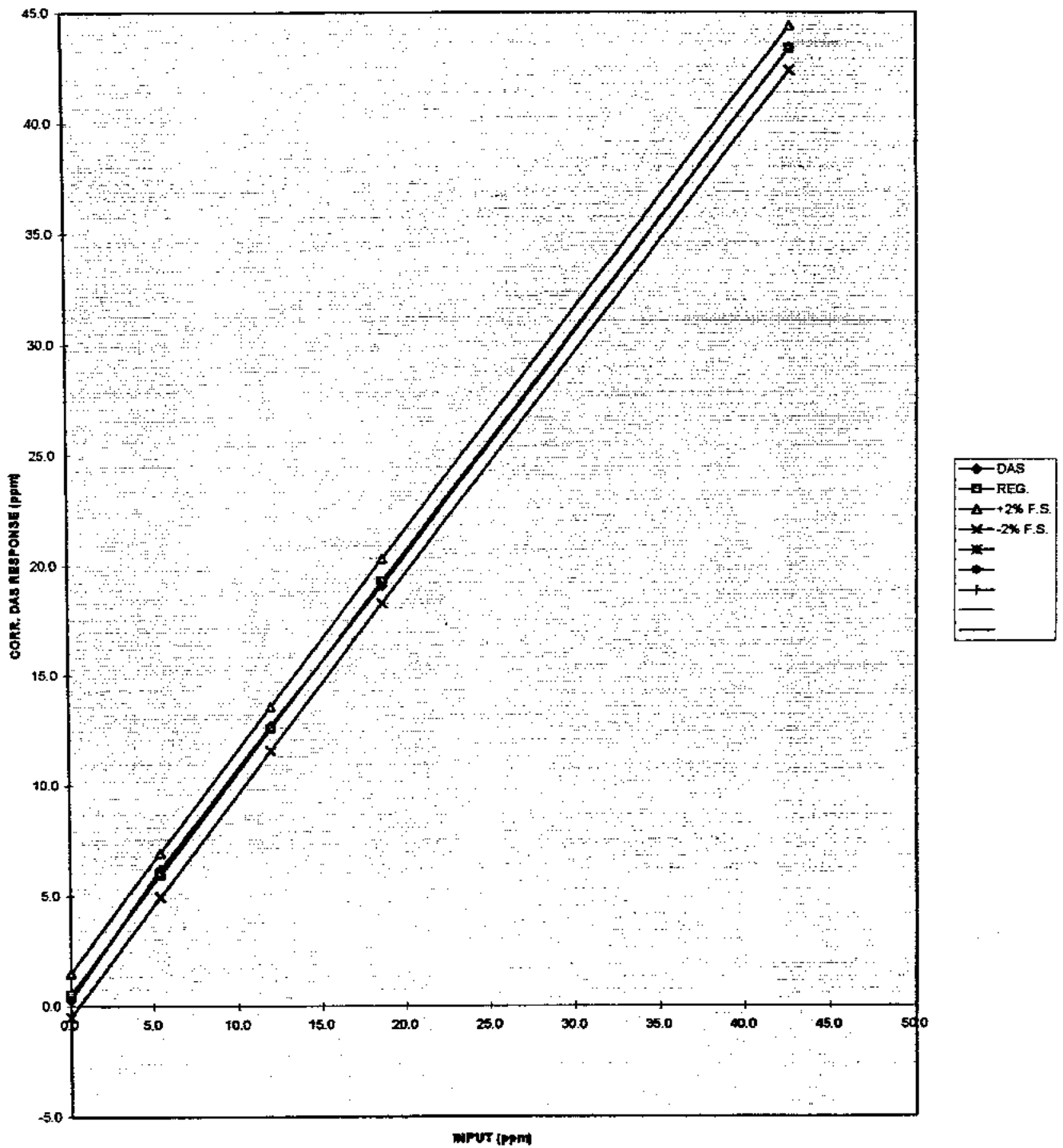
INTERCEPT: 0.20

DATE: 10/10/97

INPUT (PPM)	DAS RESPONSE	CORRECTED DAS	% DIFFERENCE
0.0	0.1	0.3	--
42.7	44.2	43.4	1.6
18.7	19.3	19.1	2.1
12.0	12.8	12.7	5.8
5.4	6.1	6.2	14.8
			[AVG]: 6.1

(CORR. DAS RESPONSE) = 1.0040 (INPUT) + 0.5174 r: 0.99992

ANALYZER LINEARITY



AUDIT RESULTS: CARBON MONOXIDE

PERFORMANCE AUDIT: SULFUR DIOXIDE

ANALYZER MODEL: MONITOR LABS 8850
 SERIAL NO.: 1357
 RANGE: 0-500 ppb

OWNER: AeroVironment, Inc.
 LOCATION: LAX
 DATE: 10/15/97
 BY: dh/VSI

AUDIT DEVICE:
 MANUF./ MODEL: ROCKWELL/BLENDER
 SERIAL NO.: 006

GAS CYL MANUF.: Scott-Marrin
 CYL SERIAL NO.: JJ15108
 CYL CONC.: 61.7 ppm

SITE OPERATOR: DBW

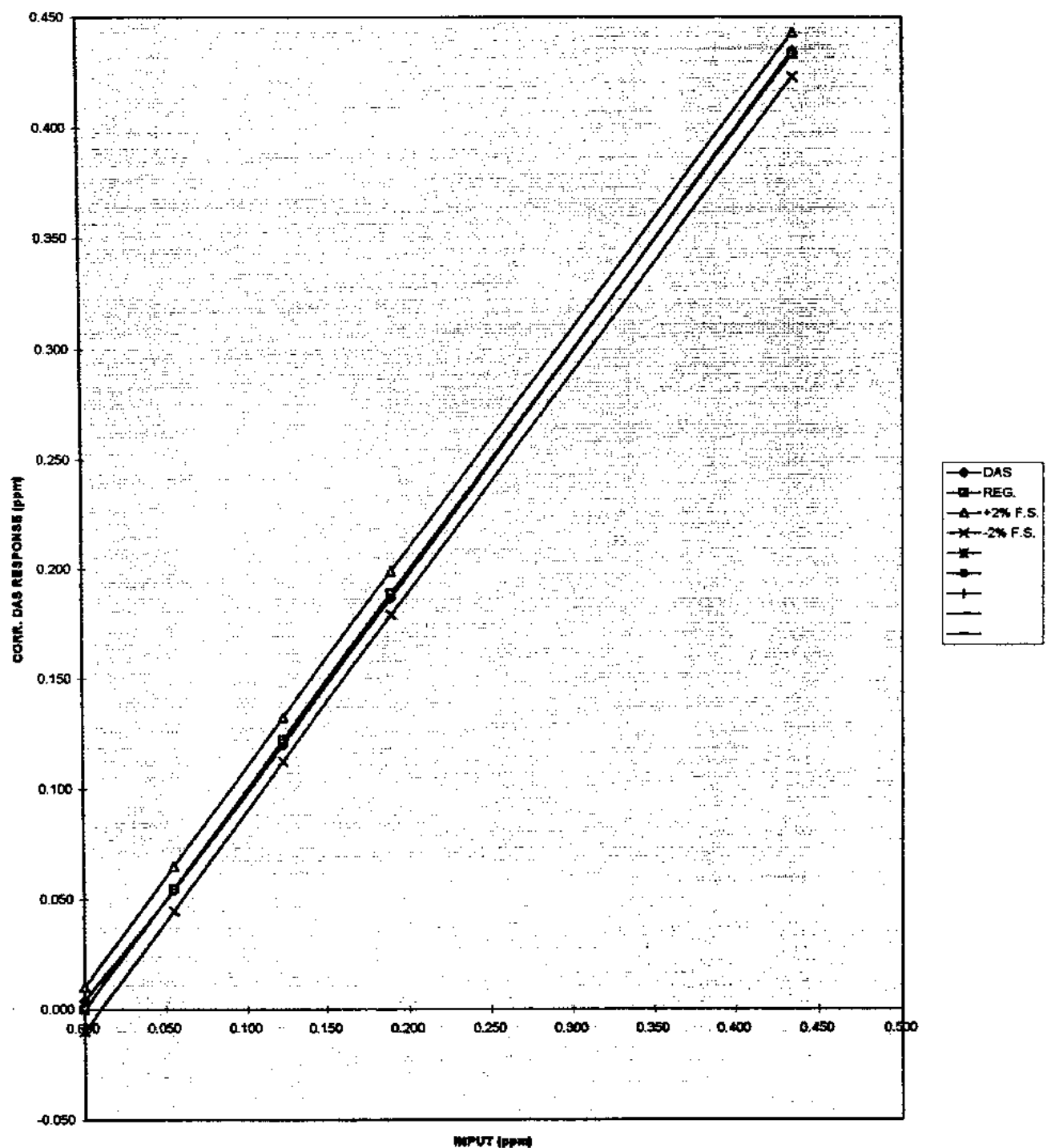
LAST CALIBRATION
 SLOPE: 0.993
 INTERCEPT: 0.005
 DATE: 10/10/97

<u>INPUT (PPM)</u>	<u>DAS RESPONSE</u>	<u>CORRECTED DAS</u>	<u>% DIFFERENCE</u>
0.000	-0.001	0.004	—
0.433	0.434	0.435	0.0
0.190	0.184	0.187	-1.6
0.123	0.116	0.120	-2.4
0.055	0.050	0.054	-1.8

[AVG]: 1.5

$$(\text{CORR DAS RESPONSE}) = 0.9955 (\text{INPUT}) + 0.0001 \quad r = 0.99986$$

ANALYZER LINEARITY



AUDIT RESULTS: SULFUR DIOXIDE

PERFORMANCE AUDIT: NO/NO2/NOX

ANALYZER MODEL: MONITOR LABS 8840
SERIAL NO.: 359
RANGE: 0-500 ppb

OWNER: AeroVironment, Inc.
LOCATION: LAX
DATE: 10/15/97
BY: dh/vsl

AUDIT DEVICE:
MANUF./MODEL: ROCKWELL/BLENDER
SERIAL NO.: 006

GAS CYL. MANUF.: Scott-Marrin
CYL. SERIAL NO.: J115108
CYL. CONC: 60.8 ppm

SITE OPERATOR: DBW

LAST CALIBRATION
NO NO2 NOX
SLOPE: 0.970 0.973 0.974
INTERCEPT: 0.003 0.002 0.003
DATE: 10/10/97 10/10/97 10/10/97

INPUT (PPM)	DAS RESPONSE (ppm)			CORR. DAS RESPONSE			% DIFFERENCE		
	NO	NO2	NOX	NO	NO2	NOX	NO	NO2	NOX
0.000	0.000	0.000	0.000	0.003	0.002	0.003	-	-	-
0.429	0.424	0.001	0.426	0.414	0.003	0.418	-3.5	-	-2.6
0.188	0.184	0.002	0.186	0.181	0.004	0.184	-3.7	-	-2.1
0.121	0.119	0.000	0.119	0.118	0.002	0.119	-2.5	-	-1.7
0.054	0.053	-0.002	0.051	0.054	0.000	0.053	0.0	-	-1.9
						[AVG]:	2.4		2.0

NO RESPONSE (ppm) = 0.9585 (INPUT) + 0.0022 r: 0.99999

NOX RESPONSE (ppm) = 0.9696 (INPUT) + 0.0018 r: 0.99999

LOCATION: LAX
DATE: 10/15/97

GAS-PHASE TITRATION:

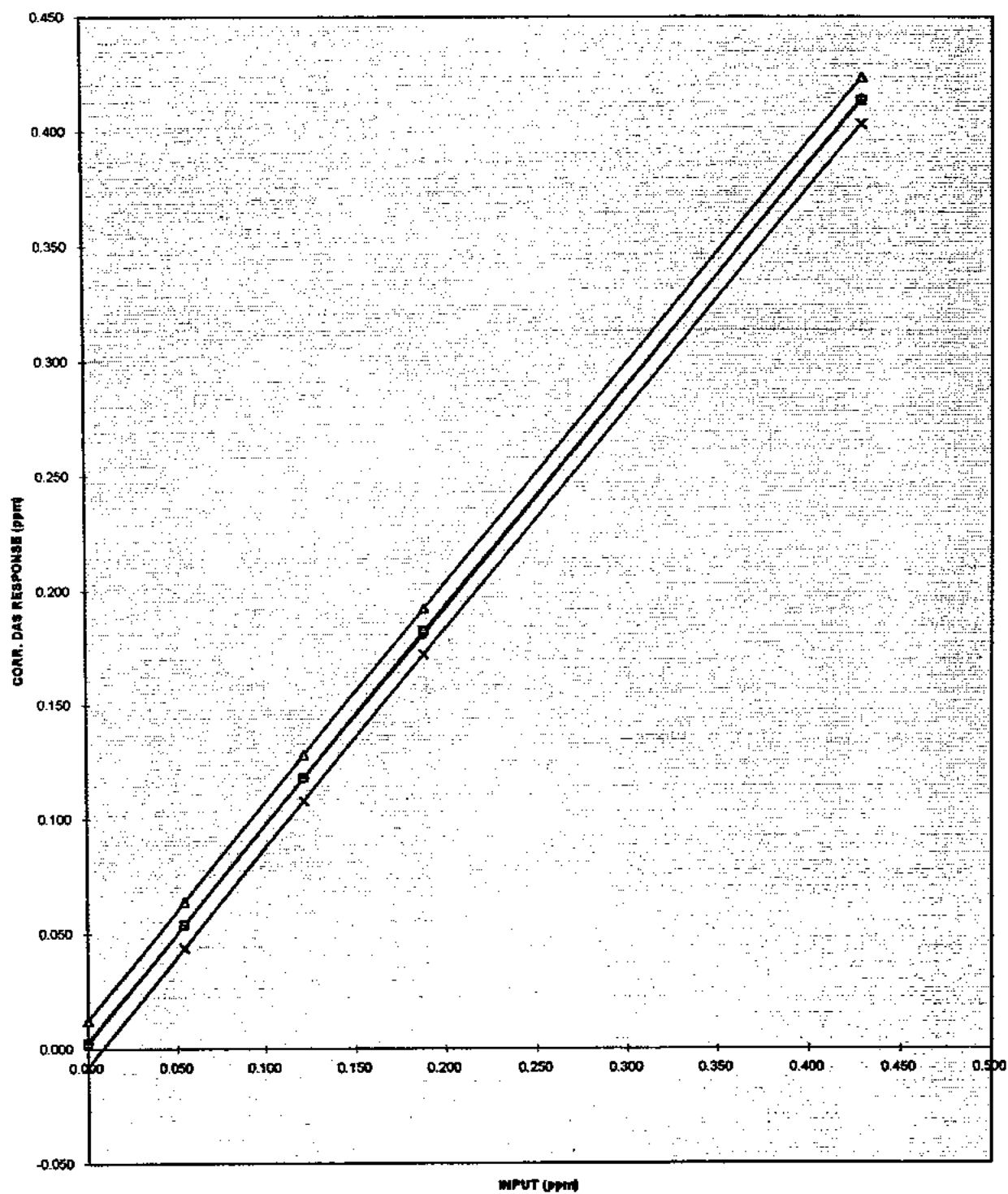
INPUT (ppm) NOX / NO2	DAS RESPONSE (ppm)			CORR. DAS RESPONSE		
	NO	NO2	NOX	NO	NO2	NOX
0.450 0.000	0.444	0.000	0.444	0.434	0.002	0.435
0.450 0.400	0.043	0.400	0.443	0.045	0.391	0.434
0.450 0.180	0.263	0.182	0.445	0.258	0.179	0.436
0.450 0.090	0.356	0.090	0.445	0.348	0.090	0.436
0.450 0.050	0.393	0.051	0.445	0.384	0.052	0.436

OUTPUT (NO2)	CORRECTED OUTPUT		DELTA		NO2conv	% DIFFERENCE
	NO	NOX	NO	NOX-NO		
0.002	0.450	0.447	0.000	-0.003	0.000	-
0.391	0.044	0.446	0.406	0.402	0.405	-3.7
0.179	0.267	0.448	0.183	0.181	0.184	-2.2
0.090	0.361	0.448	0.089	0.087	0.090	1.1
0.052	0.399	0.448	0.052	0.050	0.053	0.0
					[AVG]:	1.8

NO2 RESPONSE (PPM) = 0.9570 (INPUT) + 0.0031 r: 0.99997

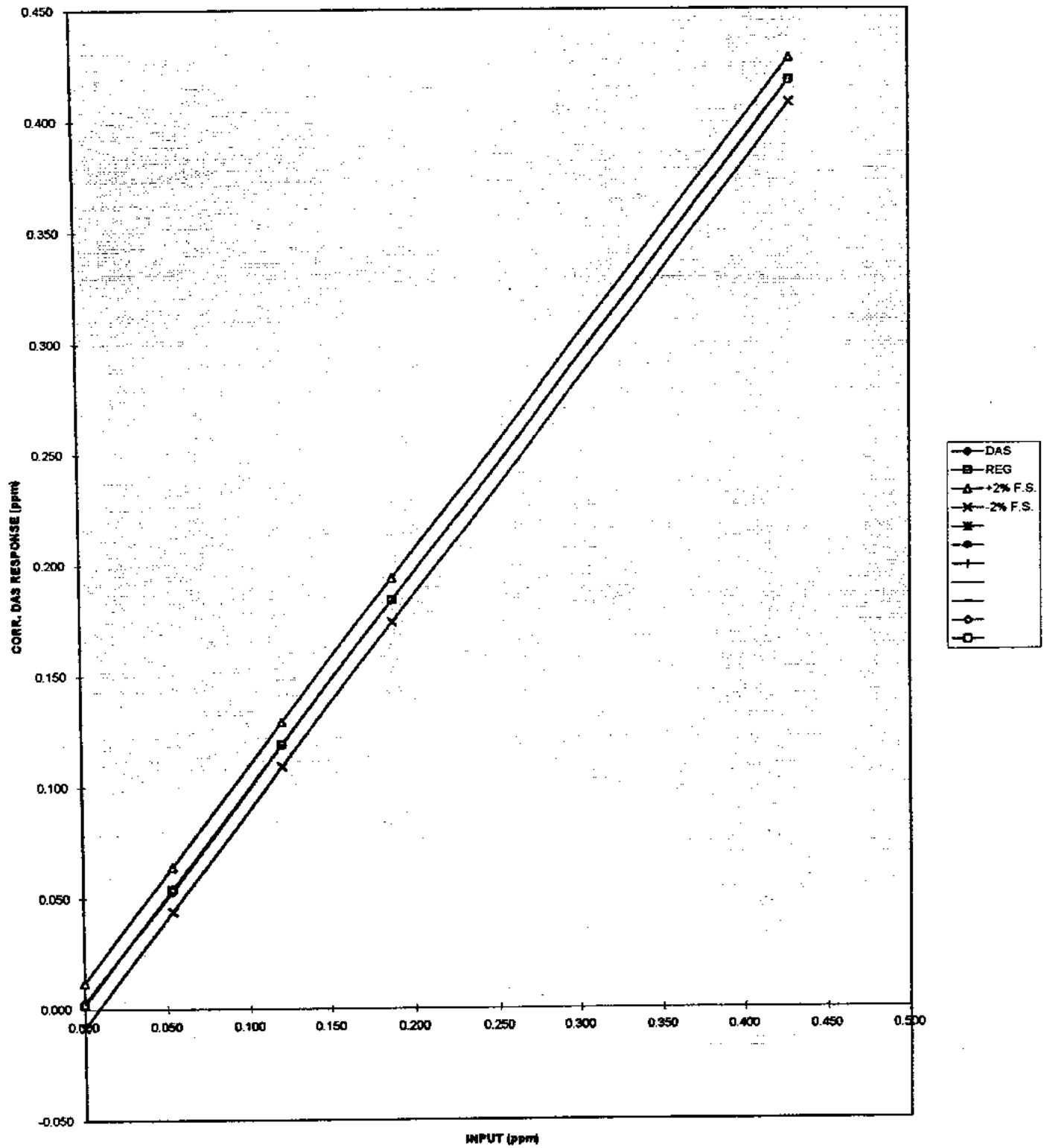
C.E. = 99.63 %

ANALYZER LINEARITY



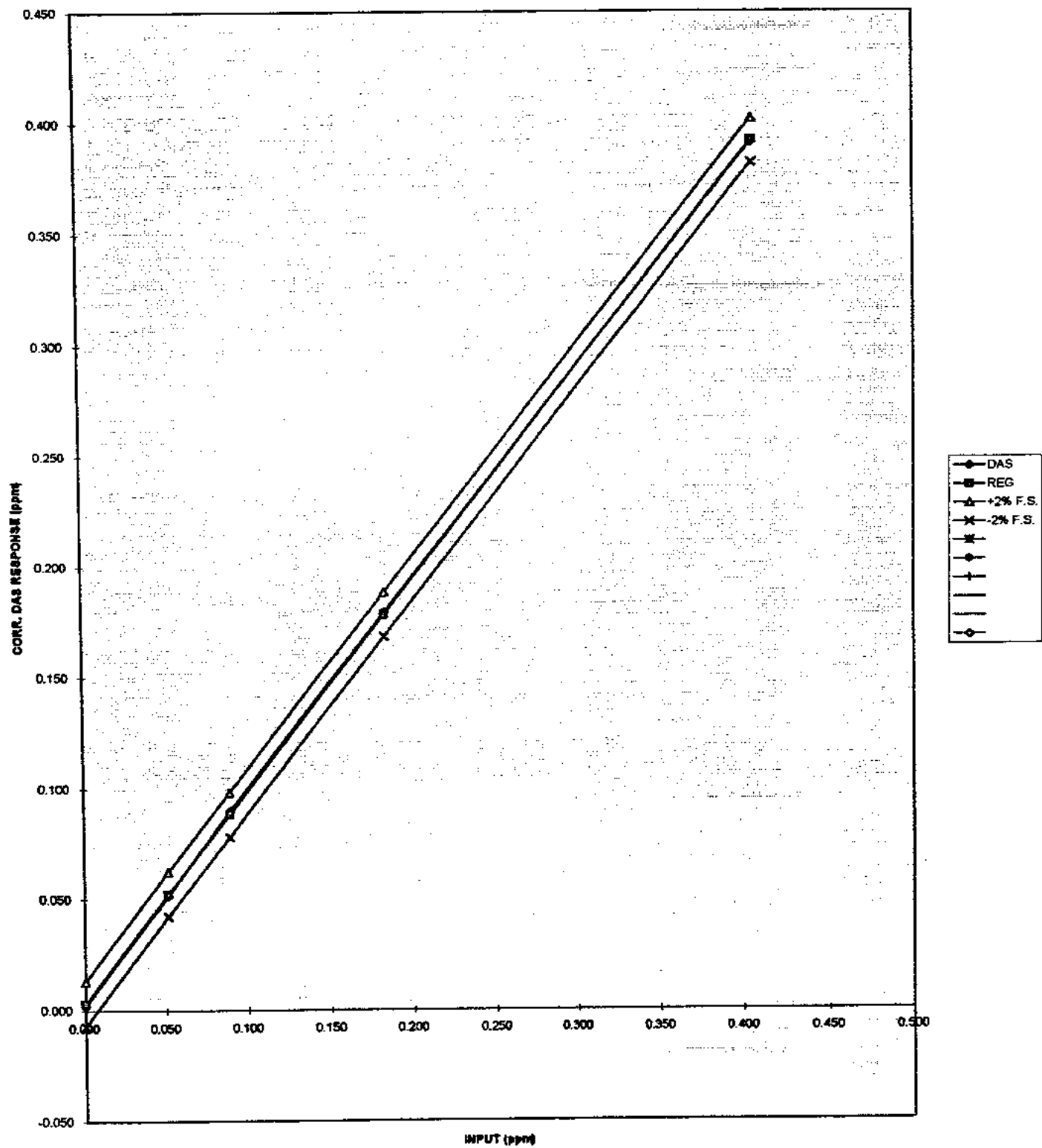
AUDIT RESULTS: NO

ANALYZER LINEARITY



AUDIT RESULTS: NOX

ANALYZER LINEARITY



AUDIT RESULTS: NO2

PERFORMANCE AUDIT: WIND SPEED

SENSOR:
Manuf./Model: RMY/05305
Serial No.: 17024
Range: 0 - 50 mps

OWNER: AeroVironment, Inc.
LOCATION: LAX
DATE: 10/15/97
BY: dh/VSl

PROPELLER:
Manuf./Model: RMY/08254
Serial No.: 54373

DATA ACQUISITION:
Manuf./Model: CSI/21X
Serial No.: 2747

CALIB. FACTORS:
WS(mph)=(RPM*0.01145)
WS(mps)=mph/2.2369

AUDIT DEVICE:
Manuf./Model: RMY 18801
Serial No.: NSN

PROPELLER CONDITION: GOOD
BEARING CONDITION: GOOD (<1.0 gm-cm)

SITE OPERATOR: DBW

INPUT: RPM	SPEED		DATA ACQUISITION		DIFF.(mps)
	(mph)	(mps)	(mph)	(mps)	
0	0.00	0.00	0.23	0.10	0.10
200	2.29	1.02	2.28	1.02	0.00
400	4.58	2.05	4.56	2.04	-0.01
1000	11.45	5.12	11.43	5.11	-0.01
2000	22.90	10.24	22.82	10.20	-0.04
6000	68.70	30.71	68.45	30.60	-0.11

PSD TOLERANCES (mps)

SPEED	CHART	DAS
0 mps	±0.375	±0.25
≤5 mps	±0.375	±0.25
>5 mps	±7.5% (≤ 3.75)	±5.0% (≤ 2.5)

PERFORMANCE AUDIT: WIND DIRECTION

SENSOR:
Manuf./Model: RMY/05305
Serial No.: 17024
Range: 0-360 Degrees

OWNER: AeroVironment, Inc.
LOCATION: LAX
DATE: 10/15/97
BY: dh/VSl

SITE OPERATOR: DBW

DATA ACQUISITION:
Manuf./Model: CSI/21X
Serial No.: 2747

VANE CONDITION: GOOD
BEARING CONDITION: GOOD (<11.0 gm-cm)

AUDIT DEVICE:
Manuf./Model: NA
Serial No.: NA

INPUT: COMPASS POINT (Degrees)	DATA ACQUISITION (Degrees)	DIFFERENCE (Degrees)
34	21.4	-2.6
204	202.0	-2.0
90	88.9	-1.1
270	270.0	0.0

PSD TOLERANCES (Degrees)

CHART	DAS
±7.5	±5.0

PERFORMANCE AUDIT: AMBIENT TEMP.(2M)

SENSOR:
Manuf./Model: CSI/ASP TC
Serial No.: 1023
Range: -50 to +50°C

OWNER: AeroVironment, Inc.
LOCATION: LAX
DATE: 10/15/97
BY: dh/VSI
SITE OPERATOR: DBW

AUDIT DEVICE:
Manuf./Model: Feet/Ultimeater
Serial No.: VSI-1

DATA ACQUISITION:
Manuf./Model: CSI/21X
Serial No.: 2747

INPUT TEMPERATURE (Deg. F) (Deg. C.)		DATA ACQUISITION (Deg. F) (Deg. C.)		DIFF. (°C.) DAS
99.1	37.3	99.9	37.7	0.40

PSD TOLERANCES (Deg. C.)

CHART	DAS
±0.75	±0.50

PERFORMANCE AUDIT: AMBIENT TEMP.(9M)

SENSOR:
Manuf./Model: CSI/ASP TC
Serial No.: 1024
Range: -50 to +50°C

OWNER: AeroVironment, Inc.
LOCATION: LAX
DATE: 10/15/97
BY: dh/VSI
SITE OPERATOR: DBW

AUDIT DEVICE:
Manuf./Model: Feet/Ultimeater
Serial No.: VSI-1

DATA ACQUISITION:
Manuf./Model: CSI/21X
Serial No.: 2747

INPUT TEMPERATURE (Deg. F) (Deg. C.)		DATA ACQUISITION (Deg. F) (Deg. C.)		DIFF. (°C.) DAS
99.1	37.3	99.5	37.5	0.20

PSD TOLERANCES (Deg. C.)

CHART	DAS
±0.75	±0.50

PERFORMANCE AUDIT: DELTA TEMPERATURE
(-5 to +5°C)

SENSOR (Upper):
Manuf./Model: CSI/ASP TC
Serial No.: 1024
Range: -50 to +50°C

OWNER: AeroVironment, Inc.
LOCATION: LAX
DATE: 10/14/97
BY: DH/VSI
SITE OPERATOR: DBW

SENSOR (Lower):
Manuf./Model: CSI/ASP TC
Serial No.: 1023
Range: -50 to +50°C

DATA ACQUISITION:
Manuf./Model: CSI/21X
Serial No.: 2747

AUDIT DEVICE:
Manuf./Model: Feet/Ultimeater
Serial No.: VSI-1

INPUT TEMPERATURE (Deg. F) (Deg. C.)		DATA ACQUISITION (Deg. F) (Deg. C.)	
99.1	37.30	0.115	0.064

PSD TOLERANCES (Deg. C.)

CHART	DAS
±0.15	±0.1

PERFORMANCE AUDIT: SOLAR RADIATION

SENSOR:
Manuf./Model: EPPLEY/PSP
Serial No.: 1672413
Range: 0-2000 W/m2

OWNER: AeroVironment, Inc.
LOCATION: LAX
DATE: 10/15/97
BY: dh/VSI
SITE OPERATOR: DBW

CALIB. FACTORS:
Vdc/(W/m2): 9.4E-06

DATA ACQUISITION:
Manuf./Model: CSI/21X
Serial No.: 2747

AUDIT DEVICE:
Manuf./Model: FLUKE/8060A
Serial No.: 4515375

1. Place a dark cover over the sensor and record output.

Output (mV)	DAS (W/m2)
0.02	-8.290

2. Monitor the sensor output and compare with the expect value from the calibration relationship.

Output (mV)	EXPECTED DAS (W/m2)	ACTUAL DAS (W/m2)	DIFF.(%) (DAS)
6.78	721	759	5.2

PSD TOLERANCES

CHART	DAS
±7.5%	±5.0%

MARCH 5 AND 6, 1998

REPORT

**AIR MONITORING QUALITY ASSURANCE AUDIT
at the
LOS ANGELES INTERNATIONAL AIRPORT
for
AEROVIRONMENT ENVIRONMENTAL SERVICES**

LETTER AGREEMENT (3/4/98)

March 1998

by

VISIBILITY SERVICES, INC



March 12, 1998

AeroVironment Environmental Services, Inc.
222 E. Huntington Drive
Suite 200
Monrovia, CA 91016

Attn: Mr. Alex Barnett

Report: Air Monitoring Quality Assurance Audit
Los Angeles International Airport
Letter Agreement (3/4/98)

Dear Mr. Barnett:

Enclosed please find 5 copies of the report on the performance audit of the air quality and meteorological monitoring systems at the Los Angeles International Airport performed by VSI on March 5 and 6, 1998. This report describes the audit activities performed by VSI and the results of the audit; included in the appendices are copies of the certificates of traceability for the audit devices and copies of the completed audit forms.

Thank you for the opportunity to work with your organization. I hope the work performed by VSI during this audit has been to your satisfaction. Please call me if you have any questions.

Sincerely,

Dennis Haase
VSI

OVERVIEW

A performance audit of the air monitoring network at the Los Angeles International Airport was performed on March 5 and 6, 1998. Results of the performance audit of the three (3) PM_{10} samplers indicated compliance with the EPA Guidelines as outlined in *EPA-600/R-94/038b, Section 2.11.7*. Results of the performance audit of the continuous gas analyzers indicated compliance with the EPA Guidelines as outlined in *EPA-600/R-94/038b, Section 2.0.12*.

The performance audit of the meteorological monitoring system indicated general compliance with the PSD Tolerances as outlined in *EPA-450/4-87-007* and *EPA-454/B-95-005*. Details of the audit results are discussed in latter sections of this report.

INTRODUCTION

A quality assurance performance audit of an air monitoring network at the Los Angeles International Airport was accomplished on March 5 and 6, 1998. The network consists of four (4) VFC-PM₁₀ samplers; continuous gas analyzers for carbon monoxide, sulfur dioxide, and oxides of nitrogen; and a 10-meter tower instrumented with wind speed, wind direction, ambient temperature, delta temperature and total solar radiation sensors. In attendance during the audit were Mr. David B. Wright of AeroVironment Environmental Services, Inc. (AVES) and Mr. Dennis Haase of VSI, who performed the audits. All equipment and forms required for the audits were provided by VSI. Copies of the certificates of traceability to the National Institute of Standards and Technology (NIST) for the audit devices are included in Appendix A; copies of the completed audit forms are provided in Appendix B.

The procedures and tolerances used during the audit followed the general guidelines of EPA-600/R-94/038b, *Quality Assurance Handbook for Air Pollution Measurement Systems: Volume II*; EPA-600/R-94/038d, *Quality Assurance Handbook for Air Pollution Measurement Systems: Volume IV, Meteorological Measurements*; EPA-450/4-87-007, *Ambient Monitoring Guidelines for Prevention of Significant Deterioration (PSD)*; EPA-454/B-95-005, *On-Site Meteorological Program Guidance for Regulatory Modeling Applications*; and equipment manufacturer recommendations.

The discussions that follow describe those activities performed by VSI in the completion of the audit and the associated results.

AUDIT ACTIVITIES AND RESULTS

AIR QUALITY MONITORING NETWORK

PM₁₀

Three volumetric flow-controlled (VFC) PM₁₀ samplers were audited on March 6, 1998. The audit of a sampler does not involve the size-selective inlet; during the audit, the SSI was released from the main structure and tilted back to allow the installation of the audit orifice. The audit orifice and faceplate were placed directly on the filter cassette and a new, clean filter.

After allowing each sampler to operate for approximately 5 minutes, a manometer reading was taken from the audit orifice and, based on the calibration relationship for the orifice, an audit flow rate was determined for the site conditions, Q_a . The audit flow (Q_a) was then compared with the indicated flow (Q_{ind}), derived by the operator from the manometer reading taken at the stagnation port during the audit.

The audit of the three samplers showed that the indicated flow rates (Q_{ind}) were well within the EPA requirements. The indicated flow rates were within +1.01% of the audit flow rate (Q_a); $\pm 6.0\%$ is required. Indicated flow rates without the orifice in place were within +0.53/-1.71% of the design flow of 1.13 m³/min; $\pm 7.0\%$ is required. A summary of the audit results for the samplers is provided in Table 1; copies of the audit forms are included in Appendix B.

GAS ANALYZERS

The audit of each of the gas analyzers was accomplished by inputting known concentrations of the respective gas at approximately 10, 20, 40, and 80% of the analyzer's full scale plus "zero air" and comparing the analyzer's corrected response with these concentrations. The corrected responses were based on the most recent calibration relationship for the analyzer provided by the site operator. The inputted concentrations were obtained through the dilution of a certified gas cylinder not associated with this network. The dilution source was a Rockwell blender and the "zero

TABLE 1
AUDIT SUMMARY: PM₁₀
Los Angeles International Airport
March 6, 1998

<u>Sampler I.D.</u>	<u>FLOW RATE (m³/min)</u>		<u>% DIFFERENCE</u>	
	<u>Audit</u>	<u>Indicated*</u>	<u>Indicated</u>	<u>Design</u>
P2865	1.122	1.127/1.139	0.44	0.35
P2866	NA	NA	NA	NA
P2872	1.111	1.122/1.122	1.01	-1.71
P2873	1.122	1.126/1.140	0.35	0.53
Guidelines:			±6%	±7%

*with orifice installed/without orifice installed
Reference: EPA-600/R-94/038b, Section 2.11.7

air " source was a cylinder of ultra-pure air. Copies of the cylinder certification, blender flow calibrations, and derivation of the audit concentrations are included in Appendix A.

The audit of the analyzers began with the introduction of "zero air" into the analyzers through the normal sampling line and particulate filter, allowing the analyzers to stabilize, then recording the data logger's responses. This was followed by the introduction of a gas concentration equivalent to approximately 80% of the analyzers' full scales and again allowing the analyzers to stabilize, then recording the data logger responses. This was repeated for each of the remaining points. The recorded responses were then corrected using the latest calibration relationships. A linear regression equation between the inputted concentrations and the corrected responses and the average absolute percent difference for each audit point were then calculated. Each of the analyzer's responses is discussed in the following paragraphs, a summary of the audit results for the gas analyzers is provided in Table 2, and copies of the audit forms are included in Appendix B.

CARBON MONOXIDE

The carbon monoxide analyzer audited was a Dasibi Model 3003. The average absolute difference between the inputted concentrations and the corrected responses was 4.6%. A recheck of the analyzer's zero following the input of the gas concentrations indicated no analyzer drift. The linear regression values of slope, intercept and correlation coefficient were excellent to satisfactory.

SULFUR DIOXIDE

The sulfur dioxide analyzer audited was a Monitor Labs Model 8850. The audit of the analyzer indicated close agreement between the inputted concentrations and the corrected values. The average absolute difference between the two sets of values was 3.5%. A recheck of the analyzer's zero following the input of the gas concentrations indicated no analyzer drift. The linear regression values of slope, intercept, and correlation coefficient were excellent to satisfactory.

TABLE 2
AUDIT SUMMARY: GAS ANALYZERS
Los Angeles International Airport
March 6, 1998

<u>Analyzer</u>	<u>Average Absolute % Diff. From Audit Conc.</u>	<u>Slope</u>	<u>Intercept</u>	<u>Correlation Coefficient</u>	<u>Date of Last Calib.</u>
Carbon Monoxide	4.6	0.9989	-0.3628	0.99980	3/4/98
Sulfur Dioxide	3.5	1.0134	0.0023	0.99997	3/4/98
Oxides of Nitrogen:					
NO	2.1	1.0247	-0.0001	0.99999	3/4/98
NO _x	2.3	1.0260	-0.0007	0.99998	3/4/98
NO ₂	4.8	1.0182	0.0025	0.99998	3/4/98
Guidelines:					
Excellent:		$\leq \pm 5\%$			
Satisfactory:		$\pm 6\%$ to $\pm 15\%$	$\leq \pm 3\%$ F.S.	≥ 0.9950	
Unsatisfactory:		$> 15\%$	$> \pm 3\%$ F.S.	< 0.9950	

Reference: EPA-600/R-94/038b, Section 2.0.12

NITROGEN DIOXIDE

The oxides of nitrogen analyzer audited was a Monitor Labs Model 8840. The audit of the analyzer indicated close agreement between the inputted concentrations and the corrected values. The average absolute difference between the two sets of values was 2.1%, 2.3%, and 4.8% for NO, NO_x, and NO₂, respectively. A recheck of the analyzer's zero following the input of the gas concentrations indicated no analyzer drift. The linear regression values of slope, intercept, and correlation coefficient for the three gases was excellent to satisfactory. The converter efficiency was calculated to be 100.07%, which meets the EPA requirements.

METEOROLOGICAL MONITORING NETWORK

WIND SPEED

The audit of the wind speed system was performed by rotating the sensor shaft at known rates and recording the data logger responses. Shaft rotations corresponding to speeds of 0.0, 1.13, 2.05, 5.12, 10.24, and 30.71 meters per second (mps) were applied to the sensor; responses of the data logger were within the PSD tolerances at all speeds.

The sensor propeller was inspected and found to be in good condition with no deformities. Sensor bearing wear was checked by measuring the force necessary to initiate rotation of the propeller shaft. The manufacturer indicates that the propeller shaft should begin rotation with a force of less than 1.0 gm-cm, corresponding to a starting threshold of 0.5 mps or less. Measurement with the R.M. Young torque wheel indicated that the sensor bearing torque was within the manufacturer's recommendations. A summary of the audit results are provided in Table 3; a copy of the audit form is included in Appendix B.

WIND DIRECTION

The wind direction system was audited by aligning the sensor to reference points in each of the four quadrants. The bearing of each reference point was obtained with a compass corrected for the magnetic declination of the area. The declination, approximately 14° east, was obtained from a *VFR Terminal Area: Los Angeles, NOAA, July 17, 1997*. Results of the audit indicated that the responses of the data logger were within the PSD tolerances.

The sensor vane was inspected and found to be in good conditions with no deformities. Sensor bearing wear was checked by measuring the force necessary to move the vane from a static position. A gram-gauge was applied to the vane at a distance of 5 cm from the vane center and a reading taken when the vane began to move. The manufacturer indicated that the vane should move with a force of less than 11.0 gm-cm, corresponding to a starting threshold of 0.5 mps or less. Measurement

TABLE 3
AUDIT SUMMARY: METEOROLOGICAL SENSORS
Los Angeles International Airport
March 6, 1998

<u>Sensor</u>	<u>Range</u>	<u>DAS Response</u>	<u>PSD Tolerance</u>
Wind Speed	≤ 5 mps > 5 mps	+0.10/-0.01 mps +0.0% / -0.4%	± 0.25 mps ± 5% not to exceed 2.5 mps
Wind Direction	0 - 360°	+0.1° / -2.0°	± 5.0°
Temp(2m)	- 50 to +50°C	+0.23°C / -0.00°C	± 0.50°C
Temp(9m)	- 50 to +50°C	+0.17°C / -0.00°C	± 0.50°C
Δ Temp(2-9m)	- 5 to +5°C	+0.089°C / -0.000°C	± 0.10°C
Solar Radiation	0 to 1400W/m ²	+3.4% / - 0.0%	± 5.0%

Reference: EPA-450/4-87-007
EPA-454/B-95-005

with the gauge indicated that the sensor bearing met the manufacturer's recommendations. A summary of the audit results is provided in Table 3; a copy of the audit form is included in Appendix B.

AMBIENT / DELTA TEMPERATURES

The audit of the ambient/delta temperature systems was accomplished by removing the upper aspirator assembly containing the thermocouple and attaching it to the lower assembly. The inability to immerse the thermocouples in a liquid bath precluded auditing the system at temperatures other than ambient. Discussions with the manufacturer indicated that the thermocouples typically don't drift and that without a temperature-controlled chamber, a single-point audit is typical for field audits. Monitoring of the ambient temperature adjacent to the thermocouples was accomplished using a NIST-certified thermometer with a resolution of 0.2° F. Results of the audit indicated that the data logger responses were within PSD tolerances. A summary of the audit results is provided in Table 3; copies of the audit forms are included in Appendix B.

SOLAR RADIATION

The audit of the solar radiation sensor began by covering the sensor to block all light and recording the output of the sensor and data logger response. Following this, a collocated sensor was installed near the audited sensor and the output of the two sensors compared at a low and mid-range level of light; agreement between the two sensors was within approximately 3%. A summary of the audit results is provided in Table 3; a copy of the audit form is included in Appendix B.

GRASEBY Orifice Transfer Standard Certification Worksheet

page 1

Date: 09/18/1997 Rootmeter S/N: 9736553 Ta: 22.00 C
Operator: Jim Tisch Calibrator S/N: G73 Pa: 755.4 mm Hg
Calibrator Model #: G25A Placed in service:

Run	Vol. Init. (m3)	Vol. Final (m3)	Δ Vol. (m3)	Δ Time (min)	Δ P (mm Hg)	Δ H (in H2O)
1	1.00	2.00	1.00	1.355	3.18	2.00
2	3.00	4.00	1.00	0.981	8.17	4.00
3	5.00	6.00	1.00	0.858	7.75	5.00
4	7.00	8.00	1.00	0.820	8.50	5.50
5	9.00	10.00	1.00	0.678	12.33	8.00

Data Tabulation

Vstd (m3)	Qstd (x-axis)	$\sqrt{\Delta H \left(\frac{P_a}{P_{std}} \right) \left(\frac{T_{std}}{T_a} \right)}$ (y-axis)	Va	Qa (x-axis)	$\sqrt{\Delta H (T_a / P_a)}$ (y-axis)
1.000	0.738	1.417	0.996	0.735	0.884
0.996	1.036	2.004	0.992	1.032	1.250
0.994	1.161	2.241	0.990	1.158	1.398
0.993	1.211	2.350	0.989	1.208	1.468
0.988	1.457	2.834	0.984	1.451	1.768
m = 1.9705			m = 1.2342		
b = -0.038719			b = -0.024155		
r = 0.999959			r = 0.999959		

Calculations

$$V_{std} = \Delta Vol((P_a - \Delta P) / P_{std})(T_{std} / T_a)$$

$$Q_{std} = V_{std} / \Delta Time$$

$$V_a = \Delta Vol((P_a - \Delta P) / P_a)$$

$$Q_a = V_a / \Delta Time$$

For subsequent flow rate calculations:

$$Q_{std} = 1 / m \left(\left(\sqrt{\Delta H \left(\frac{P_a}{P_{std}} \right) \left(\frac{T_{std}}{T_a} \right)} \right) - b \right)$$

$$Q_a = 1 / m \left(\left(\sqrt{\Delta H (T_a / P_a)} \right) - b \right)$$

Standard Conditions:

Tstd: 298.15 °K
Pstd: 760 mm Hg

where:

ΔH: calibrator manometer reading (in H2O)
ΔP: rootmeter manometer reading (mm Hg)
Ta: actual absolute temperature (°K)
Pa: actual barometric pressure (mm Hg)
b: intercept
m: slope

For additional information consult:

1. The Federal Register, Vol. 47, No.234, pp. 54896-54921, Dec. 8, 1982
2. Quality Assurance Handbook, Vol II (EPA 600/4-77-277a), Section 2.11
3. Graseby/GMW/Andersen Instruction Manual

Notes:

1. Copies of this calibration are not kept on file.
2. EPA recommends calibrators should be recalibrated after one year of use.

CALIBRATION: MASS FLOW CONTROLLER
 RANGE: 0-10 UNITS: LPM

DATE: 2/26/98
 BY: dh/VSI

CALIBRATOR: ROCKWELL
 MODEL: BLENDER
 SERIAL NO.: 005

OWNER: AeroVironment, Inc.
 LOCATION: LAB
 DATE: 2/26/98
 BY: dh/VSI

FLOW CONTROLLER: TYLAN
 MODEL: FC-260
 SERIAL NO.: 10929

FLOW METER: BIOS

Temp.: 22.4 deg.Cent.
 Pr.: 733 mm Hg.

BASE:

CELL:

MODEL: DC1B REV 2.05E

MODEL: DC1HC REV E

SERIAL NO.: B1182

SERIAL NO.: H531

POINT:	CALIB. DISPLAY	AVERAGE FLOW RATE (TEN/AVG)					SITE FLOW	STP FLOW
1	0.500	1.272	1.272	1.272	1.272	1.271	1.272	1.237
2	1.000	2.356	2.357	2.356	2.356	2.357	2.356	2.291
3	1.500	3.423	3.423	3.423	3.423	3.423	3.423	3.329
4	2.000	4.454	4.456	4.455	4.455	4.455	4.455	4.332
5	2.500	5.474	5.474	5.474	5.475	5.473	5.474	5.323

PAGE 1

	CALIB. DISPLAY	AVERAGE FLOW RATE (TEN/AVG)					SITE FLOW	STP FLOW
6	3.000	6.498	6.498	6.499	6.499	6.498	6.498	6.319
7	3.500	7.539	7.537	7.537	7.539	7.539	7.538	7.330
8	4.000	8.599	8.601	8.607	8.604	8.604	8.603	8.366
9	4.500	9.691	9.687	9.692	9.691	9.694	9.691	9.424
10							#DIV/0!	

X VALUES: 9.000 Y VALUES: 9.000

STP FLOW = 2032 (DISPLAY) + 0.2178 R2: 0.99992

PAGE 2

CALIBRATION: MASS FLOW CONTROLLER
RANGE: 0-50 UNITS: CCM

CALIBRATOR: ROCKWELL
MODEL: BLENDER
SERIAL NO.: 005

OWNER: AeroVironment, Inc.
LOCATION: LAB
DATE: 2/26/98
BY: dh/VSI

DATE: 2/26/98
BY: dh/VSI

FLOW CONTROLLER: TYLAN
MODEL: FC-260
SERIAL NO.: 11172

FLOW METER: BIOS
BASE: CELL:
MODEL: DC1B REV 2.05E MODEL: DC1LC REV E
SERIAL NO.: B1182 SERIAL NO.: L268

Temp.: 24.0 deg.Cent.
Pr.: 733 mm Hg.

POINT:	CALIB. DISPLAY	AVERAGE FLOW RATE (TEN/AVG)					SITE FLOW	STP FLOW
1	0.500	6.688	6.681	6.675	6.671	6.680	6.679	6.460
2	1.000	12.540	12.530	12.530	12.550	12.530	12.536	12.125
3	1.500	18.250	18.270	18.230	18.260	18.290	18.260	17.661
4	2.000	23.850	23.960	23.830	23.900	23.950	23.898	23.114
5	2.500	29.550	29.520	29.530	29.480	29.490	29.514	28.546

	CALIB. DISPLAY	AVERAGE FLOW RATE (TEN/AVG)					SITE FLOW	STP FLOW
6	3.000	35.350	35.610	35.610	35.560	35.580	35.582	34.415
7	3.500	41.380	41.330	41.320	41.350	41.360	41.348	39.992
8	4.000	47.060	47.090	46.930	47.030	47.090	47.040	45.497
9	4.500	52.860	52.670	52.730	52.710	52.830	52.760	51.029
10							#DIV/0!	

X VALUES: 9.000 Y VALUES: 9.000
STP FLOW = 11.145 (DISPLAY) + 0.8968 R2: 0.99996

CALIBRATION: MASS FLOW CONTROLLER
 RANGE: 0 - 10 UNITS: LPM

CALIBRATOR: ROCKWELL
 MODEL: BLENDER
 SERIAL NO.: 005

OWNER: AeroVironment, Inc.
 LOCATION: LAB
 DATE: 2/26/98
 BY: dh/VSI

FLOW CONTROLLER: TYLAN
 MODEL: FC-260
 SERIAL NO.: 10929

FLOW METER: BIOS
 BASE: CELL:
 MODEL: DC1B REV 2.05E MODEL: DC1HC REV E
 SERIAL NO.: B1182 SERIAL NO.: H531

Temp.: 23.0 deg.Cent.
 Pr.: 733 mm Hg.

DATE: 2/26/98
 BY: dh/VSI

POINT:	CALIB. DISPLAY	AVERAGE FLOW RATE (TEN/AVG)					SITE FLOW	STP FLOW
1	3.100	6.715	6.715	6.711	6.714	6.717		
		6.714	6.712	6.714	6.713	6.714	6.714	6.516
2							#DIV/0!	
3							#DIV/0!	
4							#DIV/0!	
5							#DIV/0!	

	CALIB. DISPLAY	AVERAGE FLOW RATE (TEN/AVG)					SITE FLOW	STP FLOW
6							#DIV/0!	
7							#DIV/0!	
8							#DIV/0!	
9							#DIV/0!	
10							#DIV/0!	

X VALUES: 1.000 Y VALUES: 1.000
 STP FLOW = #DIV/0! (DISPLAY) + #DIV/0! R2: #DIV/0!

CALIBRATION: MASS FLOW CONTROLLER
 RANGE: 0-100 UNITS: CCM

CALIBRATOR: ROCKWELL
 MODEL: BLENDER
 SERIAL NO.: 005

OWNER: AeroVironment, Inc.
 LOCATION: LAB
 DATE: 2/26/98
 BY: dh/VSI

FLOW CONTROLLER: TYLAN
 MODEL: FC-260
 SERIAL NO.: 11172

FLOW METER: BIOS

Temp.: 24.0 deg.Cent.
 Pr.: 733 mm Hg.

BASE: CELL:
 MODEL: DC1B REV 2.05E MODEL: DC1LC REV E
 SERIAL NO.: B1182 SERIAL NO.: L268

POINT:	CALIB. DISPLAY	AVERAGE FLOW RATE (TEN/AVG)					SITE FLOW	STP FLOW
1	0.450	6.101	6.066	6.100	6.104	6.088		
		---	---	---	---	---	6.092	5.892
2	1.100	13.620	13.580	13.600	13.600	13.610		
		---	---	---	---	---	13.602	13.156
3	1.750	21.000	21.060	21.050	21.040	21.040		
		---	---	---	---	---	21.038	20.348
4	4.250	49.860	50.260	50.020	50.140	49.930		
		---	---	---	---	---	50.042	48.401
5		---	---	---	---	---		
		---	---	---	---	---	#DIV/0!	

DATE: 2/26/98
 BY: dh/VSI

	CALIB. DISPLAY	AVERAGE FLOW RATE (TEN/AVG)					SITE FLOW	STP FLOW
6		---	---	---	---	---		
		---	---	---	---	---	#DIV/0!	
7		---	---	---	---	---		
		---	---	---	---	---	#DIV/0!	
8		---	---	---	---	---		
		---	---	---	---	---	#DIV/0!	
9		---	---	---	---	---		
		---	---	---	---	---	#DIV/0!	
10		---	---	---	---	---		
		---	---	---	---	---	#DIV/0!	

X VALUES: 4.000 Y VALUES: 4.000
 STP FLOW = 11.189 (DISPLAY) + 0.8306 R2: 0.99999



SCOTT-MARRIN, INC.

6531 BOX SPRINGS BLVD. • RIVERSIDE, CA 92507
TELEPHONE (909) 653-6780 • FAX (909) 653-2430

REPORT OF ANALYSIS CALIBRATION GAS MIXTURES

AERO#1

DATE : 08/15/97

TO:

ALEX BARNETT
AEROVIRONMENT INC
222 S HUNTINGTON DR #300
MONROVIA, CA 91016-

CUSTOMER ORDER NUMBER: ES98-0128

PAGE 1

XX

CYLINDER NO.: JJ15108		CYLINDER NO.:	
COMPONENT	CONCENTRATION (v/v)	COMPONENT	CONCENTRATION (v/v)
Nitric oxide	60.8 ± 0.6 ppm		
Sulfur dioxide	61.7 ± 0.6 ppm		
Carbon monoxide	6060 ± 61 ppm		
Methane	1173 ± 12 ppm		
Nitrogen, O2-Free	Balance		

ppm = umole/mole % = mole-%

Analyst: M. Dodd-Davison
M. Dodd-Davison

Approved: J.T. Marrin
J.T. Marrin

The only liability of this company for gas which fails to comply with this analysis shall be replacement or reanalysis thereof by the company without extra cost.

AUDIT CONCENTRATIONS

CYLINDER: JJ15108
NO: 60.80 PPM
SO2: 61.70 PPM
CO: 6060 PPM

OWNER: AeroVironment, Inc
LOCATION: LAX
DATE: 3/6/98
BY: dh/VSI

CALIBRATOR: ROCKWELL/005		FLOW		FLOW	
DILUTION: SETTING (SCCM)		GAS: SETTING (SCCM)		GAS: SETTING (SCCM)	
3.10		6516		4.000	
				1.750	
				1.100	
				0.450	
				0.250	

SETTINGS				
DILUTION	GAS	NO (PPM)	SO2 (PPM)	CO (PPM)
3.10	4.00	0.422	0.428	42.0
3.10	1.75	0.189	0.192	18.9
3.10	1.10	0.123	0.124	12.2
3.10	0.45	0.055	0.056	5.5
	0.25	0.048		

*** CERTIFICATE OF CALIBRATION ***

Cert # 57852

COMPANY
V S I
729 West Lynwood Avenue
Phoenix, AZ 85007

DATE OF TEST

05/01/97

DATE DUE

05/01/98

LAST CALIBRATION DATE

05/03/96

LAST CERTIFICATE #

49614

CONTACT

Dennis Haase

PHYSICAL LOCATION

MANUFACTURER

Fluke

DESCRIPTION

Digital Multimeter

MODEL

8060A

SERIAL

4315375

TEMPERATURE

25 °C

HUMIDITY

34%

PERMISSIBLE ERROR

See data sheet

INTERVAL

12 months

CONDITION AS FOUND: PHYSICAL FUNCTIONAL

GOOD WITHIN TOLERANCE

AFTER CALIBRATION: FUNCTIONAL

WITHIN TOLERANCE

REMARKS: See attached data sheets (2)

<< CALIBRATION EQUIPMENT USED >>					
MANUFACTURER	MODEL	SERIAL	DUE DATE	REPORT #	UNCERTAINTY
Fluke	5500A	6470035	07/09/97	163135	See comments/data

PROCEDURE USED: Manufacturer's

NOTES: Page 1 + 2 pages of data

COMMENTS:

<< INSTRUMENT HISTORY >>

LAST CAL	CERT #	FREQ	FUNCTIONAL CONDITION AS FOUND	FUNCTIONAL CONDITION AFTER CALIBRATION	PERMISSIBLE ERROR
05/03/96	49614	12	CALIBRATION REJECTED - REQUIRES REPAIR	WITHIN TOLERANCE	See data sheet
05/06/96	42991	12	WITHIN TOLERANCE	Mfg Specs	
04/07/96	36388	12	WITHIN TOLERANCE	WITHIN TOLERANCE	Mfg Specs
03/05/93	31175	12	WITHIN TOLERANCE	WITHIN TOLERANCE	Mfg Specs
09/20/90	20338	12	REQUIRES REPAIR OR REPLACEMENT	WITHIN TOLERANCE	Mfg Specs

Collective uncertainty does not exceed 25% of tolerance for any parameter tested unless annotated under "Remarks". No allowance has been made for the instability of the tested unit due to use, time, etc. Measurement results relate only to the item tested above. The standards used for the calibration of this equipment were calibrated in compliance with ISO Guide 25, ISO 10012, ANSI/NCSL2540-1-1994, NIST Std 45662A, and with the intent of ISO 9000-series specifications. Calibration is traceable to the NIST through documents on file at:
Field Calibrations, Inc.
116 N. Roosevelt Ave., Ste 116
Chandler, AZ 85226-3432
(602) 961-0360

Michael Machock, Tech/Lab Mgr (BPF)

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National Calibration Inc.
The Quality People
Since 1955

3757 East Broadway Road, No. 6
Phoenix, Arizona 85040
(602) 437-0114 • fax 437-8897.

CALIBRATION REPORT

Client

VSI

729 W. LYNWOOD AVE.

PHOENIX, AZ. 85007

Equipment Type THEROMETER

Model No. 1002-3

Serial No. A97-125

Service Order No. 71030

Test Date 10/7/97

Recall Date 10/7/98

Manufacturer ERTCO

Accuracy $\pm 0.2^\circ \text{C}$

Capacity 30 - 120° F

Calibration Technician

G. PIKEY

EQUIPMENT

Test Equipment Reading	Equipment Reading	Error	Test Equipment Reading	Equipment Reading	Error
°F	°F	°F			
40.0	40.0	0.0			
60.0	60.0	0.0			
80.0	80.0	0.0			
90.0	90.1	+0.1			
100.0	100.1	-0.1			
110.0	110.0	0.0			
120.0	120.0	0.0			

The accuracy of this instrument has been verified under conditions stated above per ISO/IEC Guide 25 and ANSI Regulation Z540-1. Our standards have traceability to NIST and evidence is on file at our Metrology Laboratory. This certificate shall not be reproduced, except in full, without the written approval of NATIONAL CALIBRATION, INC.

READINGS ARE AS FOUND

Equipment Condition Upon Arrival: ☒ Good ☐ Fair ☐ Poor ☐ Other

Test Equipment Used: PRECISION THERMOMETERS

Traceability: 7000192

Recall Date: 1/98

Procedure Section: 4.0

Ambient Temperature: 23°C $\pm 3^\circ \text{C}$

Relative Humidity: LESS THAN 50%



**National
Calibration
Inc.**
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Since 1965

3757 East Broadway Road, No. 6
Phoenix, Arizona 85040
(602) 437-0114 • fax 437-8897

CALIBRATION REPORT

Client	Service Order No.	71030
VSI	Test Date	10/7/97
729 W. LYNWOOD AVE.	Recall Date	10/7/98
PHOENIX, AZ. 85007	Manufacturer	PEET BROS.
Equipment Type DIGITAL ULTIMETER	Accuracy	± 0.1° C
Model No. 12+	Capacity	SEE REPORT
Serial No. VSI 1	Calibration Technician	<i>ACN</i>
		G. PIKEY

EQUIPMENT

Test Equipment Reading	Equipment Reading	Error	Test Equipment Reading	Equipment Reading	Error
°C	°C	°C			
4.2	4.2	0.0			
24.2	24.2	0.0			
27.1	27.0	-0.1			
38.3	38.4	+0.1			
44.0	44.1	+0.1			
49.0	49.1	+0.1			
88.8	88.9	+0.1			
99.6	99.7	+0.1			
The accuracy of this instrument has been verified under conditions stated above per ISO/IEC Guide 25 and ANSI Regulation 2540-1. Our standards have traceability to NIST and evidence is on file at our Metrology Laboratory. This certificate shall not be reproduced, except in full, without the written approval of NATIONAL CALIBRATION, INC.					
READINGS ARE AS FOUND					

Equipment Condition Upon Arrival: ☒ Good ☐ Fair ☐ Poor ☐ Other _____

Test Equipment Used: PRECISION THERMOMETERS Traceability: 7000192

Recall Date: 1/98 Procedure Section: 4.0

Ambient Temperature: 23°C ± 3°C Relative Humidity: LESS THAN 50%

CHECK OF BAROMETRIC PRESSURE SENSOR

Manuf./Model: Peet Bros./Ultimeter 12+
Serial No.: VSI-1

DATE	READING	NWS-PHX	ULTIMETER
10/13/97	Alt. Setting Station Prs.	767 737	767 738
10/17/97	Alt. Setting Station Prs.	759 729	759 730
11/2/97	Alt. Setting Station Prs.	764 734	764 735
11/5/97	Alt. Setting Station Prs.	763 733	763 734
3/3/98	Alt. Setting Station Prs.	760 730	761 732
3/10/98	Alt. Setting Station Prs.	766 735	766 737

**R. M. YOUNG COMPANY****TYPICAL TORQUE VALUES**

For Checking Anemometer Bearing and Transducer Condition

Instrument (Standard Models)	Sensor	Transducer	New Instrument		Max torque for threshold of:	
			Torque gm-cm	Threshold m/s	0.5 m/s gm-cm	1.0 m/s gm-cm
03101-5 Wind Sentry Anemometer	03110	AC Coil	0.3	0.5	0.3	1.0
05103 Wind Monitor	08234	AC Coil	2.4	1.0		2.6
05106 Wind Monitor - MA	08234	AC Coil	2.6	1.0		2.6
05305 Wind Monitor - AQ	08254	AC Coil	0.3	0.3	1.0	3.8
05701 Wind Monitor - RE	08274	AC Coil	0.3	0.2	1.3	5.0
12102 Cup Anemometer	12170C	2400 mV Tach-Gen	0.4	0.5	0.4	1.4
12102D Cup Anemometer/Photo Chopper	12170C	Photo Chopper	0.1	0.3	0.4	1.4
21003 Anemometer Bivane	08274	2400 mV Tach-Gen	0.6	0.3	1.3	5.0
27106 Propeller Anemometer	08274	500 mV Tach-Gen	0.5	0.3	1.3	5.0
27106T Propeller Anemometer	08254	500 mV Tach-Gen	0.5	0.4	1.0	3.8
27106D Propeller Anem / Photo Chopper	08274	Photo Chopper	0.3		1.3	5.0

NOTES:

1. New instrument torque and threshold specifications are maximum values
2. Values shown are maximum torque to maintain instrument threshold at or below 0.5 m/s and 1.0 m/s respectively.
3. EPA and NRC instrument specifications designate 0.5 m/s wind speed starting threshold. ASTM D5098-90 "Standard Test Method for Determining the Performance of a Cup Anemometer or Propeller Anemometer" defines "starting threshold" and outlines a method for its determination.

SENSORS:

03110 Wind Sentry 75 cm Cup Wheel Assembly
 08234 18 X 30 cm Polypropylene Propeller (PP)
~~08254 20 X 30 cm Carbon Fiber Thermoplastic Propeller (CFT)~~
 08274 22 X 30 cm Expanded Polystyrene Propeller (EPS)
 12170C 100 cm Cup Wheel Assembly

STANDARD BEARINGS:

Model 05103 Wind Monitor - Double Teflon seals & lubricated with M-28 low torque grease
 Model 05106 Wind Monitor - MA - Double Teflon seals & lubricated with "Sta-lube" waterproof grease.
 All other models - Double metal shields & lubricated with LOI instrument oil.

JULY 1995
 TDSKSUM.PM4

**R. M. YOUNG COMPANY****TYPICAL TORQUE VALUES**

For Checking Windvane Bearing and Transducer Condition

Instrument (Standard Models)	New Instrument		Max torque for threshold of:	
	Torque gm-cm	Threshold m/s @ 10"	0.5 m/s @ 10" gm-cm	1.0 m/s @ 10" gm-cm
05103 Wind Monitor	30	1.1		
05106 Wind Monitor-MA	30	1.1		
05305 Wind Monitor - AQ	9	0.5	11	40
05701 Wind Monitor - RE	7	0.4	11	40
12302/5 Microvane	11	0.4	18	68
17003 Bivane	11	0.4	18	58
21003 Anemometer Bivane	11	0.5	14	51

NOTES:

1. New instrument torque and threshold specifications are maximum values
2. Values shown are maximum torque permitted to maintain instrument threshold at or below 0.5 m/s and 1.0 m/s respectively at 10" displacement.
3. EPA and NRC instrument specifications designate windvane threshold measurement at 10" displacement from equilibrium position. ASTM D5366-93 "Standard Test Method for Determining the Dynamic Performance of a Wind Vane" defines "starting threshold" and outlines a method for its determination.

STANDARD BEARINGS:

Model 05103 Wind Monitor & 05106 Wind Monitor-MA - Double Teflon seals lubricated with LY-48 wide temperature range grease
 Models 05305 Wind Monitor-AQ and 05701 Wind Monitor-RE - Double metal shields lubricated with LOI instrument oil
 All other models - Double Teflon seals lubricated with LOI instrument oil

MAR 1995
 TDSKSUM2.PM4

PERFORMANCE AUDIT: PM10 SAMPLER (VFC)

SAMPLER:

MANUF./MODEL: SA/76-100

SERIAL NO: P2865

TABLE DATE: 7/31/95

ASSET NO: NA

ETI READING BEGIN: 98629.9

END: 98629.6

OWNER: AeroVironment, Inc.

LOCATION: LAX

DATE: 3/6/98

BY: dh/VSI

SITE OPERATOR: DBW

		INITIAL	FINAL	AVERAGE
ORIFICE MODEL:	25A	TEMPERATURE (T ₀):	11.9	13.1
SERIAL NO.:	G73	PRESSURE (P ₀):	756	756
CAL DATE:	9/18/97	SAMPLER CALIB:		
SLOPE (m):	1.2342	SLOPE: NA		
INTERCEPT (b):	-0.02416	INTERCEPT: NA		
CORRELATION (r):	0.999590	DATE: NA		

ORIFICE MANOMETER (in. H ₂ O)			STAGNATION PORT (ΔP)		FLOWS				
LEFT	RIGHT	TOTAL	(in. H ₂ O)	(mm Hg)	P ₁	P ₁ /P ₀	Q _a (ccm)	Q _{tab} (ccm)	Q _{cor} (ccm)
0.00	4.90	4.90	21.5	30.2	715.8	0.9469	1.122	1.127	NA
W/O ORIFICE			17.6	32.9	723.1	0.9565	NA	1.139	NA

AUDIT % DIFF.			DESIGN FLOW % DIFF.		
Table	Estimate		Table	Estimate	
W/ORIFICE	0.44	NA	W/O ORIFICE	0.35	NA
GUIDELINE: ± 6%			GUIDELINE: ± 7%		

T₀: Ambient Temperature (°C)

°C = (°F-32)*5/9

P₀: Ambient Pressure (mm Hg)

mm Hg = inches Hg * 25.4

P₁ = P₀ - ΔP

ΔH = Total Manometer (inches H₂O)

Source: EPA-600/R-94/038b, Section 2.11.7

$Q_a = [1/m] * [((\Delta H * (T_0 + 273.16) / P_0)^{1/2} - b)]$

Audit % Difference = $[(Q_{ind} - Q_a) / Q_a] * 100$

$Q_{cor} = Q_{ind} * [(100 - \text{Audit \% Diff.}) / 100]$

Design Flow % Difference = $[(Q_{cor} - 1.13) / 1.13] * 100$

where: Q_a = audit flow (from orifice)

Q_{ind} = indicated flow (from table or regression equation)

Q_{cor} = corrected flow

PERFORMANCE AUDIT: PM10 SAMPLER (VFC)

SAMPLER:

MANUF./MODEL: SA/76-100

SERIAL NO: P2872

TABLE DATE: 8/4/95

ASSET NO: NA

ETI READING BEGIN: 24554.1

END: 24557.1

OWNER: AeroVironment, Inc.

LOCATION: LAX

DATE: 3/6/98

BY: dh/VSI

SITE OPERATOR: DBW

		INITIAL	FINAL	AVERAGE
ORIFICE MODEL:	25A	TEMPERATURE (T ₀):	11.9	13.1
SERIAL NO.:	G73	PRESSURE (P ₀):	756	756
CAL DATE:	9/18/97	SAMPLER CALIB:		
SLOPE (m):	1.2342	SLOPE: NA		
INTERCEPT (b):	-0.02416	INTERCEPT: NA		
CORRELATION (r):	0.999590	DATE: NA		

ORIFICE MANOMETER (in. H ₂ O)			STAGNATION PORT (ΔP)		FLOWS				
LEFT	RIGHT	TOTAL	(in. H ₂ O)	(mm Hg)	P ₁	P ₁ /P ₀	Q _a (ccm)	Q _{tab} (ccm)	Q _{cor} (ccm)
0.00	4.80	4.80	21.1	39.4	715.6	0.9479	1.111	1.122	NA
W/O ORIFICE			20.9	39.0	717.0	0.9484	NA	1.122	NA

AUDIT % DIFF.			DESIGN FLOW % DIFF.		
Table	Estimate		Table	Estimate	
W/ORIFICE	1.01	NA	W/O ORIFICE	-1.71	NA
GUIDELINE: ± 6%			GUIDELINE: ± 7%		

T₀: Ambient Temperature (°C)

°C = (°F-32)*5/9

P₀: Ambient Pressure (mm Hg)

mm Hg = inches Hg * 25.4

P₁ = P₀ - ΔP

ΔH = Total Manometer (inches H₂O)

Source: EPA-600/R-94/038b, Section 2.11.7

$Q_a = [1/m] * [((\Delta H * (T_0 + 273.16) / P_0)^{1/2} - b)]$

Audit % Difference = $[(Q_{ind} - Q_a) / Q_a] * 100$

$Q_{cor} = Q_{ind} * [(100 - \text{Audit \% Diff.}) / 100]$

Design Flow % Difference = $[(Q_{cor} - 1.13) / 1.13] * 100$

where: Q_a = audit flow (from orifice)

Q_{ind} = indicated flow (from table or regression equation)

Q_{cor} = corrected flow

PERFORMANCE AUDIT: PM10 SAMPLER (VFC)

SAMPLER:

MANUF./MODEL: SA/76-100

SERIAL NO: P2873

TABLE DATE: 8/4/95

ASSET NO: NA

BTI READING BEGIN: 46229.2

END: 46239.7

OWNER: AeroVironment, Inc.

LOCATION: LAX

DATE: 3/6/98

BY: dh/VSI

SITE OPERATOR: DBW

ORIFICE MODEL: 25A
SERIAL NO.: G73
CAL DATE: 9/18/97
SLOPE (m): 1.2342
INTERCEPT (b): -0.02416
CORRELATION (r): 0.999590

TEMPERATURE (T_a): 11.9
PRESSURE (P_a): 756
SAMPLER CALIB:
SLOPE: NA
INTERCEPT: NA
DATE: NA

INITIAL 11.9
FINAL 13.1
AVERAGE 12.5 °C

756 756 756 mmHg

ORIFICE MANOMETER (in. H ₂ O)			STAGNATION PORT (ΔP)		FLOWS					
LEFT	RIGHT	TOTAL	(in. H ₂ O) (mm H ₂)	P _i	P _i /P _a	Q _a (cm ³ /min)	Q _{ubia} (cm ³ /min)	Q _{corr} (cm ³ /min)		
0.00	4.90	4.90	21.5	40.2	715.8	0.9469	1.122	1.126	NA	
W/O ORIFICE			16.8	31.4	724.6	0.9585	NA	1.140	NA	

AUDIT
% DIFF.
Table Estimate

W/O ORIFICE 0.35 NA

GUIDELINE:
± 6%

DESIGN FLOW
% DIFF.
Table Estimate

W/O ORIFICE 0.53 NA

GUIDELINE:
± 7%

T_a: Ambient Temperature (°C)

°C = (°F-32)*5/9

P_a: Ambient Pressure (mm Hg)

mm Hg = inches Hg * 25.4

P_i = P_a - ΔP

ΔH = Total Manometer (inches H₂O)

Source: EPA-600/R-94/038b, Section 2.11.7

$Q_a = [1/m] * [(ΔH * (T_a + 273.15) / P_a)^{1/2} - b]$

Audit % Difference = $[(Q_{ind} - Q_a) / Q_a] * 100$

$Q_{corr} = Q_{ind} * [(100 - \text{Audit \% Diff.}) / 100]$

Design Flow % Difference = $[(Q_{corr} - 1.13) / 1.13] * 100$

where: Q_a = audit flow (from orifice)

Q_{ind} = indicated flow (from table or regression equation)

Q_{corr} = corrected flow

PERFORMANCE AUDIT: CARBON MONOXIDE

ANALYZER MODEL: DASIBI 3003

SERIAL NO: 138

RANGE: 0-50 ppm

OWNER: AeroVironment, Inc.

LOCATION: LAX

DATE: 3/6/98

BY: dh/VSI

AUDIT DEVICE:

MANUF./ MODEL: ROCKWELL/BLENDER

SERIAL NO: 005

GAS CYL. MANUF: Scott-Marrin

CYL. SERIAL NO: JJ15108

CYL. CONC: 6060 ppm

SITE OPERATOR: DBW

LAST CALIBRATION

SLOPE: 1.006

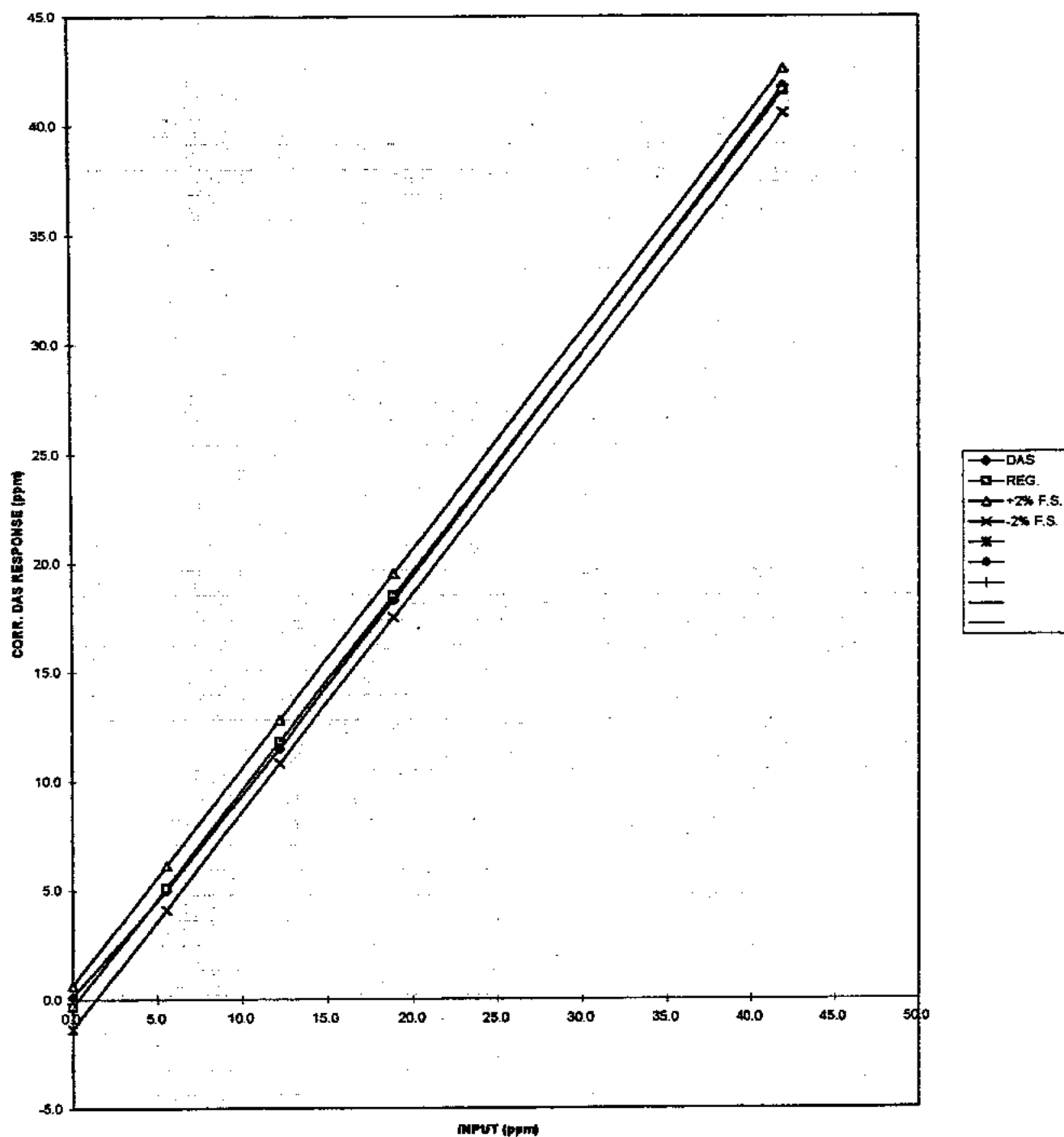
INTERCEPT: -1.74

DATE: 3/4/98

INPUT (PPM)	DAS RESPONSE	CORRECTED DAS	% DIFFERENCE
0.0	1.8	0.1	—
42.0	43.3	41.8	-0.5
18.9	19.9	18.3	-3.2
12.2	13.2	11.5	-5.7
5.5	6.7	5.0	-9.1
[AVG]:			4.6

(CORR. DAS RESPONSE) = 0.9989 (INPUT) + -0.3628 r: 0.99980

ANALYZER LINEARITY



AUDIT RESULTS: CARBON MONOXIDE

PERFORMANCE AUDIT: SULFUR DIOXIDE

ANALYZER MODEL: MONITOR LABS 8850
 SERIAL NO.: 1397
 RANGE: 0-500 ppb

OWNER: AeroVironment, Inc.
 LOCATION: LAX
 DATE: 3/6/98
 BY: dh/VSI

AUDIT DEVICE:
 MANUF./ MODEL: ROCKWELL/BLENDER
 SERIAL NO.: 005

GAS CYL. MANUF.: Scott-Marrin
 CYL. SERIAL NO.: JJ15108
 CYL. CONC.: 61.7 ppm

SITE OPERATOR: DBW

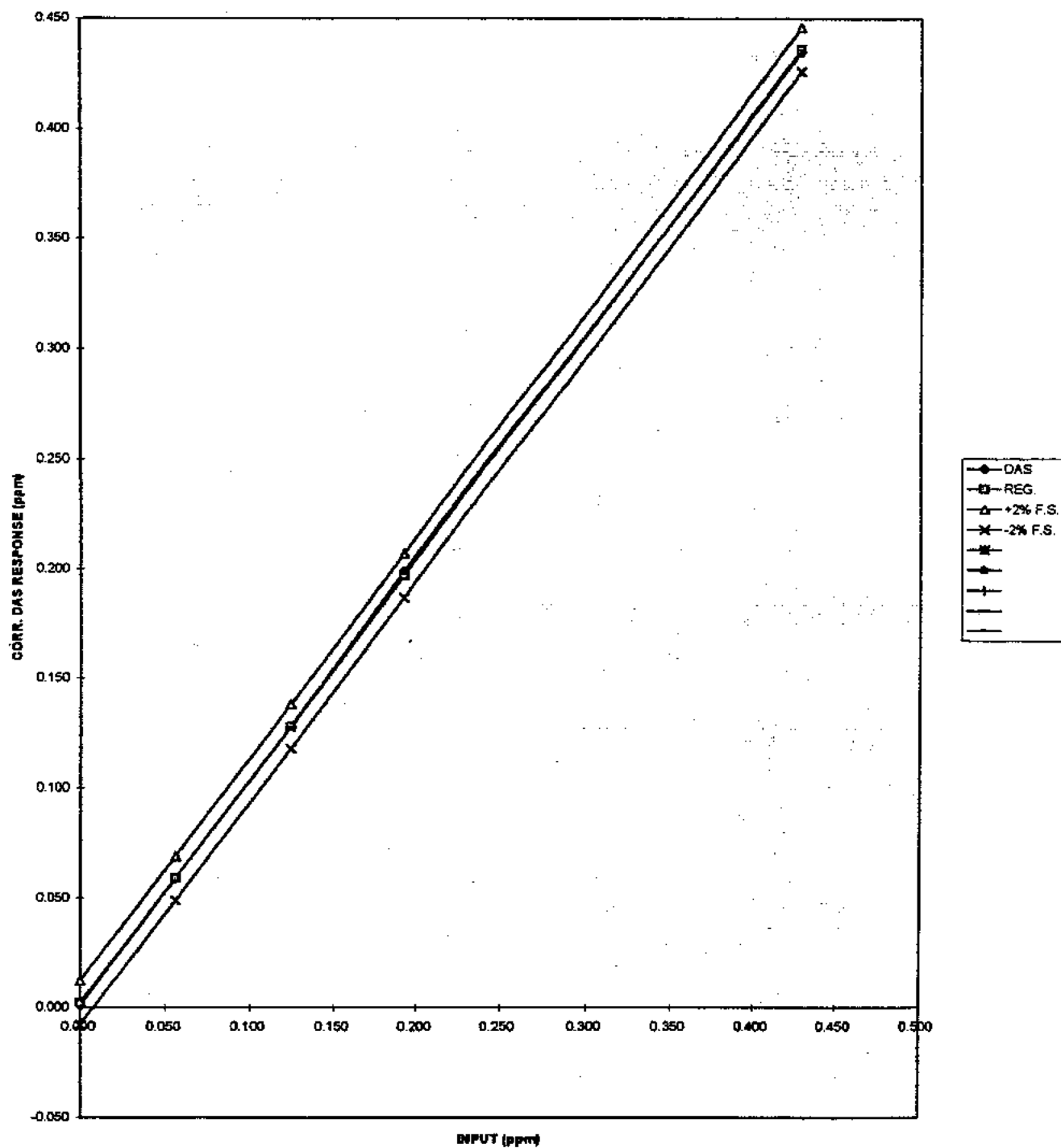
LAST CALIBRATION
 SLOPE: 1.015
 INTERCEPT: 0.002
 DATE: 3/4/98

<u>INPUT (PPM)</u>	<u>DAS RESPONSE</u>	<u>CORRECTED DAS</u>	<u>% DIFFERENCE</u>
0.000	-0.001	0.001	—
0.428	0.427	0.435	1.6
0.192	0.194	0.199	3.6
0.124	0.124	0.128	3.2
0.056	0.056	0.059	5.4

[AVG]: 3.5

$$(\text{CORR. DAS RESPONSE}) = 1.0134 (\text{INPUT}) + 0.0023 \quad r: 0.99997$$

ANALYZER LINEARITY



AUDIT RESULTS: SULFUR DIOXIDE

PERFORMANCE AUDIT: NO/NO2/NOX

ANALYZER MODEL: MONITOR LABS 8840
SERIAL NO.: 359
RANGE: 0-500 ppb

OWNER: AeroVironment, Inc.
LOCATION: LAX
DATE: 3/6/98
BY: dh/VSI

AUDIT DEVICE:
MANUF./MODEL: ROCKWELL/BLENDER
SERIAL NO.: 005

GAS CYL. MANUF.: Scott-Marrin
CYL. SERIAL NO.: JJ15108
CYL. CONC.: 60.8 ppm

SITE OPERATOR: DBW

LAST CALIBRATION

	NO	NO2	NOX
SLOPE:	1.006	1.006	1.003
INTERCEPT:	0.002	-0.001	0.002
DATE:	3/4/98	3/4/98	3/4/98

INPUT (PPM)	DAS RESPONSE (ppm)			CORR. DAS RESPONSE			% DIFFERENCE		
	NO	NO2	NOX	NO	NO2	NOX	NO	NO2	NOX
0.000	-0.002	0.001	-0.002	0.000	0.000	0.000	-	-	-
0.422	0.427	0.002	0.429	0.432	0.001	0.432	2.4	-	2.4
0.189	0.191	0.000	0.191	0.194	-0.001	0.194	2.6	-	2.6
0.123	0.124	0.000	0.124	0.127	-0.001	0.126	3.3	-	2.4
0.055	0.053	0.000	0.052	0.055	-0.001	0.054	0.0	-	-1.8
						[AVG]:	2.1		2.3

NO RESPONSE (ppm) = 1.0247 (INPUT) + -0.0001 r: 0.99999

NOX RESPONSE (ppm) = 1.0260 (INPUT) + -0.0007 r: 0.99998

LOCATION: LAX
DATE: 3/6/98

GAS-PHASE TITRATION:

INPUT (ppm) NOX / NO2	DAS RESPONSE (ppm)			CORR. DAS RESPONSE		
	NO	NO2	NOX	NO	NO2	NOX
0.450 0.000	0.454	0.003	0.457	0.459	0.002	0.460
0.450 0.400	0.057	0.399	0.458	0.059	0.400	0.461
0.450 0.180	0.277	0.178	0.457	0.281	0.178	0.460
0.450 0.090	0.367	0.090	0.457	0.371	0.090	0.460
0.450 0.050	0.406	0.052	0.459	0.410	0.051	0.462

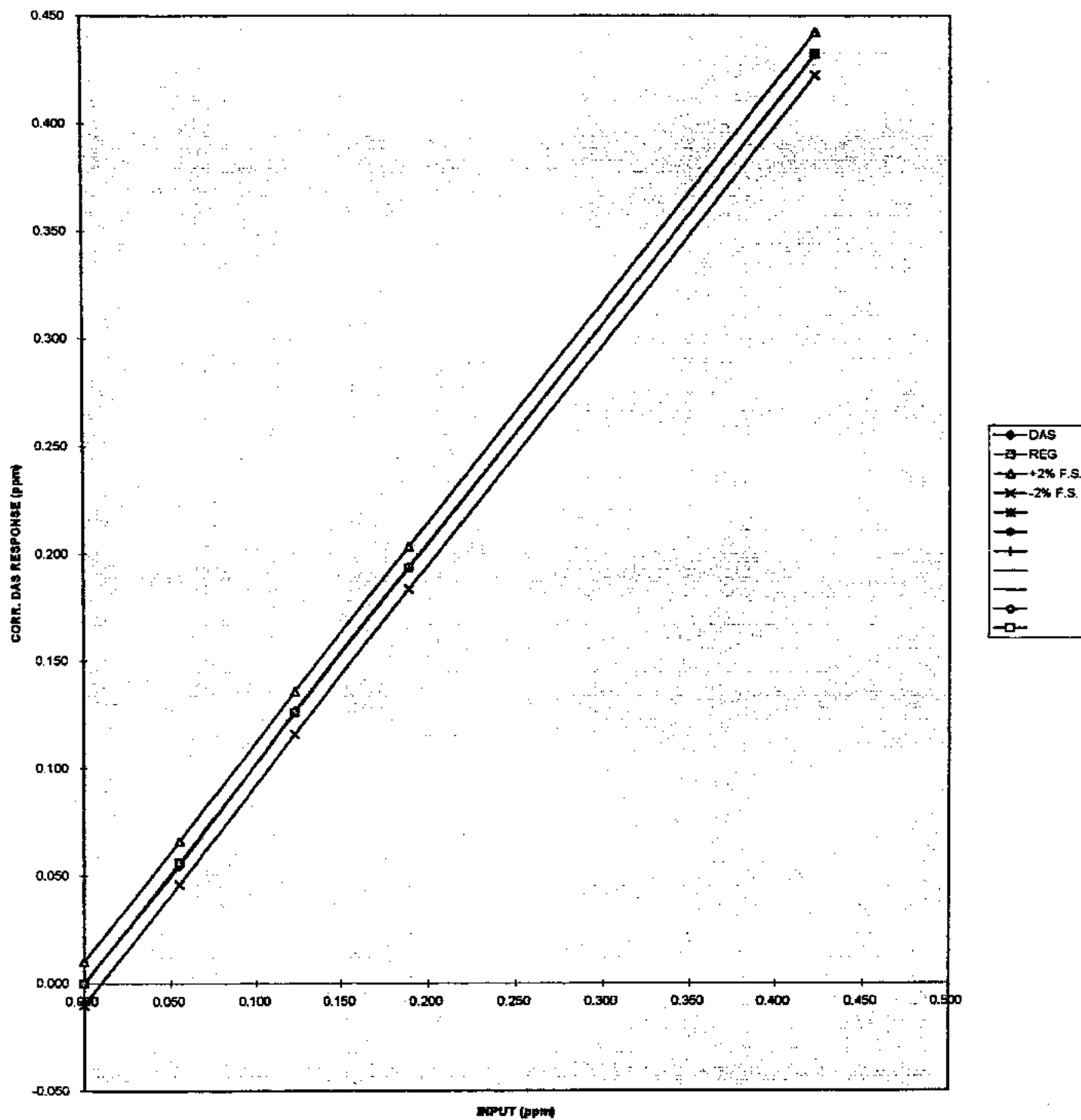
OUTPUT (NO2)	CORRECTED OUTPUT		DELTA		NO2conv	% DIFFERENCE
	NO	NOX	NO	NOX-NO		
0.002	0.448	0.449	0.000	0.002	0.000	-
0.400	0.058	0.450	0.390	0.392	0.391	2.6
0.178	0.274	0.449	0.174	0.175	0.174	2.3
0.090	0.362	0.449	0.085	0.087	0.085	5.9
0.051	0.401	0.451	0.047	0.051	0.049	8.5

[AVG]: 4.8

NO2 RESPONSE (PPM) = 1.0182 (INPUT) + 0.0025 r: 0.99998

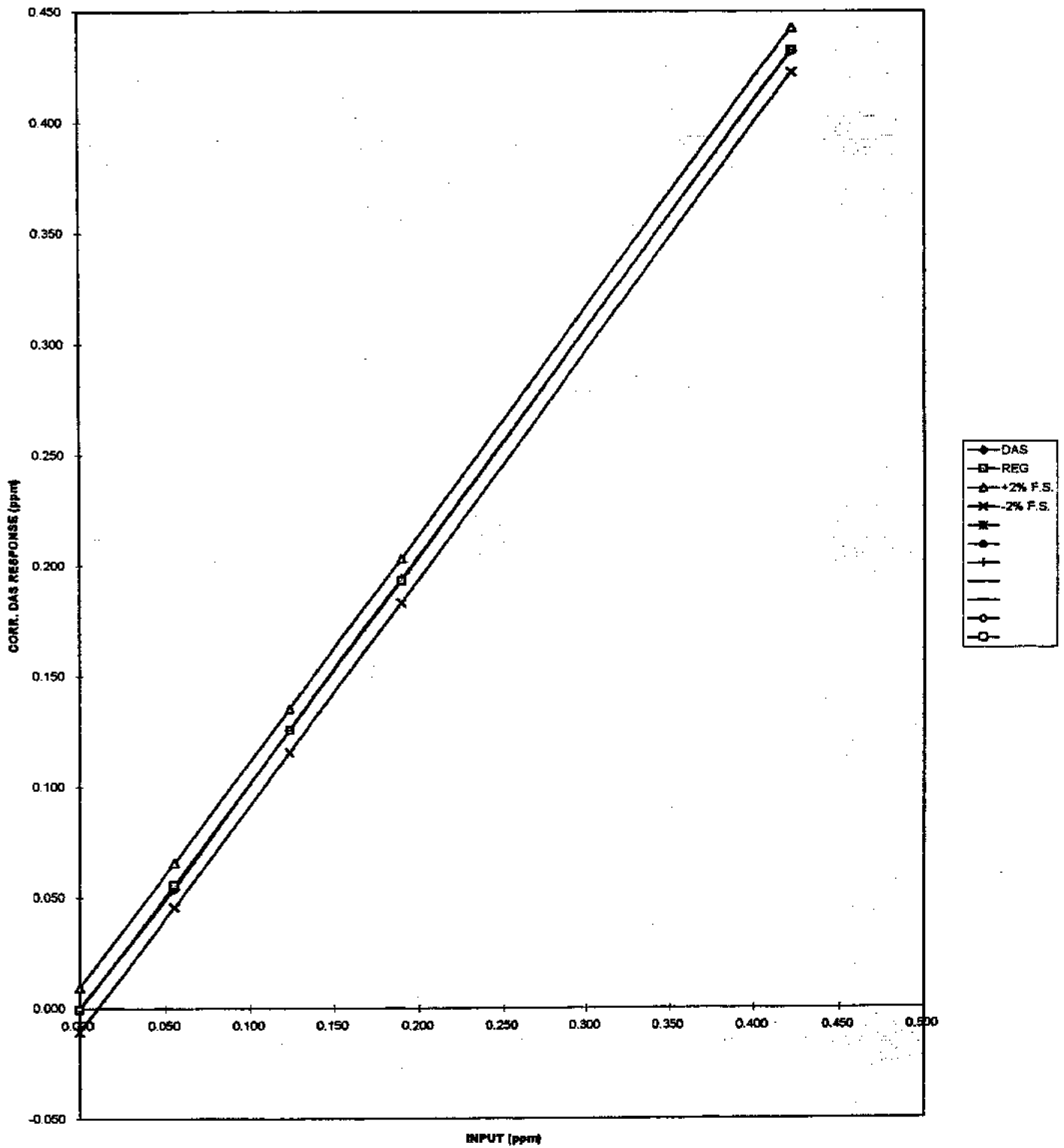
C.E. = 100.07 %

ANALYZER LINEARITY



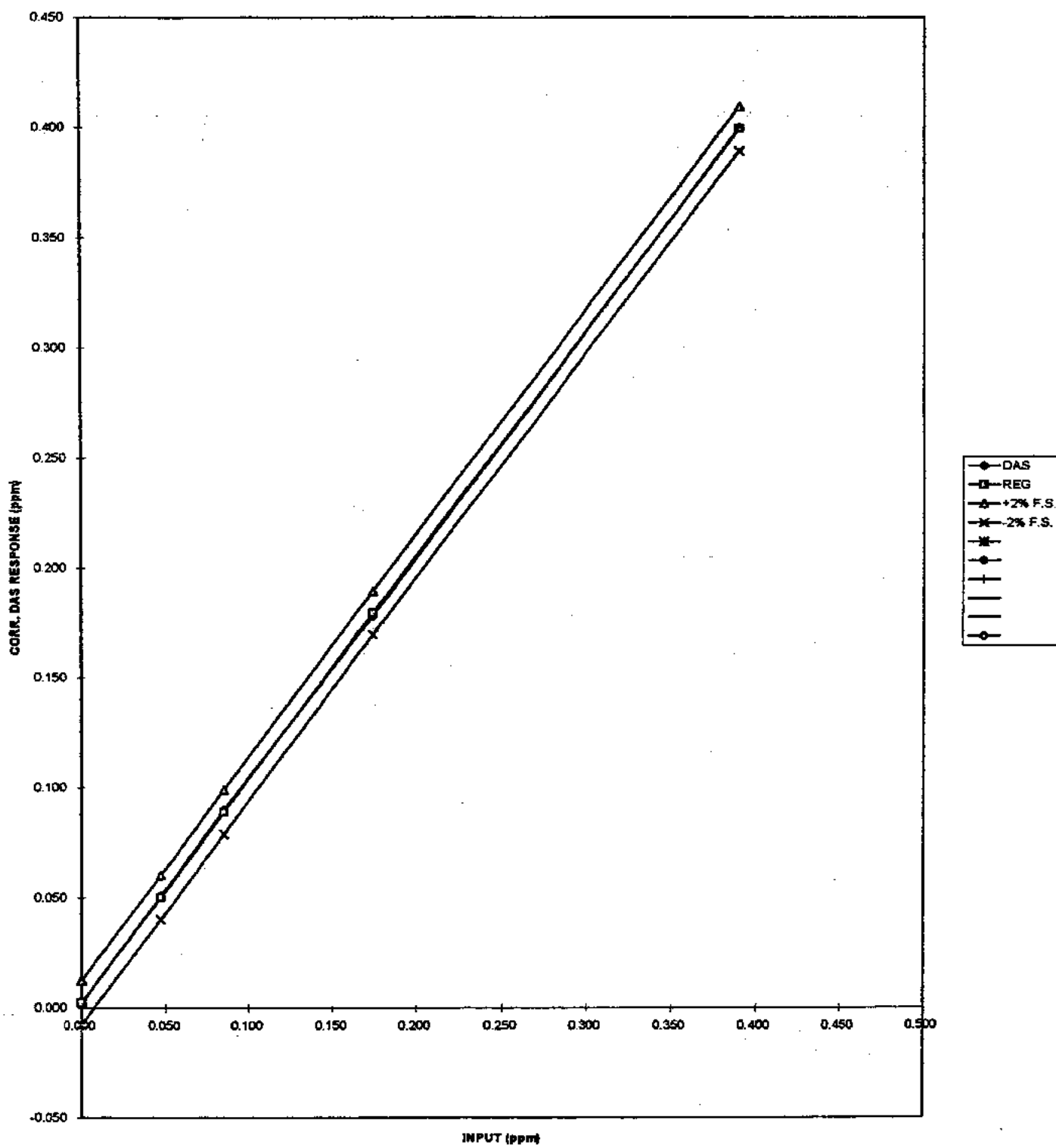
AUDIT RESULTS: NO

ANALYZER LINEARITY



AUDIT RESULTS: NOX

ANALYZER LINEARITY



AUDIT RESULTS: NO2

PERFORMANCE AUDIT: WIND SPEED

SENSOR:
Manuf./Model: RMY/05305
Serial No.: 14914
Range: 0 - 50 mps

OWNER: AeroVironment, Inc.
LOCATION: LAX
DATE: 3/6/98
BY: dh/VSI

PROPELLER:
Manuf./Model: RMY/08254
Serial No.: 37058

DATA ACQUISITION:
Manuf./Model: CSI/21X
Serial No.: 2747

CALIB. FACTORS:
WS(mph)=(RPM*0.01145)
WS(mps)=mph/2.2369

AUDIT DEVICE:
Manuf./Model: RMY 18801
Serial No.: NSN

PROPELLER CONDITION: GOOD
BEARING CONDITION: GOOD (<1.0 gm-cm)

SITE OPERATOR: DBW

INPUT: RPM	SPEED		DATA ACQUISITION		DIFF (mps)
	(mph)	(mps)	(mph)	(mps)	
0	0.00	0.00	0.23	0.10	0.10
220	2.52	1.13	2.62	1.17	0.04
400	4.58	2.05	4.56	2.04	-0.01
1000	11.45	5.12	11.43	5.11	-0.01
2000	22.90	10.24	22.82	10.20	-0.04
6000	68.70	30.71	68.67	30.70	-0.01

PSD TOLERANCES (mps)

SPEED	CHART	DAS
0 mps	±0.375	±0.25
≤5 mps	±0.375	±0.25
>5 mps	±7.5% (≤ 3.75)	±5.0% (≤ 2.5)

PERFORMANCE AUDIT: WIND DIRECTION

SENSOR:
Manuf./Model: RMY/05305
Serial No.: 14914
Range: 0-360 Degrees

OWNER: AeroVironment, Inc.
LOCATION: LAX
DATE: 3/6/98
BY: dh/VSI

SITE OPERATOR: DBW

DATA ACQUISITION:
Manuf./Model: CSI/21X
Serial No.: 2747

VANE CONDITION: GOOD
BEARING CONDITION: GOOD (<11.0 gm-cm)

AUDIT DEVICE:
Manuf./Model: NA
Serial No.: NA

INPUT: COMPASS POINT (Degrees)	DATA ACQUISITION (Degrees)	DIFFERENCE (Degrees)
24	24.1	0.1
204	203.0	-1.0
90	89.9	-0.1
270	268.0	-2.0

PSD TOLERANCES (Degrees)

CHART	DAS
±7.5	±5.0

PERFORMANCE AUDIT: AMBIENT TEMP.(2M)

SENSOR:

Manuf./Model: CSI/ASP TC
Serial No.: 1023
Range: -50 to +50°C

OWNER: AeroVironment, Inc.

LOCATION: LAX

DATE: 3/5/98

BY: dh/VSI

SITE OPERATOR: DBW

AUDIT DEVICE:

Manuf./Model: Ertco/thermometer
Serial No.: A97-125

DATA ACQUISITION:

Manuf./Model: CSI/21X
Serial No.: 2747

INPUT TEMPERATURE (Deg. F) (Deg. C.)		DATA ACQUISITION (Deg. F) (Deg. C.)		DIFF. (°C.) <u>DAS</u>
63.8	17.7	64.2	17.9	0.23

PSD TOLERANCES (Deg. C.)

<u>CHART</u>	<u>DAS</u>
±0.75	±0.50

PERFORMANCE AUDIT: AMBIENT TEMP.(9M)

SENSOR:

Manuf./Model: CSI/ASP TC
Serial No.: 1024
Range: -50 to +50°C

OWNER: AeroVironment, Inc.

LOCATION: LAX

DATE: 3/5/98

BY: dh/VSI

SITE OPERATOR: DBW

AUDIT DEVICE:

Manuf./Model: Ertco/thermometer
Serial No.: A97-125

DATA ACQUISITION:

Manuf./Model: CSI/21X
Serial No.: 2747

INPUT TEMPERATURE (Deg. F) (Deg. C.)		DATA ACQUISITION (Deg. F) (Deg. C.)		DIFF. (°C.) <u>DAS</u>
63.2	17.3	63.5	17.5	0.17

PSD TOLERANCES (Deg. C.)

<u>CHART</u>	<u>DAS</u>
±0.75	±0.50

PERFORMANCE AUDIT: DELTA TEMPERATURE

(-5 to +3°C)

SENSOR (Upper):
 Manuf./Model: CSI/ASP TC
 Serial No.: 1024
 Range: -50 to +50°C

OWNER: AeroVironment, Inc.
 LOCATION: LAX
 DATE: 3/5/98
 BY: DH/VSI
 SITE OPERATOR: DBW

SENSOR (Lower):
 Manuf./Model: CSI/ASP TC
 Serial No.: 1023
 Range: -50 to +50°C

DATA ACQUISITION:
 Manuf./Model: CSI/21X
 Serial No.: 2747

AUDIT DEVICE:
 Manuf./Model: Ertco/thermometer
 Serial No.: A97-125

INPUT
 TEMPERATURE
 (Deg. F) (Deg. C.)

64.0 17.80

DATA
 ACQUISITION
 (Deg. F) (Deg. C.)

0.160 0.089

PSD TOLERANCES (Deg. C.)

CHART

±0.15

DAS

±0.1

PERFORMANCE AUDIT: SOLAR RADIATION

SENSOR:
 Manuf./Model: EPPLEY/PSP
 Serial No.: 16724F3
 Range: 0-2000 W/m2
 Calib. Factors:
 mVdc/(W/m2): 0.0094

Date: NA

OWNER: AeroVironment, Inc.
 LOCATION: LAX
 DATE: 3/5/98
 BY: dh/VSI
 SITE OPERATOR: DBW

DATA ACQUISITION:
 Manuf./Model: CSI/21X
 Serial No.: 2747

COLL. STD:
 Manuf./Model: EPPLEY/PSP
 Serial No.: 13672F3
 Range: 0-2000 W/m2
 Calib. Factors:
 mVdc/(W/m2): 0.0090

Date: 4/11/97

1. Place a dark cover over the sensor and record output.

Output	DAS
(mV)	(W/m2)
-0.03	-1.000

2. Record the output of the Collocated Standard and the Sensor.

Sensor	Standard	% Difference
129	126	2.4
827	800	3.4

PSD TOLERANCES

CHART DAS

±7.5% ±5.0%

Appendix B
DATA CODES

Missing Data Codes.

BD	Below detection limit of instrument
BM	Begin Monitoring
CA	Calibration
EC	Converter Efficiency Check
EM	End Monitoring
FO	Flame out (on the gas chromatographs)
IM	Instrument Malfunction (not discovered until after data had been collected)
IN	Interference (acts of nature)
IR	Instrument Removed
IW	Instrument Warm-up
LI	Local Interference
LF	Data logger failure; strip chart available, but not used
MF	Mishandled Filter (label, analysis, or contamination error)
MT	Maintenance (changing chart paper, replacing instrument parts)
OE	Operator Error
OR	Out for Repair (instrument problem has been recognized and the instrument is no longer sampling while being repaired)
OS	Off Scale (at top of chart, data is presumed to be good)
PA	Performance Audit
PC	Precision Check
PF	Power Failure (generator failure)
RF	Recording System Failure (chart jams, chart runs out, or data acquisition system fails)
SA	System Audit
SC	Station Check = Precision Check + Instrument Zero/Span Check
SE	Special Experiment (instrument off-line for bag sample analysis or removed for special measurements in area)
TR	Trace
VA	Variable wind direction
ZS	Instrument Zero/Span check

⑬ WIND DIRECTION AVERAGE [61102]

⑪ DEGREES, COMPASS
LEVEL HEIGHT: 10 METERS

⑩

①

②

FINAL DATA
AS OF 30/OCT/96

AEROENVIRONMENT ENVIRONMENTAL SERVICES INC.

CLOCK HOUR [LOCAL STANDARD TIME]

DY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	PREV
⑨ 1	ENE	NNE	N	NNE	NE	N	NNW	N	NNW	NW	NW	NNW	NW	NN	NW	NNW	NNW	NW	S	S	SSW	SSW	SSW	NNW	NW
2	ENE	NNE	NNE	N	N	NNE	N	NNW	NW	NNW	NNW	NW	SSW	S	S	S	SSW	S	S	S	S	S	S	S	[VA]
3	SSW	SSW	NNE	SSW	NNE	NNE	N	NW	SSW	S	SSW	WSW	SSW	NW	NNW	NW	SW	S	S	S	S	S	SSW	N	[VA]
4	SSW	S	S	NE	NNW	NNW	NNW	NNW	N	SSW	SSW	SSW	SSW	S	S	S	S	S	S	S	S	S	SSW	SSW	S
5	SSW	S	NW	E	SE	NNW	NNW	NNW	NNW	SSW	SSW	SSW	SSW	SSW	SSW	S	S	S	S	S	S	NNW	NNW	SSW	S
6	SSW	SW	N	S	SSW	NW	SSW	NNW	SW	SSW	SSW	SSW	SSW	SSW	SSW	S	S	S	S	S	S	SSW	S	S	S
7	SSW	S	SSW	NNE	NNE	NE	SSW	SW	SSW	SSW	SSW	SSW	SSW	S	S	S	S	S	SSW	S	SSW	S	SSW	SSW	S
8	SSW	S	SSW	SSW	SW	SSW	N	N	SSW	SSW	SSW	SSW	S	S	S	S	S	S	S	S	S	SSW	SSW	S	S
9	S	S	SSW	NNW	NNW	NNW	S	N	SW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	S	S	S	S	S	SSW	S	S
10	SSW	N	N	N	N	N	N	NNW	NW	NW	SW	SSW	SSW	SSW	S	S	S	S	S	S	S	S	SSW	SSW	[VA]
11	S	SSW	S	ENE	NNW	NNW	NW	NNW	NNW	WSW	SW	SSW	SSW	SSW	SSW	S	S	S	S	S	S	S	SSW	SSW	S
12	SSW	SSW	SSW	SE	S	S	NNW	NNW	NW	NW	NNW	SSW	SSW	SSW	SSW	S	S	S	S	S	S	S	SSW	SSW	S
13	SSW	S	SSW	SSW	S	S	SSW	NNW	NW	NNW	SW	S	SSW	SSW	SSW	S	S	S	S	S	S	S	S	SSW	S
14	S	S	S	S	S	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	S	S	S	S	S	S	S	S	S	S
15	S	SSW	SSW	SSW	S	NNW	N	NW	SW	SSW	SSW	SSW	SSW	SSW	S	S	S	S	S	S	S	S	SSW	SSW	S
16	S	S	S	S	S	S	S	N	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	S	S	S	S	S	S	S	S
17	S	S	SSW	N	NW	WSW	NW	SW	SW	NW	N	SW	SSW	SSW	SSW	SSW	S	S	S	S	S	S	SSW	S	S
18	SSW	NW	SSW	SSW	SSW	SSW	SSW	NNW	NW	NNW	NW	NNW	NNW	SSW	SSW	S	S	S	S	S	S	S	SSW	SSW	S
19	SSW	S	NE	NE	NE	NNW	N	N	NW	SW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	S	S	S	S	S	S	SSW	S
20	SSW	SSW	NW	SSW	SSW	N	NNW	NNW	NNW	NNW	NW	SSW	SSW	SSW	SSW	SSW	SSW	S	S	S	S	S	SSW	SSW	S
21	NNW	NNW	NNW	NE	NNW	NNW	N	NW	NNW	SSW	SSW	SSW	SSW	SSW	S	S	S	S	S	S	S	S	SSW	SSW	S
22	S	S	NNW	S	NE	NNW	NNW	NNW	NNW	SSW	SSW	SSW	SSW	SSW	S	S	S	S	S	S	S	S	SSW	SSW	S
23	SW	SSW	SSW	N	NNW	S	WSW	NW	NNW	SW	SSW	SSW	SSW	SSW	SSW	S	S	S	S	S	S	S	SSW	SSW	S
24	S	S	N	NNW	S	SSW	SSW	NNW	NW	NW	NNW	SW	SSW	SSW	SSW	SSW	SSW	S	S	S	S	S	SSW	SSW	S
25	S	SSW	S	SSW	S	NNW	N	SW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	S	S	S	S	S	SSW	SSW	S
26	NNW	NNW	N	NNW	NE	S	NW	N	WSW	SSW	SSW	S	SSW	SSW	S	S	S	S	S	S	S	S	SSW	SSW	S
27	NNW	NE	NNW	SSW	SSW	NNW	E	NNW	NNW	NW	NW	SW	SSW	SSW	SSW	S	S	S	S	S	S	SSW	SSW	NNW	NNW
28	SW	N	SSW	NE	NNW	N	N	NNW	NW	NNW	NNW	NW	WSW	SSW	SSW	SSW	NE	N	SSW	S	S	S	SSW	SSW	[VA]
29	SSW	NE	NNW	NNW	N	N	N	NNW	NNW	NNW	NW	SSW	SSW	SSW	SSW	S	S	S	S	S	S	S	NNW	S	SSW
30	SSW	S	S	N	E	SSW	N	NW	NNW	WSW	N	WSW	SSW	SSW	SSW	S	S	S	S	S	S	S	NNW	N	[VA]
31	NE	SW	NNW	SSW	S	SSW	N	NW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	S	S	S	S	S	S	S	SSW	S	SSW
⑤ PV	SSW	S	[VA]	[VA]	[VA]	N	N	NW	[VA]	[VA]	[VA]	SSW	SSW	SSW	SSW	S	S	[VA]	S	S	S	S	S	S	S

⑥ OU004 [Program: ZDMS_MONTHSUM]

Version: LC15-OCT-93

- ① Project Name, Number and Location

② Station Identification Number

③ Monthly Period Which Data Covers

④ Changes May Still Be Made To The Data Based On Later Inputs

⑤ Monthly Prevailing Winds For Each Hour (16 Point Compass)

⑥ Computer Program Name And Revision Date

⑦ Letters Indicate Reason For Missing Data (See Missing Data Codes)

⑧ Prevailing Daily Wind Direction

⑨ Day Of The Month

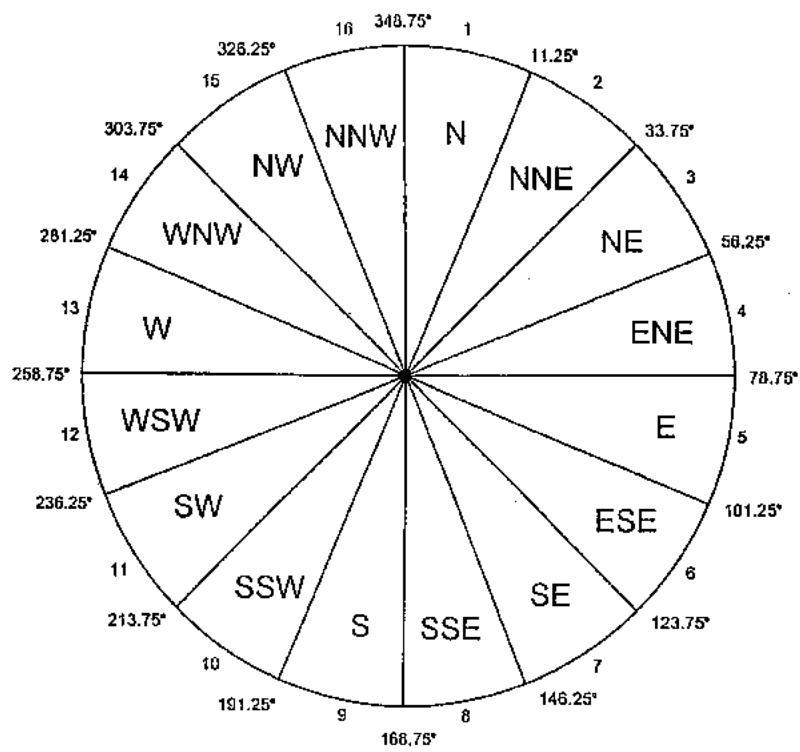
⑩ Beginning Hour, Thus The Hourly Average Under Hour "02" Occured During The Period 0200 To 0300

⑪ Height Of Sample Probe

⑫ Parameter Computer Parameter Code

⑬ Computer Parameter Code

Monthly Parameter Sheet Key - Sixteen Point Compass WD Format



Sixteen-Point Wind Direction Compass

(16) WIND SPEED (51101)
(15) METERS/SECOND
LEVEL HEIGHT : 10 METERS

(1)

(3) JUL, 1996

(2)

(4) FINAL DATA
AS OF 30/OCT/96

ANROVIRONMENT ENVIRONMENTAL SERVICES INC.

(14)

CLOCK HOUR [LOCAL STANDARD TIME]

DY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
(13) 1	0.6	1.8	1.4	1.0	1.4	0.6	1.6	1.8	1.7	1.7	3.0	2.6	3.2	3.0	3.8	5.5	6.3	5.2	2.6	1.5	1.8	1.5	1.1	0.3	2.3	6.3
2	0.6	0.4	0.6	0.6	0.9	0.7	0.5	1.1	1.0	1.3	1.7	1.9	4.2	6.9	8.8	5.6	6.0	4.8	4.9	4.2	4.4	4.3	0.9	2.0	2.8	6.9
3	2.1	0.9	0.8	2.3	2.3	2.4	2.2	1.8	3.0	3.4	4.0	1.7	0.8	2.5	3.2	2.5	4.7	6.7	5.5	3.4	3.4	1.7	1.5	0.3	2.6	6.7
4	0.4	0.5	0.3	0.9	0.6	0.8	1.0	0.6	1.5	2.3	3.2	4.0	5.8	7.1	7.5	7.1	6.4	5.8	4.6	2.3	0.4	0.5	0.4	0.7	2.7	7.5
5	0.7	0.6	0.2	0.3	0.3	0.7	1.1	1.1	1.3	2.5	2.9	3.6	4.1	5.2	6.1	6.1	5.7	5.3	5.3	3.2	1.2	0.2	0.7	1.6	2.5	6.1
6	0.9	0.2	0.4	0.9	0.6	0.2	0.6	0.9	1.7	2.9	3.4	3.6	3.1	4.8	6.4	6.4	6.3	5.3	4.7	4.3	2.9	2.6	1.7	0.8	2.7	6.4
7	0.3	1.5	0.3	0.7	1.0	0.8	1.5	1.4	1.6	2.9	4.3	5.6	6.8	7.2	7.7	7.6	7.7	6.9	5.1	3.2	1.4	1.7	2.4	2.0	3.4	7.7
8	1.7	1.8	1.9	0.8	0.2	0.8	1.3	1.0	1.7	3.4	4.7	5.9	6.5	6.6	7.1	7.7	7.2	7.2	5.6	4.7	3.6	2.2	1.6	2.6	3.6	7.7
9	2.5	0.6	0.7	0.1	0.3	0.2	0.8	1.1	1.5	3.7	6.9	5.2	4.8	5.3	6.6	7.3	6.8	6.5	6.9	5.7	3.8	1.8	2.0	1.6	3.4	7.3
10	0.6	0.2	0.3	0.5	0.5	0.6	1.8	2.0	1.4	1.4	2.9	5.0	4.8	6.3	6.6	4.7	4.9	6.8	6.5	5.9	4.8	3.1	1.4	1.6	3.1	6.8
11	1.3	2.3	0.9	0.9	1.6	1.0	1.5	1.0	1.5	2.0	2.5	4.2	4.6	5.1	6.1	6.4	6.4	6.1	5.4	4.3	2.5	2.2	2.1	2.0	3.1	6.4
12	1.6	1.0	0.6	0.9	0.4	0.1	0.7	1.7	1.5	1.3	2.0	2.5	4.3	4.9	6.0	6.3	6.2	5.4	5.1	3.6	3.0	2.7	2.0	1.2	2.7	6.3
13	2.4	2.0	1.7	3.3	2.4	2.3	1.8	0.8	1.2	1.3	2.5	3.5	4.1	5.7	6.6	6.9	6.3	6.2	5.7	4.0	2.9	3.1	4.7	3.2	3.5	6.9
14	1.4	3.7	3.1	2.9	3.0	2.3	2.1	1.8	2.2	2.2	2.6	3.4	3.3	5.4	6.7	7.7	7.7	7.0	6.4	5.3	3.7	1.9	2.0	2.2	3.8	7.7
15	2.1	1.2	1.9	2.2	1.6	1.0	1.5	1.2	1.7	1.7	4.4	5.1	5.7	6.7	8.5	9.0	8.2	7.6	6.2	5.1	4.6	3.4	1.7	0.5	3.9	9.0
16	1.4	1.4	1.6	2.6	2.7	0.9	0.5	1.1	2.0	3.3	3.9	5.7	7.2	7.3	7.6	7.6	7.1	7.0	7.6	6.8	5.3	4.6	3.0	2.9	4.2	7.6
17	2.7	1.8	1.4	1.0	1.2	1.2	0.9	1.1	1.1	1.8	2.0	2.6	3.1	4.0	5.3	6.5	6.7	6.8	6.5	5.2	3.9	2.5	1.4	1.0	3.0	6.8
18	1.4	0.5	0.3	1.3	2.0	0.7	0.7	0.7	0.9	1.4	1.8	2.0	3.0	6.2	6.6	6.2	6.7	6.8	5.6	4.2	1.6	1.2	2.2	2.2	2.8	6.8
19	3.0	2.1	0.9	2.5	1.7	0.5	1.0	1.6	1.5	2.0	3.4	4.3	6.0	6.4	6.7	6.8	7.1	6.0	4.4	2.1	1.4	0.5	0.8	0.9	3.1	7.1
20	0.7	0.2	0.5	0.4	0.2	0.6	0.9	1.3	1.3	1.2	1.8	2.9	4.4	5.2	6.3	6.7	7.1	7.1	6.4	6.3	4.1	0.9	0.9	0.7	2.8	7.1
21	1.2	1.1	1.8	0.6	1.3	0.8	1.4	0.9	1.0	1.0	2.3	2.9	4.0	7.2	8.8	8.3	6.0	6.7	5.0	2.6	1.1	0.3	0.3	0.4	2.8	8.8
22	1.3	0.7	0.3	0.3	0.6	0.5	0.5	0.7	1.1	2.3	3.1	4.4	4.2	5.4	6.2	6.6	6.6	6.4	6.1	3.3	0.8	0.6	1.3	0.9	2.7	6.6
23	0.5	2.2	1.9	0.2	0.4	0.2	0.3	0.6	0.7	(7) [ZS]	2.0	2.9	4.2	3.3	5.6	6.1	6.6	6.6	5.9	5.1	3.8	2.0	2.6	0.9	2.8	6.6
24	1.7	1.3	0.3	0.2	0.2	1.1	0.6	1.0	1.5	1.2	1.3	2.7	4.7	3.5	3.8	5.4	5.6	5.9	6.5	5.7	4.1	3.4	2.3	3.5	2.8	6.5
25	3.5	1.3	0.8	0.8	0.3	0.8	1.5	1.9	1.3	1.5	3.4	5.8	5.2	6.1	6.3	6.6	6.6	6.3	5.8	4.9	3.8	3.0	2.2	2.2	3.4	6.6
26	1.3	1.7	1.2	0.6	1.0	0.5	0.6	0.8	1.4	2.5	4.9	5.1	6.2	6.0	6.9	6.9	6.0	4.7	4.9	4.2	3.0	2.5	2.2	2.8	3.2	6.9
27	1.0	1.1	1.2	1.6	2.3	0.8	1.2	2.3	2.2	1.6	2.3	4.2	6.6	6.7	6.7	6.8	7.5	6.6	5.1	4.2	2.0	1.9	0.3	0.3	3.2	7.5
28	0.6	0.5	0.5	0.7	1.5	1.1	1.2	1.7	1.6	1.9	2.2	2.8	4.3	7.1	8.1	7.3	3.5	2.4	3.0	3.0	1.9	1.5	0.7	0.7	2.5	8.1
29	0.5	1.0	1.7	1.4	1.0	1.0	1.5	1.9	1.7	1.8	2.1	2.3	4.0	5.8	7.3	7.2	6.3	4.6	4.2	3.8	2.5	0.6	0.7	0.2	2.7	7.3
30	0.5	1.0	0.6	0.2	0.3	0.1	0.3	0.9	1.0	1.6	1.9	2.0	4.2	6.2	6.8	6.5	5.5	5.3	4.5	2.6	1.6	0.7	0.4	0.1	2.3	6.8
31	0.2	0.1	0.2	0.3	0.6	0.6	1.1	0.9	2.4	3.0	2.8	2.7	4.0	6.1	6.4	6.8	6.4	5.6	5.5	3.6	1.2	1.6	2.0	1.6	2.7	6.8
(12) AV	1.4	1.2	1.0	1.1	1.1	0.8	1.1	1.2	1.5	2.1	2.9	3.6	4.6	5.6	6.5	6.6	6.4	6.1	5.4	4.1	2.8	2.0	1.6	1.4	3.0	
(11) SD	0.9	0.8	0.7	0.9	0.8	0.6	0.5	0.5	0.5	0.8	1.0	1.1	1.3	1.3	1.2	1.2	0.9	1.0	1.0	1.3	1.3	1.1	0.9	1.0		
(9) PK	3.5	3.7	3.1	3.3	3.0	2.4	2.2	2.3	3.0	3.7	4.9	5.9	7.2	7.3	8.8	9.0	8.2	7.6	7.6	6.8	5.3	4.6	4.7	3.5	9.0	(15)
(10) 00000	[Program: EDMS MONTHSUM]																							Version: LC:15-OCT-93]		

- | | | |
|---|--|--|
| (1) Project Name, Number and Location | (9) Monthly Peak Of Each Hour | (15) Units Of Data And Sample Probe Height |
| (2) Station Identification Number | (10) Computer Program Name And Revision Date | (16) Parameter |
| (3) Monthly Period Which Data Covers | (11) Monthly Standard Deviation Of Each Hour | (17) Computer Parameter Code |
| (4) Status And Date The Data Were Finalized | (12) Monthly Averages Of Each Hour | (18) Monthly Peak |
| (5) Highest Hourly Average For Each Day | (13) Day Of The Month | |
| (6) Daily Average Of All Hourly Averages | (14) Beginning Hour, Thus The Hourly Average Under Hour "02" Occured During The Period 0200 To 0300. | |
| (7) Letters Indicate Reason For Missing Data (See Missing Data Codes) | | |
| (8) Monthly Average Of All Data Values | | |

Monthly Parameter Sheet Key - Average Peak Format

(12) WIND DIRECTION AVERAGE (611021)

(11) DEOREKS, COMPASS
LEVEL HEIGHT : 10 METERS

(1)

(3)

JUL, 1996

(2)

(4)

* FINAL DATA *
* AS OF 30/OCT/96 *

AERONAUTICAL ENVIRONMENTAL SERVICES INC.

(10)

CLOCK HOUR [LOCAL STANDARD TIME]

DY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	PREV	
9	1	67	24	1	24	40	350	341	349	330	319	309	329	306	316	317	327	334	325	185	171	151	167	160	340	15
2	62	27	23	10	354	12	262	293	305	296	291	309	205	182	174	175	163	181	183	182	186	186	172	170	[VA]	(8)
3	163	103	12	161	31	14	7	324	207	186	202	256	205	311	285	304	229	185	182	177	176	180	160	280	[VA]	
4	157	172	169	43	23	18	342	292	248	200	197	198	195	184	179	181	180	181	179	163	353	162	125	162	9	
5	194	183	307	91	136	348	334	344	341	207	209	197	205	208	205	190	184	183	179	173	28	315	166	160	9	
6	137	230	359	180	203	319	148	294	225	192	196	207	195	203	201	181	177	181	184	181	199	173	177	165	9	
7	167	169	147	27	70	41	200	214	209	205	207	199	188	180	176	179	180	180	192	182	205	172	164	161	9	
8	161	170	162	164	216	113	2	355	211	206	195	182	185	181	182	177	178	180	185	188	193	192	183	170	9	
9	172	174	165	334	21	298	186	273	224	206	209	210	209	208	203	203	197	182	175	172	187	175	161	186	9	
10	155	3	355	7	3	351	359	339	308	308	214	209	203	195	191	174	167	178	180	183	187	195	201	169	[VA]	
11	176	163	190	66	33	340	323	338	297	247	228	201	204	201	192	182	181	181	181	180	188	163	167	164	9	
12	168	166	159	143	177	184	339	348	311	306	294	198	209	202	202	188	176	182	179	180	179	165	177	165	9	
13	159	170	166	168	177	176	194	298	318	290	214	185	200	199	193	183	187	176	182	181	185	188	183	188	9	
14	177	186	182	188	179	192	198	201	210	211	194	212	204	204	195	183	180	186	182	185	193	204	179	174	9	
15	171	161	164	161	173	314	354	326	216	199	193	193	193	193	184	176	179	177	184	169	181	183	220	257	9	
16	179	177	175	174	186	170	185	269	213	204	200	199	199	192	194	193	196	178	175	178	182	176	171	178	9	
17	184	182	213	261	311	247	323	233	235	318	272	216	206	196	201	192	182	177	177	179	190	201	183	170	9	
18	161	318	211	156	157	156	196	295	309	303	313	300	290	199	193	185	178	178	182	184	188	174	155	156	9	
19	160	169	51	42	37	21	359	5	312	234	208	206	205	197	208	203	203	186	184	189	178	179	154	173	9	
20	130	162	53	158	158	11	335	329	346	291	317	210	203	204	202	198	196	177	175	175	194	258	183	183	10	
21	27	18	32	34	23	24	4	316	338	210	195	202	207	202	185	178	187	174	181	195	180	268	187	74	9	
22	169	178	30	175	34	31	340	305	286	210	(7) [ZS]	203	204	199	199	199	191	176	175	188	310	205	171	179	9	
23	217	168	159	349	28	189	247	308	310	295	235	204	204	213	202	199	184	181	183	180	186	182	155	144	9	
24	172	186	9	328	176	154	201	334	321	317	292	230	206	203	202	193	202	191	177	181	193	196	184	183	9	
25	180	193	173	156	173	6	13	0	217	201	202	204	211	210	207	210	200	186	203	187	174	161	71	14	10	
26	342	24	9	329	52	188	317	274	304	240	202	194	189	193	193	189	175	170	179	171	179	189	187	177	9	
27	329	34	338	167	153	347	88	26	21	317	309	229	204	203	193	184	184	185	179	182	198	204	333	340	9	
28	218	355	166	41	19	350	354	319	307	288	290	310	251	201	197	193	95	350	195	174	181	183	158	155	[VA]	
29	208	39	12	21	359	4	355	350	319	300	301	317	206	204	205	197	182	183	177	182	187	294	179	198	9	
30	156	181	181	6	87	168	11	324	286	238	275	237	195	200	197	188	177	179	176	185	173	172	342	2	[VA]	
31	48	236	27	104	174	156	4	308	200	209	204	208	199	200	196	184	178	183	181	175	197	174	156	169	9	

(5) PV 8 9 [VA] [VA] [VA] 1 1 15 [VA] [VA] [VA] 10 10 10 10 9 9 [VA] 9 9 9 9 9 9

(8) 00001 [Program: EDMS_MONTHSUM]

(1) Project Name, Number and Location

(2) Station Identification Number

(3) Monthly Period Which Data Covers

(4) Status And Date The Data Were Finalized

(5) Monthly Prevailing Winds For Each Hour (10 Point Compass)

(8) Computer Program Name And Revision Date

(7) Letters Indicate Reason For Missing Data (See Missing Data Codes)

(8) Prevailing Daily Wind Direction

(9) Day Of The Month

(10) Beginning Hour, Thus The Hourly Average Under Hour "02" Occured During The Period 0200 To 0300

(11) Height Of Sample Probe

(12) Parameter Computer Parameter Code

(13) Computer Parameter Code

Monthly Parameter Sheet Key - Degree Compass WD Format

CONTINUOUS AIR QUALITY AND METEOROLOGICAL DATA

CARBON MONOXIDE [42101]
PARTS PER MILLION

LAX AIR QUALITY MONITORING PROGRAM, #705211

SYTS 1 TAX

AUG. 1997

AS PROOVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA
* AS OF 25/FEB/98
*

DR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	
2	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	
3	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	
4	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	
5	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	
6	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	
7	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	
8	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	
9	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	
10	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	
11	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	
12	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	
13	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	
14	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	
15	0.0	0.0	0.0	0.0	0.1	0.4	0.5	0.6	0.4	0.4	0.5	0.5	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.3	0.2	0.2	0.1	0.0	0.2	
16	0.0	0.3	0.3	0.4	0.7	0.6	0.7	0.8	0.5	0.5	0.6	0.6	0.6	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	
17	0.0	0.1	0.1	0.2	0.3	0.6	0.7	0.6	0.7	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.0	0.9	1.0	0.9	0.7	0.6	0.5	0.4	0.5	
18	0.7	0.6	0.7	1.2	1.7	1.8	1.4	1.3	1.1	1.2	1.2	1.4	1.4	1.3	1.4	1.3	1.4	1.3	1.4	1.5	1.5	1.8	1.4	0.5	1.2	
19	0.3	0.5	0.5	0.8	1.2	1.4	1.5	1.5	1.6	1.7	[25]	[25]	[25]	[25]	[25]	[25]	1.9	1.6	1.7	1.6	1.4	1.2	0.8	1.8	1.4	
20	0.7	[25]	[25]	1.6	0.8	1.2	0.9	1.2	1.7	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.5	1.5	1.5	1.3	1.2	0.6	1.3	1.6	1.4	
21	0.7	[25]	[25]	0.7	1.1	1.0	1.2	2.0	1.7	1.5	1.4	1.4	1.4	1.4	1.4	1.6	1.6	1.5	1.4	1.3	1.2	1.1	1.1	1.3	2.0	
22	1.1	[25]	[25]	1.6	1.0	1.2	1.7	1.5	2.1	1.7	1.5	2.0	1.7	1.7	1.7	1.7	1.6	1.5	1.5	1.3	1.3	1.5	1.6	1.5	2.1	
23	1.6	[25]	[25]	2.0	1.6	2.3	2.3	2.3	2.3	2.1	2.0	1.8	1.3	1.9	1.8	1.7	1.6	1.5	1.4	1.3	1.2	1.				

000000 [ПРОГРАММЫ: КРАСН. МОСЧТАНУМ]

Version: LC:15-OCT-93]

SULFUR DIOXIDE [42401]

LAX AIR QUALITY MONITORING PROGRAM, #706211

PARTS PER BILLION

SITE 1 LAX

AUG, 1997

AEROENVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 26/FEB/98 *

CLOCK HOUR [LOCAL STANDARD TIME]

DY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
11	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
12	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
13	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
14	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
15	0.4	0.1	0.5	0.8	1.3	1.9	1.6	1.6	1.1	0.8	0.7	0.3	0.7	0.6	1.0	0.0	0.0	0.0	0.0	0.1	0.0	0.5	0.2	0.1	0.6	1.9
16	0.0	0.4	0.6	0.0	0.0	0.0	0.7	1.2	0.7	0.6	0.4	0.3	0.2	0.0	0.0	0.9	0.0	0.0	0.0	0.4	0.4	0.3	0.8	0.5	0.4	1.2
17	0.3	0.6	0.5	0.3	0.0	0.0	0.2	0.0	0.3	1.7	2.3	0.9	0.9	0.5	1.7	3.0	1.2	1.7	1.5	1.0	0.8	0.6	0.5	0.2	0.9	3.0
18	0.1	0.3	0.0	0.2	0.6	0.5	0.9	1.6	4.1	2.8	1.3	2.4	1.7	2.3	1.0	1.5	1.7	2.3	2.9	5.2	3.2	2.3	2.7	0.6	1.8	5.2
19	0.0	0.4	0.6	0.9	1.8	2.2	3.5	3.8	4.7	9.5	6.6	5.0	3.0	[28]	[28]	1.2	0.5	2.2	1.7	2.4	1.3	0.0	0.0	0.0	2.4	9.5
20	0.8	[28]	[28]	1.2	2.9	0.9	0.7	[CA]	[CA]	2.5	1.9	1.3	2.0	1.3	1.0	0.6	0.2	1.7	1.6	0.5	0.3	0.0	0.1	0.6	1.1	2.9
21	1.3	[28]	[28]	1.2	0.3	0.0	0.7	2.0	3.9	4.1	1.3	0.9	1.1	1.5	3.1	2.5	0.0	0.0	0.0	0.4	0.0	0.0	0.0	1.1	4.1	
22	0.0	[28]	[28]	0.0	0.0	0.2	0.3	3.5	4.9	4.7	3.2	2.6	4.8	2.8	1.4	0.9	0.6	0.3	0.3	0.1	0.0	0.0	0.0	1.4	4.9	
23	1.3	[28]	[28]	0.3	0.3	0.4	0.0	0.0	2.7	6.2	6.3	3.1	5.8	5.7	4.1	3.6	1.9	1.8	0.7	1.2	0.4	0.4	0.6	0.5	2.2	6.3
24	1.0	[28]	[28]	0.6	0.3	0.6	1.4	3.4	6.7	7.2	6.9	2.6	2.3	5.2	2.7	1.1	0.4	0.1	0.5	0.4	0.9	1.7	0.5	0.2	2.1	7.2
25	0.1	[28]	[28]	0.0	0.6	0.3	0.3	0.0	3.8	4.4	10.2	5.0	5.2	2.9	2.7	1.6	1.0	0.4	0.3	0.7	4.5	1.4	0.0	0.0	2.1	10.2
26	0.0	[28]	[28]	0.3	0.8	0.9	0.3	0.0	2.1	14.0	[CA]	[CA]	3.4	2.3	2.4	1.2	2.6	5.3	6.4	4.8	4.6	4.4	1.0	0.0	2.8	14.0
27	0.0	[28]	[28]	0.5	0.8	1.1	1.0	0.1	2.2	4.1	6.6	5.1	6.0	4.6	2.1	1.9	1.5	1.0	0.4	1.5	3.2	1.8	0.6	0.1	2.1	6.6
28	0.2	[28]	[28]	0.3	0.9	1.0	0.2	1.3	4.2	5.9	4.7	2.8	2.4	2.1	1.2	1.0	0.8	2.1	0.5	1.8	0.4	0.2	0.0	0.0	1.5	5.9
29	0.0	[28]	[28]	0.4	0.0	0.0	0.0	0.0	0.0	3.4	3.5	2.9	1.4	0.1	0.0	0.5	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.6	3.5
30	0.0	[28]	[28]	0.3	0.4	0.0	0.1	0.7	2.2	4.4	3.5	1.0	1.1	0.7	0.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	4.4
31	0.0	[28]	[28]	0.0	0.0	0.0	0.0	0.0	0.0	1.5	5.2	5.8	2.7	1.4	1.1	1.7	0.0	0.0	0.0	0.0	3.2	4.1	0.2	0.0	1.2	5.8
AV	0.3	0.4	0.4	0.4	0.5	0.6	0.7	1.2	2.7	4.6	4.2	2.6	2.6	2.1	1.6	1.4	0.7	1.1	1.0	1.1	1.3	1.0	0.4	0.2	1.4	
SD	0.5	0.2	0.3	0.4	0.8	0.7	0.9	1.4	2.0	3.4	2.9	1.8	1.8	1.8	1.2	0.9	0.8	1.4	1.6	1.6	1.6	1.4	0.7	0.3		
PK	1.3	0.6	0.6	1.2	2.9	2.2	3.5	3.8	6.7	14.0	10.2	5.8	6.0	5.7	4.1	3.6	2.6	5.3	6.4	5.2	4.6	4.4	2.7	0.9		14.0

00000 [Program: EDMS_MONITORUM]

Version: LC:15-OCT-93]

NITRIC OXIDE [42601]

LAX AIR QUALITY MONITORING PROGRAM, #706211

PARTS PER BILLION

SITE 1 LAX

AUG, 1997

AEROENVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 26/FEB/98 *

CLOCK HOUR [LOCAL STANDARD TIME]

DY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
11	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
12	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
13	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
14	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
15	2	1	1	1	1	2	6	9	6	4	4	7	14	12	12	10	3	3	0	0	0	0	0	0	4	14
16	0	0	0	0	0	0	1	3	2	4	4	3	9	6	7	9	17	5	10	17	6	2	0	0	0	5
17	0	0	0	0	0	0	1	1	2	7	16	14	6	14	9	18	29	10	10	18	8	2	3	2	3	7
18	0	6	8	10	13	26	44	43	40	25	6	13	9	9	5	12	8	11	8	49	16	40	31	5	19	49
19	1	14	38	58	74	131	157	91	37	18	13	12	10	[28]	[28]	8	6	17	14	11	9	6	5	2	33	157
20	1	[28]	[28]	8	6	4	13	[CA]	[CA]	25	33	21	28	20	33	26	8	4	3	7	4	1	0	0	13	53
21	1	[28]	[28]	2	1	2	6	29	53	41	19	14	17	21	33	26	8	4	3	7	4	1	0	0	13	53
22	0	[28]	[28]	0	7	12	25	52	57	30	25	11	18	38	18	6	5	7	4	2	0	1	4	24	16	57
23	65	[28]	[28]	45	46	74	51	24	22	14	17	12	27	12	19	30	23	4	9	7	2	1	2	0	23	74
24	13	[28]	[28]	33	44	78	74	21	23	35	18	8	25	62	38	17	16	7	6	2	9	48	4	10	27	78
25	19	[28]	[28]	18	32	71	34	46	36	25	24	16	29	24	22	17	14	3	5	6	4	1	2	6	21	71
26	4	[28]	[28]	31	72	119	47	36	31	41	[CA]	[CA]	22	11	30	13	23	1	7	9	5	14	15	1	26	119
27	2	[28]	[28]	24	61	136	138	74	41	35	45	24	46	32	21	18	10	16	6	18	3	1	2	0	34	136
28	4	[28]	[28]	20	74	133	77	92	41	32	16	25	17	14	13	17	10	20	8	3	0	0	0	11	28	133
29	37	[28]	[28]	23	5	6	18	20	19	18	15	18	18	10	4	6	6	13	3	1	2	0	3	8	12	37
30	12	[28]	[28]	0	0	0	2	5	7	8	10	7	8	13	5	14	6	10	2	2	0	5	0	0	5	14
31	0	[28]	[28]	1	0	0	0	5	7	5	9	8	9	8	4	16	21	5	6	1	4	3	1	2	7	5
AV	9	4	9	1.6	26	47	41	35	27	22	17	13	19	19	18	17	10	11	8	9	4	8	5	5	17	
SD	17	6	14	18	29	54	46	30	18	12	12	6	10	15	11	7	6	10	7	11	4	14	8	6		
FK	65	14	38	58	74	138	157	92	57	41	49	25	46	62	38	30	23	44	28	49	16	48	31	24		157

NITROGEN DIOXIDE [42602]

PARTS PER BILLION

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

AUG, 1997

AEROENVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 26/FEB/98 *

CLOCK HOUR [LOCAL STANDARD TIME]

DZ	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	()	()	()	()	()	()	()	()	()	()	()	()	()
2	()	()	()	()	()	()	()	()	()	()	()	()	()
3	()	()	()	()	()	()	()	()	()	()	()	()	()
4	()	()	()	()	()	()	()	()	()	()	()	()	()
5	()	()	()	()	()	()	()	()	()	()	()	()	()
6	()	()	()	()	()	()	()	()	()	()	()	()	()
7	()	()	()	()	()	()	()	()	()	()	()	()	()
8	()	()	()	()	()	()	()	()	()	()	()	()	()
9	()	()	()	()	()	()	()	()	()	()	()	()	()
10	()	()	()	()	()	()	()	()	()	()	()	()	()
11	()	()	()	()	()	()	()	()	()	()	()	()	()
12	()	()	()	()	()	()	()	()	()	()	()	()	()
13	()	()	()	()	()	()	()	()	()	()	()	()	()
14	()	()	()	()	()	()	()	()	()	()	()	()	()
15	20	10	13	16	20	28	31	30	25	17	13	10	14	13	13	10	7	10	11	10	10	14	12	17	15	31
16	12	9	4	2	9	16	27	21	18	16	13	12	10	9	8	12	7	9	13	13	12	14	10	10	12	27
17	9	6	10	9	8	15	12	19	20	26	26	10	12	9	11	16	10	13	14	18	11	25	27	25	15	27
18	15	19	29	32	32	35	36	42	44	34	15	24	22	27	25	24	22	40	48	58	56	53	43	29	39	58
19	20	38	37	38	40	45	59	71	58	40	27	13	8	[28]	[28]	10	9	24	26	18	16	12	11	9	29	71
20	11	[28]	[28]	12	12	15	15	[CA]	[CA]	16	20	17	18	16	14	10	7	20	19	16	13	9	14	15	14	20
21	15	[28]	[28]	17	17	19	21	31	42	32	22	13	16	16	18	13	18	13	15	13	14	8	8	18	42	
22	8	[28]	[28]	7	33	31	28	47	41	32	32	31	37	36	22	17	16	19	24	27	16	22	32	46	27	47
23	43	[28]	[28]	33	33	32	35	39	46	44	31	19	28	25	25	10	14	20	16	15	16	12	8	26	46	
24	22	[28]	[28]	22	22	22	27	26	32	38	35	16	18	30	19	12	10	12	12	18	36	16	14	21	38	
25	16	[28]	[28]	20	22	23	21	28	36	40	29	26	34	26	21	13	12	10	16	18	24	12	13	20	22	40
26	15	[28]	[28]	24	24	27	29	35	40	38	[CA]	[CA]	28	17	23	17	22	17	27	26	24	28	25	10	25	40
27	10	[28]	[28]	22	25	29	36	49	61	69	72	59	44	28	15	15	21	30	22	27	29	17	17	12	32	72
28	17	[28]	[28]	29	30	34	36	50	47	43	35	34	31	27	26	16	14	31	30	32	20	25	19	43	30	50
29	50	[28]	[28]	36	28	30	34	39	42	39	29	29	28	15	8	13	13	22	15	13	17	15	32	45	27	50
30	40	[28]	[28]	13	15	18	23	26	28	27	24	20	23	21	17	24	16	16	8	12	13	15	17	19	20	40
31	16	[28]	[28]	26	28	30	28	26	25	37	30	35	30	22	31	25	16	15	17	18	31	29	30	43	27	43
AV	20	16	19	21	23	26	29	36	38	35	28	23	24	21	18	17	14	19	20	20	19	20	20	22	23	
SD	12	13	14	11	9	8	11	13	13	13	14	13	10	8	7	7	5	9	9	11	11	11	10	14		
PK	50	38	37	38	40	45	59	71	61	69	72	59	44	36	31	35	22	40	48	58	56	53	43	46		72

00000 [Program: KIMS MONITOR]

Version: LC:15-OCT-93]

OXIDES OF NITROGEN [42603]

PARTS PER BILLION

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

AUG, 1997

AEROENVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 26/FEB/98 *

CLOCK HOUR [LOCAL STANDARD TIME]

BY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
2	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
3	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
4	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
5	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
6	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
7	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
8	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
9	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
10	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
11	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
12	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
13	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
14	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
15	22	11	14	17	22	34	39	36	39	21	16	17	27	29	24	20	10	13	11	10	10	14	12	17	20	32
16	13	9	4	2	9	17	29	23	22	20	16	21	17	16	17	30	12	19	30	19	14	23	11	10	17	30
17	9	6	10	9	8	17	13	21	27	42	30	15	26	17	29	46	19	23	32	26	14	18	28	29	22	46
18	15	25	36	50	45	61	80	87	84	59	23	37	32	36	31	36	31	51	56	107	72	92	73	34	52	107
19	21	52	75	96	115	175	216	162	95	58	41	26	18	[28]	[28]	17	15	42	40	30	25	18	16	10	62	216
20	12	[28]	[28]	20	18	19	28	[CA]	[CA]	41	53	38	47	44	47	30	20	64	47	33	23	18	34	21	33	58
21	16	[28]	[28]	20	18	21	27	61	95	73	41	27	33	37	50	45	18	23	16	22	17	15	8	31	95	
22	8	[28]	[28]	7	30	43	53	100	97	62	57	43	56	74	40	23	22	26	28	20	17	23	36	70	43	100
23	108	[28]	[28]	78	79	106	87	63	60	58	48	31	55	37	44	55	40	18	30	23	16	17	14	8	49	108
24	35	[28]	[28]	55	66	101	101	47	55	73	53	24	43	92	56	29	25	17	18	14	27	84	20	24	48	101
25	35	[28]	[28]	38	54	94	55	74	71	66	53	42	63	50	42	30	26	12	22	23	14	25	15	26	42	94
26	19	[28]	[28]	55	98	146	74	71	71	79	[CA]	[CA]	50	29	53	30	45	19	34	35	29	42	40	10	51	146
27	13	[28]	[28]	46	86	165	170	123	102	103	121	83	90	60	36	32	31	45	28	45	33	10	18	12	66	170
28	21	[28]	[28]	49	103	167	112	142	88	75	53	59	48	41	39	33	23	51	36	35	21	25	19	54	59	167
29	87	[28]	[28]	59	32	36	52	68	61	57	44	47	45	25	12	21	22	35	18	14	15	15	35	53	39	87
30	52	[28]	[28]	14	15	18	24	31	35	36	34	27	32	35	22	38	22	26	10	14	13	20	17	19	25	52
31	16	[28]	[28]	27	28	30	33	33	30	46	37	43	39	26	46	56	21	21	18	22	34	30	33	50	39	56
AV	29	21	20	38	43	73	70	71	64	57	45	36	42	40	37	34	24	30	28	29	24	28	25	27	40	
SD	18	19	29	27	36	59	55	42	28	21	24	17	18	20	13	11	9	16	13	21	14	23	15	19		
PK	108	52	75	96	115	175	216	162	102	103	121	83	90	62	58	56	45	64	56	107	72	92	73	70		216

00000 [Program: KIMS MONITOR]

Version: LC:15-OCT-93]

WIND SPEED [61101]

METERS/SECOND

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

AUG, 1997

ARROVIRONMENT ENVIRONMENTAL SERVICES INC.

 *
 * FINAL DATA *
 * AS OF 26/FEB/98 *
 *

CLOCK HOUR (LOCAL STANDARD TIME)

DX	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1																										
2																										
3																										
4																										
5																										
6																										
7																										
8																										
9																										
10																										
11																										
12																										
13																										
14																										
15	1.5	1.6	1.0	1.8	1.1	1.6	1.9	1.5	2.4	2.9	3.8	4.7	5.1	5.7	6.5	6.7	6.1	5.6	4.7	3.7	2.8	1.7	1.3	1.2	3.2	6.3
16	1.4	1.8	2.4	2.2	1.7	1.0	1.3	2.3	2.3	2.0	4.0	4.5	4.4	4.5	5.1	5.2	5.2	4.9	4.3	3.8	3.3	3.3	3.0	1.8	3.2	5.2
17	1.3	1.8	2.0	2.2	2.0	1.7	2.1	1.9	1.8	1.8	3.6	4.8	5.5	6.5	6.5	6.5	6.2	6.0	5.5	5.0	4.7	3.6	2.8	1.6	3.6	6.5
18	1.7	0.9	1.1	1.4	1.3	0.9	1.3	1.1	3.2	3.0	4.7	4.5	5.0	5.0	4.8	4.6	4.4	3.5	2.1	2.6	1.2	0.9	2.5	2.3	2.7	5.0
19	1.9	0.7	1.1	0.9	1.9	1.3	1.9	2.5	3.3	3.8	4.7	5.7	5.1	6.0	6.5	5.6	4.2	3.6	2.3	3.6	3.5	3.6	3.1	2.6	3.3	6.5
20	2.0	2.1	1.4	1.3	1.9	1.6	1.9	2.6	2.1	3.8	5.0	5.8	6.5	7.0	7.2	7.3	7.6	6.9	6.6	6.6	5.5	5.2	4.2	2.6	4.4	7.6
21	2.0	2.2	2.0	1.3	1.2	1.1	1.1	1.0	1.4	3.6	5.5	5.8	6.5	7.4	7.5	7.9	8.0	5.2	5.8	5.7	4.8	3.1	2.4	2.2	3.9	7.9
22	1.8	1.6	1.5	1.4	1.3	1.3	1.6	0.9	2.8	3.4	4.1	4.0	4.9	6.4	5.5	4.2	4.5	2.8	3.5	2.6	1.7	1.6	0.6	0.5	2.7	6.4
23	0.7	0.9	1.2	0.8	1.2	1.2	1.0	1.2	1.7	1.8	4.6	4.9	5.0	5.6	5.8	6.9	6.7	5.6	5.2	6.7	4.4	3.9	3.4	2.1	3.5	6.9
24	1.9	1.1	1.2	0.9	0.6	0.6	0.6	1.0	1.7	3.4	3.9	5.7	6.3	7.6	7.5	6.4	6.8	6.9	6.6	4.8	4.3	2.3	2.4	2.2	3.0	6.7
25	2.4	1.4	1.7	0.9	0.8	1.4	1.8	1.6	1.5	1.6	4.6	5.3	5.5	5.9	6.7	6.6	6.2	5.7	4.9	4.3	2.3	2.4	2.2	2.0	3.3	6.7
26	2.1	1.3	1.3	0.9	0.7	0.8	0.7	1.1	1.5	3.1	4.6	5.6	5.1	6.4	6.9	6.1	5.8	4.9	4.1	3.1	2.7	1.6	1.4	2.3	3.1	6.9
27	1.9	1.5	1.7	0.8	0.8	1.3	1.8	1.8	1.8	2.0	4.4	5.2	6.1	7.0	6.8	6.2	6.0	5.7	6.2	4.9	2.5	3.3	3.4	2.1	3.6	7.0
28	1.6	1.6	1.2	0.9	1.1	2.1	1.7	1.6	1.4	3.3	3.3	4.8	5.0	4.4	4.8	5.8	5.7	5.0	4.2	3.3	2.8	1.9	1.5	1.2	2.9	5.6
29	1.6	1.2	1.5	1.8	1.7	2.1	1.5	1.1	1.6	3.1	3.6	4.3	5.3	6.2	5.8	5.4	5.2	4.6	4.7	3.7	2.1	1.9	1.0	1.1	3.0	6.2
30	1.7	1.8	1.4	1.2	1.7	1.8	1.5	1.8	1.7	2.8	3.9	3.6	4.1	5.7	6.6	6.4	6.3	5.3	4.4	3.5	2.7	3.1	1.1	1.2	3.1	6.6
31	0.7	1.5	1.7	1.2	1.6	1.0	1.5	1.8	1.3	2.4	4.1	4.0	4.2	5.1	5.8	6.2	5.4	5.1	4.3	3.5	2.4	2.2	1.4	0.6	2.9	6.6
AV	1.6	1.5	1.5	1.3	1.3	1.2	1.5	1.6	2.0	2.8	4.3	4.9	5.3	6.0	6.3	6.1	5.6	5.3	4.7	4.2	3.2	2.9	2.3	1.8	3.3	
SD	0.5	0.4	0.4	0.5	0.4	0.3	0.4	0.5	0.6	0.7	0.6	0.7	0.7	0.9	0.9	0.9	1.2	1.0	1.3	1.2	1.2	1.2	1.1	0.7		
PK	2.4	2.2	2.4	2.2	2.0	1.8	2.1	2.6	3.3	3.8	5.5	5.8	6.6	7.6	7.5	7.9	7.6	6.9	6.6	6.7	5.5	5.2	4.2	2.6		7.9

C0000 [Program: EDMS_MONTESUM]

Version: LC:15-OCT-93]

WIND DIRECTION AVERAGE [61102]

DEGREES, COMPASS

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

AUG, 1997

ARROVIRONMENT ENVIRONMENTAL SERVICES INC.

 *
 * FINAL DATA *
 * AS OF 26/FEB/98 *
 *

CLOCK HOUR (LOCAL STANDARD TIME)

DX	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	PREV
1																									
2																									
3																									
4																									
5																									
6																									
7																									
8																									
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10																									
11																									
12																									
13																									
14																									
15	SW	SW	NNE	E	E	E	E	SE	SW	SW	SW	SW	W	W	W	SW	SW	SW	SW	SW	SW	SW	SW	SW	W
16	SW	SW	SW	SW	W	W	W	SE	SE	W	SW	SW	SW	SW	SW	W	W	SW	W	W	W	SW	SW	SW	SW
17	SW	SW	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
18	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
19	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
20	SW	SW	SW	SW	W	W	W	SW	SW	SW	SW	SW	W	W	W	W	W	W	W	W	W	SW	SW	SW	W
21	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	W	W	W	W	W	SW	SW	SW	SW	SW	SW	SW	SW
22	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	W	W	W	W	W	SW	SW	SW	SW	SW	SW	SW	SW
23	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
24	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
25	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
26	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW
27	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW
28	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW
29	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW
30	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW
31	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW
PR	[VA]	[VA]	[VA]	[VA]	[VA]	[VA]	[VA]	[VA]	[VA]	[VA]	[VA]	[VA]	[VA]	[VA]	[VA]	[VA]	[VA]	[VA]	[VA]	[VA]	[VA]	[VA]	[VA]	[VA]	[VA]

C0004 [Program: EDMS_MONTESUM]

Version: LC:15-OCT-93]

WIND DIRECTION AVERAGE [61102]
DEGREES, COMPASS

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

AUG, 1997

ARROVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 26/FEB/98 *
*

CLOCK HOUR [LOCAL STANDARD TIME]

DY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	PREV
1	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
2	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
3	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
4	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
5	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
6	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
7	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
8	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
9	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
10	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
11	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
12	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
13	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
14	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
15	310	302	20	82	82	94	91	135	241	249	249	250	261	260	260	255	255	251	247	253	257	238	139	228	[VA]
16	256	207	197	201	259	322	148	162	189	216	255	255	251	257	256	262	261	258	260	262	259	249	246	245	12
17	214	226	265	287	281	315	320	283	262	245	269	256	258	295	264	270	271	263	261	262	259	251	242	273	13
18	262	358	5	324	336	322	326	234	272	272	259	262	256	257	252	266	262	270	262	269	238	283	248	289	13
19	29	97	91	105	50	71	82	99	128	124	130	145	156	150	139	144	202	262	230	137	128	119	126	141	[VA]
20	168	153	164	253	268	236	242	243	256	258	262	262	263	262	260	281	260	264	267	261	257	253	257	260	13
21	254	215	167	240	218	199	148	170	155	258	258	266	261	262	261	289	250	247	257	260	248	202	193	197	12
22	155	205	179	199	233	333	354	144	249	257	259	257	258	262	257	241	280	250	257	241	171	170	82	346	12
23	8	46	100	58	91	92	56	85	140	156	263	262	260	260	260	285	264	257	254	260	245	249	244	224	13
24	263	25	40	71	128	65	21	145	176	274	250	254	259	264	266	262	262	258	256	252	252	255	250	249	12
25	264	221	148	82	88	112	179	105	154	176	245	259	256	257	264	260	264	235	255	257	241	177	151	139	12
26	157	139	98	83	25	4	3	106	193	255	258	256	255	263	261	268	265	259	253	259	243	132	163	180	12
27	148	97	51	36	5	40	61	101	97	166	260	259	263	269	259	258	263	252	258	252	209	234	240	176	13
28	223	2	352	27	73	71	96	145	160	262	248	287	259	266	258	264	264	262	259	258	253	220	185	78	13
29	67	60	66	73	91	111	65	101	156	225	264	257	258	258	257	254	261	256	253	259	224	170	144	112	[VA]
30	123	112	97	4	81	106	99	140	153	235	248	252	258	257	251	251	258	252	257	244	251	233	173	[VA]	
31	199	95	103	65	96	70	90	120	199	279	252	255	253	256	265	267	262	259	258	250	257	247	189	344	12

RV [VA] [VA] [VA] 4 [VA] [VA] [VA] [VA] [VA] 12 12 12 12 13 13 13 13 12 12 13 [VA] [VA] [VA] [VA]

OU001 [Program: EXMS MONTHSUM

Version: LC:15-OCT-93]

RESULTANT SPEED [61103]

LAX AIR QUALITY MONITORING PROGRAM, #706211

METERS/SECOND

SITE 1 LAX

AUG, 1997

ARROVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 26/FEB/98 *
*

CLOCK HOUR [LOCAL STANDARD TIME]

DY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG PEAK	
1	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
2	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
3	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
4	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
5	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
6	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
7	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
8	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
9	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
10	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
11	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
12	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
13	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
14	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
15	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
16	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
17	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
18	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
19	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
20	1.9	1.9	1.3	0.6	1.7	1.5	1.8	2.5	1.8	3.6	4.0	5.6	6.4	5.8	7.1	7.1	7.5	6.8	6.5	6.5	5.4	5.1	4.2	2.4	4.2	7.5
21	1.8	1.8	2.0	0.5	0.9	0.6	0.9	0.6	1.2	3.3	5.4	5.7	6.4	7.3	7.4	7.8	5.8	5.0	5.6	5.6	4.8	2.7	2.2	2.1	3.6	7.8
22	1.5	1.5	1.3	1.3	0.8	1.2	1.6	0.6	2.5	3.2	3.9	3.9	4.6	6.3	5.4	4.0	4.4	3.6	3.4	2.3	1.7	1.4	0.5	0.3	2.6	6.3
23	0.4	0.8	1.2	0.7	1.2	1.1	0.9	1.0	1.3	1.2	4.5	4.8	4.9	5.4	5.7	6.8	6.5	5.5	5.2	6.6	4.3	3.8	3.3	2.1	3.3	6.8
24	1.6	0.8	1.1	0.8	0.5	0.5	0.7	0.8	3.2	3.8	5.6	6.2	7.5	7.4	8.2	6.7	6.9	6.5	4.8	5.1	4.5	4.1	2.2	3.7	7.5	
25	2.3	1.2	1.4	0.7	0.8	1.3	1.8	1.3	1.0	0.6	4.4	5.2	5.3	5.8	6.6	6.5	6.1	5.7	4.8	4.2	1.8	2.3	2.0	1.9	3.1	6.6
26	2.0	1.2	1.3	0.7	0.6	0.8	0.4	0.8	1.0	2.7	4.4	5.5	5.0	6.2	6.8	5.9	5.6	4.8	3.9	2.9	2.5	1.0	1.3	2.4	2.9	6.9
27	1.7	1.4	1.7	0.7	0.7	1.1	1.7	1.7	1.3	0.6	4.3	5.0	6.0	6.3	6.7	6.1	5.9	5.5	6.1	4.7	2.1	3.0	1.3	2.0	3.7	6.9
28	1.3	0.9	1.2	0.7	1.0	1.1	1.6	1.7	1.2	2.6	3.1	4.7	4.8	4.3	4.7	5.7	5.6	4.9	4.1	3.2	2.7	1.7	1.4	1.1	2.7	5.7
29	1.4	1.1	1.4	1.7	1.5	0.8	1.4	0.8	1.6	2.3	3.3	4.1	5.1	6.0	5.7	5.3	5.0	4.5	4.5	3.5	1.8	1.7	0.5	1.0	2.8	6.0
30	1.6	1.7	1.2	1.1	1.4	1.6	1.0	1.6	1.2	2.4	3.7	3.4	3.9	5.6	6.5	6.2										

RESULTANT DIRECTION [61104]

LAX AIR QUALITY MONITORING PROGRAM, #706211

DEGREES, COMPASS

SITE 1 LAX

AUG, 1997

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

* FINAL DATA *

* AS OF 26/FEB/98 *

CLOCK HOUR [LOCAL STANDARD TIME]

DT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	PREV
1																									
2																									
3																									
4																									
5																									
6																									
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8																									
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16																									
17																									
18																									
19																									
20	SSW	SSW	SSW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW
21	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW
22	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW
23	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW
24	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW
25	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW
26	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW
27	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW
28	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW
29	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW
30	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW
31	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW
RV	[VA]	[VA]	[VA]	[VA]	[VA]	[VA]	[VA]	[VA]	[VA]	[VA]	[VA]	[VA]	[VA]	[VA]	[VA]	[VA]	[VA]	[VA]	[VA]	[VA]	[VA]	[VA]	[VA]	[VA]	[VA]

OU004 [Program: RMS_MONTESUM]

Version: LC:15-OCT-93]

RESULTANT DIRECTION [61104]

LAX AIR QUALITY MONITORING PROGRAM, #706211

DEGREES, COMPASS

SITE 1 LAX

AUG, 1997

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

* FINAL DATA *

* AS OF 26/FEB/98 *

CLOCK HOUR [LOCAL STANDARD TIME]

DT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	PREV
1																									
2																									
3																									
4																									
5																									
6																									
7																									
8																									
9																									
10																									
11																									
12																									
13																									
14																									
15																									
16																									
17																									
18																									
19																									
20	166	154	163	326	266	235	244	243	256	260	262	262	262	262	260	261	260	265	267	261	258	253	257	263	7
21	258	217	166	261	218	196	157	168	151	258	258	266	261	261	261	269	251	248	257	260	249	200	191	196	12
22	193	204	178	197	291	343	354	161	255	257	259	256	258	242	259	243	261	259	257	244	171	176	89	344	12
23	35	50	100	66	91	100	59	89	140	156	263	261	260	260	260	265	264	257	254	260	245	249	244	229	13
24	262	25	42	74	121	70	23	143	219	272	251	254	259	264	266	262	262	258	256	252	252	255	249	250	12
25	264	235	155	91	84	117	180	103	148	185	248	259	256	257	264	259	264	255	255	258	241	178	152	138	12
26	157	139	98	75	37	3	4	109	195	256	258	256	255	263	261	267	265	258	254	261	243	130	166	189	12
27	150	98	61	43	9	51	62	101	97	215	260	259	263	269	259	258	263	253	259	254	217	242	241	176	13
28	220	2	351	27	74	74	97	146	164	267	250	267	260	266	258	264	261	260	259	253	228	183	75	13	
29	71	64	66	73	88	107	66	111	132	239	265	237	259	258	257	254	282	256	253	259	225	169	166	117	[VA]
30	120	111	96	4	88	111	106	136	153	241	255	249	253	258	257	261	261	258	252	257	244	252	233	161	[VA]
31	193	84	102	72	101	71	89	123	171	272	253	255	253	256	265	266	263	259	258	252	260	247	206	355	12
RV	[VA]	[VA]	[VA]	[VA]	[VA]	[VA]	[VA]	6	[VA]	12	12	12	13	13	13	13	[VA]	12	12	12	12	[VA]	[VA]	[VA]	

OU001 [Program: RMS_MONTESUM]

Version: LC:15-OCT-93]

SIGMA THREE STABILITY [51191]
DEGREES, COMPASS

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

AUG, 1997

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 26/FEB/98 *
*

CLOCK HOUR [LOCAL STANDARD TIME]

BY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
11	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
12	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
13	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
14	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
15	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
16	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
17	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
18	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
19	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
20	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
21	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
22	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
23	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
24	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
25	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
26	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
27	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
28	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
29	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
30	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
31	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
AV	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
SD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PK	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6

00000 [Program: RMS_MONTHSUM]

Version: LC:15-OCT-93]

TEMPERATURE [52101]

LAX AIR QUALITY MONITORING PROGRAM, #706211

DEGREES CENTIGRADE
LEVEL HEIGHT : 9 METERS

SITE 1 LAX

AUG, 1997

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 26/FEB/98 *
*

CLOCK HOUR [LOCAL STANDARD TIME]

BY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
2	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
3	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
4	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
5	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
6	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
7	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
8	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
9	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
10	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
11	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
12	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
13	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
14	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
15	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
16	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
17	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
18	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
19	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
20	24.0	23.8	23.7	23.6	23.3	23.3	23.7	24.1	25.1	25.4	25.2	24.7	24.6	24.5	24.2	24.1	23.3	23.0	22.6	22.5	22.2	21.8	21.9	22.1	23.6	25.4
21	22.3	22.1	21.0	21.3	21.3	21.6	21.6	22.0	24.6	25.0	24.0	23.6	23.9	24.0	23.0	23.9	23.4	23.1	22.4	22.2	21.8	21.9	21.5	21.3	22.7	25.0
22	21.1	21.0	21.2	21.5	21.7	21.7	22.0	23.7	24.7	24.9	24.1	25.7	26.9	25.0	24.0	24.8	25.4	25.6	25.1	24.4	24.5	24.6	24.8	24.0	23.9	26.9
23	24.3	23.8	23.2	22.9	22.7	22.7	23.1	24.5	26.2	28.1	27.7	27.0	26.8	26.8	26.8	26.1	25.3	25.2	25.1	24.5	23.9	23.7	23.4	23.5	24.9	28.1
24	23.6	23.7	23.4	23.0	22.9	23.0	24.1	25.2	26.4	26.4	27.2	26.4	26.6	26.6	26.6	26.5	25.9	25.3	24.6	24.0	23.6	23.7	23.7	22.7	22.4	24.6
25	22.1	22.0	22.0	21.7	21.8	21.0	22.3	23.6	25.3	27.1	27.0	25.9	25.5	25.0	25.3	24.7	24.1	23.9	22.8	22.6	22.7	22.5	22.4	22.3	23.6	27.1
26	22.0	21.8	21.6	21.5	21.5	22.3	23.5	25.0	25.8	25.8	25.7	25.4	26.0	25.9	25.5	25.2	24.7	24.0	23.5	23.2	23.3	23.2	22.9	22.8	23.8	26.0
27	22.3	22.0	21.9	21.9	22.0	22.1	22.5	23.9	26.1	27.8	27.0	27.3	27.7	28.0	26.6	26.7	26.5	25.3	24.4	23.8	23.5	23.0	22.4	22.5	24.5	28.0
28	22.5	22.3	22.1	21.8	21.4	21.7	22.4	23.2	24.5	25.1	25.8	25.8	26.0	26.1	26.0	25.4	24.8	23.9	23.1	23.6	23.4	23.2	22.9	22.8	23.7	26.1
29	22.5	22.3	21.8	21.2	21.2	21.3	21.3	22.1	23.9	25.0	24.9	23.6	25.7	25.6	25.2	25.0	24.2	23.6	23.1	23.1	23.2	23.2	23.2	23.3	23.4	27.7
30	23.4	22.8	22.7	22.6	22.5	22.0	21.9	22.4	23.7	24.7	24.4	25.0	25.2	25.0	24.8	25.0	24.6	23.3	23.7	23.2	22.6	22.6	22.5	22.5	22.6	25.4
31	22.4	22.6	22.7	22.6	22.5	22.2	22.3	22.2	23.0	23.9	23.8	25.0	25.5	25.7	25.7	25.5	25.0	24.6	23.8	23.2	23.2	23.2	23.1	23.1	23.1	23.7
AV	22.7	22.5	22.3	22.1	22.1	22.1	22.5	23.5	24.9	25.9	25.7	25.7	26.2	26.1	25.8	25.6	25.0	24.3	23.7	23.4	23.3	23.1	22.9	22.9	24.1	
SD	0.9	0.9	0.8	0.8	0.7	0.6	0.8	0.9	1.2	1.3	1.3	1.0	1.8	1.8	1.8	1.6	1.2	1.0	1.0	0.8	0.8	0.8	0.9	0.9		
FK	24.3	23.8	23.7	23.6	23.3	23.3	24.1	25.2	26.4	28.1	27.7	27.3	31.1	30.8	30.8	30.2	27.9	25.1	24.7	24.5	24.6	24.8	24.0			31.1

SOLAR RADIATION [63301]
WATTS PER SQUARE METER

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

AUG, 1997

AEROENVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 26/FEB/98 *

CLOCK HOUR (LOCAL STANDARD TIME)

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
11	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
12	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
13	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
14	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
15	0	0	0	0	0	6	47	104	222	372	629	921	937	906	772	520	213	76	6	0	0	0	0	0	0	
16	0	0	0	0	0	1	18	74	249	311	180	255	417	558	659	578	363	108	14	0	0	0	0	0	239	
17	0	0	0	0	0	3	24	49	220	542	539	988	995	921	800	619	407	179	19	0	0	0	0	0	158	
18	0	0	0	0	0	17	176	375	569	821	817	985	850	687	414	375	324	72	8	0	0	0	0	0	263	
19	0	0	0	0	0	19	152	378	572	753	783	967	939	891	759	595	385	157	5	0	0	0	0	0	270	
20	0	0	0	0	0	9	84	202	412	739	901	946	943	860	745	595	332	115	9	0	0	0	0	0	308	
21	0	0	0	0	0	8	59	225	564	759	891	975	970	902	773	595	370	154	11	0	0	0	0	0	287	
22	0	0	0	0	0	14	173	370	561	755	647	935	950	360	169	425	328	130	10	0	0	0	0	0	303	
23	0	0	0	0	0	17	161	356	555	729	874	951	949	881	751	568	348	140	11	0	0	0	0	0	239	
24	0	0	0	0	0	15	158	365	567	740	872	953	959	891	767	589	362	142	11	0	0	0	0	0	304	
25	0	0	0	0	0	15	170	376	578	757	690	966	972	911	777	589	353	137	8	0	0	0	0	0	308	
26	0	0	0	0	0	19	181	383	579	760	893	974	974	908	775	582	342	128	7	0	0	0	0	0	312	
27	0	0	0	0	0	15	160	369	574	747	879	958	972	906	773	584	342	125	7	0	0	0	0	0	313	
28	0	0	0	0	0	14	154	362	572	720	888	957	969	907	769	577	332	123	5	0	0	0	0	0	309	
29	0	0	0	0	0	7	109	308	555	735	879	957	964	899	765	566	310	114	4	0	0	0	0	0	306	
30	0	0	0	0	0	6	94	315	558	737	873	978	870	880	643	567	368	73	3	0	0	0	0	0	299	
31	0	0	0	0	0	9	104	335	489	735	877	946	946	873	728	534	290	104	2	0	0	0	0	0	282	
AV	0	0	0	0	0	11	122	291	494	590	771	912	916	832	696	556	320	116	8	0	0	0	0	0	266	
SD	0	0	0	0	0	6	58	115	132	142	150	173	138	154	164	64	90	41	5	0	0	0	0	0	995	
PK	0	0	0	0	0	19	192	383	579	821	901	988	995	931	800	619	407	179	19	0	0	0	0	0	0	

00000 [Program: EDMS_MONTHSUM]

Version: LC:15-OCT-93]

SIGMA WB [70012]
DEGREES, COMPASS

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

AUG, 1997

AEROENVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 26/FEB/98 *

CLOCK HOUR (LOCAL STANDARD TIME)

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
11	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
12	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
13	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
14	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
15	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
16	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
17	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
18	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
19	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
20	22	19	22	58	26	21	17	32	21	16	14	12	12	10	10	10	9	8	12	9	11	22	18	58	58	
21	26	36	15	65	40	57	33	53	34	22	13	13	12	11	10	10	14	15	14	13	11	30	21	17	24	
22	33	18	29	21	51	25	15	47	28	21	15	17	12	10	11	19	12	16	14	29	18	28	26	41	23	
23	55	29	8	20	9	22	26	33	37	48	14	12	14	12	10	10	11	11	10	10	12	10	11	30	19	
24	32	45	31	26	33	30	32	47	50	20	17	11	10	10	11	12	10	8	8	10	8	9	6	11	21	
25	12	34	33	41	21	21	17	36	49	64	19	11	14	11	11	10	10	9	13	15	37	19	26	16	23	
26	20	24	14	37	26	10	50	39	48	29	17	11	12	13	10	11	31	11	15	18	19	49	28	16	22	
27	27	16	9	36	27	29	23	24	40	68	15	12	10	10	12	11	12	13	10	19	30	24	10	16	21	
28	39	54	15	34	12	14	23	24	36	39	20	14	15	15	12	12	12	9	15	13	15	27	16	32	21	
29	24	24	12	13	23	44	17	44	29	41	22	17	13	12	11	13	16	11	13	18	31	24	59	27	23	
30	23	19	32	28	35	30	48	28	44	28	17	19	19	11	10	12	11	11	11	10	24	11	26	41	23	
31	47	15	26	32	23	27	25	24	69	34	17	20	17	14	11	11	13	10	12	24	25	13	55	68	26	
AV	30	28	20	34	27	27	35	42	36	17	14	13	12	11	12	14	12	15	16	20	21	24	27	22		
SD	12	12	9	15	12	13	12	12	16	2	3	3	2	1	3	7	3	11	6	9	11	16	16			
PK	55	54	33	65	51	57	50	53	69	68	22	20	19	17	13	19	35	18	50	29	37	49	59	69	69	

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

AUG, 1997

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

```
*****
#                                     #
#      FINAL DATA                    #
# AS OF 26/FEB/98                    #
#                                     #
*****
```

CLOCK HOUR (LOCAL STANDARD TIME)

BY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
11	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
12	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
13	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
14	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
15	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
16	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
17	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
18	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
19	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
20	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
21	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
22	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
23	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
AVG	1	1	1	1</																						

00000 [Program: EDMS NORTHSUM
0000000000000000]

Version: LC:15-OCT-93}

BATTERY VOLTAGE [99034]

LAX AIR QUALITY MONITORING PROGRAM, #706211

VOLTS

SITE 1 LAX

AUG. 1997

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

```
*****
*                                     *
*      FINAL DATA                  *
*      AS OF 26/FEB/98             *
*                                     *
*****
```

CLOCK HOUR {LOCAL STANDARD TIME}

BY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK	
1	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
2	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
3	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
4	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
5	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
6	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
7	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
8	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
9	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
10	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
11	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
12	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
13	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
14	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	13.8	13.7	13.8	13.8	13.8	13.9	13.9	13.9	13.9	13.8	13.9
15	13.9	13.9	13.9	13.9	13.9	13.9	13.8	13.9	13.9	13.8	13.8	13.8	13.8	13.8	13.8	13.7	13.8	13.8	13.8	13.8	13.9	13.9	13.9	13.9	13.9	13.8	13.9
16	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.9	13.9	13.9	13.9	13.9	13.9	13.9
17	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.9	13.9	13.9	13.9	13.9	13.9	13.9
18	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.9	13.9	13.9	13.9	13.9	13.9	13.9
19	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.9	13.9	13.9	13.9	13.9	13.9	13.9
20	13.8	13.9	13.9	13.9	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.7	13.7	13.7	13.6	13.6	13.6	13.7	13.7	13.7	13.7	13.8	13		

00000 [Program: EDMS MONTHSUM

Version: LC:15-OCT-93]

SIGMA THETA (CALCULATE) [99090]

DEGREES, COMPASS

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

AUG, 1997

AEROENVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 26/FEB/98 *
*

CLOCK HOUR [LOCAL STANDARD TIME]

BY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
2	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
3	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
4	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
5	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
6	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
7	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
8	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
9	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
10	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
11	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
12	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
13	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
14	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
15	43	44	74	28	52	38	16	62	23	19	14	16	16	13	11	12	10	12	12	12	13	29	65	79	30	79
16	36	20	10	14	28	80	79	24	24	25	12	11	9	11	11	14	13	12	11	9	14	12	8	15	21	80
17	24	14	13	11	19	13	15	36	27	26	24	11	12	11	11	12	11	10	11	9	11	7	8	21	15	36
18	36	63	35	45	47	78	60	50	19	20	15	13	11	12	10	13	11	21	27	22	70	96	16	41	35	96
19	36	15	14	31	14	11	14	24	19	21	15	17	19	14	17	37	21	55	22	18	17	23	17	21	55	
20	24	20	24	89	28	20	23	18	37	21	16	14	13	12	12	10	10	10	10	8	12	9	11	21	20	89
21	27	36	17	76	38	74	40	70	46	27	14	14	12	11	10	15	15	14	12	11	32	22	19	28	76	
22	35	19	31	22	54	40	17	60	36	22	16	17	13	10	11	20	12	15	14	31	22	40	32	55	27	68
23	74	31	8	26	9	29	28	36	43	56	16	12	14	12	11	10	11	11	10	13	11	12	32	22	74	
24	40	67	32	39	47	29	31	60	77	21	18	11	10	10	11	12	10	9	8	10	8	10	7	12	24	77
25	15	53	36	65	23	34	18	39	61	85	21	11	14	12	11	10	10	9	13	15	39	23	28	16	28	95
26	22	25	14	51	30	10	48	48	54	31	20	12	12	13	10	11	12	12	14	17	20	72	30	16	25	72
27	25	17	9	42	27	27	23	23	46	79	15	12	10	10	12	11	12	13	10	20	37	33	10	17	23	79
28	42	58	16	39	12	15	22	27	50	52	23	14	15	15	12	12	12	10	15	13	13	30	19	36	24	58
29	21	22	12	14	27	62	19	60	33	57	22	19	13	12	11	13	16	11	13	18	33	28	80	33	27	80
30	23	19	35	30	40	34	58	39	34	35	18	20	20	12	10	12	12	11	11	10	24	11	33	50	26	58
31	54	16	27	38	26	38	26	26	89	48	18	20	17	14	11	12	12	10	12	22	23	13	69	100	31	100
AV	34	32	24	39	31	37	32	42	43	38	19	14	13	12	11	12	16	12	15	15	22	27	27	34	25	
SD	14	18	16	22	14	23	19	17	20	21	3	3	3	2	1	3	12	4	11	6	15	23	22	24		
PK	74	67	74	89	54	80	79	70	89	85	24	20	20	19	14	20	57	21	55	31	70	96	80	100		100

00000 [Program: ERMS MONTHSUM]

Version: LC:15-OCT-93]

TEMPERATURE 2d HEIGHT [99144]

DEGREES CENTIGRADE

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

AUG, 1997

AEROENVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 26/FEB/98 *
*

CLOCK HOUR [LOCAL STANDARD TIME]

BY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1																										
2																										
3																										
4																										
5																										
6																										
7																										
8																										
9																										
10																										
11																										
12																										
13																										
14																										
15																										
16																										
17																										
18																										
19																										
20	24.1	23.9	23.8	23.7	23.4	23.4	24.0	24.6	25.8	26.7	26.9	26.6	26.6	26.5	26.2	25.8	24.4	23.5	22.8	22.6	22.2	21.9	22.0	22.1	24.3	26.9
21	22.3	22.2	22.0	21.6	21.4	21.7	22.0	23.1	25.4	26.2	25.8	25.5	26.0	26.1	25.8	25.4	24.6	23.6	22.4	22.0	21.6	21.8	21.5	21.4	23.4	26.2
22	21.1	20.8	21.3	20.8	21.4	21.6	22.3	24.1	25.7	26.1	25.3	27.1	26.5	26.2	24.6	25.9	26.2	25.9	24.9	24.1	24.3	24.4	24.4	24.3	24.2	28.5
23	23.8	23.6	22.9	22.7	22.4	22.4	23.3	24.9	27.0	29.0	29.3	28.7	28.6	28.7	28.5	27.6	26.4	25.6	24.9	24.4	23.6	23.4	23.1	22.9	25.3	29.3
24	23.1	23.4	23.2	22.7	22.4	22.8	24.3	25.7	27.2	27.6	26.7	28.4	28.7	28.8	28.4	27.4	26.4	25.1	23.8	23.4	23.4	23.4	23.2	21.7	25.1	28.8
25	21.6	21.5	21.6	21.3	21.4	21.3	22.4	24.1	26.0	28.1	28.7	27.8	27.4	26.9	27.1	26.4	25.2	24.3	22.6	22.3	22.3	22.4	22.3	22.0	24.0	28.7
26	21.8	21.5	21.2	21.1	20.9	20.8	22.3	23.9	25.7	26.8	27.2	27.2	26.9	27.4	27.2	26.3	25.7	25.0	23.8	23.1	22.8	22.8	22.8	22.1	24.0	27.4
27	21.9	21.7	21.7	21.4	21.2	21.8	22.5	24.4	26.8	28.8	28.3	28.7	29.1	29.3	27.8	27.6	27.1	25.5	24.2	22.3	22.3	22.3	22.2	21.7	25.3	
28	21.8	21.9	21.9	21.4	21.0	21.3	22.4	23.7	25.3	26.1	27.1	27.3	27.4	27.4	27.2	26.2	25.4	24.2	22.8	22.9	22.6	22.6	22.5	22.5	22.8	27.4
29	22.3	22.0	21.5	21.0	21.2	21.3	21.3	22.4	24.8	26.1	26.2	27.0	27.1	26.9	26.3	25.8	24.8	23.9	22.9	22.9	22.9	22.9	23.1	23.0	23.0	27.7
30	22.7	22.7	22.7	22.6	22.5	22.0	22.0	22.8	24.5	25.9	25.5	26.5	26.6	26.4	25.8	25.0	25.3	23.5	22.7	22.5	22.5	22.6	22.3	22.2	22.4	28.1
31	22.1	22.5	22.7	22.5	22.5	22.3	22.4	23.5	24.5	26.9	26.4	26.9	27.2	27.2	26.7	26.1	25.2	24.1	23.0	22.8	22.7	22.4	22.4	22.6	24.1	27.2
AV	22.4	22.3	22.2	21.9	21.8	21.9	22.6	23.9	25.7	27.0	27.1	27.3	27.9	27.7	27.2	26.8	25.8	24.7	23.5	23.2	23.0	22.9	22.7	22.6	24.5	
PK	0.9	0.9	0.8	0.9	0.8	0.7	0.9	0.9	0.9	1.1	1.4	1.0	1.8	1.7	1.8	1.5	1.2	1.0	1.0	0.8	0.8	0.8	0.9	0.9		
BD	24.1	23.9	23.8	23.7	23.4	23.4	24.3	25.7	27.2	29.0	29.3	28.7	28.9	32.3	31.9	31.3	28.8	26.3	23.2	24.6	24.6	24.4	24.4	24.3		32.3

STATION TEMPERATURE [99231]

LAX AIR QUALITY MONITORING PROGRAM, #706211

DEGREES CENTIGRADE

SITE 1 LAX

AUG, 1997

AEROENVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 26/FEB/98 *
*

CLOCK HOUR [LOCAL STANDARD TIME]

DT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1																										
2																										
3																										
4																										
5																										
6																										
7																										
8																										
9																										
10																										
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12																										
13																										
14																										
15																										
16																										
17																										
18																										
19																										
20	23.0	23.0	23.0	22.8	22.6	22.5	22.5	23.4	24.2	24.6	24.9	25.4	25.5	25.4	25.4	25.1	24.6	23.6	22.7	22.1	21.6	21.3	21.1	20.8	20.7	22.6
21	21.3	21.4	21.5	21.2	21.0	20.9	20.9	21.5	23.1	24.5	25.1	25.0	24.9	25.0	25.1	25.0	24.9	24.8	24.0	22.7	21.7	21.1	20.8	20.7	22.8	25.1
22	20.5	20.1	20.1	19.9	19.6	19.5	19.9	21.9	23.6	26.0	27.9	29.1	27.1	25.6	24.5	24.1	24.2	24.3	23.9	22.9	22.1	21.6	21.1	20.8	22.9	29.1
23	20.7	20.5	20.5	20.1	19.8	19.6	20.1	22.2	23.3	23.9	24.6	24.8	24.9	25.1	25.3	25.3	25.0	24.5	24.0	22.9	22.1	21.4	20.9	20.5	22.6	25.3
24	20.1	20.0	20.1	19.9	19.5	19.3	20.0	22.3	23.3	23.9	24.3	24.7	24.8	24.9	24.9	25.0	24.9	24.6	23.8	22.4	21.5	21.1	20.6	20.0	22.3	25.0
25	19.4	19.1	19.0	18.6	18.3	18.2	18.6	20.7	22.6	23.5	24.2	24.4	24.4	24.5	24.6	24.6	24.5	24.3	23.2	21.6	20.6	20.0	19.6	19.4	21.6	24.6
26	19.3	19.1	19.0	18.5	18.3	18.4	18.8	21.0	22.9	24.1	24.9	25.1	24.6	24.4	24.4	24.4	24.2	24.1	23.3	22.0	21.0	20.2	19.7	19.3	21.7	25.1
27	18.9	18.5	18.4	18.0	17.9	17.9	18.4	20.4	22.6	23.3	23.9	24.1	24.2	24.4	24.5	24.1	25.0	24.9	24.3	23.4	22.0	20.9	20.1	19.5	19.0	21.5
28	18.8	18.6	18.5	18.3	18.1	18.1	18.7	20.7	22.6	23.5	23.8	24.1	24.2	24.4	24.6	24.8	24.5	24.2	23.3	22.0	21.4	20.8	20.6	20.1	21.6	24.6
29	19.2	18.9	18.8	18.5	18.6	18.7	18.7	19.7	22.0	23.6	23.9	24.0	24.2	24.4	24.5	24.6	24.5	24.2	23.3	22.0	21.4	20.8	20.6	20.1	21.6	24.6
30	19.6	19.8	20.1	19.9	19.7	19.6	19.4	20.1	22.3	23.3	23.5	23.7	24.0	24.1	24.2	24.2	24.2	23.8	22.5	21.4	20.7	20.3	19.9	19.5	21.7	24.2
31	19.3	19.2	19.6	19.7	19.7	19.5	19.4	20.4	22.4	23.4	23.8	23.9	24.1	24.4	24.5	24.4	24.3	24.1	23.2	21.8	20.9	20.3	19.7	19.3	21.7	24.5
AV	20.0	19.9	19.9	19.6	19.4	19.4	19.6	21.2	23.0	24.0	24.6	24.9	24.9	25.0	25.1	25.1	24.9	24.6	23.6	22.4	21.5	20.9	20.5	20.2	22.4	
SD	1.2	1.3	1.3	1.4	1.4	1.3	1.2	1.1	0.6	0.8	1.2	1.4	1.1	1.1	1.3	1.4	1.2	0.9	0.8	0.9	1.0	1.0	1.1	1.1		
PK	23.0	23.0	23.0	22.8	22.6	22.5	22.5	23.4	24.3	26.0	27.9	29.1	27.3	28.3	29.2	29.6	28.9	27.4	25.9	24.8	24.2	23.7	23.4	23.1		29.6

00000 [Program: EDMS MONTHSUM]

Version: LC:15-OCT-93]

Delta Temp [99238]

LAX AIR QUALITY MONITORING PROGRAM, #706211

DEGREES CENTIGRADE

SITE 1 LAX

AUG, 1997

AEROENVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 26/FEB/98 *
*

CLOCK HOUR [LOCAL STANDARD TIME]

DT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1																										
2																										
3																										
4																										
5																										
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16																										
17																										
18																										
19																										
20	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.6	0.7	1.3	1.7	1.9	2.0	2.0	1.9	1.7	1.1	0.5	0.2	0.1	0.1	0.1	0.1	0.1	0.6	1.8
21	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.8	1.2	1.8	1.8	2.1	2.1	2.0	1.5	1.1	0.5	0.0	-0.2	-0.2	-0.1	0.0	0.0	0.6	2.1
22	0.0	-0.2	0.0	-0.5	-0.3	-0.1	0.3	0.4	0.9	1.2	1.2	1.5	1.7	1.2	0.6	1.1	0.9	0.3	-0.2	-0.3	-0.2	-0.4	-0.4	0.4	1.4	1.7
23	-0.5	-0.2	-0.3	-0.2	-0.3	-0.3	0.1	0.4	0.9	0.9	1.6	1.7	1.8	1.9	1.8	1.6	1.1	0.5	-0.2	-0.2	-0.2	-0.3	-0.3	-0.5	0.5	1.9
24	-0.5	-0.3	-0.2	-0.3	-0.5	-0.2	0.2	0.4	0.8	1.2	1.6	2.0	2.2	2.1	1.9	1.5	1.1	0.5	-0.2	-0.4	-0.4	-0.4	-0.5	-0.6	0.5	2.2
25	-0.5	-0.5	-0.4	-0.3	-0.4	-0.5	0.1	0.5	0.7	0.9	1.8	1.8	1.9	2.0	1.9	1.7	1.1	0.4	-0.2	-0.3	-0.3	-0.2	-0.2	-0.3	0.4	2.0
26	-0.2	-0.4	-0.4	-0.4	-0.6	-0.7	0.0	0.4	0.7	1.1	1.5	1.4	1.4	1.4	1.2	0.8	0.5	0.2	-0.2	-0.3	-0.4	-0.5	-0.4	-0.2	1.5	
27	-0.3	-0.4	-0.2	-0.5	-0.8	-0.3	0.1	0.5	0.8	0.9	1.3	1.5	1.4	1.3	1.2	0.9	0.6	0.2	-0.2	-0.3	-0.4	-0.5	-0.5	-0.4	0.2	1.5
28	-0.7	-0.4	-0.2	-0.3	-0.3	-0.4	0.0	0.5	0.8	1.0	1.3	1.5	1.4	1.3	1.3	0.9	0.6	0.2	-0.3	-0.7	-0.9	-0.7	-0.3	-0.3	0.2	1.5
29	-0.3	-0.4	-0.3	-0.2	0.0	0.0	0.0	0.3	0.8	1.2	1.3	1.4	1.3	1.4	1.2	1.1	0.6	0.3	-0.1	-0.1	-0.3	-0.1	-0.3	-0.3	0.4	1.4
30	-0.2	-0.1	0.0	0.1	0.0	0.0	0.1	0.4	0.8	1.2	1.2	1.5	1.4	1.4	1.1	0.9	0.7	0.2	0.0	-0.1	-0.1	-0.2	-0.3	-0.2	0.4	1.5
31	-0.3	-0.1	0.0	0.0	-0.1	0.0	0.1	0.5	0.6	1.0	1.4	1.4	1.5	1.4	1.2	0.8	0.6	0.3	-0.2	-0.3	-0.5	-0.7	-0.7	-0.4	0.3	1.5
AV	-0.3	-0.2	-0.2	-0.2	-0.3	-0.2	0.1	0.4	0.8	1.1	1.5	1.6	1.7	1.6	1.4	1.2	0.8	0.4	-0.1	-0.2	-0.3	-0.3	-0.3	-0.3		
SD	0.3	0.2	0.2	0.2	0.3	0.3	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.3	0.2	0.1	0.1	0.2	0.3	0.3	0.3	0.2	0.2		
PK	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.6	0.9	1.3	1.8	2.0	2.2	2.1	2.0	1.7	1.1	0.5	0.2	0.1	0.1					

PARTS PER MILLION

LAX AIR QUALITY MONITORING PROGRAM, #706211

8175 1 LAX

SEP, 1997

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

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*****
*                                     *
*      FINAL DATA                  *
*  AS OF 26/FEB/98                 *
*                                     *
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CLOCK HOUR [LOCAL STANDARD TIME]

DY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	FEAK	
1	1.0	[ZS]	[ZS]	1.5	1.2	2.0	1.9	1.8	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.1	1.6	1.9	2.1	
2	1.3	[ZS]	[ZS]	1.5	1.4	2.4	[CA]	[CA]	3.1	2.5	2.5	2.6	2.6	2.4	2.2	2.3	2.3	2.2	2.2	2.2	2.0	1.6	1.3	2.1	3.1		
3	1.5	[ZS]	[ZS]	1.3	1.5	2.4	3.4	3.2	2.4	2.5	2.4	2.4	2.3	2.3	2.2	2.3	2.2	2.1	2.2	2.3	2.1	2.0	2.0	1.4	2.2	3.3	
4	1.5	[ZS]	[ZS]	2.0	2.3	3.4	4.8	5.5	4.9	3.4	2.9	2.8	2.6	2.3	2.3	2.2	2.2	2.2	2.1	1.9	1.9	1.9	1.6	1.5	2.7	5.5	
5	1.4	[ZS]	[ZS]	1.5	1.7	2.5	3.0	3.4	2.9	2.2	2.1	2.0	2.0	2.0	2.0	2.1	2.1	1.8	1.9	1.8	1.8	1.7	1.5	1.6	2.1	3.4	
6	1.7	[ZS]	[ZS]	1.6	1.8	1.8	2.1	2.5	2.5	2.4	2.2	2.5	2.4	2.3	2.3	2.3	2.3	2.1	2.0	1.8	1.7	1.7	1.5	1.1	2.0	2.5	
7	1.3	[ZS]	[ZS]	2.2	1.3	1.5	1.6	1.8	2.0	2.0	2.0	2.0	2.2	2.2	2.3	1.9	1.9	1.9	1.8	1.6	1.7	1.5	1.4	1.1	1.7	2.1	
8	1.2	[ZS]	[ZS]	1.6	1.7	2.9	3.2	3.3	2.2	2.2	2.3	2.1	2.2	2.2	2.1	2.0	2.0	2.0	2.1	2.0	1.6	1.3	1.4	1.2	2.0	3.2	
9	1.3	[ZS]	[ZS]	1.7	2.2	3.0	[CA]	[CA]	[CA]	[CA]	3.0	2.7	2.5	2.6	2.3	2.2	2.2	2.1	2.0	2.1	2.0	1.6	1.3	1.4	1.2	2.0	3.2
10	1.4	[ZS]	[ZS]	1.8	2.1	3.7	3.5	3.6	3.5	2.7	2.5	2.5	2.3	2.2	2.2	2.2	2.1	2.0	1.9	1.9	1.8	1.7	1.7	1.4	2.1	3.0	
11	1.2	[ZS]	[ZS]	1.4	1.4	2.0	2.3	2.5	2.5	2.6	2.6	2.4	2.2	2.1	2.2	2.2	2.1	2.0	1.8	1.7	1.6	1.6	1.2	2.3	3.8		
12	1.8	[ZS]	[ZS]	1.4	1.6	1.9	2.2	2.2	2.0	2.0	2.0	2.2	1.8	1.7	1.8	1.6	1.7	1.6	1.7	1.6	1.8	1.7	1.6	1.8	1.7	2.0	2.6
13	2.0	[ZS]	[ZS]	1.6	1.8	1.8	1.8	1.7	1.9	2.1	1.5	1.7	1.7	1.8	1.8	1.8	1.8	1.8	1.7	1.6	1.4	1.4	1.3	1.7	1.8	2.2	
14	1.4	[ZS]	[ZS]	2.1	2.2	2.9	3.6	3.7	3.3	3.1	2.6	2.3	2.3	2.3	2.3	2.2	2.1	2.0	1.9	1.8	1.7	1.7	1.4	2.3	3.7		
15	1.3	[ZS]	[ZS]	1.4	1.4	1.8	2.3	2.5	2.8	[CA]	[CA]	[CA]	0.2	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.8	2.8	2.8	
16	0.0	[ZS]	[ZS]	0.0	0.0	0.1	0.5	1.3	1.9	1.7	1.2	0.9	0.4	0.3	[CA]	[CA]	[CA]	0.3	0.3	0.3	0.1	0.1	0.0	0.4	0.5	1.9	
17	0.0	[ZS]	[ZS]	0.3	1.2	1.7	2.7	1.7	2.7	1.7	0.5	0.3	0.2	0.3	0.3	0.2	0.1	0.2	0.1	0.2	0.0	0.0	0.0	0.0	0.7	2.7	
18	0.2	[ZS]	[ZS]	0.0	0.9	1.6	1.2	1.1	1.2	0.9	0.9	0.6	0.4	0.3	0.2	0.2	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.6	

00000 {Program: EDMS MONTHSUM

Version: LC:15-OCT-93]

CARBON MONOXIDE [42101]

PARTS PER MILLION

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAM

SEP, 1997

ASROVIRONMENT ENVIRONMENTAL SERVICES INC.

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*****
*                                     *
*      FINAL DATA                   *
*      AS OF 26/FEB/98              *
*                                     *
*****
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CLOCK HOUR [LOCAL STANDARD TIME]

DY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg Peak
1	1	[ZS]	[SS]	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
2	1	[ZS]	[SS]	2	1	2	[CA]	[CA]	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	1	2
3	2	[ZS]	[SS]	1	2	2	[CA]	[CA]	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	1	2
4	2	[ZS]	[SS]	2	2	3	5	6	5	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	3
5	3	1	[SS]	2	2	3	5	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3
6	2	[ZS]	[SS]	2	2	2	2	3	3	2	3	2	2	2	2	2	2	2	2	2	2	2	2	2	3
7	1	[SS]	[SS]	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2
8	1	[SS]	[SS]	2	2	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2
9	1	[SS]	[SS]	2	2	3	[CA]	[CA]	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	1	2
10	1	[ZS]	[SS]	2	2	3	4	4	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	1	2
11	1	[ZS]	[SS]	1	1	2	2	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2
12	2	[ZS]	[SS]	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
13	2	[ZS]	[SS]	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	2
14	1	[ZS]	[SS]	2	2	3	4	4	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	1	2
15	1	[ZS]	[SS]	1	1	2	2	3	3	[CA]	[CA]	[CA]	0	0	0	0	0	0	0	0	0	0	0	0	1
16	0	[ZS]	[SS]	0	0	0	1	1	2	2	1	1	0	0	0	[CA]	[CA]	0	0	0	0	0	0	0	0
17	0	[ZS]	[SS]	0	1	2	3	2	3	2	1	0	0	0	0	[CA]	[CA]	0	0	0	0	0	0	0	1
18	0	[ZS]	[SS]	0	1	2	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2
19	0	[ZS]	[SS]	0	1	2	3	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	3
20	1	[SS]	[SS]	2	1	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
21	1	[ZS]	[SS]	1	0	1	[CA]	[CA]	1	1	0	0	0	0	0	0	0	0	0	0	1	1	2	2	2
22	0	[ZS]	[SS]	0	0	1	1	2	3	3	2	1	1	1	1	1	1	1	1	0	1	2	2	1	3
23	2	[ZS]	[SS]	3	3	6	7	5	4	2	1	1	1	1	1	1	1	1	1	1	1	0	0	2	7
24	0	[ZS]	[SS]	2	2	2	4	4	3	3	3	2	1	1	1	1	1	1	1	0	2	1	1	2	4</

CU000 (Program: EDMS MONTHSUM

Version: 1A:15-OCT-93]

SULFUR DIOXIDE [42401]

PARTS PER BILLION

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

SEP, 1997

AEROENVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 26/FEB/98 *
*

CLOCK HOUR [LOCAL STANDARD TIME]																										
BY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG PEAK	
1	0.0	[SS]	[SS]	0.0	0.0	0.0	0.0	0.0	1.0	4.0	5.2	4.8	3.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.2
2	0.0	[SS]	[SS]	0.0	0.0	0.0	[CA]	[CA]	1.2	5.5	6.4	8.2	6.8	3.9	1.9	0.8	0.0	1.0	1.3	1.4	2.7	1.4	0.9	0.3	2.2	8.2
3	0.9	[SS]	[SS]	0.0	0.0	0.0	0.0	4.1	10.6	5.5	3.5	0.0	1.0	2.3	1.1	0.3	0.0	0.0	0.0	0.6	0.0	1.4	0.0	0.0	1.4	10.6
4	0.0	[SS]	[SS]	0.0	0.0	0.0	0.0	2.2	4.2	6.3	6.4	10.2	2.3	0.8	1.6	1.6	0.1	0.0	2.5	4.6	6.6	5.5	0.0	0.0	2.5	10.2
5	0.0	[SS]	[SS]	0.0	0.0	0.0	0.0	1.2	8.4	2.4	1.9	1.8	0.0	1.0	1.0	0.0	0.7	2.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	8.4
6	0.0	[SS]	[SS]	0.0	1.1	2.2	0.0	0.0	2.5	6.0	14.0	4.9	2.8	1.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	0.0	14.0
7	0.0	[SS]	[SS]	0.1	1.2	1.3	0.0	0.0	1.6	2.6	2.3	0.5	4.0	2.6	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
8	0.0	[SS]	[SS]	0.0	0.0	0.0	0.0	4.3	6.4	5.0	7.1	3.1	1.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
9	0.0	[SS]	[SS]	0.0	0.0	0.0	[CA]	[CA]	[CA]	2.2	2.2	1.5	7.2	4.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.3	0.0	7.1
10	0.0	[SS]	[SS]	0.0	0.0	0.0	0.0	0.0	1.5	2.2	0.0	0.3	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	2.2
11	0.0	[SS]	[SS]	0.0	0.0	0.0	0.0	0.0	0.3	1.5	1.0	0.5	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5
12	0.0	[SS]	[SS]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	0.0	[SS]	[SS]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	0.0	[SS]	[SS]	0.0	0.0	0.0	0.0	0.0	0.8	0.5	1.1	0.0	0.1	1.1	1.9	2.9	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	[SS]	[SS]	0.0	0.0	0.0	0.0	0.0	2.4	[CA]	[CA]	[CA]	7.0	4.4	4.2	3.6	2.4	1.5	4.1	5.7	3.5	2.0	1.6	2.2	2.3	7.0
16	2.8	[SS]	[SS]	1.6	1.9	1.8	1.5	2.5	3.7	2.6	4.9	5.6	4.5	3.9	[CA]	[CA]	3.9	3.1	3.9	3.8	2.7	2.8	4.0	2.1	3.2	5.6
17	2.4	[SS]	[SS]	3.3	4.0	4.5	4.6	5.0	6.8	6.6	6.3	3.6	2.4	2.6	2.4	3.3	2.3	1.9	3.0	4.2	2.0	3.2	2.2	1.8	3.6	6.8
18	2.0	[SS]	[SS]	1.1	2.0	2.8	3.1	5.7	7.4	5.3	6.6	7.1	6.6	6.5	3.1	4.4	2.0	2.5	1.1	1.6	1.5	1.2	1.3	1.5	3.4	7.4
19	2.1	[SS]	[SS]	1.9	2.3	3.2	3.9	4.8	5.0	4.9	6.0	6.1	5.4	2.5	1.6	3.3	1.5	1.8	1.6	2.2	1.5	2.2	3.8	2.4	3.2	6.1
20	2.8	[SS]	[SS]	2.8	2.1	2.7	2.4	2.0	4.5	6.2	6.9	3.7	3.4	1.7	2.7	1.4	1.2	1.8	2.0	1.7	1.3	1.7	1.4	3.6	2.7	6.9
21	2.3	[SS]	[SS]	2.0	1.3	1.6	[CA]	[CA]	3.3	3.3	4.0	3.4	3.9	2.1	1.8	3.1	2.1	2.8	2.6	3.9	4.5	2.9	2.5	2.1	2.8	4.5
22	4.9	[SS]	[SS]	0.5	0.4	0.6	0.8	1.2	1.0	2.2	3.3	10.1	6.5	5.3	6.1	5.1	4.1	0.5	1.9	3.0	0.9	0.8	1.9	1.6	2.9	10.1
23	2.1	[SS]	[SS]	3.2	3.4	4.9	5.6	3.8	4.5	5.4	15.2	17.1	12.3	9.8	11.7	12.3	6.4	6.1	11.8	8.3	7.8	9.2	2.1	1.7	7.5	17.1
24	0.0	[SS]	[SS]	3.0	2.7	3.0	4.0	3.8	2.8	3.5	3.8	5.3	7.5	7.4	7.3	4.2	4.6	2.3	11.8	8.3	7.8	9.2	2.1	1.7	7.5	17.1
25	1.4	[SS]	[SS]	0.3	0.3	0.3	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.2	2.8	4.5	3.8	3.5	0.4	1.1	4.5	
26	0.3	[SS]	[SS]	0.3	0.0	0.6	0.6	0.0	0.3	0.6	1.0	1.5	15.1	18.9	18.1	2.3	0.8	0.6	0.7	1.5	2.7	4.5	1.6	0.5	3.3	18.9
27	0.1	[SS]	[SS]	0.8	0.9	0.9	1.3	0.8	0.8	3.3	5.6	[CA]	[CA]	3.6	3.4	4.9	3.9	4.9	3.6	1.9	1.4	0.3	2.0	0.8	2.2	5.6
28	0.0	[SS]	[SS]	2.5	2.0	1.6	1.5	0.4	0.1	3.6	3.9	12.2	9.4	5.2	3.6	1.8	1.5	1.6	1.3	0.9	1.4	1.3	0.5	0.1	2.6	12.2
29	0.0	[SS]	[SS]	0.8	0.8	0.3	0.3	0.0	0.6	7.7	11.6	8.3	2.4	1.7	2.9	2.3	0.4	2.2	0.7	0.5	0.4	0.9	0.8	1.4	2.1	11.6
30	2.2	[SS]	[SS]	0.9	0.5	0.5	0.1	0.4	0.3	1.6	2.0	2.1	1.7	1.5	0.5	0.0	0.0	0.0	0.1	1.1	0.3	2.0	2.0	1.6	1.0	2.2
AV	0.9	[]	[]	0.8	0.9	1.1	1.1	1.5	2.6	3.7	4.6	4.5	4.2	3.1	2.7	2.0	1.3	1.2	1.5	1.7	1.8	1.7	1.3	0.9	2.0	
SD	1.3	[]	[]	1.1	1.2	1.4	1.7	2.0	2.7	2.4	3.9	4.4	3.8	3.9	3.0	2.6	1.7	1.5	2.3	2.1	2.1	2.1	1.3	1.0		
PK	4.9	[]	[]	3.3	4.0	4.9	5.6	5.7	10.6	8.4	15.2	17.1	15.1	18.9	18.1	12.3	6.4	6.1	11.8	8.3	7.8	9.2	4.0	3.6		18.9

00000 [Program: EDMS_MONTESUM]

Version: LC:15-OCT-93]

NITRIC OXIDE [42501]

PARTS PER BILLION

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

SEP, 1997

AEROENVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 26/FEB/98 *
*

CLOCK HOUR [LOCAL STANDARD TIME]																										
BY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	6	[SS]	[SS]	4	6	30	27	21	30	15	7	8	14	5	9	7	3	3	0	2	4	11	11	9	10	30
2	0	[SS]	[SS]	7	8	32	[CA]	[CA]	38	23	26	19	16	14	21	23	5	13	20	5	2	2	1	3	14	38
3	6	[SS]	[SS]	1	15	49	42	67	83	21	9	12	29	45	39	32	7	3	1	8	4	12	9	0	22	83
4	1	[SS]	[SS]	45	87	143	180	155	198	60	21	25	6	26	28	40	13	7	9	1	0	0	0	2	45	180
5	6	[SS]	[SS]	0	16	74	62	54	46	44	17	24	25	11	19	10	7	3	13	12	4	12	11	0	21	74
6	3	[SS]	[SS]	1	8	2	9	17	28	22	23	12	26	23	26	27	8	1	8	1	3	0	0	0	11	28
7	0	[SS]	[SS]	2	1	3	6	8	11	15	11	7	28	28	32	22	9	0	2	7	4	1	0	0	9	32
8	4	[SS]	[SS]	22	48	123	127	53	37	39	30	24	12	11	6	3	9	4	2	4	1	0	4	0	25	127
9	1	[SS]	[SS]	44	83	122	[CA]	[CA]	35	30	27	66	35	56	26	13	10	24	17	5	23	11	0	0	33	122
10	0	[SS]	[SS]	25	66	108	135	102	77	35	17	35	72	26	35	22	12	7	34	8	16	7	1	1	38	135
11	2	[SS]	[SS]	8	9	45	40	13	28	26	21	7	27	16	13	11	16	3	11	10	10	2	1	29	17	45
12	13	[SS]	[SS]	1	9	18	21	19	11	11	8	8	8	8	6	4	5	0	1	0	0	2	9	10	6	21
13	20	[SS]	[SS]	0	2	6	5	2	6	8	8	9	14	17	11	26	6	5	4	0	0	0	0	0	7	26
14	8	[SS]	[SS]	23	38	64	90	83	54	52	20	10	7	23	10	18	3	7	19	0	1	1	0	0	24	90
15	0	[SS]	[SS]	0	7	1	12	14	40	[CA]	[CA]	[CA]	16	14	20	15	6	6	1	10	3	2	13	15	10	40
16	24	[SS]	[SS]	5	26	32	43	68	98	65	46	41	32	17	[CA]	[CA]	15	13	9	8	3	5	46	6	30	98
17	29	[SS]	[SS]	81	155	177	198	98	53	11	19	15	20	16	12	10	3	21	7	3	19	1	15	48	198	
18	43	[SS]	[SS]	28	93	132	99	55	47	26	48	27	22	39	23	30	6	9	9	3	0	0	0	1	34	132
19	7	[SS]	[SS]	59	142	153	142	61	30	28	19	18	7	8	11	20	2	10	6	4	1	2	31	84	153	
20	99	[SS]	[SS]	169	133	186	120	27	32	21	6	12	1	8	22	14	9	2	5	10	2	1	0	1	42	186
21	37	[SS]	[SS]	49	0	24	[CA]	[CA]	47	34	14	31	28	12	9	4	5	16	6	5	28	50	98	29	50	
22	36	[SS]	[SS]	4	6	14	45	92	103	59	20	36	18	9	19	15	16	0	1	6	3	5	43	62	28	103
23	122	[SS]	[SS]	179	221	392	423	233	137	49	55	33	11	22	11	26	2	1	8	5	11	15	3	1	89	423
24	0	[SS]	[SS]	119	119	157	204	208	125	51	69	87	60	52	35	26	14	0	0	0	8	21	31	70	68	208
25	64	[SS]	[SS]	37	39	13	20	41	56	47	36	33	29	23	33	10	6	9	22	17	10	14	37	0	27	64
26	4	[SS]	[SS]	0	18	44	51	21	11	11	8	5	29	6	8	11	17	18	2	2	1	4	12	12	13	51
27	8	[SS]	[SS]	39	59	81	98	60	32	27	21	[CA]	[CA]	14	4	14	7	4	0	0	0	0	14	36	25	80
28	45	[SS]	[SS]	143	194	210	174	98	60	25	23	46	16	10	29	16	5	10	2	2	3	29	17	10	53	210
29	8	[SS]	[SS]	65	92	85	114	69	23	11	11	8	16	17	16	22	7	3	7	3	0	0	1	7	27	114
30	21	[SS]	[SS]	1	3	3	12	18	16	21	16	16	5	6	3	2	8	9	4	1	0	0	1	5	8	21
AV	28	[]	[]	39	57	84	92	66	53	34	23	23	23	19	20	17	8	6	8	5	4	8	14	16	28	
MD	30	[]	[]	51	62	86	91	57	38	20	15	17	17	12	13	10	4	5	9	5	6	11	21	26		
SK	122	[]	[]	178	221	392	423	233	138	51	69	87	72	52	56	40	17	18	34	17	29	50	98	88	423	

NITROGEN DIOXIDE [42602]

LAX AIR QUALITY MONITORING PROGRAM, #706211

PARTS PER BILLION

SITE 1 LAX

SEP, 1997

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 26/FEB/98 *

CLOCK HOUR [LOCAL STANDARD TIME]

DY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	36	[29]	[28]	30	24	38	40	36	51	36	30	24	21	17	15	16	16	12	17	23	31	36	45	40	29	51
2	17	[29]	[28]	30	19	35	[CA]	[CA]	48	40	43	48	44	34	29	24	18	40	39	41	36	31	25	24	33	48
3	41	[28]	[28]	24	32	39	44	69	90	55	34	32	29	41	29	28	18	26	29	44	42	56	41	20	39	90
4	33	[29]	[28]	40	41	45	49	75	101	85	66	62	32	34	26	25	18	28	44	31	24	22	9	14	41	101
5	20	[29]	[29]	21	32	37	37	47	50	36	30	30	30	19	26	11	17	25	22	22	14	33	31	13	27	50
6	22	[28]	[29]	20	35	26	28	33	35	30	33	24	32	26	20	17	11	6	13	13	22	13	9	7	22	35
7	9	[28]	[28]	27	28	24	24	20	21	25	23	17	48	32	18	11	7	7	15	17	37	22	10	13	21	48
8	21	[28]	[28]	32	33	36	39	45	37	36	43	33	26	23	17	14	29	20	30	33	24	22	32	23	30	45
9	21	[28]	[28]	35	36	31	[CA]	[CA]	[CA]	56	45	41	71	52	31	17	17	18	33	31	25	34	29	14	33	71
10	13	[29]	[28]	26	28	30	33	42	55	40	32	40	33	13	22	11	20	16	21	20	19	15	17	12	25	55
11	17	[28]	[28]	21	23	28	28	25	32	39	23	15	18	23	20	23	27	17	27	30	43	28	23	39	26	43
12	39	[28]	[28]	17	27	34	36	36	29	23	21	25	17	19	15	12	13	12	22	37	29	36	36	35	26	39
13	38	[29]	[29]	14	21	27	23	16	18	23	21	15	16	20	14	18	17	20	16	14	13	18	20	23	19	39
14	47	[29]	[29]	45	45	42	48	65	70	84	60	43	42	57	39	54	37	31	35	27	26	29	12	10	43	84
15	8	[28]	[28]	15	19	22	37	36	56	[CA]	[CA]	[CA]	23	27	29	25	22	21	32	52	47	36	54	53	32	56
16	49	[28]	[28]	30	36	37	38	43	59	64	53	57	41	41	[CA]	[CA]	44	39	50	45	35	45	71	51	47	71
17	53	[28]	[28]	50	51	55	60	58	94	73	31	31	26	30	40	37	25	24	42	57	27	54	38	33	45	94
18	46	[28]	[28]	42	43	44	47	51	58	55	65	54	38	42	27	30	22	20	18	26	26	22	20	16	37	65
19	25	[28]	[28]	32	35	40	51	45	42	54	32	19	13	14	13	21	12	19	18	21	13	27	35	30	28	54
20	41	[28]	[28]	38	37	35	38	30	42	33	15	15	16	9	15	11	12	14	24	21	17	16	14	21	23	42
21	39	[28]	[28]	31	38	32	[CA]	[CA]	[CA]	59	64	30	27	16	18	12	15	22	34	54	70	61	59	53	37	70
22	53	[28]	[28]	30	29	32	40	55	77	91	73	50	38	39	48	44	31	14	30	41	35	44	61	61	46	91
23	63	[28]	[28]	64	70	72	77	94	112	94	87	90	56	75	84	102	66	58	55	70	80	65	50	57	75	112
24	31	[28]	[28]	82	73	74	70	81	98	125	126	119	63	47	43	49	51	41	34	29	67	82	76	73	70	126
25	69	[28]	[28]	39	37	33	35	39	39	39	35	35	32	39	27	29	34	39	46	49	47	40	17	38	69	
26	14	[28]	[28]	16	27	30	39	33	28	28	26	19	20	18	18	12	16	19	23	32	32	23	29	23	25	39
27	14	[28]	[28]	23	26	29	31	47	61	73	53	[CA]	[CA]	24	23	25	28	33	19	21	28	24	45	49	34	73
28	49	[28]	[28]	48	40	47	54	72	108	106	93	69	44	29	35	25	21	30	30	33	40	48	40	38	50	108
29	36	[28]	[28]	39	40	41	42	46	43	33	35	23	21	19	24	27	20	23	31	29	25	20	33	36	31	46
30	45	[28]	[28]	27	20	30	36	34	33	34	33	34	25	22	16	13	16	14	17	21	14	23	37	40	26	45
AV	34	[]	[]	33	34	38	42	47	57	54	44	39	33	30	27	26	23	24	29	33	33	34	35	32	35	
SD	16	[]	[]	15	13	12	13	19	27	27	25	24	14	15	15	19	13	11	11	14	17	17	18	18		
PK	69	[]	[]	82	73	74	77	94	112	125	126	119	71	75	84	102	66	58	55	70	80	82	76	73		126

00000 [Program: EDMS_MONTHSUM]

Version: LC:15-OCT-93]

OXIDES OF NITROGEN [42603]

LAX AIR QUALITY MONITORING PROGRAM, #706211

PARTS PER BILLION

SITE 1 LAX

SEP, 1997

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 26/FEB/98 *

CLOCK HOUR [LOCAL STANDARD TIME]

DY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	43	[28]	[28]	33	31	67	67	50	81	52	36	32	35	22	24	23	19	15	17	25	35	47	51	49	39	81
2	17	[28]	[28]	37	27	66	[CA]	[CA]	85	63	69	67	60	48	50	47	23	54	59	46	38	32	26	28	47	85
3	48	[28]	[28]	25	46	88	86	136	173	76	43	45	58	86	60	24	29	30	52	45	66	50	20	61	173	
4	23	[29]	[29]	84	123	185	228	229	239	145	95	88	38	60	55	65	31	35	53	32	24	22	9	15	85	239
5	27	[29]	[29]	21	46	111	99	101	95	81	39	54	55	30	44	22	24	29	35	34	18	45	42	13	48	111
6	26	[28]	[28]	21	43	29	38	50	63	52	55	38	61	48	46	44	19	8	21	13	25	13	9	7	33	63
7	9	[29]	[29]	29	29	27	31	20	33	39	33	24	76	60	50	33	15	8	18	24	42	23	11	13	30	76
8	25	[28]	[28]	54	82	159	166	97	74	69	73	57	38	34	24	17	38	32	37	25	23	35	23	55	166	
9	22	[28]	[28]	79	119	153	[CA]	[CA]	[CA]	90	79	68	137	87	87	43	30	28	56	48	30	58	40	14	66	153
10	13	[28]	[28]	51	94	138	168	145	132	75	48	76	105	39	57	33	32	23	55	27	35	22	18	13	63	160
11	19	[28]	[28]	29	32	73	68	59	59	65	44	22	45	39	32	35	43	21	38	48	53	30	24	68	43	73
12	52	[28]	[28]	19	36	52	57	55	39	34	29	32	28	27	21	17	18	12	23	37	29	38	45	45	34	57
13	58	[28]	[28]	14	23	33	28	19	24	31	29	24	32	36	24	45	23	24	20	14	13	18	20	23	26	58
14	55	[28]	[28]	72	83	106	139	148	124	135	80	53	49	80	50	72	39	38	53	28	27	30	12	10	67	148
15	8	[28]	[28]	15	27	23	49	50	96	[CA]	[CA]	[CA]	33	41	49	40	28	27	33	62	50	39	67	69	42	96
16	73	[28]	[28]	35	63	69	81	111	157	128	109	96	73	58	[CA]	[CA]	61	53	59	53	38	51	118	57	77	157
17	82	[29]	[28]	131	206	232	259	153	194	125	41	50	41	50	51	50	35	27	63	64	30	73	39	48	93	259
18	89	[29]	[29]	70	136	177	147	105	105	81	113	81	60	81	51	60	29	28	28	29	26	22	20	16	71	177
19	33	[28]	[28]	90	177	194	193	108	72	83	51	38	20	22	24	41	14	29	24	28	14	29	66	122	87	194
20	140	[28]	[28]	207	170	222	165	57	74	54	22	27	47	17	37	26	21	16	29	31	19	17	14	22	65	222
21	75	[28]	[28]	79	18	57	[CA]	[CA]	105	90	43	58	55	28	27	16	20	38	40	39	98	112	157	141	66	127
22	69	[28]	[28]	34	34	46	85	147	180	150	94	86	56	49	48	59	47	14	31	47	38	50	104	123	74	180
23	186	[28]	[28]	342	291	464	500	327	249	143	142	122	67	96	96	128	69	58	62	76	91	60	54	59	164	500
24	31	[28]	[28]	201	192	231	275	209	223	216	195	206	124	99	79	81	66	41	34	29	75	104	107	143	138	289
25	133	[28]	[28]	76	74	46	56	80	96	82	71	68	64	56	72	36	36	43	61	63	59	61	77	17	65	133
26	17	[28]	[28]	16	45	82	90	54	39	39	34	24	57	25	26	23	33	37	26	35	33	27	41	35	38	90
27	22	[28]	[28]	62	85	110	119	107	93	99	74	[CA]	[CA]	39	26	40	36	37	19	21	28	24	59	85	59	119
28	94	[28]	[28]	191	241	257	228	170	168	141	107	115	60	49	64	41	26	40	32	35	44	76	57	48	103	257
29	43	[28]	[28]	104	132	126	154	115	66	44	46	32	37	37	40	49	27	26	38	32	26	20	34	45	58	154
30	66	[28]	[28]	28	23	33	48	53	49	54	50	48	30	28	18	15	24	23	20	21	14	23	38	45	34	66
AV	54	[]	[]	72	91	122	134	113	110	89	67	62	56	49	47	43	32	30	37	38	37	42	48	47	64	
BD	43	[]	[]	63	73	95	102	75	63	44	39	40	27	23	21	14	13	15	16	21	26	35	40			
PK	186	[]	[]	242	291	464	500	327	249	216	195	206	137	99	96	128	69	58	63	76	98	112	137	143		500

WIND SPEED [61101]

METERS/SECOND

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

SEP, 1997

AEROENVIRONMENT ENVIRONMENTAL SERVICES INC.

 *
 * FINAL DATA
 * AS OF 26/FEB/98
 *

CLOCK HOUR [LOCAL STANDARD TIME]

DT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	1.1	1.4	0.6	0.7	1.6	0.9	0.4	2.2	1.4	3.3	3.0	5.5	5.7	6.0	5.4	5.8	5.1	3.4	3.2	3.1	1.7	1.5	0.7	1.1	2.7	6.0
2	1.0	0.8	0.7	1.1	1.4	1.0	1.1	1.2	1.8	2.9	3.4	3.4	4.6	5.3	6.2	5.9	5.6	4.9	4.1	2.7	2.8	3.4	3.2	2.1	2.9	6.2
3	0.5	1.0	0.9	1.0	1.0	0.6	0.8	0.9	2.0	3.5	4.5	4.5	6.3	7.3	7.5	7.2	6.2	5.4	3.9	3.5	2.5	1.8	1.6	0.9	3.2	7.5
4	0.7	1.0	0.5	0.7	0.4	0.5	0.9	1.5	1.7	3.4	4.6	5.3	5.5	6.2	6.8	6.9	6.3	5.3	3.7	3.2	3.0	2.6	2.7	2.3	3.2	6.9
5	2.3	2.5	1.7	1.1	0.6	0.9	0.5	0.7	2.4	4.3	4.6	4.6	5.4	5.9	5.5	5.8	5.7	5.8	4.6	4.7	3.8	2.9	3.0	1.9	3.4	5.9
6	1.0	2.8	1.4	1.4	1.6	1.5	1.0	1.3	2.5	3.1	3.5	4.5	5.7	5.9	6.8	6.6	6.5	6.3	4.9	3.5	4.1	2.1	1.3	1.1	3.3	6.8
7	0.8	2.1	2.0	1.2	0.7	1.4	1.5	1.5	1.9	3.0	3.8	4.7	5.3	7.0	8.6	8.2	7.2	6.8	5.7	7.3	2.7	1.9	2.1	1.3	3.7	8.6
8	0.9	1.7	2.0	1.0	1.0	0.6	0.7	1.7	2.6	3.5	3.8	5.9	5.5	5.8	6.1	6.6	6.4	5.5	4.4	4.7	2.9	3.6	2.8	1.7	3.4	6.6
9	2.0	1.8	1.1	0.8	0.9	1.1	1.0	1.5	1.3	1.8	4.6	5.5	6.2	5.7	7.7	7.1	6.3	6.1	5.1	4.2	3.0	2.4	1.8	2.4	3.4	7.7
10	1.4	1.0	0.7	0.4	0.4	0.9	0.8	0.8	1.3	3.9	4.2	5.2	7.7	7.3	7.3	10.1	7.3	5.2	7.4	7.1	6.0	5.0	2.5	2.3	4.0	10.1
11	2.3	1.9	2.1	1.0	1.6	0.9	1.0	1.9	1.4	1.8	4.8	5.5	5.4	5.5	5.3	5.2	5.5	4.5	4.3	3.0	2.0	1.3	1.1	1.6	3.0	5.5
12	1.6	2.5	2.6	2.2	2.7	3.1	3.1	3.0	3.3	3.4	2.3	2.7	5.8	5.6	5.9	5.2	4.4	3.9	2.8	1.6	1.4	1.8	2.1	1.8	3.1	5.9
13	1.9	1.8	2.1	2.1	1.8	1.6	1.9	1.3	1.5	2.0	4.0	4.5	4.3	4.6	5.3	5.6	5.3	4.8	4.5	4.1	3.6	2.4	2.2	1.2	3.1	5.6
14	1.3	1.1	1.5	0.9	0.8	1.0	0.6	0.6	0.8	2.2	4.3	4.7	4.3	4.3	4.3	4.5	4.6	4.8	4.5	3.7	3.5	2.1	2.1	1.8	2.7	4.8
15	1.1	1.1	0.9	1.5	2.0	1.5	1.4	2.2	1.2	1.5	3.1	5.3	5.4	4.7	5.1	5.2	4.9	3.6	1.7	1.3	1.8	1.6	0.6	1.0	2.5	5.4
16	0.8	1.4	0.6	0.6	1.4	0.8	1.4	0.9	1.0	1.3	2.2	3.6	5.3	4.5	[CA]	[CA]	4.4	4.0	3.3	3.2	2.2	1.7	1.2	0.9	2.1	5.3
17	1.0	0.7	0.9	0.5	0.7	0.4	0.5	1.0	1.1	1.9	4.1	4.5	5.0	4.6	4.2	4.4	4.6	4.3	3.9	2.2	3.2	1.5	1.0	1.0	2.4	5.0
18	1.0	1.0	0.8	0.5	0.9	0.5	1.1	1.2	1.1	1.3	3.0	4.6	5.2	5.3	5.5	6.1	6.2	5.7	4.5	3.3	2.1	1.6	2.0	3.2	2.9	6.1
19	1.3	0.9	1.1	1.2	0.8	1.1	1.5	1.1	1.3	1.6	4.3	4.8	5.4	6.1	5.8	5.3	5.7	5.2	4.6	4.2	2.8	1.4	0.7	1.3	2.9	6.1
20	1.8	1.2	1.2	0.4	1.1	0.7	0.9	1.3	1.0	3.3	4.5	5.1	5.4	5.2	5.5	5.2	4.6	4.4	4.2	3.7	3.5	3.2	3.0	1.5	3.0	6.5
21	0.8	1.4	1.2	1.2	0.7	0.9	0.9	0.7	1.1	1.4	4.7	5.1	6.2	6.2	6.0	5.4	5.0	4.6	4.5	1.6	0.8	1.3	1.2	1.9	2.7	6.2
22	2.1	1.7	1.5	1.4	1.3	1.4	1.6	1.5	0.9	1.1	1.8	5.7	5.8	6.1	6.2	5.5	5.9	5.2	3.0	2.1	1.8	1.9	1.4	1.1	2.8	6.2
23	0.8	0.7	1.1	0.3	0.5	0.6	1.0	1.8	1.0	2.2	2.9	3.2	4.8	4.8	4.3	4.1	2.6	4.1	3.9	3.3	2.7	2.7	1.9	1.0	2.4	4.8
24	0.7	0.8	0.7	0.7	1.1	0.5	1.0	2.2	1.7	1.2	1.6	3.7	6.3	6.2	6.8	4.6	5.2	3.1	2.7	2.2	1.2	1.5	0.7	2.0	2.6	8.2
25	2.2	2.4	1.2	1.2	2.5	3.6	2.2	0.8	2.5	2.4	1.7	1.8	1.8	2.5	2.4	4.7	3.8	3.9	4.7	3.8	3.8	3.8	4.1	2.9	2.8	4.7
26	4.0	2.2	1.9	1.3	1.3	1.2	2.2	3.0	2.5	2.3	2.3	2.6	4.0	3.4	4.4	5.3	5.1	4.9	4.2	3.1	2.8	3.1	2.5	2.3	3.0	5.5
27	2.9	2.8	1.5	1.0	1.2	0.9	1.2	1.1	1.1	1.2	2.9	4.3	5.1	4.9	4.9	5.0	4.3	4.1	3.4	2.7	1.9	1.3	0.8	1.0	2.5	5.1
28	0.8	0.7	0.5	1.1	1.0	0.6	0.6	1.1	1.2	1.3	1.7	4.8	5.2	5.0	5.2	5.2	4.3	3.5	2.4	0.9	1.0	1.7	1.4	1.4	2.2	5.2
29	1.2	1.4	1.2	1.3	1.3	1.5	1.5	1.7	2.1	1.7	3.0	4.6	5.4	5.6	4.9	4.8	4.2	3.4	3.7	2.9	1.8	1.1	0.9	1.2	2.6	5.6
30	1.0	0.8	1.1	1.1	1.0	1.2	1.2	1.4	1.5	3.8	4.2	4.0	4.7	5.3	5.2	5.4	5.2	4.4	3.9	3.1	2.5	1.5	0.8	1.2	2.7	5.4
AV	1.4	1.5	1.2	1.1	1.2	1.1	1.2	1.4	1.6	2.4	3.4	4.5	5.3	5.5	5.7	5.8	5.3	4.7	4.1	3.3	2.6	2.2	1.8	1.6	2.9	
SD	0.8	0.7	0.6	0.5	0.6	0.7	0.6	0.6	0.6	1.0	1.0	1.0	1.1	1.3	1.2	1.0	0.9	1.1	1.4	1.1	0.9	0.9	0.6			
PK	4.0	2.8	2.6	2.2	2.7	3.6	3.1	3.0	3.3	4.5	4.8	5.9	7.7	9.2	8.6	10.1	7.3	6.8	7.4	7.3	6.0	5.0	4.1	3.2	10.1	

0000 [Program: EDMS_MONTHSUM]

Version: LC:15-OCT-93]

WIND DIRECTION AVERAGE [61102]

DEGREES, COMPASS

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

SEP, 1997

AEROENVIRONMENT ENVIRONMENTAL SERVICES INC.

 *
 * FINAL DATA
 * AS OF 26/FEB/98
 *

CLOCK HOUR [LOCAL STANDARD TIME]

DT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	PREV
1	NW	NW	SW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	[VA]
2	N	SE	NW	NW	NW	N	SE	SE	SW	SW	NW	NW	NW	N	N	N	N	N	N	NW	NW	NW	NW	NW	NW
3	N	N	NW	NW	NW	NW	N	N	NW	NW	N	N	N	N	N	N	N	N	N	NW	NW	NW	NW	NW	NW
4	SE	SE	SE	SE	SW	NE	N	SE	N	N	N	N	N	N	N	N	N	N	N	NW	NW	NW	NW	NW	NW
5	N	NW	NW	NW	NW	SE	N	SE	SE	SW	N	N	N	N	N	N	N	N	N	NW	NW	NW	NW	NW	NW
6	N	NW	NW	N	N	SW	S	SE	NW	NW	NW	NW	NW	N	N	N	N	N	N	NW	NW	NW	NW	NW	NW
7	SW	NW	N	N	NW	SW	SW	NW	NW	NW	NW	NW	NW	N	N	N	N	N	N	NW	NW	NW	NW	NW	NW
8	SW	ENE	ENE	ENE	E	SE	SW	NW	NW	N	N	N	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	[VA]
9	SE	E	E	E	E	ENE	E	SE	SE	N	N	N	N	N	N	N	N	N	N	NW	NW	NW	NW	NW	NW
10	S	ENE	NE	ENE	NW	N	NW	NW	NW	NW	NW	N	N	NW	N	N	N	N	N	NW	NW	NW	NW	NW	NW
11	SE	SE	SE	SE	SE	SE	SE	A	E	ENE	NW	NW	NW	NW	NW	N	N	N	N	N	NW	NW	NW	NW	NW
12	ENE	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
13	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
14	N	NW	NW	NW	NW	ENE	ENE	E	NW	NW	NW	NW	NW	NW	NW	N	N	N	N	NW	NW	NW	NW	NW	NW
15	SE	SE	S	S	N	NW	NW	NW	N	S	S	NW	NW	NW	N	N	N	N	N	NW	NW	NW	NW	NW	NW
16	N	N	NW	NW	N	NW	N	NW	NW	NW	NW	NW	NW	N	[CA]	[CA]	N	N	N	N	NW	NW	NW	NW	NW
17	NW	NW	NE	NE	NE	ENE	ENE	ENE	SW	S	NW	N	NW	NW	N	N	N	N	N	N	NW	NW	NW	NW	NW
18	E	ENE	NW	NW	NW	N	N	N	N	ENE	N	NW	NW	NW	N	N	N	N	N	N	NW	NW	NW	NW	NW
19	S	SE	ENE	E	ENE	ENE	ENE	E	SE	S	NW	NW	NW	NW	NW	NW	N	N	N	N	NW	NW	NW	NW	NW
20	NW	NW	NW	NW	E	N	E	NW	N	NW	NW	NW	N	NW	N	NW	NW	NW	NW	N	NW	NW	NW	NW	NW
21	ENE	ENE	E	E	N	NE	NE	E	ENE	S	NW	N	N	N	N	N	N	N	N	NW	NW	NW	NW	NW	NW
22	S	NE	ENE	E	E	E	E	ENE	NE	ENE	SE	N	NW	N	N	N	N	N	N	NW	NW	NW	NW	NW	NW
23	E	E	E	SW	NW	NE	NE	E	ENE	SW	NW	NW	NW	N	N	N	N	N	N	NW	NW	NW	NW	NW	NW
24	N	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	N	N	N	N	N	N	NW	NW	NW	NW	NW	NW
25	E	NE	ENE	NE	NE	NE	NW	NW	E	E	E	N	N	N	N	N	N	N	N	NW	NW	NW	NW	NW	NW
26	NW	SW	S	SW	SE	SE	SE	SE	SE	SE	SE	S	NW	NW	NW	N	N	N	N	NW	NW	NW	NW	NW	NW
27	NW	NW	NW	NW	ENE	E	E	ENE	E	E	E	N	NW	NW	N	NW	NW	N	N	NW	NW	NW	NW	NW	NW
28	ENE	ENE	NE	NE	E	E	NW	E	NE	ENE	S	NW	NW	N	NW	NW	N	N	N	NW	NW	NW	NW	NW	NW
29	E	ENE	E	ENE	ENE	ENE	ENE	ENE	ENE	ENE	SE	SE	N	NW	N	N	N	N	N	NW	NW	NW	NW	NW	NW
30	NW	NW	NW	SW	NW	SE	SE	S	SE	NW	NW	NW	NW	N	NW	NW	NW	NW	N	NW	NW	NW	NW	NW	NW
PV	[VA]	ENE	[VA]	E	[VA]	[VA]	ENE	[VA]	[VA]	[VA]	NW	N	NW	N	N	N	NW	N	N	NW	NW	[VA]	[VA]		

WIND DIRECTION AVERAGE [61102]

DEGREES, COMPASS

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

SEP, 1997

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

 * FINAL DATA *
 * AS OF 26/FEB/98 *

CLOCK HOUR [LOCAL STANDARD TIME]

DX	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	PREV	
1	324	315	228	306	319	331	69	254	271	252	244	257	256	259	256	252	248	251	248	255	337	336	333	320	[VA]	
2	356	142	296	310	4	119	139	194	214	255	247	298	259	261	263	262	263	259	261	258	256	250	252	255	12	
3	270	357	339	283	287	358	315	359	240	256	260	259	261	265	267	264	265	261	253	254	247	239	173	174	13	
4	161	161	130	130	224	39	8	137	276	268	236	259	254	262	264	264	260	256	239	217	227	221	202	250	13	
5	259	255	257	247	159	11	114	124	235	266	259	259	259	258	262	260	263	262	260	266	255	246	253	192	13	
6	183	283	262	269	273	229	171	145	254	248	253	253	259	263	263	260	259	254	251	247	248	205	180	204	12	
7	198	248	262	262	245	241	220	218	250	254	255	257	258	263	263	261	258	252	248	258	266	198	175	166	12	
8	127	67	77	60	93	130	195	242	245	260	261	263	254	258	267	255	252	247	250	254	249	253	254	156	[VA]	
9	131	96	82	60	93	76	84	125	125	162	262	262	265	267	265	263	265	258	258	259	252	244	195	183	[VA]	
10	176	70	39	103	15	353	341	338	244	355	256	260	268	257	260	262	249	254	261	266	259	250	223	164	12	
11	163	134	161	148	160	129	105	80	92	116	255	256	258	258	258	264	266	252	265	273	277	14	12	73	12	
12	66	82	98	88	81	87	95	97	103	95	112	143	257	255	258	252	258	253	249	217	205	152	125	111	[VA]	
13	88	86	90	86	76	50	83	87	52	51	253	259	255	256	256	260	258	266	254	240	242	269	[VA]		[VA]	
14	268	282	324	332	72	64	80	16	344	290	253	256	252	258	257	261	261	261	259	253	261	231	186	195	12	
15	165	142	178	190	262	343	289	245	278	172	190	241	253	258	259	265	263	263	225	272	251	341	353	220	13	
16	276	272	346	330	281	311	350	331	341	38	227	255	261	261	[CA]	[CA]	260	271	267	267	242	238	225	204	[VA]	
17	257	28	51	53	103	14	61	234	115	189	245	250	255	256	256	261	261	259	266	277	260	246	216	231	13	
18	67	76	323	21	18	1	359	0	6	60	273	257	253	258	264	263	266	263	258	263	265	222	191	188	260	[VA]
19	189	110	76	98	77	74	63	88	141	173	257	242	248	254	255	257	264	265	266	264	253	194	23	94	[VA]	
20	323	317	19	80	7	85	12	11	332	248	255	261	259	254	262	257	259	254	257	261	256	253	250	225	12	
21	73	76	95	100	260	40	41	82	123	171	256	263	260	264	258	259	260	256	261	279	286	123	92	94	[VA]	
22	80	51	70	85	79	86	88	110	35	31	147	259	257	261	261	266	266	256	263	207	162	116	79	63	[VA]	
23	85	97	93	215	36	44	51	80	150	224	252	252	246	271	260	266	267	259	267	263	260	262	302	309	[VA]	
24	357	344	17	327	327	339	73	45	84	72	242	267	267	267	267	267	267	267	267	267	267	267	267	267	12	
25	80	38	15	59	40	39	334	250	92	100	90	48	4	304	268	247	248	260	274	274	268	258	239	10		
26	252	221	189	193	129	105	104	108	115	135	137	185	258	247	251	260	260	262	259	257	245	241	241	244	[VA]	
27	248	249	259	65	89	82	64	79	37	299	262	255	255	260	256	264	263	258	255	260	228	190	150	106	12	
28	78	13	54	98	100	84	28	80	132	150	191	264	259	258	260	259	259	258	212	170	148	22	65	85	[VA]	
29	83	89	85	109	110	96	57	119	130	117	234	255	258	261	266	262	260	234	262	261	255	231	273	279	[VA]	
30	253	305	256	235	327	148	118	91	138	255	267	262	257	259	259	255	257	255	260	258	257	227	188	82	12	
FV [VA]	4	[VA]	5	[VA]	[VA]	4	[VA]	[VA]	[VA]	[VA]	12	13	12	13	13	13	13	12	13	13	12	12	[VA]	[VA]		

CU001 [Program: EDMS_MONTESUM]

Version: LC:15-OCT-93]

RESULTANT SPEED [61103]

METERS/SECOND

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

SEP, 1997

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

 * FINAL DATA *
 * AS OF 26/FEB/98 *

CLOCK HOUR [LOCAL STANDARD TIME]

DX	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK	
1	1.1	1.3	0.2	0.5	1.3	0.9	0.1	2.1	1.0	3.1	2.7	5.4	5.6	5.9	5.3	5.7	5.0	3.2	3.1	2.9	1.5	1.5	0.6	1.0	2.5	5.9	
2	0.7	0.4	0.5	0.6	0.9	0.8	0.8	0.8	1.4	2.7	3.2	3.2	4.4	5.2	6.0	5.8	5.4	4.7	4.0	2.5	2.7	3.4	3.2	2.0	2.7	6.0	
3	0.5	0.8	0.9	0.9	0.7	0.4	0.6	0.7	1.6	3.2	4.4	4.4	5.3	7.2	7.4	7.1	6.0	5.2	3.9	3.3	2.5	1.7	1.4	0.7	3.0	7.4	
4	0.6	0.8	0.4	0.6	0.1	0.3	0.8	1.2	1.1	3.3	4.5	5.2	5.5	6.1	6.7	6.8	6.2	5.2	3.4	3.0	2.9	2.3	2.6	2.2	3.0	6.8	
5	2.3	2.5	1.7	1.1	0.2	0.8	0.1	0.2	1.9	4.3	4.5	4.5	5.3	5.7	5.4	5.7	5.6	5.7	4.5	4.7	3.7	2.9	9.0	1.5	3.2	5.7	
6	0.2	2.6	1.2	1.2	1.3	1.2	0.7	1.0	2.2	3.0	3.4	4.4	5.6	5.8	6.7	6.5	6.3	6.3	4.9	3.3	4.0	1.9	1.2	1.0	3.2	4.7	
7	0.8	2.0	2.0	1.1	0.6	1.3	1.4	1.3	1.2	2.0	3.6	4.5	5.2	6.9	8.5	8.0	7.1	6.7	5.6	7.1	2.3	1.8	2.0	1.2	3.5	8.5	
8	0.6	1.7	1.9	1.8	0.6	0.3	0.6	1.5	2.5	3.3	3.6	5.7	5.4	5.6	6.0	6.5	6.3	5.4	4.4	4.5	2.8	3.6	2.7	1.5	3.3	6.5	
9	1.9	1.7	1.0	0.8	0.8	1.0	1.0	1.2	0.8	0.8	4.5	5.4	5.6	6.0	6.5	6.3	5.4	4.4	4.5	2.8	3.6	2.7	1.5	3.3	6.5		
10	1.3	0.9	0.7	0.3	0.2	0.8	0.7	0.4	0.8	0.7	4.1	5.1	7.6	7.2	7.2	10.0	7.2	5.1	7.3	7.0	6.0	5.0	2.3	2.3	3.9	10.0	
11	2.3	1.8	2.0	1.7	1.6	0.6	0.7	1.7	0.9	0.9	4.5	5.4	5.3	5.3	5.2	5.1	5.4	4.4	4.2	2.9	1.8	1.1	1.1	1.6	2.8	5.4	
12	1.6	2.4	2.5	2.2	2.7	3.0	3.1	2.9	3.2	2.9	1.7	1.5	5.7	6.5	5.8	5.1	4.2	3.9	2.8	1.4	1.2	1.6	2.0	1.8	2.9	5.8	
13	1.9	1.8	2.0	2.0	1.7	1.5	1.8	0.9	0.8	0.2	3.8	4.4	4.1	4.4	5.2	5.5	5.2	4.7	4.4	4.0	3.5	2.4	2.2	1.0	2.9	5.5	
14	1.1	0.9	1.2	0.7	0.5	0.9	0.7	0.5	0.5	1.7	4.2	4.6	4.2	4.4	4.1	4.4	4.5	4.7	4.4	3.6	3.3	1.8	2.0	1.8	2.5	4.7	
15	1.1	0.9	0.8	1.4	1.9	1.4	1.2	2.1	0.7	0.9	2.3	5.1	5.3	4.6	5.0	5.1	4.8	3.5	1.2	0.9	1.6	1.3	0.5	0.7	2.3	5.3	
16	0.3	1.1	0.4	0.5	1.2	0.5	1.2	0.6	0.7	0.8	1.6	3.4	5.2	4.4	[CA]	[CA]	4.3	3.6	3.2	3.1	2.0	1.4	1.0	0.5	1.9	5.2	
17	0.6	0.4	0.8	0.1	0.6	0.3	0.3	0.5	0.6	1.5	3.8	4.4	4.9	4.5	4.2	4.3	4.7	4.2	3.9	2.0	3.1	1.2	0.9	0.8	2.2	4.9	
18	0.8	0.8	0.6	0.1	0.7	0.4	1.1	1.0	0.7	0.6	2.6	4.5	5.1	6.2	5.4	6.0	6.1	5.7	4.4	3.2	1.7	1.5	1.6	3.1	2.7	6.2	
19	0.8	0.8	1.1	1.1	0.7	1.0	1.4	0.9	0.9	0.8	4.1	4.6	5.3	5.9	5.7	5.1	5.6	5.1	4.5	4.1	2.5	1.2	0.3	1.2	2.7	5.9	
20	1.5	1.0	0.9	0.1	1.1	0.7	0.5	1.2	0.6	3.1	4.4	5.0	5.2	5.0	5.4	5.1	4.5	4.4	4.2	3.7	3.4	3.2	3.0	1.3	2.9	5.4	
21	0.7	1.4	1.2	0.9	0.4	0.8	0.7	0.2	0.6	0.4	4.6	5.0	6.1	6.0	5.9	5.3	4.9	4.3	4.4	1.5	0.6	1.1	1.0	1.9	2.5	5.1	
22	2.1	1.6	1.3	1.3	1.2	1.4	1.5	1.4	0.3	0.4	0.6	5.5	5.7	6.0	6.1	5.4	5.8	5.1	2.8	1.8	1.6	1.7	1.4	1.0	2.6	6.1	
23	0.8	0.6	1.0	0.2	0.2	0.4	0.8	1.6	1.7	1.2	2.7	3.0	4.5	4.6	4.2	4.0	2.4	4.0	3.8	3.2	2.5	2.7	1.7	0.8	2.2	6.1	
24	0.7	0.7	0.2	0.5	0.8	0.3	1.6	2.0	1.6	0.9	0.7	3.6	5.2	4.8	4.1	6.6	4.6	5.1	2.7	2.4	1.7	0.6	1.3	0.6	1.8	8.0	
25	2.1	2.2	1.0	1.3	2.3	3.1	2.2	2.0	2.2	2.1	2.2	1.5	1.6	1.2	1.7	2.3	4.7	3.8	3.9	4.5	3.7	3.7	3.7	4.0	2.8	2.6	4.7
26	3.9	2.0	1.8	1.3	1.1	1.2	2.0	2.9	2.3	2.1	2.1	1.9	3.8	3.1	4.2	5.4	5.0	4.0	4.2	3.0	2.7	3.1	2.5	2.3	2.9	5.4	
27	2.9	2.7	1.5	0.8	1.2	0.8	1.2	1.0	0.6	0.6	2.6	4.2	5.0	4.8	4.7	4.9	4.2	4.0	3.3	2.5	1.5	1.2	0.5	0.9	2.4	5.0	
28	0.7	0.6	0.2	1.2	0.9	0.6	0.4	0.9	0.9	0.9	1.0	4.7	5.1	4.9	5.1	5.1	4.1	3.4	2.1	0.5	0.5	1.3	0.9	1.4	2.0	5.1	
29	1.2	1.4	0.1	1.1	1.3	1.3	1.4	1.5	1.9	1.1	2.4	4.4	5.3	5.5	4.8	4.7	4.0	3.0	3.7	2.8	1.7	0.9	0.4	0.9	2.4	5.5	
30	0.9	0.5	0.8	0.3	0.2	0.4	0.8	1.0	0.4	3.7	4.0	3.8	4.5	5.1	5.1	5.3	5.1	4.4	3.8	3.0	2.5	2.3	0.5	1.1	2.4	5.3	
AV	1.3	1.3	1.1	0.9	1.0	0.9	1.0	1.2	1.2	1.9	3.1	4.3	5.2	5.4	5.6	5.7	5.2	4.6	3.9	3.2	2.4	2.1	1.6	2.5	2.7		
SD	0.8	0.7	0.6	0.6	0.6	0.7	0.7	0.7	1.2	1.2	1.1	1.1	1.2	1.3	1.2	1.0	1.0	1.1	1.5	1.2	1.0	1.0	0.7				
PK	3.9	2.7	2.5	2.2	2.7	3.1	3.1	2.9	3.2	4.3	4.6	5.7	7.6	8.1	8.5	10.0	7.2	6.7	7.3	7.1	6.0	5.0	4.0	3.1		10.0	

RESULTANT DIRECTION [61104]

LAX AIR QUALITY MONITORING PROGRAM, #706211

DEGREES, COMPASS

SITE 1 LAX

SEP, 1997

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

* FINAL DATA *

* AS OF 26/FEB/98 *

CLOCK HOUR [LOCAL STANDARD TIME]

DT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	PREV
1	NW	NW	SW	W	NW	NW	E	WSW	W	WSW	WSW	WSW	WSW	W	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	[VA]
2	N	SSE	WSW	NW	NW	ESE	SE	SW	SW	WSW	WSW	WSW	WSW	W	W	W	W	W	W	W	WSW	WSW	WSW	WSW	WSW
3	W	NW	NW	W	W	N	NW	N	WSW	WSW	W	W	W	W	W	W	W	W	W	W	WSW	WSW	WSW	WSW	WSW
4	S	SSE	SE	SE	S	NE	N	SE	W	W	WSW	W	WSW	W	W	W	W	WSW	WSW	SW	SW	SW	SW	WSW	W
5	W	WSW	WSW	WSW	ESE	N	ESE	SE	WSW	W	N	N	W	WSW	W	W	W	W	W	W	WSW	WSW	WSW	WSW	WSW
6	S	W	NW	W	W	SW	S	SE	WSW	WSW	WSW	WSW	W	W	W	W	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW
7	SW	WSW	W	W	W	WSW	SW	SW	WSW	WSW	WSW	WSW	WSW	W	W	W	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW
8	ESE	NW	ESE	ESE	E	ESE	SW	WSW	WSW	W	W	W	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	(VA)
9	SE	E	E	ESE	E	ESE	E	SE	ESE	S	W	W	W	W	W	W	W	W	W	W	WSW	WSW	WSW	WSW	[VA]
10	S	ESE	NE	ESE	NE	N	NW	NW	WSW	WSW	WSW	W	W	WSW	W	W	WSW	WSW	W	W	WSW	WSW	WSW	WSW	WSW
11	SSE	SE	SSE	SSE	SSE	SE	ESE	E	ESE	WSW	WSW	WSW	WSW	W	W	WSW	WSW	W	W	W	WSW	WSW	WSW	WSW	WSW
12	ESE	E	E	E	E	E	E	ESE	E	ESE	SE	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	[VA]
13	E	E	E	E	E	E	E	ESE	E	ESE	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	[VA]
14	W	W	NW	NW	ESE	ESE	E	N	WSW	W	WSW	WSW	WSW	WSW	WSW	W	W	W	W	W	WSW	WSW	WSW	WSW	WSW
15	SSE	SE	S	S	WSW	NW	NW	WSW	W	SSE	WSW	WSW	WSW	W	W	W	W	W	W	W	WSW	WSW	WSW	WSW	WSW
16	WSW	W	NW	NW	W	NW	NW	WSW	WSW	WSW	WSW	WSW	WSW	W	[CA]	[CA]	W	W	W	W	WSW	WSW	WSW	WSW	[VA]
17	WSW	WSW	WSW	WSW	E	N	E	SW	ESE	SW	WSW	W	WSW	WSW	W	W	W	W	W	W	WSW	WSW	WSW	WSW	WSW
18	ESE	ESE	WSW	WSW	N	N	N	N	ESE	W	WSW	WSW	WSW	W	W	W	W	W	W	W	WSW	WSW	WSW	WSW	[VA]
19	SW	SSE	ESE	E	E	ESE	ESE	E	SE	S	WSW	WSW	WSW	WSW	WSW	W	W	W	W	W	WSW	WSW	WSW	WSW	[VA]
20	WSW	WSW	N	E	W	E	ESE	ESE	E	SE	S	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW
21	ESE	ESE	E	E	WSW	WSW	E	ESE	ESE	E	SE	S	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW
22	E	NE	ESE	E	ESE	E	E	ESE	ESE	E	SE	S	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	[VA]
23	E	E	E	E	ESE	ESE	ESE	E	ESE	ESE	E	SE	S	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	[VA]
24	N	N	NW	NW	NW	NW	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	[VA]
25	E	NE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	[VA]
26	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW
27	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW
28	E	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	[VA]
29	E	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	[VA]
30	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW
PT	[VA]	ESE	E	E	[VA]	[VA]	ESE	[VA]	[VA]	WSW	WSW	WSW	WSW	W	W	W	W	WSW	W	W	WSW	WSW	[VA]	[VA]	

OU004 [Program: EDMS_MONTSUM]

Version: LC:15-OCT-93]

RESULTANT DIRECTION [61104]

LAX AIR QUALITY MONITORING PROGRAM, #706211

DEGREES, COMPASS

SITE 1 LAX

SEP, 1997

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

* FINAL DATA *

* AS OF 26/FEB/98 *

CLOCK HOUR [LOCAL STANDARD TIME]

DT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	PREV	
1	326	316	223	280	315	339	82	250	266	253	245	257	256	259	236	252	248	253	250	255	337	337	334	320	[VA]	
2	360	354	298	309	340	108	142	194	226	253	247	257	258	261	263	262	263	259	262	261	256	250	252	254	12	
3	269	346	336	273	271	350	304	349	249	256	260	259	261	265	257	264	265	261	253	255	247	245	170	181	13	
4	169	162	130	127	171	35	367	135	276	267	256	259	254	262	264	264	260	256	241	217	227	223	204	246	13	
5	259	255	257	250	119	8	67	134	249	267	260	259	259	258	262	260	263	262	260	266	256	247	253	193	13	
6	177	281	287	266	280	229	170	138	257	248	252	253	259	262	263	260	258	254	252	246	248	209	181	203	12	
7	192	255	262	261	268	243	219	218	253	254	255	257	258	265	263	262	258	252	248	257	268	198	175	168	12	
8	111	67	77	61	82	116	192	242	246	260	259	263	254	258	257	255	253	247	250	255	249	253	252	154	[VA]	
9	133	56	83	62	82	77	83	127	121	175	261	262	265	266	265	263	265	258	259	259	254	244	192	184	[VA]	
10	178	76	48	107	25	355	341	336	281	254	256	261	268	237	260	262	249	254	261	266	259	251	229	164	12	
11	163	134	161	149	160	124	112	82	99	122	257	250	258	258	258	264	265	252	265	273	272	14	9	74	12	
12	66	83	89	88	82	97	95	97	104	98	110	146	257	255	258	251	256	253	251	216	206	153	126	112	[VA]	
13	88	84	89	86	76	51	82	95	58	243	253	258	254	254	255	263	262	260	258	266	237	240	241	262	[VA]	
14	263	270	325	329	74	64	85	9	335	276	254	257	252	258	257	261	262	261	260	253	263	234	186	195	13	
15	166	143	175	185	250	342	285	245	268	177	199	242	253	259	259	265	264	263	236	272	253	343	349	210	23	
16	289	274	333	340	275	320	347	333	339	37	225	257	261	261	(CA)	(CA)	260	269	266	268	243	235	326	214	[VA]	
17	243	44	48	53	101	9	80	229	118	192	248	261	255	257	261	267	262	259	264	276	250	246	206	235	13	
18	78	74	323	50	9	2	355	358	6	69	268	257	258	258	264	263	266	263	258	263	266	227	189	191	256	[VA]
19	195	113	77	101	80	73	64	91	138	180	258	243	249	254	257	257	264	265	266	265	253	194	80	94	(VA)	
20	314	319	359	84	1	84	18	12	321	245	255	260	259	254	262	257	260	254	257	266	254	257	261	257	250	12
21	75	77	95	100	258	47	66	101	133	198	256	263	260	264	258	259	260	257	262	275	290	128	101	95	(VA)	
22	80	53	72	86	76	86	88	113	40	39	203	259	257	261	261	266	266	266	263	207	161	119	79	63	(VA)	
23	63	98	91	179	31	61	66	83	150	258	252	251	245	270	260	265	284	259	266	263	262	260	297	309	(VA)	
24	358	354	339	327	326	344	70	43	85	70	245	262	261	262	274	273	268	229	148	199	291	331	338	93	(VA)	
25	80	43	12	58	51	39	336	131	91	101	92	49	13	9	303	265	247	248	252	259	257	246	241	244	12	
26	252	228	190	192	133	107	106	109	117	137	138	188	259	248	259	260	262	259	257	246	240	243	244	12		
27	248	250	258	69	89	83	65	79	38	284	260	255	255	260	256	265	263	266	255	259	234	191	147	104	12	
28	85	19	69	100	107	85	42	81	136	155	219	264	259	259	260	269	259	257	211	176	148	23	63	85	(VA)	
29	84	59	85	199	113	99	57	174	129	120	236	256	259	261	265	261	261	234	262	261	254	224	315	280	12	
30	255	307	262	231	19	126	111	93	175	254	268	262	258	259	263	255	257	255	260	258	252	232	189	82	12	
EV [VA]	4	5	5	[VA]	[VA]	4	[VA]	[VA]	12	12	12	12	12	13	13	13	13	13	12	13	13	12	12	[VA]	[VA]	

SIGMA THETA STABILITY [61191]

LAX AIR QUALITY MONITORING PROGRAM, #706211

DEGREES, COMPASS

SITE 1 LAX

SEP, 1997

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 26/FEB/98 *

CLOCK HOUR [LOCAL STANDARD TIME]

DT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK	
1	6	6	6	6	6	6	1	1	1	2	2	4	4	4	4	4	3	3	4	4	6	6	6	6	4	6	
2	6	6	6	6	6	6	1	1	1	1	3	2	3	4	4	4	4	4	4	5	4	5	5	5	4	6	
3	6	6	6	6	6	6	1	1	1	2	3	3	4	4	4	4	4	4	4	4	5	6	6	6	4	6	
4	6	6	6	6	6	6	1	1	1	2	4	3	4	4	4	4	4	4	4	4	4	6	6	6	4	6	
5	4	4	4	4	4	5	6	1	1	1	3	3	3	4	4	4	4	4	4	4	4	6	6	6	4	6	
6	6	6	6	6	6	6	6	1	1	2	2	3	3	4	4	4	4	4	4	4	4	4	4	6	4	6	
7	6	6	6	6	6	6	5	2	1	1	2	2	3	3	4	4	4	4	4	4	4	6	6	6	4	6	
8	6	6	6	6	6	6	1	1	1	2	2	2	3	3	4	4	4	4	4	4	6	6	6	6	4	6	
9	5	4	3	6	5	5	2	1	1	1	1	3	4	4	4	4	4	4	4	4	4	4	4	4	4	6	
10	6	6	6	6	6	6	1	1	1	1	2	3	3	4	4	4	4	4	4	4	4	5	6	5	4	6	
11	5	5	4	6	5	6	1	1	1	1	3	3	3	3	4	4	4	4	4	4	4	4	6	5	4	6	
12	4	4	4	4	4	4	4	3	3	2	1	1	4	4	4	4	4	4	4	4	6	6	6	5	4	6	
13	4	5	5	5	5	5	6	1	1	1	3	3	3	3	4	3	3	3	4	5	6	6	6	4	4	6	
14	6	6	6	6	6	6	1	1	1	1	3	4	4	4	3	3	3	4	4	4	4	4	4	6	4	6	
15	6	6	6	6	6	6	6	2	1	1	2	3	3	4	3	4	3	4	4	4	6	6	5	4	4	6	
16	6	6	6	6	6	6	6	1	1	1	1	2	4	3	1	1	6	6	6	6	6	6	5	6	5	6	
17	6	6	6	6	6	6	6	1	1	1	3	3	4	4	4	1	4	4	4	4	6	6	6	4	4	6	
18	6	6	6	6	6	6	6	2	1	1	1	1	4	4	4	4	4	4	4	6	6	6	6	4	4	6	
19	6	6	4	6	6	6	5	3	1	1	1	3	3	3	4	3	3	3	4	4	6	6	6	4	4	6	
20	6	6	6	6	6	6	6	1	1	1	2	3	3	3	3	3	3	4	4	4	4	6	6	5	4	6	
21	6	4	4	6	6	6	6	1	1	1	1	4	3	4	4	4	4	4	4	4	4	4	6	4	4	6	
22	4	5	5	5	5	5	6	1	1	1	1	4	3	4	4	4	4	4	4	4	6	6	6	4	4	6	
23	5	6	6	6	6	6	1	1	1	1	1	3	4	4	4	4	4	4	4	4	6	6	6	4	4	6	
24	6	6	6	6	6	6	6	1	1	1	2	2	3	3	3	3	1	4	4	4	5	4	6	6	4	6	
25	5	6	6	6	6	4	5	6	6	1	1	1	1	1	2	4	3	4	5	6	6	6	6	5	4	6	
26	5	6	6	5	6	5	5	5	3	1	1	1	1	1	2	4	4	4	4	4	4	4	4	4	4	6	
27	4	4	4	5	6	4	6	3	1	1	1	1	2	2	3	4	4	4	4	4	4	4	4	4	5	4	6
28	6	6	6	5	6	6	1	1	1	1	1	1	3	4	3	4	3	4	4	5	6	6	6	6	4	6	
29	4	4	6	5	6	6	3	1	1	1	1	2	3	4	3	3	4	3	4	6	6	6	6	4	4	6	
30	6	6	6	6	6	6	6	1	1	3	3	3	3	3	4	4	4	4	4	4	6	6	6	5	4	6	
AV	5	5	5	6	6	6	3	1	1	1	2	3	4	4	4	4	4	4	4	5	5	5	5	5	4		
SD	1	1	1	1	1	1	2	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
PK	6	6	6	6	6	6	6	6	3	3	4	4	4	4	4	4	4	5	6	6	6	6	6	6	6	6	

00000 [Program: EDMS_MONTHSUM]

Version: LC:15-OCT-93]

TEMPERATURE [62101]

LAX AIR QUALITY MONITORING PROGRAM, #706211

DEGREES CENTIGRADE

SITE 1 LAX

LEVEL HEIGHT : 9 METERS

SEP, 1997

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 26/FEB/98 *

CLOCK HOUR [LOCAL STANDARD TIME]

DT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK	
1	22.9	22.8	22.6	22.4	22.1	21.8	22.6	23.8	25.4	26.2	27.5	27.2	27.2	27.3	26.5	25.7	25.3	24.3	23.9	23.7	24.0	23.9	24.2	24.0	24.5	27.5	
2	23.6	23.9	24.0	23.9	23.7	23.9	24.6	25.5	26.5	27.1	27.6	28.6	29.0	28.3	28.3	27.4	27.0	26.3	25.4	25.5	25.2	24.7	24.3	24.3	25.8	29.0	
3	24.6	24.7	24.6	24.2	24.2	24.3	24.9	26.5	28.3	29.2	29.4	29.5	29.6	29.1	28.7	28.6	28.2	27.9	27.2	27.3	27.4	27.6	26.9	26.3	27.1	29.6	
4	26.0	25.6	25.5	25.5	25.7	25.9	26.4	28.3	30.2	30.7	30.8	31.1	30.7	30.3	29.0	28.1	27.5	26.6	26.4	25.9	25.3	24.7	24.3	24.1	27.3	31.1	
5	23.8	23.4	23.4	23.4	23.5	23.9	24.6	26.3	27.4	26.9	26.6	27.0	26.9	26.8	27.3	27.0	26.1	24.8	24.3	24.0	23.8	23.9	23.7	23.6	25.1	27.4	
6	23.6	23.6	23.4	23.3	23.2	22.9	23.1	23.5	24.6	25.3	26.1	25.5	26.4	26.4	26.1	25.7	25.0	24.0	23.5	23.5	23.6	23.5	23.4	23.3	24.3	26.4	
7	23.2	23.1	22.8	22.7	22.7	22.6	22.8	23.5	24.8	25.2	25.5	25.5	26.1	26.6	26.6	25.7	25.3	24.2	23.8	23.7	24.0	23.3	22.8	22.7	24.1	26.6	
8	22.5	22.4	22.4	22.2	22.2	22.4	23.2	24.3	25.3	26.2	26.0	27.3	27.5	27.2	27.9	27.4	27.2	27.3	27.3	26.9	26.2	24.9	24.4	24.4	25.3	28.0	
9	24.0	23.8	23.9	23.9	23.6	23.4	24.1	25.7	27.7	30.0	28.6	27.7	28.9	29.8	30.4	27.1	26.8	27.0	26.0	25.8	24.6	24.9	24.6	24.0	26.0	30.0	
10	23.7	23.7	23.8	23.6	23.7	23.7	24.3	25.7	27.3	27.1	27.3	28.0	28.5	27.8	27.8	27.4	28.5	25.6	24.2	23.6	22.8	22.4	22.3	22.1	25.1	28.5	
11	21.8	21.7	21.5	21.2	21.1	21.1	21.5	22.4	23.5	25.2	25.4	25.2	25.5	24.8	24.6	24.0	24.5	23.3	22.5	22.7	22.7	22.4	22.3	22.2	23.1	25.5	
12	22.1	22.6	23.0	23.2	23.3	23.2	23.2	23.5	23.9	24.9	25.9	26.6	26.3	25.5	24.7	24.2	23.8	23.0	22.8	22.9	22.6	22.6	22.3	21.9	23.7	26.6	
13	21.5	21.8	22.1	22.1	22.0	21.9	22.2	22.5	23.5	24.5	24.8	24.8	25.2	25.2	25.1	24.6	23.7	22.9	22.4	22.2	21.9	21.9	21.6	21.7	23.0	25.2	
14	21.5	21.5	21.3	20.7	20.8	20.5	20.8	22.2	24.6	26.2	26.0	25.0	24.7	25.7	26.1	25.5	24.4	23.8	23.4	23.5	23.4	23.6	23.5	23.3	23.4	26.2	
15	23.2	23.3	23.5	23.4	23.2	27.2	27.5	25.8	26.6	28.7	29.6	28.8	27.5	26.2	26.1	25.7	25.3	24.3	24.4	24.9	25.0	24.8	24.9	24.6	25.6	29.6	
16	24.2	23.7	23.4	23.2	23.2	23.1	23.2	23.9	25.9	27.7	27.9	28.1	[IM]	[IM]	[CA]	[CA]	26.2	24.9	24.8	24.3	24.6	25.0	24.6	23.9	24.8	28.1	
17	23.4	22.9	22.7	22.5	22.6	23.3	23.8	24.7	26.7	28.0	27.7	28.0	28.5	27.6	26.0	25.3	24.6	24.3	23.9	24.1	23.3	23.3	23.3	23.6	24.7	28.5	
18	22.7	22.3	22.4	22.0	21.9	22.1	23.0	24.3	25.8	27.3	27.8	27.8	28.3	28.0	27.6	26.5	25.4	24.1	23.1	23.2	23.3	23.1	23.2	22.9	24.5	28.3	
19	22.9	22.5	22.2	21.8	21.7	21.7	21.9	23.4	24.8	25.9	26.0	26.3	26.4	25.5	25.5	24.9	23.4	22.4	21.9	22.0	21.9	21.8	21.7	21.1	23.3	26.4	
20	20.6	20.6	20.2	19.4	19.3	19.0	19.9	21.0	22.4	23.3	23.4	23.3	23.3	23.3	23.3	23.1	22.7	22.2	22.2	22.0	22.1	22.2	22.2	22.2	23.4	23.4	
21	21.0	21.2	20.9	21.0	20.7	20.7	20.4	21.6	23.7	25.0	25.5	25.4	25.4	25.9	25.9	25.6	24.9	24.6	24.6	24.9	24.9	24.4	23.9	22.8	23.6	26.0	
22	22.5	22.2	22.2	21.5	21.5	21.8	24.6	24.2	24.3	28.5	31.1	30.0	26.1	26.7	26.8	27.2	25.6	24.0	23.9	24.4	24.2	24.1	24.0	23.9	24.7	31.1	
23	23.6	23.4	22.9	22.7	23.1	23.2	24.3	26.8	28.8	29.5	29.8	31.7	31.5	31.2	31.0	30.7	30.3	27.8	26.0	26.2	26.1	24.9	24.5	24.1	26.9	31.7	
24	23.7	24.1	24.2	23.9	23.7	24.3	25.9	28.8	30.7	32.4	33.9	31.1	27.5	26.1	26.3	27.9	29.0	27.2	26.7	26.3	26.5	26.9	27.1	26.8	27.1	33.9	
25	26.8	26.7	26.6	25.9	24.5	24.6	24.9	26.7	28.1	28.3	27.4	25.9	23.7	25.8	26.6	25.7	25.9	26.5	26.1	26.7	26.2	25.1	23.6	23.5	25.9	28.8	
26	23.0	23.2	23.2	22.8	22.9	23.0	23.1	23.2	23.7	24.7	25.2	26.3	25.8	25.9	25.9	24.6	23.8	23.2	23.4	23.6	23.7	23.3	23.0	22.9	23.9	26.3	
27	22.8	22.8	22.7	22.3	21.8	22.6	22.6	23.3	24.5	26.3	27.2	27.2	25.9	25.7	26.1	25.8	25.7	25.1	24.8	24.8	25.0	24.7	24.9	24.7	24.5	27.4	
28	24.5	24.5	24.2	23.5	23.6	24.4	23.8	25.0	26.6	29.8	32.4	29.1	27.5	27.7	27.7	27.2	26.5	25.4	25.1	25.1	25.3	25.7	25.1	25.0	24.8	26.0	32.4
29	24.7	25.0	24.8	24.4	24.4	24.4	24.5	24.7	25.4	26.2	27.6	28.5	27.7	26.6	25.6	25.3	25.2	24.3	23.7	22.6	22.7	22.7	23.0	23.8	23.6	24.9	28.5
30	23.6	23.9	23.9	24.0	24.0	24.0	24.1	24.4	25.1	24.9	24.9	25.1	24.9	24.6	24.3	23.7	23.2	22.9	23.0	23.1	23.2	23.4	23.6	23.6	24.0	25.1	
AV	23.3	23.2	23.1	22.9	22.8	23.0	23.5	24.5	25.9	27.1	27.6	27.3	26.9	26.8	26.6	26.1	25.6	24.8	24.3	24.3	24.2	24.0	23.8	23.5	24.8		
SD	1.3	1.3	1.3	1.4	1.3	1.6	1.7	1.8	2.0	2.1	2.4	2.0	1.9	1.8	1.6	1.6	1.8	1.6	1.5	1.5	1.4	1.3	1.3				
PK	26.8	26.7	26.6	26.5	25.7	27.5	28.3	30.7	32.4	33.9	31.7	31.5	31.2	31.0	30.7	30.5	27.8	27.3	27.3	27.3	27.4	27.6	27.1	26.8		33.9	

SOLAR RADIATION [63301]

WATTS PER SQUARE METER

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

SEP, 1997

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 26/FEB/98 *
*

CLOCK HOUR [LOCAL STANDARD TIME]

DX	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG PEAK	
1	0	0	0	0	0	9	151	383	547	727	849	896	933	843	617	530	287	107	3	0	0	0	0	0	205	933
2	0	0	0	0	0	8	99	291	398	614	762	908	906	688	688	520	286	93	2	0	0	0	0	0	261	908
3	0	0	0	0	0	5	120	209	401	642	739	874	942	806	524	521	280	87	2	0	0	0	0	0	256	942
4	0	0	0	0	0	8	124	203	461	679	827	878	905	819	695	512	273	83	1	0	0	0	0	0	273	905
5	0	0	0	0	0	7	131	324	522	704	842	913	908	838	700	520	269	80	0	0	0	0	0	0	281	923
6	0	0	0	0	0	5	67	142	499	708	838	911	913	842	705	511	265	79	0	0	0	0	0	0	270	913
7	0	0	0	0	0	6	130	334	551	726	865	940	937	862	722	521	261	81	0	0	0	0	0	0	289	940
8	0	0	0	0	0	7	137	332	539	718	849	923	918	836	701	493	242	71	0	0	0	0	0	0	282	923
9	0	0	0	0	0	5	126	327	527	693	829	901	899	830	687	487	237	73	0	0	0	0	0	0	276	901
10	0	0	0	0	0	6	121	323	514	690	823	890	901	839	695	487	232	70	0	0	0	0	0	0	275	901
11	0	0	0	0	0	5	138	350	527	710	837	912	923	844	697	477	224	65	0	0	0	0	0	0	280	923
12	0	0	0	0	0	2	36	92	227	668	812	899	897	827	681	460	212	64	0	0	0	0	0	0	245	899
13	0	0	0	0	0	2	43	175	512	713	843	919	919	842	694	462	213	65	0	0	0	0	0	0	267	919
14	0	0	0	0	0	3	87	202	549	876	791	496	408	622	671	344	137	28	0	0	0	0	0	0	209	791
15	0	0	0	0	0	1	45	155	513	684	843	900	732	597	574	344	212	49	0	0	0	0	0	0	235	900
16	0	0	0	0	0	1	56	116	255	329	405	694	537	467	[CA]	[CA]	76	23	0	0	0	0	0	0	134	694
17	0	0	0	0	0	2	54	293	325	500	606	648	778	410	237	145	128	46	0	0	0	0	0	0	174	778
18	0	0	0	0	0	3	143	187	267	422	676	868	857	791	656	467	229	52	0	0	0	0	0	0	234	868
19	0	0	0	0	0	1	102	319	425	580	815	868	873	806	657	448	195	49	0	0	0	0	0	0	296	873
20	0	0	0	0	0	1	114	321	518	690	835	898	891	812	656	457	216	46	0	0	0	0	0	0	268	898
21	0	0	0	0	0	1	117	331	501	675	819	894	875	809	655	451	209	44	0	0	0	0	0	0	266	894
22	0	0	0	0	0	1	49	248	496	665	799	858	841	780	640	436	194	40	0	0	0	0	0	0	252	858
23	0	0	0	0	0	0	91	290	487	651	783	860	831	765	611	400	173	30	0	0	0	0	0	0	249	860
24	0	0	0	0	0	0	44	282	396	399	425	236	215	239	221	128	68	6	0	0	0	0	0	0	111	425
25	0	0	0	0	0	0	9	51	112	136	108	159	189	317	230	106	117	16	0	0	0	0	0	0	65	317
26	0	0	0	0	0	0	65	136	211	354	393	765	727	716	564	368	153	20	0	0	0	0	0	0	186	765
27	0	0	0	0	0	0	84	263	453	614	758	831	820	738	588	381	178	29	0	0	0	0	0	0	239	831
28	0	0	0	0	0	0	87	275	469	644	760	829	820	740	554	382	177	26	0	0	0	0	0	0	242	829
29	0	0	0	0	0	0	81	256	433	627	743	819	813	737	597	383	176	23	0	0	0	0	0	0	237	819
30	0	0	0	0	0	0	36	196	436	583	743	804	794	705	479	319	103	16	0	0	0	0	0	0	217	804
AV	0	0	0	0	0	3	90	249	436	607	734	806	796	725	601	416	201	52	0	0	0	0	0	0	237	
SD	0	0	0	0	0	3	39	85	116	143	176	190	199	164	141	117	61	27	1	0	0	0	0	0	0	
PK	0	0	0	0	0	9	151	353	551	727	865	940	942	862	722	530	287	107	3	0	0	0	0	0	0	942

00000 [Program: EDMS_MONTHSUM]

Version: LC:15-OCT-93]

SIGMA WS [70012]

DEGREES, COMPASS

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

SEP, 1997

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 26/FEB/98 *
*

CLOCK HOUR [LOCAL STANDARD TIME]

DX	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG PEAK	
1	18	20	62	42	36	26	68	21	44	20	21	11	11	11	10	14	19	15	17	28	17	40	23	25	68	
2	43	55	48	57	49	38	42	44	38	21	16	20	16	10	13	10	13	24	17	7	7	17	26	57		
3	31	38	19	26	46	49	42	44	39	21	15	13	9	9	9	13	12	9	16	19	25	38	36	24	49	
4	38	33	39	28	69	44	32	36	47	17	12	12	9	11	10	9	10	24	18	17	26	20	18	24	68	
5	11	8	9	10	62	26	70	70	35	16	16	12	11	11	11	8	11	11	13	13	8	36	21	70		
6	72	18	34	30	35	39	47	39	24	19	16	15	13	12	10	10	10	9	10	16	12	30	25	21	72	
7	22	19	9	23	36	15	21	29	46	22	17	16	13	11	9	11	9	8	10	13	29	20	14	17	48	
8	40	10	11	19	52	56	41	29	17	19	20	12	11	12	10	12	12	10	10	12	12	10	11	22	19	56
9	17	11	16	22	14	13	19	33	50	59	13	12	11	12	9	9	11	10	9	15	23	15	23	13	18	59
10	25	22	20	40	52	28	28	58	52	17	14	13	10	10	10	7	10	10	7	7	9	8	24	13	21	58
11	12	14	12	19	15	45	44	26	51	58	22	13	13	14	12	11	10	10	13	16	29	32	19	13	22	58
12	11	15	15	10	12	11	12	16	18	29	43	54	11	11	10	13	15	10	22	27	34	26	15	11	18	54
13	9	18	17	15	12	16	18	43	55	78	19	14	17	14	11	13	11	9	9	12	17	12	10	28	78	
14	27	40	36	37	49	19	18	34	48	37	12	11	12	12	14	15	13	9	13	13	22	31	13	12	23	49
15	21	33	26	25	22	22	29	18	54	50	41	17	12	10	13	12	14	15	45	44	26	32	42	43	28	54
16	63	33	47	41	28	47	27	43	46	49	40	17	11	14	[CA]	[CA]	11	19	13	16	22	21	27	52	31	63
17	48	55	27	74	30	46	58	58	55	35	22	14	11	12	10	11	12	6	13	24	14	38	27	35	31	74
18	31	39	35	72	38	37	18	25	48	58	27	12	11	12	10	11	10	9	13	15	32	20	28	15	26	72
19	48	25	9	20	20	17	13	34	45	58	17	17	13	13	12	14	13	10	13	15	18	30	61	14	23	61
20	36	24	39	68	17	25	50	23	48	20	15	14	14	15	14	13	13	9	8	12	16	8	33	23	66	
21	31	8	10	38	52	33	37	68	52	69	11	14	17	11	10	11	12	12	10	23	43	31	34	9	27	69
22	10	17	26	15	24	18	19	26	65	66	67	13	12	11	11	11	8	19	31	25	23	14	10	23	67	
23	17	30	16	56	56	38	37	26	24	55	20	18	19	14	14	12	26	12	13	14	20	15	26	36	25	56
24	21	24	70	47	40	54	29	19	26	40	61	16	11	6	11	15	12	30	26	38	59	29	32	20	31	70
25	16	24	28	19	17	31	24	73	32	23	27	25	48	44	19	10	9	12	12	15	12	12	9	5	23	73
26	7	25	17	14	31	16	13	14	23	22	24	44	18	25	19	11	11	9	10	12	15	11	6	7	17	44
27	8	14	4	40	8	18	17	22	55	59	26	13	11	14	12	13	13	13	14	21	35	16	51	19	21	59
28	20	31	60	16	23	22	44	26	45	44	52	12	10	13	10	10	13	13	28	52	55	41	48	10	29	60
29	10	12	27	13	18	18	12	33	26	47	36	17	12	12	12	13	11	16	28	13	12	23	32	61	25	61
30	20	47	41	67	71	67	46	40	70	15	18	18	16	13	12	10	11	9	13	16	9	30	44	17	30	71
AV	26	25	28	33	34	31	33	36	42	38	25	17	14	13	12	21	12	12	15	19	24	22	26	21	24	
SD	17	13	17	20	18	15	16	16	14	19	15	9	7	7	3	2	3	5	8	10	12	10	16	12		
PK	72	55	70	74	71	67	70	73	70	78	67	54	48	44	15	25	26	30	45	52	59	41	61	52		78

DEGREES, COMPASS

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

SEP. 1997

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

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*****
*                                     *
*      FINAL DATA                   *
*      AS OF 26/FEB/98              *
*                                     *
*****
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CLOCK HOUR [LOCAL STANDARD TIME]

[illegible]

CU000 [Program: EIMS MONTHEND]

Version: LC:15-OCT-93]

BATTERY VOLTAGE {99034}

VOLTS

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

SEP. 1997

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

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*****
*                                     *
*      FINAL DATA                   *
*      AS ON 26/FEB/98              *
*                                     *
*****
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CLOCK HOUR. [LOCAL STANDARD TIME]

[illegible]

OU000 (PREFACE: KIDNIS MENTISSUM)

Version: IC-15-OCT-03)

SIGMA THETA (CALCULATE) [99090]

LAX AIR QUALITY MONITORING PROGRAM, #706211

DEGREES, COMPASS

SITE 1 LAX

* FINAL DATA *

SEP, 1997

* AS OF 26/FEB/98 *

AEROENVIRONMENT ENVIRONMENTAL SERVICES INC.

CLOCK HOUR [LOCAL STANDARD TIME]

DX	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	21	20	68	54	35	38	80	24	57	21	23	11	11	11	11	10	14	17	13	16	28	18	49	23	28	80
2	60	60	57	87	59	47	47	45	46	24	17	21	17	10	13	11	12	10	13	22	17	7	7	17	30	87
3	39	45	21	35	74	83	54	47	47	50	21	15	13	10	9	9	9	12	12	9	15	19	31	40	40	30
4	41	34	70	34	88	52	46	42	64	18	12	13	9	11	10	9	9	10	24	19	17	28	20	20	29	88
5	12	8	9	9	12	76	28	99	91	52	16	15	13	11	11	11	11	8	11	11	12	13	8	35	24	99
6	90	18	46	39	34	40	54	45	36	21	19	16	13	12	10	10	10	8	10	16	12	32	27	20	27	90
7	41	27	10	24	37	17	21	31	64	23	18	17	13	11	9	11	9	8	10	14	33	21	16	18	21	64
8	63	11	13	10	64	75	56	34	20	19	23	13	11	12	10	12	11	10	10	12	12	10	15	42	24	75
9	17	11	16	23	16	15	19	36	63	63	13	12	11	12	9	9	11	10	9	14	22	16	28	13	20	63
10	27	27	45	56	63	29	31	68	73	19	15	13	10	10	10	7	10	10	7	7	8	8	27	13	25	73
11	13	14	12	20	16	72	56	29	61	76	38	13	14	13	12	10	10	14	16	40	24	22	13	26	76	
12	11	15	15	10	12	11	12	16	15	31	53	58	11	11	10	13	15	10	21	29	33	28	15	12	19	58
13	10	16	17	16	13	17	20	56	70	89	20	14	17	15	12	13	11	9	9	12	17	12	10	31	22	89
14	31	51	32	37	58	19	24	40	60	52	13	12	12	12	14	15	13	9	12	12	20	31	15	13	25	60
15	21	49	43	27	28	27	28	20	67	63	56	18	13	11	13	12	14	14	45	52	25	39	45	60	33	67
16	71	41	52	49	33	66	30	62	90	87	56	21	11	14	[CA]	[CA]	11	19	13	17	22	29	29	61	37	71
17	69	62	31	91	40	54	66	75	67	41	23	14	12	12	11	12	12	8	14	25	14	54	51	55	38	91
18	37	54	36	97	44	45	20	35	52	75	45	12	11	12	10	11	10	9	13	14	30	24	28	17	31	87
19	54	26	9	20	22	15	14	42	58	74	22	18	13	12	12	14	13	10	12	15	17	31	86	14	26	86
20	53	26	54	90	23	25	39	25	58	21	16	15	14	16	14	13	13	9	8	12	17	8	8	49	26	90
21	42	8	10	40	61	43	55	68	69	93	11	14	13	12	10	11	12	11	9	33	52	43	44	9	32	93
22	10	17	27	15	22	18	19	27	75	85	67	13	12	11	11	11	11	8	18	30	28	26	14	11	25	87
23	17	44	17	83	71	47	56	24	27	80	20	18	19	14	14	13	26	11	14	14	20	16	25	37	30	83
24	23	30	90	58	43	71	28	20	27	48	84	19	11	9	12	14	13	32	28	45	76	34	43	23	36	84
25	17	25	37	20	17	32	22	90	34	24	29	26	56	47	20	12	8	11	13	14	12	13	10	25	90	
26	7	23	18	15	23	17	15	14	24	23	26	49	19	27	21	11	11	9	10	12	14	11	8	7	18	49
27	8	12	5	52	8	19	17	24	62	72	31	14	11	14	12	13	13	13	19	36	20	76	21	24	76	
28	30	39	82	16	24	23	58	29	55	63	61	12	10	13	10	10	13	14	30	69	66	41	50	10	34	82
29	11	12	27	13	18	18	13	36	27	60	43	18	12	13	14	12	15	29	14	13	27	40	79	38	25	79
30	27	67	50	76	89	82	64	49	79	15	18	19	16	13	12	10	11	9	13	15	9	31	64	17	36	99
AV	32	30	34	41	41	38	39	42	52	46	30	18	14	14	12	11	12	12	15	21	25	25	32	25	28	
SD	22	17	23	28	25	22	22	22	18	26	21	10	8	7	3	2	3	6	8	14	16	12	22	16		
PK	90	67	82	97	99	82	99	91	78	93	87	58	56	47	21	15	26	32	45	69	76	84	86	61		99

00000 [Program: KIMS_MONTHSUM]

Version: LC:15-OCT-93]

TEMPERATURE 2M HEIGHT [99144]

LAX AIR QUALITY MONITORING PROGRAM, #706211

DEGREES CENTIGRADE

SITE 1 LAX

* FINAL DATA *

SEP, 1997

* AS OF 26/FEB/98 *

AEROENVIRONMENT ENVIRONMENTAL SERVICES INC.

CLOCK HOUR [LOCAL STANDARD TIME]

DX	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	22.6	22.7	22.1	21.6	21.8	21.5	22.6	24.3	26.1	27.4	28.8	28.7	28.7	28.6	27.6	26.8	25.8	24.7	23.6	23.4	24.0	23.9	23.8	23.6	24.8	28.8
2	23.5	23.6	23.9	23.8	23.7	23.7	24.6	25.8	27.1	28.1	28.9	29.9	30.4	29.4	29.5	28.3	27.7	26.6	25.3	25.2	24.8	24.3	23.9	23.7	26.1	30.4
3	24.1	24.5	24.3	23.6	23.4	23.8	24.9	26.8	29.0	30.4	30.7	30.9	31.0	30.4	29.7	29.5	28.8	28.1	27.0	27.0	26.9	27.0	26.5	25.9	27.3	31.0
4	25.4	25.0	25.1	25.0	25.1	25.3	26.6	28.7	30.8	31.8	32.2	32.5	32.3	31.6	30.2	29.0	28.1	26.8	26.3	25.7	25.1	24.5	24.1	23.8	27.5	32.5
5	23.5	22.9	22.7	22.6	23.0	23.7	24.6	26.5	28.3	28.0	28.1	28.4	28.3	28.2	28.3	27.9	26.7	25.0	24.2	23.9	23.6	23.4	23.3	23.4	25.3	28.4
6	23.5	23.5	23.4	23.1	22.9	22.9	23.1	23.8	25.4	26.4	27.4	26.9	27.6	27.7	27.2	26.6	25.5	24.1	23.3	23.1	23.2	23.2	23.1	22.9	24.6	27.9
7	22.8	22.8	22.6	22.5	22.6	22.1	22.6	24.0	25.4	26.3	26.9	26.9	27.5	27.9	27.8	26.7	25.9	24.3	23.6	23.5	23.7	22.9	22.6	22.2	24.4	27.9
8	22.1	22.2	22.1	22.1	21.6	21.7	23.0	24.7	26.2	27.3	29.4	28.7	29.0	28.5	29.2	28.3	27.6	27.4	26.9	26.5	25.6	24.5	24.0	24.1	25.5	29.4
9	23.6	23.4	23.6	23.5	23.2	23.1	24.1	26.1	28.4	30.9	29.9	29.1	30.4	31.0	29.6	28.0	27.3	27.0	25.7	25.5	24.2	24.4	24.3	23.6	26.2	31.0
10	23.3	23.4	23.6	22.9	23.2	23.3	24.3	26.0	27.9	28.4	28.8	29.4	29.8	29.2	29.0	28.2	27.0	25.7	24.1	23.8	22.6	22.1	21.8	21.9	25.4	29.8
11	21.6	21.3	21.3	20.8	20.7	20.7	21.4	22.7	24.2	26.1	26.6	26.8	27.0	26.2	25.8	25.7	25.0	23.4	22.3	22.5	22.4	22.3	22.2	21.8	24.2	27.0
12	21.8	22.3	22.9	23.1	23.3	23.1	23.3	23.7	24.5	25.9	27.0	27.7	27.8	26.8	25.9	25.2	24.6	23.2	22.4	22.5	22.3	22.4	21.9	21.5	24.0	27.8
13	21.2	21.5	22.0	22.1	21.7	21.9	22.3	22.9	24.2	25.4	26.1	26.2	26.5	26.5	26.3	25.5	24.3	23.0	22.1	21.9	21.4	21.1	20.8	20.6	23.2	28.5
14	21.9	20.7	21.1	20.4	20.4	20.1	20.6	22.2	25.1	27.0	[DM]	[DM]	[DM]	[DM]	[DM]	[DM]	[DM]	[DM]	[DM]	[DM]	[DM]	[DM]	[DM]	[DM]	[DM]	21.9
15	[DM]	[DM]	[DM]	[DM]	[DM]	[DM]	[DM]	[DM]	[DM]	[DM]	[DM]	[DM]	[DM]	[DM]	[DM]	[DM]	[DM]	[DM]	[DM]	[DM]	[DM]	[DM]	[DM]	[DM]	[DM]	[DM]
16	[DM]	[DM]	[DM]	[DM]	[DM]	[DM]	[DM]	[DM]	[DM]	[DM]	[DM]	[DM]	[DM]	[DM]	[DM]	[DM]	[DM]	[DM]	[DM]	[DM]	[DM]	[DM]	[DM]	[DM]	[DM]	[DM]
17	22.6	22.3	22.3	21.7	22.4	23.0	23.8	25.0	27.2	28.7	28.9	29.2	29.8	28.5	26.7	25.8	25.0	24.4	23.8	24.0	22.9	23.1	22.8	21.9	24.8	29.8
18	22.2	21.7	21.7	21.3	21.4	21.6	23.1	24.7	26.2	27.8	28.7	29.1	29.7	29.4	28.8	27.4	25.8	24.0	22.8	22.7	22.7	22.7	22.8	22.2	24.6	29.7
19	22.3	21.9	21.9	21.4	21.4	21.3	21.9	23.7	25.3	26.5	27.2	27.7	28.0	27.0	26.8	25.8	23.9	22.4	21.7	21.4	21.0	21.4	21.2	20.6	23.5	28.0
20	20.1	20.1	19.8	18.6	18.9	18.3	19.9	21.5	22.9	24.3	24.7	24.7	24.7	24.5	24.5	24.1	23.2	22.1	21.7	21.4	21.5	21.4	21.2	21.2	21.9	24.7
21	21.1	20.7	20.3	20.6	20.3	20.7	20.4	22.0	24.3	26.6	25.7	26.8	27.0	27.2	27.1	26.5	25.5	24.5	24.0	24.5	24.3	23.7	23.2	22.3	23.8	27.2
22	22.0	21.9	21.8	21.2	21.4	20.9	21.1	24.4	26.6	29.1	32.0	29.5	27.7	28.2	28.1	28.2	26.2	24.0	23.4	23.9	23.9	23.8	23.3	23.4	24.6	32.0
23	22.9	22.2	22.4	21.8	21.7	21.6	23.3	27.0	29.4	30.3	31.0	32.8	33.0	32.5	32.2	31.6	30.9	27.5	25.6	25.7	25.4	24.1	24.2	23.5	25.8	33.0
24	23.1	23.2	22.7	22.5	22.6	22.3	25.0	28.5	31.2	32.9	34.5	31.1	28.1	26.7	26.7	28.2	29.1	27.2	26.6	26.2	26.4	26.8	26.9	26.7	26.9	34.5
25	26.6	26.5	26.2	25.6	25.0	24.3	24.3	24.3	24.9	25.1	22.8	23.0	24.0	26.3	26.8	25.7	25.9	26.2	25.7	26.6	26.1	24.9	23.5	23.2	23.1	26.8
26	22.5	22.7	22.5	21.9	22.2	22.3	22.5	22.8	23.7	25.0	25.6	27.2	26.9	27.0	27.0	25.5	24.1	22.8	22.7	22.8	22.9	22.4	21.9	21.6	23.7	27.2
27	21.6	21.5	21.2	21.4	21.0	20.9	21.7	22.7	24.6	26.7	28.3	28.4	27.1	26.8	27.3	26.5	25.9	24.6	23.9	23.9	24.1	23.6	23.8	23.6	24.2	28.4
28	23.4	23.2	22.5	22.2	22.2	22.0	22.8	24.5	27.0	30.6	32.3	30.6	29.1	29.1	29.0	28.0	27.1	25.3	24.6	24.9	25.3	24.9	24.5	24.2	25.9	33.0
29	24.0	23.9	23.7	23.1	23.1	23.2	23.6	24.7	26.1	28.1	29.5	29.0	28.1	26.9	26.4	26.0	24.4	23.0	21.9	21.9	21.9	22.2	22.6	22.9	24.6	29.5
30	22.8	23.1	23.0	23.2	23.3	23.4	23.5	24.2	25.3	25.6	26.5	26.1	26.2	25.9	25.5	24.3	23.1	22.2	21.9	22.0	22.0	22.2	22.3	22.4	23.7	26.2
AV	22.8	22.7	22.6	22.3	22.3	22.2	23.0	24.5	26.3	27.7	28.5	28.4	28.4	28.1	27.7	27.0	26.1	24.8	24.0	23.9	23.7	23.5	23.3	22.9	24.6	
SD	1.3	1.4	1.4	1.4	1.4	1.5	1.5	1.9	2.1	2.2	2.7	2.2	2.1	1.8	1.7	1.7	1.8	1.6	1.6	1.6	1.5	1.4	1.4			
PK	26.6	26.5	26.2	25.6	25.1	25.3	26.6	28.7	31.2	32.9	34.5	32.8	31.1	30.2	32.2	31.6	30.9	28.1	27.0	27.0	26.9	26.7	26.9	26.7		34.5

STATION TEMPERATURE [99231] LAX AIR QUALITY MONITORING PROGRAM, #706211
 DEGREES CENTIGRADE SITE 1 LAX
 SEP, 1997
 AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

 *
 * FINAL DATA *
 * AS OF 26/FEB/98 *
 *

CLOCK HOUR [LOCAL STANDARD TIME]

DY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	19.1	19.1	19.2	18.8	18.6	18.4	18.7	21.0	22.9	23.5	24.0	24.4	24.5	24.7	24.8	24.7	24.6	24.2	23.5	22.2	21.4	20.9	20.5	20.2	21.8	24.8
2	20.2	20.1	20.3	20.3	20.3	20.2	21.1	23.2	23.7	23.9	24.1	24.4	24.8	25.1	25.1	25.1	24.8	24.3	23.6	22.7	22.0	21.5	21.0	20.7	22.6	25.1
3	20.4	20.3	20.4	20.2	20.0	19.8	20.3	22.1	23.2	23.8	24.2	24.6	25.0	25.2	25.1	24.9	24.9	24.5	24.0	23.5	23.1	22.9	22.6	22.3	22.8	25.2
4	22.1	21.9	22.0	21.7	21.5	21.3	21.8	23.1	23.7	24.4	25.1	25.4	25.7	25.9	25.9	25.7	25.3	24.8	24.1	23.5	22.9	22.4	22.1	21.7	23.5	25.9
5	21.5	21.2	21.1	20.7	20.4	20.3	20.8	22.6	23.6	24.2	24.5	24.7	24.9	25.1	25.3	25.4	25.2	24.6	23.8	22.9	22.3	21.7	21.3	21.0	22.9	25.4
6	20.9	20.8	20.9	20.7	20.4	20.3	20.0	20.6	21.9	23.2	23.9	24.2	24.3	24.6	24.7	24.7	24.6	24.2	23.0	21.8	21.0	20.6	20.3	20.0	22.1	24.7
7	19.8	19.8	20.0	19.9	19.9	19.8	19.8	21.4	23.1	23.6	23.9	24.0	24.2	24.4	24.6	24.5	24.4	24.2	22.9	21.7	20.9	20.3	19.9	19.6	21.9	24.6
8	19.2	19.0	19.0	18.7	18.6	18.2	18.6	20.8	22.8	23.4	23.9	24.3	24.4	24.7	24.9	25.0	24.8	24.3	23.7	23.0	22.4	21.7	21.2	20.8	22.0	25.0
9	20.3	19.9	19.7	19.2	19.0	19.0	21.1	23.4	24.2	25.7	26.9	26.5	26.4	26.2	25.9	25.6	25.3	24.5	24.0	23.4	22.8	22.4	22.1	23.3	26.9	
10	21.6	21.2	21.2	20.8	20.5	20.4	20.9	22.8	24.1	25.2	25.5	25.9	25.9	25.8	25.7	25.6	25.3	24.8	23.9	22.9	22.1	21.3	20.7	20.3	23.1	25.9
11	20.1	19.9	19.8	19.5	19.1	18.9	19.1	21.2	22.9	23.9	24.7	24.8	25.0	25.1	25.0	25.0	24.7	24.2	23.1	21.9	21.2	20.8	20.5	20.3	22.1	25.1
12	20.2	20.5	21.0	21.2	21.4	21.5	21.6	21.9	22.4	23.5	24.5	25.2	25.6	25.6	25.4	25.1	24.8	24.4	23.5	22.3	21.6	21.2	20.9	20.4	22.7	25.6
13	19.8	19.6	20.0	20.1	20.0	19.8	20.0	20.5	22.0	23.5	24.3	24.5	24.7	25.0	25.1	24.9	24.6	24.2	23.0	21.9	21.1	20.3	19.8	19.3	22.0	25.1
14	18.9	18.6	18.7	18.5	18.2	17.9	18.1	19.1	21.2	23.4	24.5	24.9	24.5	24.7	25.1	25.3	24.6	24.0	23.2	22.5	22.2	21.9	21.7	21.5	21.8	25.3
15	21.3	21.2	21.3	21.2	21.3	21.4	21.5	22.5	23.9	25.0	26.4	26.9	26.4	25.4	25.1	24.8	24.3	24.1	23.2	22.3	21.6	21.2	20.9	20.5	23.1	26.9
16	20.3	20.2	20.4	20.2	20.0	19.8	19.8	20.1	20.8	22.3	23.3	23.8	24.4	24.6	[CA]	[CA]	24.4	24.0	23.3	22.6	22.0	21.3	21.0	20.9	21.9	24.8
17	20.5	20.2	20.2	20.0	19.9	20.2	20.7	21.8	23.7	24.8	25.6	25.8	26.0	26.2	25.4	24.7	24.4	24.3	23.5	22.9	22.5	22.0	21.4	21.0	22.8	26.2
18	20.7	20.7	20.5	20.2	20.0	19.6	19.7	21.5	23.1	24.1	24.8	25.6	26.0	26.1	26.0	25.8	25.3	24.7	23.9	22.9	22.0	21.5	21.2	20.8	22.8	26.1
19	20.6	20.3	20.1	19.7	19.4	19.1	19.3	21.1	23.2	24.0	25.0	25.4	25.5	25.5	25.2	25.2	24.9	24.3	22.8	21.3	20.2	19.5	19.0	18.7	22.2	25.5
20	18.4	18.2	18.5	19.5	19.4	19.6	19.5	20.0	22.3	23.5	24.0	24.1	24.2	24.3	24.4	24.4	24.4	23.9	22.4	21.3	20.8	20.4	20.0	19.6	21.6	24.4
21	19.3	19.0	18.9	18.7	18.0	18.6	19.3	21.7	23.2	23.6	24.0	24.1	24.1	24.3	24.5	24.6	24.5	24.2	23.0	21.9	21.2	20.8	20.5	20.2	21.9	25.0
22	19.2	19.0	19.0	18.9	19.1	19.2	19.1	19.4	21.7	23.3	24.1	24.7	24.7	24.8	25.0	25.0	24.8	24.2	22.7	22.1	21.4	21.2	21.7	21.4	21.9	24.6
23	19.9	19.5	19.2	18.7	18.3	18.1	18.1	19.7	22.3	23.5	24.1	24.6	25.3	25.6	25.8	25.9	25.7	25.1	24.1	23.4	22.7	22.5	22.4	22.4	21.9	24.5
24	20.8	20.2	19.8	19.3	18.6	18.1	18.0	19.2	22.1	23.4	24.1	24.5	24.3	24.0	23.7	23.6	23.6	23.3	22.9	22.5	22.4	22.4	22.4	22.4	21.9	24.5
25	22.6	22.8	22.9	22.7	22.5	22.3	22.0	21.9	22.0	22.3	22.3	22.2	22.3	22.3	22.0	24.0	24.0	23.8	23.7	23.4	23.2	23.2	22.9	22.4	22.0	24.0
26	21.6	21.1	21.0	20.6	20.3	20.0	19.9	20.5	21.3	22.3	23.6	24.1	24.6	24.8	25.1	24.9	24.5	23.7	22.4	21.6	21.1	20.8	20.4	20.0	22.1	25.1
27	19.6	19.5	19.5	19.1	18.8	18.6	18.5	19.7	21.9	23.4	24.1	24.7	25.4	25.5	25.2	25.1	24.8	24.2	23.3	22.3	21.7	21.3	21.0	20.6	22.0	25.5
28	20.3	19.9	19.8	19.4	19.1	18.9	18.7	20.2	22.4	23.6	24.2	25.1	25.2	25.3	25.3	25.0	24.3	23.3	22.6	21.8	21.5	21.3	21.0	20.2	25.3	
29	21.3	21.2	21.2	20.8	20.6	20.4	20.4	21.6	23.1	23.9	24.4	24.9	25.1	25.0	25.0	24.9	24.6	23.9	23.5	21.4	20.8	20.4	20.3	20.4	22.4	25.1
30	20.4	20.3	20.4	20.3	20.3	20.3	20.7	22.2	23.3	23.6	23.8	24.0	24.2	25.1	25.1	25.1	24.0	22.7	21.3	20.5	20.1	19.9	19.7	19.5	21.8	25.1
AV	20.4	20.2	20.2	20.0	19.8	19.7	19.9	21.2	22.7	23.7	24.4	24.7	24.9	25.0	25.1	25.0	24.7	24.2	23.3	22.4	21.8	21.3	20.9	20.6	22.3	
SD	1.0	1.0	1.0	1.0	1.0	1.1	1.1	1.2	0.9	0.8	0.9	0.9	0.8	0.7	0.5	0.5	0.5	0.5	0.6	0.8	0.9	0.9	0.9	0.9	0.9	
PK	22.6	22.8	22.9	22.7	22.5	22.3	22.0	23.4	24.2	25.7	26.9	26.9	26.4	26.4	26.2	25.9	25.7	25.3	24.5	24.0	23.4	22.9	22.6	22.4	26.9	

OU000 [Program: EDMS_MONTHSUM] Version: LC:15-OCT-93]

Delta Temp [99238] LAX AIR QUALITY MONITORING PROGRAM, #706211
 DEGREES CENTIGRADE SITE 1 LAX
 SEP, 1997
 AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

 *
 * FINAL DATA *
 * AS OF 26/FEB/98 *
 *

CLOCK HOUR [LOCAL STANDARD TIME]

DY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK	
1	-0.3	-0.1	-0.5	-0.7	-0.4	-0.3	0.0	0.5	0.7	1.2	1.2	1.5	1.3	1.3	1.2	1.1	0.7	0.3	-0.3	-0.3	0.0	0.0	-0.4	-0.1	0.3	1.5	
2	-0.1	-0.3	-0.1	-0.1	0.0	-0.2	0.0	0.4	0.6	1.0	1.3	1.3	1.4	1.2	1.2	0.9	0.6	0.3	-0.1	-0.2	-0.4	-0.5	-0.5	-0.6	0.3	1.4	
3	-0.5	-0.1	-0.3	-0.6	-0.7	-0.6	0.0	0.3	0.7	1.2	1.3	1.5	1.5	1.3	1.0	0.9	0.5	0.2	-0.2	-0.4	-0.5	-0.6	-0.4	-0.4	0.2	1.5	
4	-0.5	-0.6	-0.4	-0.6	-0.6	-0.5	0.1	0.4	0.6	1.1	1.4	1.4	1.6	1.3	1.2	0.9	0.6	0.2	-0.1	-0.2	-0.2	-0.2	-0.2	-0.3	0.3	1.6	
5	-0.5	-0.6	-0.6	-0.7	-0.5	-0.2	0.0	0.2	0.8	1.1	1.5	1.5	1.4	1.4	1.1	0.9	0.6	0.2	-0.1	-0.1	-0.3	-0.5	-0.4	-0.2	0.2	1.5	
6	-0.1	-0.1	0.0	-0.2	-0.3	-0.5	0.0	0.3	0.8	1.1	1.3	1.4	1.4	1.3	1.2	0.9	0.5	0.2	-0.2	-0.3	-0.4	-0.3	-0.3	-0.4	0.3	1.4	
7	-0.4	-0.2	-0.2	-0.1	-0.1	-0.5	0.0	0.4	0.7	1.1	1.4	1.4	1.5	1.3	1.2	1.0	0.5	0.1	-0.2	-0.2	-0.2	-0.3	-0.2	-0.5	0.3	1.5	
8	-0.4	-0.3	-0.4	-0.2	-0.6	-0.7	-0.1	0.4	0.9	1.1	1.3	1.4	1.5	1.3	1.3	0.9	0.5	0.0	-0.4	-0.3	-0.6	-0.4	-0.4	-0.3	0.2	1.5	
9	-0.4	-0.4	-0.3	-0.3	-0.4	-0.3	0.0	0.5	0.7	0.8	1.4	1.4	1.5	1.2	1.2	0.9	0.5	0.1	-0.3	-0.3	-0.4	-0.6	-0.4	-0.4	0.2	1.5	
10	-0.4	-0.4	-0.3	-0.8	-0.6	-0.4	0.0	0.3	0.6	1.3	1.4	1.4	1.4	1.4	1.2	0.8	0.5	0.1	-0.1	-0.1	-0.2	-0.3	-0.5	-0.3	0.3	1.4	
11	-0.2	-0.4	-0.2	-0.4	-0.4	-0.4	-0.1	0.3	0.7	0.9	1.3	1.5	1.5	1.4	1.2	0.9	0.5	0.1	-0.2	-0.2	-0.3	-0.1	-0.2	-0.4	0.3	1.5	
12	-0.3	-0.2	-0.1	-0.3	0.0	0.0	0.1	0.3	0.6	1.0	1.1	1.1	1.5	1.3	1.2	1.0	0.7	0.2	-0.4	-0.3	-0.4	-0.2	-0.3	-0.4	0.3	1.5	
13	-0.4	-0.3	-0.1	0.0	0.3	0.0	0.1	0.3	0.7	1.0	1.3	1.4	1.4	1.4	1.2	1.0	0.6	0.1	-0.3	-0.3	-0.5	-0.8	-1.0	-0.9	0.2	1.4	
14	-0.6	-0.8	-0.2	-0.3	-0.4	-0.4	-0.2	0.0	0.5	0.8	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	-0.2	0.8
15	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]
16	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]	[IM]
17	-0.8	-0.6	-0.4	-0.7	-0.2	-0.3	0.0	0.3	0.5	0.7	1.2																

CARBON MONOXIDE [42101]

PARTS PER MILLION

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

OCT, 1997

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

* FINAL DATA *

* AS OF 26/FEB/98 *

CLOCK HOUR [LOCAL STANDARD TIME]

DX	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK	
1	0.0	[25]	[25]	0.4	0.3	0.4	0.5	0.7	0.9	1.0	1.3	1.0	0.7	0.6	0.6	1.4	1.4	1.1	1.1	0.9	0.9	0.9	1.0	1.2	0.8	1.4	
2	1.1	[25]	[25]	1.0	1.3	1.4	1.4	1.6	1.6	1.5	1.5	1.5	1.6	[CA]	1.4	1.5	1.4	1.4	1.4	1.2	1.2	1.3	1.3	1.1	1.4	1.6	
3	1.2	[25]	[25]	1.0	1.1	1.6	3.0	1.6	1.3	1.4	1.7	1.5	1.4	1.2	1.4	1.2	1.1	1.3	1.3	1.1	1.0	0.9	0.9	0.9	1.3	3.0	
4	1.0	[25]	[25]	1.4	1.4	1.7	2.8	1.8	2.0	1.7	1.5	1.2	1.3	1.4	1.4	1.5	1.3	0.8	0.8	0.9	1.0	1.0	1.0	0.8	1.3	2.8	
5	0.7	[25]	[25]	0.9	1.0	1.3	1.3	1.6	1.5	1.4	1.4	1.4	1.4	1.4	1.3	1.3	1.0	0.8	0.8	0.7	0.7	0.6	0.8	0.7	1.1	1.6	
6	0.6	[25]	[25]	0.7	0.8	1.1	1.6	2.2	1.7	0.9	0.8	0.7	0.9	0.8	0.8	0.8	0.9	0.8	0.8	0.7	0.6	0.6	0.6	0.2	0.9	2.2	
7	0.4	[25]	[25]	0.4	0.4	0.6	0.9	0.8	0.7	0.9	1.1	1.1	1.2	1.3	1.3	1.4	1.3	0.9	0.6	0.7	0.5	0.6	0.7	1.1	0.9	1.4	
8	0.9	[25]	[25]	0.6	1.0	2.0	3.0	3.1	2.1	1.6	1.4	1.6	1.5	1.5	1.5	1.5	1.6	1.4	1.2	1.1	1.1	1.2	2.1	2.9	1.6	3.1	
9	2.6	[25]	[25]	2.8	2.4	3.4	4.3	4.4	2.3	2.5	2.5	2.1	1.8	1.4	1.2	1.2	1.1	1.0	1.1	1.1	1.4	1.1	1.0	0.7	2.0	4.4	
10	0.7	[25]	[25]	2.4	2.5	2.8	[CA]	[CA]	[CA]	[CA]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	2.8	
11	0.0	[25]	[25]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
12	0.0	[25]	[25]	0.0	0.0	0.6	0.8	0.7	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.3	0.1	0.0	0.0	0.3	1.4	1.5	1.7	2.0	0.4	2.0	
13	1.8	[25]	[25]	1.3	2.1	3.4	5.6	4.1	2.6	1.9	1.0	1.0	0.8	0.9	1.1	0.8	0.5	0.4	0.8	2.2	2.8	4.9	6.2	2.4	2.2	6.2	
14	1.6	[25]	[25]	0.8	1.2	2.4	2.5	2.2	2.6	1.0	0.9	1.0	0.8	1.0	0.7	0.8	0.9	1.0	1.3	2.2	4.1	4.9	3.5	1.4	1.8	4.9	
15	0.8	[25]	[25]	0.7	0.6	0.8	[PA]	[PA]	[PA]	[PA]	1.3	0.8	0.0	0.0	1.1	1.5	1.4	1.4	1.2	1.2	3.0	3.2	4.2	2.8	1.5	4.2	
16	2.6	[25]	[25]	0.6	0.7	0.4	1.4	2.2	1.7	1.9	1.5	1.1	1.5	2.0	1.4	1.0	1.0	1.0	1.1	0.9	1.2	2.7	3.1	2.7	1.5	3.1	
17	4.0	[25]	[25]	3.3	3.9	5.9	6.6	5.4	3.8	2.9	2.2	1.2	1.0	0.9	0.9	0.9	0.8	0.4	0.5	0.1	0.0	1.9	1.4	2.2	6.6		
18	1.9	[25]	[25]	0.8	0.8	0.2	1.3	1.8	2.3	1.5	0.9	0.9	1.0	0.9	0.8	0.7	0.6	0.4	0.3	0.2	0.1	0.0	0.1	0.0	0.8	2.3	
19	0.0	[25]	[25]	0.0	0.0	0.2	0.3	0.4	0.3	0.4	0.4	0.6	0.4	0.4	0.4	0.3	0.3	0.1	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.5	
20	0.0	[25]	[25]	0.0	0.0	0.2	0.4	0.5	0.2	0.1	0.0	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.5	
21	0.5	[25]	[25]	1.0	2.1	1.4	[CA]	[CA]	[CA]	1.1	0.8	0.3	0.3	0.2	0.3	0.3	0.2	0.1	0.0	0.0	0.0	0.1	0.7	1.0	0.5	2.0	
22	0.3	[25]	[25]	0.3	0.7	1.5	2.0	1.9	1.2	0.9	0.3	0.4	0.4	0.4	0.3	0.3	0.2	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.5
23	0.3	[25]	[25]	0.2	0.4	0.6	1.5	1.5	0.8	0.6	0.3	0.3	0.2	0.3	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5
24	0.0	[25]	[25]	0.5	0.6	1.1	1.8	2.3	0.9	0.2	0.2	0.3	0.3	0.3	0.4	0.3	0.1	0.0	0.0	0.2	0.5	1.3	1.2	2.6	3.1	0.8	3.1
25	2.4	[25]	[25]	4.1	4.7	3.4	3.2	2.5	1.9	1.0	0.3	0.4	0.5	0.6	0.7	0.5	0.4	0.4	1.2	2.9	2.1	2.6	4.4	4.1	2.0	4.7	
26	2.4	[25]	[25]	2.4	1.8	1.0	2.2	2.5	1.5	0.5	0.3	0.2	0.3	0.3	0.5	0.4	0.2	0.0	0.1	0.2	0.5	1.5	3.1	2.6	1.1	3.1	
27	2.2	[25]	[25]	1.0	0.9	1.6	3.4	[CA]	[CA]	3.1	1.4	0.9	0.7	0.5	0.5	0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	1.0	3.4
28	3.6	[25]	[25]	2.4	2.2	2.3	3.6	3.5	3.7	2.0	1.0	0.5	0.7	0.6	0.9	0.6	0.2	0.1	0.2	0.2	0.4	1.4	2.9	3.1	1.6	3.7	
29	2.9	[25]	[25]	2.2	2.6	1.9	3.5	3.4	2.8	1.8	1.4	0.7	0.6	0.7	0.7	0.4	0.3	0.1	0.2	0.2	0.2	0.6	2.6	2.2	1.4	3.5	
30	2.8	[25]	[25]	3.9	4.2	4.3	4.1	4.1	3.7	2.8	1.9	1.7	1.3	0.8	0.8	1.3	0.6	0.2	0.1	0.2	0.6	0.6	1.6	3.8	2.1	4.3	
31	2.7	[25]	[25]	4.4	4.9	5.8	5.5	[SC]	[SC]	3.9	3.6	2.8	2.1	1.3	0.8	1.0	1.0	1.0	0.9	0.4	0.9	2.9	5.8	7.2	2.9	7.2	

AV 1.4 [] [] 1.3 1.5 1.6 2.4 2.2 1.7 1.4 1.0 0.9 0.8 0.7 0.8 0.8 0.7 0.5 0.6 0.7 0.9 1.2 1.7 1.7 1.7 1.2
SD 1.2 [] [] 1.3 1.4 1.5 1.7 1.4 1.3 1.0 0.8 0.7 0.6 0.5 0.5 0.5 0.5 0.5 0.5 0.7 1.0 1.3 1.7 1.6
PK 4.0 [] [] 4.4 4.9 5.9 6.6 5.4 3.7 3.9 3.6 2.8 2.1 2.0 1.5 1.6 1.6 1.4 1.4 2.9 4.1 4.9 6.2 7.2 7.2

CU000 [Program: EDMS_MONTESUM]

Version: LC:15-OCT-93]

SULFUR DIOXIDE [42401]

PARTS PER BILLION

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

OCT, 1997

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

* FINAL DATA *

* AS OF 26/FEB/98 *

CLOCK HOUR [LOCAL STANDARD TIME]

IX	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK	
1	0.5	[25]	[25]	0.7	1.1	0.4	0.0	0.5	0.8	1.1	2.6	5.6	4.7	1.8	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.0	0.4	1.0	1.0	5.6	
2	1.0	[25]	[25]	0.7	0.2	0.7	0.1	0.7	0.2	1.5	1.1	0.3	0.2	[CA]	1.3	0.1	0.4	0.2	0.8	1.0	1.2	1.2	2.0	0.0	0.7	2.0	
3	0.0	[25]	[25]	0.1	0.3	0.9	2.1	1.7	1.2	0.2	1.0	4.6	3.4	1.6	0.8	1.8	0.1	0.2	0.7	0.9	0.2	3.5	1.1	0.4	1.2	4.6	
4	0.0	[25]	[25]	0.0	0.0	0.1	0.7	0.0	0.8	0.0	0.1	0.5	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.5	0.4	0.2	0.8	
5	0.0	[25]	[25]	0.2	0.0	0.0	0.1	0.6	1.0	0.7	0.3	0.6	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.6	1.8	1.1	0.4	1.8	
6	0.7	[25]	[25]	2.2	3.0	2.7	2.4	1.6	1.4	0.4	0.0	0.0	0.5	1.9	0.0	0.3	0.7	0.8	2.0	2.2	0.5	0.1	0.1	0.4	1.1	3.0	
7	0.2	[25]	[25]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.9	1.4	1.2	2.7	3.1	2.1	1.6	1.3	0.4	0.0	0.4	0.0	1.0	3.8	
8	0.9	[25]	[25]	1.1	0.8	0.9	1.4	2.0	1.6	0.0	0.0	0.0	1.0	0.4	0.6	0.0	0.6	1.2	2.1	2.3	1.6	1.3	1.5	1.6	1.0	2.3	
9	1.2	[25]	[25]	1.3	0.9	2.0	2.5	2.1	0.5	0.1	4.9	1.8	2.9	1.4	1.1	0.4	0.8	0.0	1.0	1.3	1.7	1.3	0.8	0.2	1.4	4.9	
10	0.0	[25]	[25]	1.0	0.7	1.1	[CA]	[CA]	[CA]	[CA]	0.0	0.0	0.4	0.0	0.0	0.0	0.6	0.0	0.1	0.4	0.4	1.4	3.5	2.1	0.7	3.6	
11	0.2	[25]	[25]	0.0	0.0	0.5	0.3	0.3	0.0	0.0	0.0	0.0	0.2	1.6	0.9	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.6	
12	0.0	[25]	[25]	0.1	0.0	0.5	1.0	0.7	0.0	1.3	0.4	3.8	3.3	0.0	0.0	0.4	0.0	0.0	0.8	4.4	2.1	1.6	1.9	2.2	1.1	4.4	
13	2.1	[25]	[25]	2.1	2.0	3.7	5.0	3.3	2.2	2.1	5.5	6.6	2.6	2.9	3.4	1.8	1.2	2.3	6.2	2.9	1.3	3.3	5.0	2.3	3.2	6.6	
14	1.7	[25]	[25]	2.1	2.6	3.3	2.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.5	0.0	0.4	3.1	3.0	7.5	3.2	3.0	1.8	0.0	1.7	7.5
15	0.0	[25]	[25]	0.2	0.1	0.1	[PA]	[PA]	[PA]	[PA]	0.0	0.0	0.6	2.1	5.8	6.4	3.8	3.8	3.2	8.1	4.2	5.2	5.9	3.9	3.2	8.1	
16	2.6	[25]	[25]	0.9	0.8	0.1	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	2.0	8.6	4.1	4.8	4.2	7.3	4.4	5.9	3.2	3.2	4.4	2.6	8.6
17	4.8	[25]	[25]	5.3	5.9	8.0	7.2	4.3	1.2	0.7	2.6	4.3	5.1	2.6	0.9	3.8	1.6	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	2.7	8.0
18	0.0	[25]	[25]	1.0	0.6	0.0	0.3	0.3	0.5	4.5	5.9	2.9	1.9	1.0	0.4	0.0	0.0	0.1	0.0	0.5	0.4	0.3	0.0	0.0	0.0	0.9	5.9
19	0.6	[25]	[25]	3.2	2.6	2.7	5.2	8.1	1.9	5.9	7.6	6.7	2.7	1.4	0.9	0.0	0.0	0.0	0.5	0.5	1.5	0.6	0.4	0.0	2.4	8.1	
20	0.0	[25]	[25]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	3.1	0.8	1.1	0.8	0.0	0.0	0.0	0.1	0.1	0.2	0.7	1.7	0.5	0.0	0.5	3.1
21	0.0	[25]	[25]	0.6	1.3	0.6	[CA]	[CA]	[CA]	1.3	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.6	0.6	0.5	0.4	1.3	
22	0.0	[25]	[25]	1.1	1.1	0.8	1.2	1.0	0.8	2.5	3.1	2.5	3.6	1.6	2.6	3.0	0.2	1.8	1.4	3.4	2.2	0.0	0.0	0.0	1.5	3.6	
23	0.0	[25]	[25]	0.0	0.0	0.0	0.0	0.2	1.4	1.5	0.0	0.5	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.9	0.6	0.0	0.0	0.0	0.2	1.5	
24	0.0	[25]	[25]	0.0	0.0	0.0	0.4	1.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.9	0.0	0.3	1.6	1.2	0.3	1.6		
25	1.3	[25]	[25]	1.8	2.2	1.7	1.0	1.2	1.5	0.5	0.8	0.0	0.0	0.0	0.0	0.0	0.1	2.1	0.5	0.8	1.3	4.2	4.0	3.3	1.3	4.2	
26	1.8	[25]	[25]	1.2	0.4	0.1	1.2	1.3	0.0	0.0	0.0	0.0	0.0	0.8	2.2	0.6	1.2	3.1	2.3	2.5	2.8	1.1	5.1	4.4	1.5	5.1	
27	2.1	[25]	[25]	0.9	0.1	1.3	2.1	[CA]	[CA]	[CA]	2.1	3.6	4.4	2.8	0.0	0.0	0.5	1.0	0.2	0.1	1.1	0.7	0.1	0.4	1.2	4.4	
28	0.7	[25]	[25]	2.3	0.9	1.1	1.5	3.3	4.3	2.2	2.2	1.4	2.6	0.6	1.1	1.3	1.0	1.0	0.1	0.7	1.5	1.8	0.7	0.4	1.5	4.3	
29	0.9	[25]	[25]	0.3	0.6	0.8	1.5	0.9	1.2	2.3	3.9	2.4	2.6	1.3	1.2	0.0	0.0	0.0	0.2	0.0	1.1	0.0	0.2	0.0	1.0	3.9	
30	0.0	[25]	[25]	1.2	1.3	1.4	2.3	2.8	2.7	2.0	2.3	5.1	5.8	4.2	2.3	1.2	0.0	0.1	0.0	0.1	0.7	0.0	0.3	0.7	1.7	5.8	
31	0.0	[25]	[25]	0.7	0.7	1.6	1.4	[SC]	[SC]	[SC]	3.7	4.5	9.4	2.3	4.1	5.5	1.4	1.9	2.6	3.3	6.2	2.5	1.1	1.6	1.8	2.8	9.4

NITRIC OXIDE [42601]

LAX AIR QUALITY MONITORING PROGRAM, #706211

PARTS PER BILLION

SITE 1 LAX

OCT, 1997

AEROENVIRONMENT ENVIRONMENTAL SERVICES INC.

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* FINAL DATA *
* AS OF 26/FEB/98 *
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CLOCK HOUR [LOCAL STANDARD TIME]

DT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	1	[28]	[28]	2	3	1	3	5	11	10	10	10	9	11	8	7	0	0	4	0	0	0	0	0	4	11
2	0	[28]	[28]	0	0	0	1	5	6	6	5	1	2	[CA]	8	7	12	3	10	2	0	0	5	5	4	12
3	6	[28]	[28]	28	23	68	127	40	8	7	10	14	12	36	18	44	11	1	5	2	0	0	0	0	21	127
4	3	[28]	[28]	15	19	48	108	26	27	16	5	4	9	15	11	7	10	13	0	4	0	1	0	0	15	108
5	0	[28]	[28]	0	0	0	0	2	3	1	2	4	2	3	2	5	1	0	6	1	0	3	0	0	2	6
6	0	[28]	[28]	0	0	3	12	39	21	4	3	1	1	14	7	14	19	20	19	8	1	0	0	0	8	39
7	11	[28]	[28]	15	9	16	12	8	6	11	25	33	32	32	31	40	28	7	6	15	9	10	7	60	19	60
8	59	[28]	[28]	43	62	98	129	114	50	16	5	5	6	5	10	5	14	3	12	2	3	21	61	127	39	129
9	109	[28]	[28]	121	94	208	239	167	46	37	46	23	19	19	29	27	24	6	11	7	16	16	5	7	58	239
10	0	[28]	[28]	105	118	126	[CA]	[CA]	[CA]	[CA]	5	4	-26	14	6	2	26	6	9	2	2	14	38	16	29	126
11	0	[28]	[28]	1	13	53	68	53	16	13	12	9	11	36	18	18	4	3	2	2	2	0	0	0	15	68
12	0	[28]	[28]	0	13	77	102	91	15	29	13	4	6	5	2	26	4	0	0	46	74	87	113	155	39	155
13	170	[28]	[28]	146	242	363	439	266	162	82	32	52	31	28	42	24	31	18	104	199	198	350	511	237	169	511
14	191	[28]	[28]	174	233	308	232	182	130	29	17	9	6	23	27	12	17	53	61	170	215	292	229	83	122	308
15	48	[28]	[28]	82	81	67	[PA]	[PA]	[PA]	[PA]	27	15	21	17	16	77	32	44	30	73	134	165	237	192	77	237
16	210	[28]	[28]	117	141	87	127	158	93	81	31	11	26	41	71	38	46	18	27	12	64	126	173	185	86	210
17	285	[28]	[28]	305	384	554	529	345	177	106	69	29	45	40	16	32	9	0	2	10	2	3	78	77	141	554
18	109	[28]	[28]	53	67	14	64	78	96	62	15	6	5	3	3	3	4	0	0	0	0	0	1	0	26	109
19	0	[28]	[28]	0	0	1	4	11	6	5	3	10	7	9	15	9	9	2	9	2	4	0	0	0	5	16
20	0	[28]	[28]	0	2	8	11	13	7	5	4	1	13	6	7	4	3	9	3	1	0	0	13	24	6	24
21	41	[28]	[28]	90	181	109	[CA]	[CA]	42	22	4	3	1	5	6	3	2	0	0	2	1	8	19	49	30	181
22	16	[28]	[28]	29	75	93	115	108	43	37	8	9	27	8	1	1	9	0	0	0	0	0	0	0	26	115
23	0	[28]	[28]	1	5	14	48	42	15	9	5	11	4	3	9	16	25	0	0	6	0	0	0	2	10	48
24	1	[28]	[28]	13	37	69	104	113	25	9	2	7	6	10	9	12	19	1	0	3	37	29	100	175	35	175
25	134	[28]	[28]	228	273	214	196	162	89	34	7	6	5	11	9	14	35	43	51	146	110	156	266	274	112	274
26	191	[28]	[28]	175	137	106	185	205	98	21	10	4	11	34	49	20	12	41	13	8	47	92	176	177	82	205
27	197	[28]	[28]	101	107	195	281	[CA]	[CA]	140	56	34	26	5	11	10	8	14	7	5	4	11	5	143	68	281
28	196	[28]	[28]	187	176	158	246	206	185	77	31	12	12	21	15	17	26	14	3	7	8	78	133	149	91	246
29	171	[28]	[28]	161	123	178	234	169	137	67	38	13	13	12	3	7	5	2	2	0	4	4	118	85	70	234
30	118	[28]	[28]	246	293	289	281	239	161	78	30	47	18	29	34	27	12	7	0	2	14	6	67	179	99	293
31	126	[28]	[28]	219	269	354	359	[SC]	[SC]	135	100	64	28	19	13	8	6	8	29	19	34	139	245	314	126	394
AV	78	[]	[]	86	103	128	152	109	62	40	20	15	14	17	16	17	15	11	14	24	32	52	84	88	53	
SD	87	[]	[]	90	107	156	139	93	61	40	23	16	11	12	16	16	12	15	22	52	58	118	94			
PK	285	[]	[]	305	384	554	529	345	185	140	100	64	45	41	71	77	46	53	104	199	215	350	511	314		554

CU000 [Program: RMS_MONITOR]

Version: LC:15-OCT-93]

NITROGEN DIOXIDE [42602]

LAX AIR QUALITY MONITORING PROGRAM, #706211

PARTS PER BILLION

SITE 1 LAX

OCT, 1997

AEROENVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 26/FEB/98 *
*

CLOCK HOUR [LOCAL STANDARD TIME]

DT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK	
1	33	[28]	[28]	36	28	24	31	35	37	37	46	39	29	24	19	20	10	8	19	16	17	11	12	15	25	46	
2	11	[28]	[28]	11	11	25	28	41	34	35	25	17	12	[CA]	16	15	14	18	23	22	21	23	37	23	22	41	
3	29	[28]	[28]	41	41	47	50	32	22	24	30	36	28	28	23	35	20	18	22	26	14	14	15	23	28	50	
4	24	[28]	[28]	38	37	38	40	38	51	45	21	15	16	15	12	9	10	16	10	10	9	18	25	15	23	51	
5	6	[28]	[28]	19	16	18	19	29	26	21	16	14	13	14	9	10	9	12	12	12	10	16	17	6	15	29	
6	9	[28]	[28]	13	19	33	39	50	45	26	19	11	8	18	12	18	23	20	25	22	16	16	11	14	21	50	
7	31	[28]	[28]	28	24	30	31	20	15	18	21	19	20	20	25	24	23	24	30	46	42	38	38	47	28	47	
8	43	[28]	[28]	39	39	41	46	50	45	32	19	19	19	15	15	14	27	29	35	39	48	64	63	65	37	66	
9	64	[28]	[28]	63	61	70	73	73	62	72	83	54	43	28	25	19	20	19	23	27	43	36	30	24	46	83	
10	18	[28]	[28]	36	38	40	[CA]	[CA]	[CA]	[CA]	12	8	16	9	6	5	16	14	20	22	20	24	26	19	19	40	
11	15	[28]	[28]	28	62	99	99	88	35	28	26	19	16	21	16	14	20	19	17	18	26	12	9	9	32	99	
12	10	[28]	[28]	13	34	37	46	42	23	37	25	14	11	10	11	18	13	14	23	52	47	46	51	58	29	58	
13	74	[28]	[28]	54	55	57	62	65	76	81	59	89	58	58	69	64	62	67	85	86	69	86	74	75	69	89	
14	61	[28]	[28]	54	60	57	52	57	62	40	36	32	27	50	55	51	49	74	76	84	66	78	65	49	56	84	
15	45	[28]	[28]	43	43	42	[PA]	[PA]	[PA]	[PA]	44	43	67	67	58	92	83	84	70	82	70	78	84	79	65	92	
16	71	[28]	[28]	49	44	40	42	49	50	59	50	38	58	92	83	61	62	70	79	64	77	78	82	82	92		
17	81	[28]	[28]	74	71	75	72	71	80	92	89	49	41	32	31	50	32	27	52	54	45	39	54	53	56	92	
18	56	[28]	[28]	48	47	55	60	65	77	79	40	27	27	18	15	11	18	24	22	36	32	36	22	33	38	79	
19	48	[28]	[28]	32	26	34	39	40	25	22	22	30	23	22	27	18	22	16	24	20	21	19	22	23	26	48	
20	19	[28]	[28]	20	29	39	41	43	35	33	25	13	16	14	13	11	15	24	18	20	21	23	36	48	25	48	
21	48	[28]	[28]	45	46	43	[CA]	[CA]	[CA]	46	44	18	16	10	14	12	9	10	13	18	22	20	32	41	51	28	51
22	48	[28]	[28]	46	45	44	43	56	51	54	27	27	35	22	14	15	18	19	16	16	22	16	19	16	20	56	
23	28	[28]	[28]	27	39	50	56	54	43	38	16	17	13	12	11	22	26	12	13	15	16	14	12	22	25	56	
24	15	[28]	[28]	43	41	40	44	48	40	24	11	10	14	15	12	15	25	31	40	45	53	37	58	53	59		
25	57	[28]	[28]	50	53	53	56	73	59	49	24	23	23	38	36	37	46	66	67	67	65	65	72	73	82	73</	

OXIDES OF NITROGEN [42603]

LAX AIR QUALITY MONITORING PROGRAM, #706211

PARTS PER BILLION

SITE 1 LAX

OCT. 1997

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 26/FEB/98 *
*

CLOCK HOUR [LOCAL STANDARD TIME]

BY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	34	[28]	[28]	38	31	25	33	40	49	47	56	48	38	35	27	26	10	8	23	16	17	11	12	15	29	56
2	11	[28]	[28]	11	11	25	26	47	40	41	30	18	15	[CA]	25	23	26	22	33	24	22	23	42	27	26	47
3	35	[28]	[28]	69	64	114	177	71	30	30	40	50	41	64	41	79	31	19	28	20	14	14	15	23	49	177
4	27	[28]	[28]	53	56	87	148	64	78	64	26	19	25	30	23	16	20	29	10	14	9	19	25	15	39	148
5	6	[28]	[28]	19	16	18	19	32	29	23	17	18	15	18	11	14	10	12	18	12	10	19	18	6	16	32
6	9	[28]	[28]	13	19	36	52	88	66	30	22	13	9	31	19	31	42	40	44	31	17	16	11	14	30	88
7	42	[28]	[28]	42	33	46	43	28	22	30	47	52	53	51	56	65	51	31	36	61	51	48	45	107	47	107
8	103	[28]	[28]	82	101	140	176	164	95	48	23	24	27	20	24	19	41	32	47	42	52	86	124	192	75	192
9	174	[28]	[28]	184	185	278	313	241	108	109	129	77	62	47	54	46	45	25	34	34	59	53	35	32	104	313
10	18	[28]	[28]	141	154	166	[CA]	[CA]	[CA]	[CA]	17	12	42	23	12	7	45	20	29	25	22	39	63	94	48	166
11	15	[28]	[28]	30	75	152	167	141	50	41	38	27	27	58	34	32	24	22	20	19	28	12	9	9	47	167
12	10	[28]	[28]	13	46	114	148	133	38	66	38	19	17	15	13	44	17	15	23	98	121	134	164	213	68	213
13	244	[28]	[28]	201	287	420	501	331	238	163	92	141	89	86	111	87	93	84	189	286	268	436	585	312	239	585
14	252	[28]	[28]	228	294	366	284	220	192	69	53	41	34	74	83	63	66	127	138	254	281	371	294	132	178	371
15	93	[28]	[28]	125	124	130	[PA]	[PA]	[PA]	[PA]	71	57	75	84	74	169	115	129	101	156	204	243	322	271	141	322
16	282	[28]	[28]	166	185	127	168	208	143	140	80	49	64	132	154	99	108	88	104	76	142	204	251	267	146	282
17	365	[28]	[28]	381	461	629	601	417	288	198	158	78	87	72	47	82	41	27	55	64	47	38	132	130	199	629
18	165	[28]	[28]	101	114	68	124	143	174	141	55	33	32	21	18	14	22	24	22	36	32	36	23	33	65	174
19	56	[28]	[28]	32	28	34	43	50	32	47	26	40	30	31	43	27	31	18	39	22	25	19	22	23	31	56
20	19	[28]	[28]	20	31	47	52	37	42	37	29	14	29	20	20	15	19	33	21	21	21	23	48	72	31	72
21	89	[28]	[28]	135	227	183	[CA]	[CA]	99	65	22	20	11	19	18	11	12	13	18	24	21	39	61	100	57	227
22	64	[28]	[28]	74	120	137	164	165	94	91	35	36	62	29	15	16	27	19	16	22	26	19	16	20	58	165
23	28	[28]	[28]	27	44	64	104	96	59	47	21	28	17	15	20	38	51	12	13	24	16	14	12	23	95	104
24	16	[28]	[28]	56	78	108	148	160	66	34	13	17	20	25	22	27	44	32	40	48	90	83	158	233	69	233
25	191	[28]	[28]	278	326	267	254	234	148	83	31	29	28	46	45	51	81	110	118	213	175	222	338	248	164	344
26	257	[28]	[28]	230	190	166	239	258	152	57	34	19	39	72	95	53	39	62	52	65	110	148	234	236	128	258
27	253	[28]	[28]	154	158	248	334	[CA]	[CA]	231	130	93	71	29	39	30	32	48	38	35	42	49	42	203	133	334
28	263	[28]	[28]	253	238	256	304	271	271	152	94	47	53	64	63	51	58	48	31	44	69	152	196	210	145	304
29	236	[28]	[28]	230	191	247	302	239	219	146	113	56	49	48	32	28	24	28	43	41	54	53	181	149	123	302
30	180	[28]	[28]	317	361	353	346	313	247	169	111	143	89	87	106	113	48	38	24	35	78	67	128	242	163	361
31	189	[28]	[28]	295	344	460	434	[SC]	[SC]	265	249	205	128	92	64	66	88	89	114	92	105	216	343	410	213	460
AV	120	[]	[]	129	147	177	204	162	112	91	61	49	45	48	45	47	44	43	49	63	72	94	127	132	93	
SD	107	[]	[]	106	121	147	149	105	87	52	44	29	29	34	36	28	35	43	70	73	109	138	118			
PK	365	[]	[]	381	461	629	601	417	271	265	249	205	128	132	154	169	115	129	189	286	281	436	585	410		629

00000 [Program: RMS MONTHSUM]

Version: LC:15-OCT-93]

WIND SPEED [61101]

LAX AIR QUALITY MONITORING PROGRAM, #706211

METERS/SECOND

SITE 1 LAX

OCT. 1997

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 26/FEB/98 *
*

CLOCK HOUR [LOCAL STANDARD TIME]

BY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK	
1	0.8	1.2	1.0	1.0	1.6	1.4	1.4	1.2	1.8	1.8	1.7	3.9	5.2	5.4	5.1	5.1	5.3	5.0	4.3	3.1	2.7	2.7	1.8	1.3	2.7	5.4	
2	1.2	0.9	1.1	1.5	2.0	1.1	1.1	1.1	1.8	3.0	2.8	3.2	3.8	3.9	4.7	4.8	5.2	4.3	4.0	3.5	2.6	1.6	0.8	1.2	2.5	5.2	
3	0.8	0.6	0.6	1.3	1.6	1.2	0.8	1.1	1.1	1.6	2.9	4.0	5.1	6.1	5.7	6.2	6.1	5.0	4.3	3.7	3.0	3.0	2.3	1.5	2.9	6.2	
4	0.7	0.9	0.7	0.7	1.1	0.7	0.8	0.8	1.1	2.0	3.3	4.3	5.2	5.7	6.3	6.1	5.3	5.1	4.1	3.6	3.1	2.5	1.7	1.5	2.8	6.3	
5	1.0	0.9	0.7	1.2	1.3	1.3	1.0	0.8	1.6	2.8	2.8	2.9	3.4	4.4	5.1	4.8	4.9	4.7	5.0	3.6	3.1	2.8	1.6	1.3	2.6	5.1	
6	1.0	1.2	0.9	1.0	1.1	1.0	1.9	2.4	1.7	2.0	2.9	3.4	4.9	5.0	4.8	6.2	6.1	6.3	6.8	5.8	4.2	3.9	3.9	2.6	3.4	6.8	
7	2.0	1.7	2.2	2.1	2.7	3.4	3.8	5.0	7.0	6.3	6.8	8.4	8.7	10.0	10.0	10.4	10.2	7.7	4.7	2.1	2.2	1.7	1.7	1.6	5.2	10.4	
8	2.0	2.1	2.1	2.4	2.7	2.6	2.4	2.9	3.3	3.1	2.2	2.2	5.1	5.6	5.9	5.8	5.7	5.7	4.9	4.4	2.2	0.8	1.1	0.7	3.2	5.9	
9	1.4	1.4	0.9	0.7	1.0	0.6	0.7	1.5	1.4	1.0	3.5	5.0	5.2	5.7	6.4	7.2	6.2	5.9	5.4	4.5	2.8	2.9	2.5	2.7	3.2	7.2	
10	1.8	1.3	1.6	1.0	1.7	1.6	1.6	1.4	1.9	2.2	4.4	6.0	8.5	9.9	8.8	9.3	10.0	8.1	7.0	6.6	7.9	7.7	8.3	8.9	5.3	10.0	
11	5.5	1.8	2.4	2.3	2.1	2.5	1.6	3.2	4.6	6.3	7.3	5.7	5.9	9.9	9.6	7.7	6.7	6.1	6.5	5.3	4.8	6.1	4.1	6.1	5.2	9.9	
12	4.1	3.4	3.2	3.1	1.3	1.5	0.9	0.8	1.1	1.8	2.4	3.4	4.2	5.6	5.0	5.5	5.4	4.9	2.7	0.9	2.1	1.7	1.2	0.8	2.8	5.6	
13	0.5	0.9	0.9	1.2	0.7	0.6	0.8	1.3	1.6	1.7	1.5	2.1	2.3	3.7	4.0	3.8	3.5	2.8	0.8	1.3	1.4	1.0	0.5	1.2	1.7	4.0	
14	0.7	0.6	0.7	0.5	0.7	0.7	2.3	1.3	1.6	2.1	1.2	1.7	2.1	3.0	4.2	3.6	3.8	2.4	1.3	1.0	1.3	1.1	1.6	2.8	1.8	4.2	
15	2.3	2.9	2.0	1.5	2.9	1.7	1.7	1.6	2.4	2.3	1.4	1.7	2.9	4.8	5.0	5.5	4.9	4.5	3.6	1.4	2.0	1.6	1.2	1.1	2.6	5.5	
16	0.7	1.4	2.2	1.8	1.5	2.1	1.8	2.1	1.9	3.0	2.3	1.8	3.1	5.4	5.5	5.4	5.4	4.6	4.6	4.0	1.8	1.9	1.6	1.1	2.8	5.5	
17	0.8	0.7	1.0	1.1	0.8	0.9	1.0	1.4	2.1	1.7	2.7	5.2	5.3	6.0	5.1	4.3	4.3	3.8	2.7	1.7	1.4	1.4	1.2	0.5	2.4	6.0	
18	0.4	0.8	0.4	0.9	0.5	0.7	0.9	0.6	1.0	2.4	3.9	4.0	4.5	5.0	4.6	4.2	4.1	3.4	2.6	1.9	1.9	1.5	1.2	0.8	2.2	5.0	
19	1.2	1.2	1.1	1.3	1.0	0.9	1.1	1.7	1.6	1.7	1.4	3.6	4.4	4.6	4.4	4.5	4.6	4.5	4.1	3.0	2.8	1.4	0.9	1.1	4.1	5.1	
20	1.3	1.1	1.9	3.0	2.4	2.8	2.9	2.8	3.0	2.4	3.1	3.1	4.4	4.1	5.1	5.0	4.8	4.6	4.4	3.5	1.9	1.0	0.8	0.5	2.9	5.1	
21	0.7	0.8	0.4	0.3	0	0.6	0.5	0.8	1.0	0.5	0.8	1.7	2.6	3.1	3.2	3.4	2.4	1.6	1.5	1.1	0.7	0.9	0.6	0.6	1.3	3.4	
22	1.4	1.7	0.9	0.6	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	
23	1.4	1.9	2.4	2.6	2.0	2.1	1.6	1.9	2.1	2.5	1.5	5.6	5.9	5.2	5.1	5.4	4.7	2.9	0.9	1.3	1.3	1.5	2.1	1.2	1.3	8.8	
24	1.4	0.9	1.0	0.6	1.2	0.9	1.3	1.0	1.1	3.4	3.6	4.3	5.0	5.7	6.1	5.4	4.7	2.9	0.9	1.3	1.3	1.5	2.1	1.2	1.3	8.8	
25	1.0	0.9	0.9	0.8	1.3	0.8	0.6	1.2	1.4	1.6	1.7	1.8	1.6	1.3	4.1	3.6	3.6	3.3	1.4	1.3	2.5	2.1	1.2	1.3	8.8	10.4	
26	1.7	1.1	1.1	1.6	1.9	1.1	0.6	0.9	1.1	1.5	1.9	1.9	3.9	5.2	5.3	6.1	6.6	7.3	5.3	1.9	1.1	2.0	2.2	2.3	2.7	7.3	
27	0.8	0.6	0.7	1.2	1.1	1.2	1.2	1.4	1.8	1.2	2.1	2.3	4.0	4.8	5.2	5.1	5.1	4.9	3.7	3.8	2.8	3.3	2.5	1.7	2.6	5.2	
28	1.3	1.2	0.8	1.0	0.8	1.6	1.6	2.0	1.5	1.2	1.8	3.6	4.7	5.1	6.0	6.9	6.9	5.6	4.2	3.8	1.7	0.9	2.2	2.0	2.9	6.9	
29	1.6	1.3	1.0	1.0	1.3	1.3	0.4	1.3	2.0	1.8	2.2	1.3	3.3	4.4	4.8	4.4	4.6	4.5	3.4	2.6	1.5	1.9	1.0	0.9	0.8	2.2	4.8
30	1.2	1.0	1.0	0.6	0.8	0.9	1.0	1.5	1.8	1.6	1.3	3.7	4.7	5.3	5.2	5.4	5.4	4.0	3.5	2.5	1.1	0.6	1.2	1.1	2.3	5.4	
31	1.2	1.0	1.0	0.6	0.3	1.1	0.6	0.8	1.1	1.4	1.7	3.6	4.4	5.0	4.2	4.0	2.8	2.3	1.5	0.9	1.3	0.9	0.9	1.0	1.8	4.4	
AV	1.4	1.3	1.3	1.3	1.4	1.3	1.3	1.6	1.9	2.3	2.8	3.6	4.5	5.3	5.5	5.5	5.3	4.6	3.8	2.8	2.4	2.1	1.8	1.8	2.8		
SD	1.0	0.8	0.7	0.7	0.7	0.7	0.8	1.1	1.2	1.5	1.5	1.5	1.5	1.7	1.5	1.6	1.7	1.6	1.6	1.5	1.4	1.5	1.5	1.7			
PK	5.5	3.7	3.2	3.1	2.9	3.4	3.8	6.0	7.0	6.3	7.3	8.4	8.7	10.0	10.0	10.4	10.2	8.1	7.0	6.6	7.9	7.7	8.3	8.9		10.4	

WIND DIRECTION AVERAGE [61102]

LAX AIR QUALITY MONITORING PROGRAM, #706211

DEGREES, COMPASS

SITE 1 LAX

OCT, 1997

AEROENVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 26/FEB/98 *

CLOCK HOUR [LOCAL STANDARD TIME]

DT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	PREV
1	SESE	E	SESE	E	SE	SESE	ENE	SESE	ENE	SESE	WSW	WSW	WSW	WSW	W	WSW	WSW	WSW	W	WSW	WSW	SSW	SESE	[VA]	
2	SESE	SESE	SESE	SW	W	WSW	WSW	WSW	SSW	W	WSW	WSW	WSW	WSW	W	WSW	W	W	W	WSW	SW	SW	W	WSW	
3	SESE	ENE	N	NNW	NNW	NNW	NNW	NNW	NNW	E	SE	SW	WSW	WSW	W	W	W	W	WSW	W	WSW	WSW	SW	W	
4	SSW	NNW	ENE	N	N	N	NE	NNW	NNW	NNW	WSW	WSW	WSW	WSW	W	W	WSW	W	WSW	W	WSW	WSW	WSW	WSW	
5	SW	S	W	N	E	E	E	E	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	W	WSW	WSW	WSW	SSW	[VA]	
6	WSW	N	N	NE	E	E	SESE	E	SE	NNW	NNW	WSW	WSW	WSW	WSW	W	W	W	W	WSW	WSW	WSW	W	WSW	
7	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	
8	ENE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
9	NE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	
10	WSW	ENE	E	E	ENE	E	ENE	ENE	SE	SSW	SW	WSW	WSW	WSW	W	W	W	W	W	WSW	WSW	WSW	WSW	[VA]	
11	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	
12	N	ENE	NE	NE	NE	E	NE	NE	N	SESE	SSW	SW	WSW	WSW	W	W	WSW	SW	E	E	E	NE	ENE	[VA]	
13	NNW	ENE	ENE	ENE	ENE	ENE	ENE	ENE	E	SE	SSW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	
14	N	ENE	SSW	E	SSW	E	NE	NE	NE	ENE	ENE	ENE	ENE	ENE	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	
15	NE	ENE	ENE	NE	NE	NE	NE	ENE	NE	ENE	ENE	S	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	
16	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	E	S	S	SE	SE	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	
17	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	SESE	SSW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	
18	NNW	NNW	WSW	N	ENE	SSW	SE	NE	S	SW	N	WSW	WSW	N	WSW	N	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	
19	NNW	NE	E	SE	ENE	E	ENE	ENE	E	S	S	W	WSW	W	W	W	W	W	W	W	W	W	W	W	
20	ENE	E	E	ENE	ENE	ENE	E	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	
21	ENE	ENE	NE	NE	NE	NE	NE	ENE	NE	ENE	ENE	W	W	W	W	W	W	W	W	W	W	W	W	W	
22	ENE	SE	ENE	ENE	E	ENE	NE	NE	S	WSW	WSW	W	W	W	W	W	W	W	W	W	W	W	W	W	
23	N	N	E	ENE	ENE	E	E	SE	SSW	WSW	WSW	WSW	WSW	WSW	W	W	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	
24	NNW	NNW	E	E	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	
25	ENE	ENE	ENE	E	E	ENE	N	E	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	
26	NNW	NNW	N	ENE	NNW	N	NE	NNW	N	NNW	N	NNW	N	NNW	N	NNW	N	NNW	N	NNW	N	NNW	N	NNW	
27	ENE	ENE	ENE	NE	N	ENE	ENE	NE	ENE	E	SW	WSW	WSW	WSW	WSW	W	W	WSW	W	W	WSW	W	W	WSW	
28	NE	ENE	E	ENE	E	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	
29	E	ENE	N	ENE	ENE	SE	ENE	ENE	E	SE	NNW	WSW	W	WSW	W	W	W	W	W	W	W	W	W	W	
30	NNW	NE	NNW	ENE	NE	ENE	NE	E	SESE	SSW	WSW	WSW	W	W	W	W	W	W	W	W	W	W	W	W	
31	NE	ENE	NNW	NE	NNW	NE	NE	ENE	NE	SE	S	WSW	WSW	WSW	W	WSW	W	W	WSW	WSW	N	NNW	ENE	E	
PV	NE	ENE	E	NE	ENE	ENE	NE	NE	[VA]	[VA]	[VA]	WSW	WSW	WSW	W	W	W	W	WSW	W	W	[VA]	[VA]	[VA]	[VA]

00004 [Program: EDMS_MONTESUM]

Version: LC:15-OCT-93]

WIND DIRECTION AVERAGE [61102]

LAX AIR QUALITY MONITORING PROGRAM, #706211

DEGREES, COMPASS

SITE 1 LAX

OCT, 1997

AEROENVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 26/FEB/98 *

CLOCK HOUR [LOCAL STANDARD TIME]

DT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	PREV
1	113	83	114	89	130	102	72	118	121	137	158	254	257	256	258	265	250	249	257	261	254	246	201	165	[VA]
2	104	105	157	226	263	237	340	303	197	269	246	245	249	245	257	261	254	266	272	263	255	233	316	354	12
3	29	72	350	347	345	18	19	37	82	132	225	253	258	263	265	263	263	259	258	263	260	251	250	222	13
4	204	52	40	1	349	7	45	14	282	300	254	256	258	257	259	261	258	260	254	262	255	251	240	238	12
5	215	189	262	353	87	82	91	101	230	241	245	250	254	257	254	255	255	253	257	266	262	251	215	207	[VA]
6	240	360	10	47	86	95	104	96	141	291	290	257	250	254	257	268	267	263	267	271	252	241	251	264	12
7	314	344	329	311	311	307	326	348	340	330	277	260	263	268	270	272	270	276	287	311	341	329	13	60	[VA]
8	59	45	47	51	64	57	48	62	85	114	153	211	254	260	255	259	270	273	277	276	291	7	80	60	[VA]
9	50	63	66	29	357	335	13	57	42	320	255	258	266	258	262	262	259	263	261	261	281	278	285	255	13
10	240	65	87	87	62	84	68	103	128	193	225	242	260	256	250	254	262	259	267	284	279	280	276	274	13
11	298	327	321	336	337	336	332	333	344	345	345	334	280	259	276	278	325	345	348	343	327	357	4	360	[VA]
12	8	30	38	42	53	91	42	35	558	168	194	220	227	253	249	259	260	249	230	79	79	88	35	59	[VA]
13	328	71	63	59	154	61	29	86	81	144	213	295	253	260	278	282	274	282	252	10	43	7	352	41	[VA]
14	351	33	205	84	203	93	56	46	43	61	58	88	123	320	283	286	266	271	242	330	86	22	32	19	2
15	35	12	22	51	43	25	43	63	39	27	25	177	229	232	218	223	222	237	237	228	104	57	42	21	2
16	45	39	45	46	40	26	32	23	30	67	34	100	191	176	146	131	186	210	210	205	122	59	31	21	2
17	50	41	26	32	49	54	39	43	60	64	159	166	192	223	236	259	260	246	243	224	199	169	67	72	3
18	298	284	239	358	68	199	132	52	169	231	259	256	257	260	257	259	256	252	243	240	250	260	11	213	12
19	346	49	83	126	123	91	107	102	97	90	173	259	255	244	266	263	268	265	264	259	257	234	250	27	[VA]
20	59	82	91	114	105	110	100	113	126	130	148	214	251	251	260	259	263	268	278	278	277	307	342	61	[VA]
21	61	72	48	48	49	52	95	81	70	40	289	269	265	270	268	313	320	319	313	333	331	323	55	75	3
22	105	125	110	71	82	73	41	46	175	253	258	263	266	255	247	251	287	255	252	258	219	180	175	111	[VA]
23	64	92	98	106	123	115	84	62	133	182	254	257	241	252	256	263	263	256	253	252	247	247	243	278	[VA]
24	304	37	73	80	341	44	341	14	327	254	245	250	250	255	257	261	265	259	256	2	61	94	50	353	[VA]
25	18	57	69	81	80	74	356	91	102	118	168	150	182	243	258	256	256	262	126	58	94	69	41	24	5
26	294	78	5	64	70	346	354	81	15	8	330	273	252	260	270	271	274	267	276	277	302	59	86	54	[VA]
27	109	26	19	31	7	57	113	52	66	172	232	235	253	251	258	258	264	266	257	261	270	259	258	57	12
28	52	75	93	69	83	62	72	87	24	21	247	247	255	258	260	267	263	264	252	266	281	50	91	75	[VA]
29	83	58	91	77	58	131	66	68	95	138	325	235	261	259	260	259	262	259	269	272	271	2	72	84	[VA]
30	59	53	76	113	70	53	65	54	80	109	144	239	256	259	265	262	260	262	252	251	319	357	165	79	[VA]
31	56	61	62	53	331	51	42	75	53	138	186	252	253	258	260	255	260	263	237	253	349	17	60	6	[VA]
PV	3	4	5	3	4	4	3	3	[VA]	[VA]	[VA]	12	12	12	13	13	13	13	13	13	13	[VA]	[VA]	[VA]	

五十六

* FINAL DATA *

* AS OF 26/FEB/98 *

DY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG FRANK		
1	0.7	1.1	0.6	0.8	1.2	1.1	1.2	1.1	1.7	1.4	1.0	3.7	5.1	5.3	5.0	5.0	5.3	4.9	4.2	3.0	2.6	2.6	1.7	1.1	2.6	5.3	
2	0.7	0.7	0.6	1.2	1.2	1.0	1.0	0.9	0.6	0.6	2.8	2.7	3.1	3.6	3.0	4.6	4.7	5.1	4.2	3.9	3.4	2.5	1.6	0.3	2.1	2.3	5.1
3	0.6	0.4	0.4	1.2	1.5	1.1	0.6	1.0	0.7	1.2	2.2	3.6	5.0	6.0	5.6	6.1	6.0	5.0	4.3	3.5	2.9	3.0	2.2	1.4	2.7	6.1	
4	0.1	0.8	0.6	0.6	1.0	0.6	0.6	0.7	0.4	1.8	3.1	4.1	8.1	5.6	6.2	5.9	5.2	5.0	3.9	3.5	2.9	2.5	1.6	1.5	2.6	6.2	
5	0.7	0.7	0.6	0.7	1.0	1.1	0.5	0.6	1.5	2.8	2.6	3.2	4.2	5.0	4.7	4.7	4.7	4.7	4.9	3.5	3.0	2.7	1.4	1.1	2.4	5.5	
6	0.8	1.0	0.8	0.9	1.0	0.9	1.8	2.4	0.5	1.7	2.7	3.2	4.9	4.9	4.6	6.1	6.0	6.2	6.7	5.7	4.1	3.9	3.9	2.5	3.2	6.7	
7	1.8	3.6	2.1	2.1	2.1	2.6	3.3	3.6	5.9	6.7	6.0	6.2	0.6	9.8	9.9	10.3	10.1	7.6	4.5	1.6	2.0	0.5	1.5	1.6	5.0	10.3	
8	2.0	2.0	2.1	2.3	2.6	2.6	2.4	2.9	3.0	3.0	1.4	1.6	4.9	5.5	5.8	5.6	5.6	4.8	4.2	2.1	0.5	1.0	0.6	2.1	5.8		
9	1.4	1.9	0.9	0.6	0.9	0.5	0.6	1.4	1.2	0.6	3.2	4.8	5.0	5.6	6.3	7.1	6.2	5.8	5.2	4.3	2.7	2.8	2.4	2.7	3.1	7.1	
10	1.7	1.2	1.5	1.0	1.6	1.5	1.5	1.3	1.7	1.9	4.1	5.7	8.4	9.8	8.7	9.2	9.9	8.0	6.8	6.5	7.8	7.6	8.2	8.7	5.2	9.9	
11	5.3	1.6	2.2	2.2	2.0	2.4	1.5	3.1	4.4	6.0	7.0	5.0	5.3	9.7	9.5	7.6	6.1	5.9	6.2	5.0	4.6	5.8	3.8	5.9	4.9	9.7	
12	3.8	3.0	2.9	2.7	0.7	1.3	0.1	0.6	0.8	1.4	2.0	3.2	3.7	5.4	4.9	5.4	5.2	4.8	2.5	0.3	1.9	1.8	0.9	0.6	2.5	5.4	
13	0.4	0.8	0.8	0.9	0.2	0.2	0.2	0.6	1.2	1.5	1.4	0.6	1.6	1.2	3.5	3.8	3.7	3.4	2.8	4.0	1.0	1.0	0.7	0.2	1.0	1.4	3.8
14	0.2	0.1	0.6	0.2	0.2	0.4	2.2	1.2	1.5	1.7	0.8	1.3	1.5	1.6	4.1	3.4	3.7	2.3	1.2	0.4	1.0	1.0	1.5	2.7	1.4	4.1	
15	2.2	2.9	1.9	1.3	2.9	1.5	1.3	1.4	2.3	2.2	1.0	1.7	2.1	4.6	3.9	4.3	3.9	4.0	3.4	0.8	1.9	1.5	1.1	0.9	2.3	4.1	
16	0.5	1.2	3.1	1.7	1.1	2.0	1.7	2.0	1.8	2.5	2.0	1.2	1.8	2.7	2.4	2.5	2.9	3.1	3.2	2.6	0.3	1.9	1.6	1.5	1.9	3.2	
17	0.6	0.6	1.0	1.1	0.6	0.7	0.9	1.4	1.7	1.5	1.4	2.7	3.4	5.2	4.7	4.2	4.2	4.7	2.6	1.4	1.3	1.2	0.2	0.4	0.9	3.2	
18	0.2	0.7	0.6	0.6	0.3	0.4	0.7	0.4	0.9	2.0	3.8	3.8	4.4	5.0	4.5	4.2	4.0										

Version: LC:15-OCT-93]

非非唯此六有即由清声部自出自有其故如能通也

★ FINAL DATA ★

★ 100 个英语词根、词缀 ★

[illegible]

Version: LC:15-OCT-93)

RESULTANT DIRECTION [61104]

LAX AIR QUALITY MONITORING PROGRAM, #706211

DEGREES, COMPASS

SITE 1 LAX

* FINAL DATA *

OCT, 1997

* AS OF 26/FEB/98 *

AEROENVIRONMENT ENVIRONMENTAL SERVICES INC.

CLOCK HOUR [LOCAL STANDARD TIME]

DX	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	PREV
1	112	83	101	82	125	97	69	117	121	137	157	255	257	256	258	265	250	249	256	261	253	247	200	165	[VA]
2	118	109	161	230	263	234	341	310	205	261	248	244	249	246	257	261	254	265	270	264	255	233	314	352	12
3	26	82	357	346	345	11	18	40	86	126	231	253	258	263	265	263	263	259	258	266	261	281	252	225	13
4	110	52	63	359	348	9	39	15	299	297	254	256	255	257	259	261	258	260	254	262	255	251	241	239	12
5	218	192	261	355	78	82	89	102	240	241	245	249	254	257	254	255	255	253	257	266	262	251	218	208	12
6	234	359	4	48	85	95	104	97	133	289	289	254	250	255	258	260	267	263	266	271	253	241	251	263	12
7	317	344	336	311	311	306	327	348	341	331	273	260	263	268	270	271	270	275	281	308	343	330	15	60	[VA]
8	59	44	47	51	63	58	49	62	97	113	141	215	254	260	255	259	269	272	276	274	289	354	78	54	[VA]
9	50	62	69	39	360	330	18	58	48	318	257	259	266	258	262	262	259	264	262	259	278	275	284	255	13
10	247	68	86	84	61	85	71	101	130	199	223	243	260	256	250	254	263	259	265	283	279	279	275	274	13
11	291	327	318	338	338	337	332	332	343	346	345	336	275	260	275	278	326	345	348	343	326	357	2	360	[VA]
12	8	25	35	38	58	91	179	28	357	162	182	222	230	253	250	259	260	249	240	80	79	90	39	67	[VA]
13	329	75	62	53	163	84	31	84	85	144	217	289	253	259	276	282	272	262	252	358	60	8	33	45	[VA]
14	19	94	208	86	198	100	54	44	43	65	58	72	125	288	281	283	266	264	239	305	89	25	32	19	[VA]
15	35	12	20	49	43	29	40	64	39	28	24	201	237	232	219	222	221	237	238	232	101	59	43	20	2
16	48	37	44	46	30	26	30	24	31	69	35	101	205	176	145	130	187	210	211	208	150	61	32	27	2
17	45	40	28	33	49	53	40	43	61	62	160	164	193	223	236	259	260	246	244	225	198	171	68	86	3
18	285	275	253	351	70	189	137	48	166	241	259	256	257	260	287	259	257	252	244	239	251	248	9	198	12
19	348	49	85	132	126	95	113	99	100	99	189	255	255	264	265	263	260	265	264	260	259	234	292	30	[VA]
20	61	81	91	114	105	110	101	113	127	131	150	210	251	251	260	259	263	268	277	260	287	290	78	78	[VA]
21	61	72	49	48	48	53	56	56	75	179	262	252	250	255	254	315	324	323	316	337	328	318	72	76	3
22	101	107	108	71	83	82	43	49	190	260	257	262	266	256	247	251	257	256	252	258	225	179	179	118	[VA]
23	81	93	97	107	124	115	65	92	135	162	255	257	242	252	256	263	263	256	253	252	248	247	244	276	[VA]
24	304	40	81	78	341	37	340	12	315	254	245	250	255	257	261	245	257	254	354	81	97	54	352	[VA]	
25	17	64	66	109	75	81	354	112	106	119	179	150	182	255	258	256	257	262	133	69	96	92	44	14	[VA]
26	318	73	27	62	65	341	332	51	19	8	329	256	253	259	269	270	274	266	275	279	281	61	88	55	[VA]
27	113	23	6	46	9	61	118	51	65	162	231	256	254	251	259	258	264	266	257	261	271	259	252	59	12
28	61	75	80	65	73	60	71	87	26	24	246	247	256	258	260	267	263	268	252	264	273	90	93	75	[VA]
29	83	58	88	75	57	98	65	69	95	141	311	255	261	258	259	258	263	259	260	260	266	6	74	82	[VA]
30	55	57	73	111	81	60	67	56	80	110	143	253	255	259	265	262	260	263	253	251	295	160	79	79	[VA]
31	55	58	60	55	71	54	47	80	56	136	207	252	253	257	260	256	260	264	246	240	349	32	66	89	[VA]
PV	3	4	5	3	[VA]	[VA]	3	[VA]	[VA]	[VA]	[VA]	[VA]	12	12	12	13	13	13	12	13	13	[VA]	[VA]	[VA]	

00001 [Program: EDMS_MONTESUM]

Version: LC:15-OCT-93]

SIGMA THETA STABILITY [61191]

LAX AIR QUALITY MONITORING PROGRAM, #706211

DEGREES, COMPASS

SITE 1 LAX

* FINAL DATA *

OCT, 1997

* AS OF 26/FEB/98 *

AEROENVIRONMENT ENVIRONMENTAL SERVICES INC.

CLOCK HOUR [LOCAL STANDARD TIME]

DX	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG PEAK	
1	6	6	6	6	6	6	6	1	1	1	1	2	4	3	3	3	4	4	4	4	4	4	6	6	4	6
2	6	6	6	6	6	5	6	1	1	2	2	3	3	2	3	3	4	4	4	4	4	5	6	6	4	6
3	6	6	6	6	6	6	6	1	1	1	1	2	4	4	3	4	4	4	4	4	4	5	5	6	4	6
4	6	6	6	6	6	6	6	1	1	1	2	3	3	4	4	4	4	4	4	4	4	4	6	5	4	6
5	6	6	6	6	6	6	6	1	3	2	2	2	3	4	3	4	4	4	4	4	4	4	6	6	4	6
6	6	6	6	6	6	6	5	4	6	1	3	2	4	3	3	4	4	4	4	4	4	4	5	4	4	6
7	6	4	6	5	4	4	4	4	3	4	4	4	4	4	4	4	4	4	4	4	6	6	6	5	5	6
8	4	5	4	5	4	4	4	4	2	2	1	1	3	4	4	3	4	4	4	4	4	6	6	6	4	6
9	5	4	5	6	6	6	1	2	1	1	2	3	3	4	4	4	4	4	4	4	5	4	4	4	4	6
10	6	6	5	5	5	6	6	1	1	1	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	6
11	4	6	6	6	5	5	6	3	3	4	4	3	3	4	4	4	4	4	4	4	4	4	4	4	4	6
12	4	5	5	3	6	6	6	1	1	1	1	2	3	3	4	4	3	4	6	6	6	6	6	6	4	6
13	6	6	6	6	6	6	6	1	1	1	1	1	1	2	3	4	3	4	6	6	6	6	6	6	4	6
14	6	6	6	6	6	6	6	1	2	1	1	1	1	2	3	3	3	5	6	6	6	6	6	4	4	6
15	6	4	6	6	4	6	6	5	1	2	1	1	1	1	3	3	3	3	4	4	6	6	6	6	4	6
16	6	6	6	6	6	6	5	5	3	2	1	1	1	2	3	3	3	3	4	4	4	6	6	6	4	6
17	6	6	6	6	6	6	6	2	1	1	1	3	3	4	3	3	3	4	6	6	6	6	6	6	4	6
18	6	6	6	6	6	6	6	1	1	1	3	3	3	4	3	3	3	4	5	5	6	6	6	6	4	6
19	6	6	6	6	6	6	6	1	1	1	1	2	3	3	3	3	3	4	4	4	4	5	6	6	4	6
20	6	6	4	4	4	4	4	3	1	1	2	2	3	3	3	3	3	4	4	4	4	6	6	6	4	6
21	6	6	6	6	5	4	5	1	1	1	1	2	2	2	2	1	1	6	6	6	6	6	6	6	4	6
22	6	6	6	6	5	6	6	1	1	1	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	6
23	6	5	5	4	5	5	5	2	1	1	3	4	3	3	4	4	4	4	4	4	4	4	4	4	4	6
24	6	6	6	6	6	6	6	1	1	2	2	3	3	4	4	4	4	4	4	4	4	4	4	4	4	6
25	6	6	6	6	6	6	6	1	1	1	1	1	1	2	3	4	3	4	5	6	6	6	6	6	5	6
26	6	6	6	6	6	6	6	1	1	1	1	1	2	4	4	4	4	4	4	4	6	6	6	6	4	6
27	6	6	6	6	6	6	6	1	2	1	1	1	3	4	3	4	4	4	4	4	4	4	4	4	4	6
28	6	5	6	6	6	5	5	3	1	1	1	2	3	3	4	4	4	4	5	4	6	6	6	4	4	6
29	4	5	6	6	6	5	6	5	3	1	1	2	4	4	4	4	4	4	4	6	6	6	6	6	4	6
30	6	6	6	6	6	6	6	2	2	1	1	2	4	4	4	4	4	4	4	4	6	6	6	6	4	6
31	6	6	6	6	6	6	6	1	1	1	1	3	4	3	3	3	4	6	6	6	6	6	6	5	4	6
AV	6	6	6	6	6	6	5	2	2	1	2	2	3	3	3	3	4	4	4	5	5	5	6	5	4	
SD	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
PK	6	6	6	6	6	6	6	6	6	4	4	4	4	4	4	4	4	6	6	6	6	6	6	6		

TEMPERATURE [62101]
DEGREES CENTIGRADE
LEVEL HEIGHT : 9 METERS

LAX AIR QUALITY MONITORING PROGRAM, #706211
SITE 1 LAX
OCT, 1997
AEROENVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 26/FEB/98 *
*

CLOCK HOUR [LOCAL STANDARD TIME]

DY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	23.6	23.7	23.7	23.9	24.1	24.1	24.1	24.4	24.9	25.8	27.1	26.7	26.5	25.7	25.0	24.5	23.7	23.6	23.7	23.6	23.8	23.7	23.9	24.0	24.5	27.1
2	24.1	24.2	24.3	23.9	23.8	23.6	24.0	24.3	24.7	24.5	24.6	24.7	24.7	25.1	24.7	24.5	24.0	23.8	23.7	23.6	23.6	23.7	23.5	24.1	25.1	
3	23.3	23.1	23.0	22.4	22.2	22.4	22.8	23.8	24.5	25.5	26.1	26.2	26.0	25.6	25.4	25.3	24.7	24.2	24.1	24.1	23.9	23.9	23.8	24.2	26.2	
4	23.7	23.6	23.4	23.0	22.7	22.6	23.0	23.7	24.3	24.6	25.1	25.3	25.2	25.0	24.5	24.1	23.8	23.5	23.2	23.0	23.0	23.1	23.3	23.2	23.7	
5	23.2	23.3	23.4	23.4	23.3	23.2	23.2	23.3	23.5	23.4	23.5	23.7	24.2	24.3	23.7	23.3	22.9	22.4	22.3	22.3	22.2	22.2	22.4	22.5	23.1	
6	22.6	22.7	22.7	22.6	22.6	22.6	22.6	22.9	23.1	23.0	22.8	22.9	23.2	23.3	23.3	22.8	22.7	22.3	22.1	22.1	21.8	21.8	21.5	21.5	22.6	
7	21.6	20.7	19.9	19.2	18.7	18.5	18.4	19.2	20.4	21.8	22.3	22.7	23.4	23.4	23.3	22.8	21.7	21.2	21.5	22.3	22.0	21.7	21.5	19.6	21.2	
8	18.8	18.7	18.3	17.9	17.5	17.4	17.9	19.2	20.9	21.8	22.8	23.6	23.8	23.5	23.0	22.5	22.1	21.7	21.9	22.1	22.0	21.8	21.1	20.6	20.9	
9	20.1	19.2	18.4	18.3	18.1	18.3	19.0	20.4	22.0	23.8	24.5	23.4	23.5	23.5	23.6	23.2	22.5	21.8	21.6	21.7	22.2	21.5	21.4	20.8	21.4	
10	20.5	19.7	18.9	18.7	18.8	19.2	19.8	20.4	21.4	22.3	22.8	23.0	23.6	23.6	22.8	22.0	21.2	20.1	20.1	19.9	19.6	19.4	19.2	18.7	20.7	
11	18.5	17.8	17.3	16.9	16.4	16.4	16.4	17.8	18.8	19.7	20.3	21.2	21.0	21.9	21.9	21.4	21.9	20.8	19.9	19.8	19.6	19.4	19.5	19.4	19.3	
12	19.0	19.0	18.4	18.2	17.1	16.2	15.9	18.2	20.9	22.2	23.4	24.2	24.3	23.4	22.5	22.6	21.9	21.0	20.9	21.1	20.0	19.6	19.2	18.5	20.3	
13	18.3	17.2	17.2	17.4	16.8	16.7	17.4	19.7	22.6	25.4	27.4	29.3	30.4	30.6	29.4	28.7	27.6	26.2	26.3	26.3	25.4	24.5	23.5	23.2	23.6	
14	22.7	21.4	21.2	21.0	20.9	21.0	22.7	26.2	28.5	31.1	33.2	34.6	35.7	35.0	32.3	31.7	29.6	27.0	26.5	26.7	25.4	26.4	27.5	27.7	27.3	
15	27.4	26.8	26.4	24.6	24.5	24.4	23.9	25.0	28.7	31.6	34.4	36.2	[PA]	35.7	34.2	29.8	28.4	27.6	26.7	27.4	28.9	26.0	25.8	26.4	28.2	
16	26.1	27.1	25.6	25.2	24.6	25.1	25.8	26.5	29.7	32.1	34.9	36.5	36.0	31.1	29.2	28.7	28.7	26.9	26.3	26.5	26.1	24.9	24.4	24.5	28.0	
17	23.0	22.5	22.1	22.0	21.4	21.4	21.6	24.4	27.5	30.2	30.6	25.9	25.7	23.4	22.5	22.2	21.3	19.5	20.5	21.2	21.4	21.6	21.0	21.0	23.1	
18	20.8	20.5	20.1	18.8	18.9	19.3	19.7	19.2	18.7	22.4	22.1	22.1	21.9	21.7	21.6	21.3	20.7	20.4	20.4	20.3	20.1	20.0	19.8	19.8	20.4	
19	19.7	19.7	19.7	19.4	19.3	19.2	19.1	19.1	19.5	20.7	22.1	22.1	21.9	21.7	21.4	20.8	20.1	19.8	19.6	19.7	19.9	20.1	20.0	20.3	22.1	
20	19.8	20.0	20.3	20.2	20.2	20.3	20.3	20.6	20.8	20.9	21.4	21.6	21.4	21.6	21.2	20.8	20.4	20.1	20.1	20.1	20.1	20.1	20.0	19.5	20.5	
21	18.9	18.9	18.5	18.1	18.0	18.1	18.0	18.7	20.1	21.2	21.8	21.9	21.0	21.4	21.2	20.6	20.0	19.8	20.0	20.1	20.1	20.1	19.8	19.6	19.8	
22	19.0	19.8	19.6	19.1	18.7	18.4	18.8	19.2	20.5	21.6	21.9	22.1	22.0	22.0	21.8	21.4	21.0	20.8	20.8	20.9	20.9	20.9	20.9	20.9	20.6	
23	21.0	21.0	20.9	20.7	20.5	20.4	20.8	21.5	21.9	22.0	21.6	21.9	21.6	21.5	20.9	20.5	20.3	20.3	20.4	20.4	20.4	20.4	20.5	20.9	22.0	
24	20.4	20.2	19.9	19.7	19.3	19.3	19.0	19.5	20.1	20.9	21.2	21.4	21.5	21.5	20.9	20.6	20.7	20.7	20.8	20.8	20.5	20.4	20.2	19.3	20.4	
25	18.9	18.2	17.8	17.0	16.8	16.5	16.5	17.6	19.6	21.5	23.0	24.3	25.3	25.6	25.2	25.1	24.5	23.9	23.0	22.0	21.7	21.3	20.2	19.1	21.0	
26	18.4	17.3	16.8	16.5	15.9	16.4	15.9	17.7	21.5	24.1	25.6	26.6	26.7	26.3	25.4	24.5	23.5	22.8	22.5	22.2	21.8	20.9	19.2	18.6	21.1	
27	18.0	18.0	17.4	17.3	16.5	15.9	15.5	16.9	19.5	21.0	22.7	23.7	23.8	23.7	22.5	21.9	21.1	20.7	20.4	20.3	20.4	20.1	20.0	18.0	19.8	
28	17.4	17.0	16.4	16.1	15.6	15.5	15.0	16.5	18.3	20.3	21.9	22.4	22.0	22.1	21.6	21.3	20.9	20.7	20.6	20.7	20.7	20.7	19.3	18.1	19.2	
29	17.5	17.4	16.9	16.4	16.5	16.0	16.3	17.4	19.3	21.0	22.7	22.9	22.8	22.5	22.1	21.6	21.0	20.5	20.7	20.7	20.6	20.4	20.0	19.5	19.7	
30	19.1	18.5	17.8	17.3	16.8	16.7	16.7	17.8	19.7	22.3	24.6	25.2	24.2	24.0	23.7	22.9	21.0	21.6	21.6	21.6	21.7	21.4	21.3	20.4	20.8	
31	20.1	19.7	19.4	18.4	18.1	17.5	17.7	18.7	21.1	23.4	25.7	26.0	25.1	24.0	23.7	23.4	23.4	22.6	22.2	22.1	21.6	21.6	21.4	21.0	21.6	
AV	20.9	20.5	20.2	19.8	19.5	19.5	19.6	20.6	22.1	23.6	24.7	25.0	24.6	24.6	24.0	23.5	22.9	22.2	22.1	22.1	21.9	21.7	21.5	21.1	22.0	
SD	2.5	2.7	2.8	2.7	2.8	2.9	3.0	3.0	3.1	3.4	3.8	4.1	3.7	3.7	3.2	2.8	2.6	2.3	2.1	2.1	1.9	1.9	2.1	2.4		
PK	27.4	27.1	26.4	25.2	24.6	25.1	25.8	26.5	29.7	32.1	34.9	36.5	36.0	35.7	34.2	31.7	29.6	27.6	26.7	27.4	26.1	26.4	27.5	27.7	36.5	

00000 [Program: EDMS_MONTESUM]

Version: LC:15-OCT-93]

SOLAR RADIATION [61301]
WATTS PER SQUARE METER

LAX AIR QUALITY MONITORING PROGRAM, #706211
SITE 1 LAX
OCT, 1997
AEROENVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 26/FEB/98 *
*

CLOCK HOUR [LOCAL STANDARD TIME]

DY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	0	0	0	0	0	0	21	96	356	569	694	763	761	681	548	236	69	5	0	0	0	0	0	0	200	763
2	0	0	0	0	0	0	44	107	119	177	340	274	451	445	455	337	157	15	0	0	0	0	0	0	122	455
3	0	0	0	0	0	0	62	262	433	558	746	797	790	704	553	333	139	16	0	0	0	0	0	0	225	797
4	0	0	0	0	0	0	38	95	146	262	663	795	772	599	439	296	97	9	0	0	0	0	0	0	173	795
5	0	0	0	0	0	0	16	60	79	158	232	392	735	717	546	333	137	12	0	0	0	0	0	0	142	735
6	0	0	0	0	0	0	11	40	62	90	106	209	418	278	290	169	96	17	0	0	0	0	0	0	74	418
7	0	0	0	0	0	0	70	272	480	650	764	821	805	717	555	311	125	13	0	0	0	0	0	0	233	821
8	0	0	0	0	0	0	62	233	447	517	649	781	750	680	519	290	115	10	0	0	0	0	0	0	211	781
9	0	0	0	0	0	0	72	240	430	598	608	597	662	710	498	302	141	13	0	0	0	0	0	0	203	710
10	0	0	0	0	0	0	26	194	371	445	643	802	790	705	544	294	111	5	0	0	0	0	0	0	205	802
11	0	0	0	0	0	0	67	265	470	641	758	817	797	707	541	282	107	7	0	0	0	0	0	0	227	817
12	0	0	0	0	0	0	63	256	463	627	749	815	801	707	534	279	107	8	0	0	0	0	0	0	225	815
13	0	0	0	0	0	0	63	254	456	622	737	783	760	674	506	280	92	4	0	0	0	0	0	0	217	783
14	0	0	0	0	0	0	59	241	433	596	700	739	703	602	441	211	87	2	0	0	0	0	0	0	201	733
15	0	0	0	0	0	0	57	236	428	586	694	738	684	606	466	289	100	1	0	0	0	0	0	0	204	738
16	0	0	0	0	0	0	61	256	449	607	713	748	708	631	487	305	107	1	0	0	0	0	0	0	211	748
17	0	0	0	0	0	0	54	239	426	576	670	726	718	647	504	317	110	1	0	0	0	0	0	0	206	726
18	0	0	0	0	0	0	14	114	406	544	655	719	701	625	487	3										

SIGMA WS [70612]

DEGREES, COMPASS

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

OCT, 1997

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA
* AS OF 26/FEB/98
*

CLOCK HOUR [LOCAL STANDARD TIME]

DT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	34	28	53	34	40	35	32	32	20	38	51	18	12	14	13	13	10	9	14	15	16	11	17	29	24	53
2	55	39	57	35	16	23	37	55	67	20	18	15	15	18	13	14	10	12	14	14	15	17	61	22	28	67
3	43	39	46	23	21	31	42	32	47	41	40	19	11	11	15	11	8	10	11	20	17	7	16	24	24	47
4	75	25	26	25	19	25	38	31	65	26	19	17	14	11	12	12	10	11	14	17	16	14	18	16	23	75
5	43	45	34	53	39	31	58	31	36	14	18	19	22	17	12	13	12	11	6	11	14	13	30	36	26	58
6	36	27	32	18	26	18	14	12	69	28	15	20	10	14	13	11	11	9	11	10	12	11	7	12	19	69
7	22	14	19	16	15	14	19	14	15	17	25	11	11	10	9	8	8	9	19	39	26	67	22	16	19	67
8	9	15	12	13	11	11	15	12	24	19	50	43	16	12	12	14	11	12	13	17	18	55	27	23	19	55
9	7	7	15	34	27	35	34	19	34	51	25	13	15	12	11	8	10	9	13	15	19	15	12	9	19	51
10	20	24	13	17	16	19	17	26	21	31	22	16	12	8	10	8	8	9	14	11	11	10	10	10	15	31
11	18	26	23	21	13	18	21	15	16	16	16	28	26	12	10	10	25	15	16	21	18	16	20	16	18	28
12	21	27	21	29	55	28	78	45	37	40	34	21	28	13	12	11	13	11	22	65	20	22	42	38	31	78
13	45	27	32	36	67	62	36	25	24	35	63	39	56	20	19	12	17	13	57	38	43	41	68	39	38	68
14	71	70	39	62	68	53	11	26	21	36	51	36	42	55	15	16	13	18	39	64	38	28	19	13	37	71
15	18	9	15	25	12	28	37	32	17	21	44	63	42	19	38	39	37	28	23	53	24	19	22	35	29	63
16	49	34	17	14	42	15	16	14	22	33	31	51	53	58	61	59	55	47	44	47	74	30	23	23	38	74
17	40	23	18	21	33	40	26	19	33	33	56	56	49	29	22	14	13	10	16	31	26	30	10	34	29	56
18	58	39	42	45	53	57	37	53	30	33	15	15	13	9	14	12	14	8	23	15	22	45	26	33	30	58
19	43	21	25	48	39	23	41	26	34	43	50	22	14	15	13	15	12	12	13	16	22	27	48	26	27	50
20	19	20	10	12	10	13	11	17	23	24	23	32	19	17	12	14	14	14	13	17	33	53	56	29	21	56
21	24	27	3	2	4	11	14	27	42	77	58	51	47	49	49	41	33	33	35	40	29	38	30	33	77	
22	41	45	29	18	21	35	26	22	38	29	20	17	13	12	14	14	13	18	13	27	34	18	27	34	25	54
23	24	14	16	14	15	14	18	32	49	15	12	22	17	12	11	10	9	9	9	19	12	11	18	16	49	
24	20	41	19	30	17	35	14	35	67	24	17	15	13	10	10	9	9	12	12	45	36	22	24	26	23	67
25	29	47	48	38	39	29	41	65	36	38	62	47	56	49	16	12	15	13	45	40	17	32	30	53	37	65
26	67	44	76	27	25	39	65	44	42	33	34	59	17	11	12	11	8	8	13	21	70	31	26	14	33	76
27	49	42	39	42	60	39	39	26	18	51	29	33	17	12	14	12	11	10	12	12	18	13	32	14	27	60
28	23	13	36	21	47	15	13	16	35	48	55	18	13	15	12	11	7	11	7	15	25	66	19	10	23	66
29	9	12	24	21	12	53	13	19	29	27	58	19	12	12	12	10	11	10	13	28	31	40	27	27	22	58
30	19	17	29	57	39	42	42	22	22	43	55	30	11	12	11	9	7	13	17	17	55	72	32	30	29	72
31	18	20	23	60	66	53	52	42	29	47	53	16	12	14	12	14	15	20	37	39	26	61	32	13	32	66
AV	34	29	29	29	31	30	31	28	34	34	36	28	23	19	16	15	14	14	19	27	28	30	27	24	26	
SD	15	14	16	15	19	14	17	13	15	13	17	15	14	12	11	10	8	12	16	16	19	15	11			
PK	75	70	76	62	68	62	78	65	69	77	63	63	56	58	61	59	55	47	57	65	74	72	68	53		78

00000 [Program: EDMS MONTHSUM]

Version: LC:15-OCT-93]

DELTA T STABILITY CLASS [88825]

DEGREES, COMPASS

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

OCT, 1997

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA
* AS OF 26/FEB/98
*

CLOCK HOUR [LOCAL STANDARD TIME]

DT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	5	5	5	5	5	5	5	2	1	1	1	2	3	3	3	4	4	4	4	4	5	5	5	5	4	5
2	5	5	5	5	5	5	5	2	2	3	3	3	2	2	2	3	4	4	4	4	5	5	5	5	4	5
3	5	5	5	5	5	5	5	2	1	1	1	2	3	3	3	4	4	4	4	4	4	5	5	5	4	5
4	5	5	5	5	5	5	5	2	2	2	2	2	3	3	4	4	4	4	4	4	4	5	5	5	4	5
5	5	5	5	5	5	5	5	2	3	3	2	2	2	3	3	3	4	4	4	4	4	5	5	5	4	5
6	5	5	5	5	5	5	5	5	5	2	3	3	2	4	3	4	4	4	4	4	4	4	4	5	4	5
7	5	4	5	5	5	5	4	5	4	4	3	3	3	3	3	4	4	4	4	4	5	5	5	5	4	5
8	5	5	5	5	5	5	5	3	2	2	2	1	3	3	3	4	4	4	4	4	5	5	5	5	4	5
9	5	5	5	5	5	5	5	2	2	1	1	2	2	3	3	4	4	4	4	4	4	5	5	5	4	5
10	5	5	5	5	5	5	5	2	1	2	2	3	3	3	3	4	4	4	4	4	4	4	4	4	4	5
11	4	5	5	5	5	5	5	3	2	4	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	5
12	4	4	4	4	5	5	5	2	1	1	1	2	2	2	2	3	4	4	4	4	5	5	5	5	4	5
13	5	5	5	5	5	5	5	2	1	1	1	1	1	2	2	3	3	3	3	5	5	5	5	5	4	5
14	5	5	5	5	5	5	5	2	1	2	1	1	1	2	2	3	3	3	3	5	5	5	5	5	4	5
15	5	5	5	5	5	5	5	2	2	2	1	1	1	2	2	3	4	4	4	4	5	5	5	5	4	5
16	5	5	5	5	5	5	5	3	1	2	1	1	2	2	3	4	4	4	4	4	5	5	5	5	4	5
17	5	5	5	5	5	5	5	2	2	1	2	3	3	3	3	3	4	4	4	4	6	6	6	6	4	5
18	5	6	6	6	6	6	6	2	1	2	2	2	2	2	2	3	4	4	4	4	5	5	5	5	4	5
19	5	5	5	5	5	5	5	2	2	1	1	2	2	2	2	3	4	4	4	4	5	5	5	5	4	5
20	5	5	5	5	5	5	5	3	3	3	3	2	2	2	2	3	4	4	4	4	5	5	5	5	4	5
21	5	5	5	5	5	5	5	2	2	1	1	2	2	2	2	3	4	4	4	4	5	5	5	5	4	5
22	5	5	5	5	5	5	5	2	1	2	2	2	3	2	3	3	4	4	4	4	5	5	5	5	4	5
23	5	5	5	5	5	5	5	2	3	3	3	3	2	3	3	4	4	4	4	4	5	5	5	5	4	5
24	5	5	5	5	5	5	5	2	2	2	2	2	2	2	3	4	4	4	4	4	5	5	5	5	4	5
25	5	5	5	5	5	5	5	2	1	1	1	1	1	2	2	3	4	4	4	4	5	5	5	5	4	5
26	5	5	5	5	5	5	5	2	1	1	1	1	2	2	3	4	4	4	4	4	5	5	5	5	4	5
27	5	5	5	5	5	5	5	2	1	2	2	2	2	2	3	4	4	4	4	4	5	5	5	5	4	5
28	5	5	5	5	5	5	5	2	1	1	1	2	2	3	3	4	4	4	4	4	5	5	5	5	4	5
29	5	5	5	5	5	5	5	2	1	2	1	2	2	2	2	3	4	4	4	4	5	5	5	5	4	5
30	5	5	5	5	5	5	5	2	2	1	1	2	2	2	3	4	4	4	4	4	5	5	5	5	4	5
31	5	5	5	5	5	5	5	2	2	1	1	2	2	2	2	3	5	5	5	5	5	5	5	5	4	5
AV	5	5	5	5	5	5	5	2	2	2	2	2	2	3	3	4	4	4	4	4	5	5	5	5	4	
SD	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	0	1	0	1	1	0	0	0	0		
PK	5	6	6	6	6	6	6	5	5	4	3	3	4	4	4	5	5	6	6	6	5	5	5	6		

BATTERY VOLTAGE [990341]

VOLTS

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

OCT, 1997

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 26/FEB/98 *

CLOCK HOUR [LOCAL STANDARD TIME]

DY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.8	13.8	13.8	13.8	13.7	13.7	13.7	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.9
2	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.7	13.7	13.7	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.9
3	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.8	13.8	13.8	13.8	13.8	13.8	13.7	13.8	13.8	13.8	13.8	13.8	13.8	13.9	13.9	13.9	13.8	13.9
4	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.9	13.9	13.9	13.9	13.9	13.9
5	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.9	13.9	13.9	13.9	13.9	13.9	13.9
6	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.8	13.8	13.8	13.8	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9
7	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.8	13.8	13.8	13.8	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9
8	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.8	13.8	13.8	13.8	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9
9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.8	13.8	13.8	13.8	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9
10	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.8	13.8	13.8	13.8	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9
11	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
12	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
13	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
14	13.9	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
15	13.8	13.8	13.8	13.9	13.9	13.9	13.9	13.8	13.7	13.7	13.7	13.7	13.6	13.6	13.6	13.6	13.6	13.7	13.7	13.7	13.8	13.8	13.8	13.8	13.8	13.9
16	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9
17	13.9	13.9	13.9	13.9	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
18	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
19	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
20	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	14.0
21	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
22	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	14.0
23	13.8	13.8	13.8	13.9	13.9	13.9	13.9	13.9	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9
24	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9
25	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9
26	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9
27	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9
28	13.9	13.8	13.8	13.9	13.9	13.9	13.9	13.9	13.9	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9
29	13.8	13.8	13.8	13.8	13.9	13.9	13.9	13.9	13.9	13.8	13.8	13.8	13.7	13.7	13.7	13.8	13.8	13.8	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9
30	13.8	13.8	13.8	13.8	13.9	13.9	13.9	13.9	13.9	13.8	13.8	13.8	13.8	13.7	13.7	13.8	13.8	13.8	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9
31	13.9	13.9	13.8	13.8	13.8	13.8	13.9	13.9	13.8	13.8	13.8	13.7	13.7	13.7	13.7	13.7	13.7	13.8	13.8	13.8	13.9	13.8	13.8	13.8	13.8	13.9
AV	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.9	13.9	13.9	13.9	13.9	13.9	13.9
SD	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PK	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0

00000 [Program: EMS_MONTHSUM]

Version: LC:15-OCT-93]

SIGMA THETA (CALCULATE) [99090]

DEGREES, COMPASS

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

OCT, 1997

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 26/FEB/98 *

CLOCK HOUR [LOCAL STANDARD TIME]

DY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	29	27	58	36	43	39	37	36	27	50	62	19	12	14	13	13	10	9	15	16	17	12	22	32	27	62
2	80	49	67	36	16	22	45	67	79	22	20	16	15	10	13	15	10	13	14	13	14	17	70	23	31	80
3	49	55	62	24	22	35	37	37	63	55	49	20	11	12	15	11	8	9	10	19	16	7	15	24	28	63
4	91	27	30	26	21	28	41	33	92	27	21	17	15	11	12	12	11	13	15	18	19	15	19	17	26	92
5	57	62	48	58	49	48	84	38	61	14	19	20	24	17	12	13	12	11	8	11	14	14	31	44	32	84
6	44	28	40	20	28	21	13	13	86	30	16	22	10	14	14	12	11	9	11	10	12	11	8	13	21	86
7	22	15	20	17	14	14	19	15	16	18	27	12	12	11	9	9	8	10	22	38	30	83	24	17	20	83
8	9	15	12	13	12	12	15	12	25	21	65	48	16	12	12	14	12	12	13	17	19	66	25	26	21	66
9	7	8	15	53	31	35	34	19	43	66	31	13	15	13	11	9	10	9	12	17	18	15	13	9	21	66
10	28	56	13	10	16	20	20	29	23	34	23	17	12	9	10	8	9	9	15	11	11	11	10	10	17	56
11	23	25	26	22	13	18	22	15	16	17	17	31	27	12	11	11	26	16	17	22	19	17	22	16	19	31
12	22	31	24	34	56	30	92	48	51	97	42	24	28	13	12	11	13	11	27	60	19	21	45	50	38	92
13	55	39	35	48	86	63	43	16	26	42	77	46	85	22	19	12	17	13	74	54	48	50	90	52	47	90
14	98	100	44	73	88	66	12	30	22	37	59	50	46	85	15	17	13	25	36	77	43	34	22	13	46	100
15	19	9	19	38	13	46	39	36	18	23	55	86	57	19	40	41	39	28	24	58	25	20	36	45	35	86
16	63	52	16	19	93																					

TEMPERATURE 2M HEIGHT [99144]

LAX AIR QUALITY MONITORING PROGRAM, #706211

DEGREES CENTIGRADE

SITE 1 LAX

OCT, 1997

AEROENVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 26/FEB/98 *
*

CLOCK HOUR [LOCAL STANDARD TIME]

BY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	22.4	22.5	22.5	22.7	22.9	22.9	23.2	23.7	24.8	26.1	27.7	27.6	27.8	26.8	25.9	24.6	23.2	22.7	22.8	22.5	22.7	22.7	23.0	23.2	24.0	27.8
2	23.4	23.5	23.6	23.1	23.0	23.0	23.4	23.9	24.5	24.4	24.8	25.0	25.3	25.7	25.4	25.1	24.2	23.9	23.2	23.0	22.5	22.5	22.9	22.6	23.8	25.7
3	22.4	22.0	21.9	21.4	21.3	21.2	21.7	23.4	24.4	25.8	26.9	27.2	27.3	26.7	26.2	25.9	24.7	23.3	22.9	23.1	22.6	22.3	22.1	22.0	23.7	27.3
4	22.2	22.3	22.0	21.5	21.5	20.9	21.6	22.5	23.3	24.0	25.5	26.0	26.1	25.8	24.9	24.2	23.1	22.6	22.1	21.8	21.7	21.6	22.0	22.0	23.0	26.1
5	22.0	22.1	22.2	22.2	22.0	22.0	22.1	22.5	22.9	23.0	23.4	24.0	25.0	25.2	24.5	23.7	22.7	21.4	21.0	21.3	21.4	21.4	21.7	21.7	22.6	25.1
6	21.8	22.0	22.0	22.0	22.1	22.3	22.3	22.2	22.4	22.4	22.3	23.0	23.9	23.8	23.6	22.9	22.7	21.8	21.7	21.7	20.9	21.3	20.9	20.9	22.2	23.9
7	21.4	20.7	19.8	19.1	18.6	18.4	18.4	19.5	20.9	22.4	23.6	24.4	25.0	24.6	24.2	23.3	21.8	21.1	21.4	22.0	21.8	21.3	21.1	19.3	21.4	25.0
8	18.6	18.5	18.1	17.7	17.3	17.2	17.8	19.5	21.8	22.7	23.6	24.6	25.3	25.0	24.3	23.4	22.4	21.6	21.8	21.9	21.8	21.3	21.1	19.3	21.4	25.4
9	19.5	18.7	18.0	17.3	17.3	16.9	18.6	20.7	22.5	24.4	25.4	24.7	24.8	25.0	24.8	24.1	22.9	21.6	21.2	21.3	22.0	21.2	21.1	19.7	21.4	25.4
10	19.4	19.2	18.5	18.1	18.4	19.0	19.7	20.5	21.9	23.0	23.9	24.6	25.2	25.1	24.1	22.8	21.4	19.9	20.0	19.9	19.6	19.4	19.2	18.6	20.9	25.2
11	18.4	17.6	17.1	16.8	16.2	16.2	16.4	18.1	19.5	20.5	21.1	22.2	22.4	23.1	22.7	22.0	22.1	20.8	19.9	19.7	19.5	19.4	19.4	19.3	19.6	23.1
12	18.9	18.7	18.2	17.9	16.1	15.1	15.5	18.5	21.5	23.0	24.3	25.3	25.7	25.0	23.8	23.5	22.2	20.6	20.3	20.7	19.5	19.2	18.7	17.7	20.4	25.7
13	16.8	16.3	16.0	15.5	14.7	15.4	16.5	19.9	23.1	26.1	28.2	30.1	31.2	31.7	30.3	29.3	27.6	25.3	25.6	25.4	24.2	22.9	21.5	21.5	23.1	31.7
14	19.4	18.9	18.3	18.3	18.1	18.3	21.7	26.3	29.0	31.8	33.9	35.4	36.6	35.9	33.1	32.2	29.6	25.9	25.3	25.8	24.8	24.8	25.9	27.2	26.5	36.6
15	26.8	26.0	25.5	25.3	23.9	23.7	23.3	26.0	29.3	32.5	35.1	36.8	[PA]	36.9	35.2	30.4	28.4	26.7	25.6	26.4	25.2	25.3	24.8	25.2	27.9	36.9
16	22.6	26.1	24.8	24.0	23.2	24.3	25.4	26.9	30.4	32.8	35.7	37.3	37.1	32.6	30.4	29.5	28.7	26.3	25.5	25.7	25.5	24.2	23.9	23.4	27.8	37.3
17	21.6	21.5	21.2	20.9	20.4	19.6	20.4	24.7	28.0	30.8	31.4	27.5	27.1	24.9	23.7	22.9	21.6	19.1	21.9	22.0	21.4	21.3	20.7	21.1	23.2	31.4
18	20.0	21.1	21.8	21.5	24.9	22.4	26.2	28.6	23.1	23.3	23.3	23.3	23.3	22.8	22.0	20.7	19.6	19.5	19.3	19.1	19.1	19.5	19.2	21.7	26.4	
19	19.2	15.4	19.5	19.2	19.0	18.9	18.9	19.1	19.8	21.4	22.8	23.4	23.5	23.2	22.6	22.1	20.9	19.7	19.4	19.0	19.3	19.7	20.0	20.0	20.4	23.5
20	19.0	19.9	20.2	20.2	20.1	20.3	20.3	20.8	21.0	21.2	21.9	22.4	22.5	22.2	21.5	20.6	20.0	20.0	20.0	19.5	19.2	19.2	19.2	20.1	20.6	22.7
21	18.6	18.4	17.9	17.1	17.2	17.5	17.7	18.8	20.5	21.9	22.8	23.3	22.1	22.8	22.4	21.4	20.2	19.4	19.5	19.6	19.3	19.3	19.4	19.3	19.9	23.3
22	19.6	19.7	19.5	18.9	18.4	18.0	18.4	19.4	20.8	22.4	22.8	23.2	23.4	23.4	23.0	22.2	21.2	20.4	20.6	20.5	20.6	20.7	20.8	20.8	20.8	23.4
23	20.9	20.9	20.7	20.5	20.4	20.2	20.2	21.0	22.1	22.5	23.5	22.7	23.1	22.7	22.6	21.6	20.7	20.1	20.3	20.2	20.0	20.0	20.1	20.5	21.1	23.5
24	20.3	20.0	19.7	19.2	19.0	19.0	18.6	19.8	20.5	21.8	22.4	22.8	23.0	22.8	22.0	20.9	20.6	20.2	20.2	20.1	19.9	19.6	18.7	20.5	23.0	
25	18.0	17.4	17.1	16.2	16.2	15.7	15.8	17.7	19.9	22.2	23.7	25.0	26.0	26.5	26.1	25.6	24.3	22.8	22.4	21.4	20.9	20.6	19.3	18.0	20.8	26.5
26	17.3	16.6	15.1	15.2	15.1	15.3	14.6	17.8	22.1	25.0	26.4	27.4	27.9	27.7	26.5	25.2	23.6	22.3	22.2	21.4	21.0	20.3	18.6	18.3	21.0	27.9
27	17.2	16.7	15.8	15.3	15.0	15.1	14.7	17.2	19.9	21.5	23.5	24.6	25.1	25.0	23.7	22.6	21.1	20.1	19.6	19.5	19.6	19.1	18.7	17.6	19.5	25.1
28	16.9	16.4	15.7	15.2	14.3	14.0	14.6	16.7	18.9	21.0	22.6	23.5	23.3	23.5	22.9	22.1	21.0	20.3	19.8	20.1	20.6	19.8	18.6	17.6	19.2	23.5
29	16.9	16.8	15.9	15.7	16.0	14.8	15.6	17.5	19.8	21.8	23.3	24.0	24.2	23.7	23.2	22.3	21.0	19.9	20.1	20.1	20.1	19.7	19.2	18.9	19.6	24.2
30	18.6	17.9	17.3	16.3	16.0	15.7	15.9	17.8	20.1	23.0	25.2	26.3	25.5	25.5	24.9	23.7	21.9	21.2	20.9	20.7	21.1	20.8	20.8	19.8	20.7	25.3
31	19.4	18.7	18.2	16.8	16.8	16.5	16.4	18.6	21.3	23.9	26.4	27.0	26.4	25.0	24.7	24.0	23.3	22.1	21.4	21.5	21.3	21.0	20.5	20.0	21.3	27.0
AV	20.0	19.9	19.5	19.0	18.9	18.7	19.2	20.9	22.4	24.1	25.4	26.0	25.8	25.9	25.1	24.1	22.9	21.7	21.5	21.5	21.3	21.0	20.8	20.4	21.9	
SD	2.3	2.6	2.8	2.7	3.0	3.0	3.3	3.0	3.1	3.4	3.8	4.0	3.6	3.6	3.2	2.8	2.5	2.3	1.9	2.0	1.8	1.7	1.8	2.2		
PK	26.8	26.1	25.5	24.0	24.9	24.3	26.4	26.9	30.4	32.8	35.7	37.3	37.1	36.9	35.2	32.2	29.6	26.7	25.6	26.4	25.5	25.3	25.9	27.2		37.3

00000 [Program: TIME MONITOR]

Version: LC:15-OCT-93]

STATION TEMPERATURE [99231]

LAX AIR QUALITY MONITORING PROGRAM, #706211

DEGREES CENTIGRADE

SITE 1 LAX

OCT, 1997

AEROENVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 26/FEB/98 *
*

CLOCK HOUR [LOCAL STANDARD TIME]

BY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	19.6	19.8	20.1	20.2	20.3	20.4	20.5	20.7	21.5	23.1	24.0	24.6	24.9	24.9	24.8	24.5	23.9	22.9	22.1	21.4	21.0	20.8	20.7	20.7	22.0	24.9
2	20.8	20.9	21.2	21.1	21.0	20.9	20.8	21.1	21.7	22.2	22.8	23.6	23.9	24.4	24.6	24.3	24.1	23.6	22.6	21.9	21.3	20.7	20.3	20.0	22.1	24.8
3	19.7	19.3	19.2	18.9	18.6	18.4	18.2	19.3	21.9	23.2	23.9	24.2	24.4	24.5	24.5	24.3	23.7	22.4	21.4	20.9	20.4	20.0	19.7	21.5	24.5	
4	19.5	19.4	19.5	19.2	18.9	18.6	18.6	19.0	19.9	20.9	22.4	23.5	23.9	24.1	24.0	24.0	23.6	22.5	21.6	20.9	20.4	20.1	20.0	20.0	21.0	24.1
5	20.0	20.0	20.2	20.0	20.0	19.9	19.8	19.9	20.3	21.4	21.8	22.2	23.2	23.9	24.1	24.2	24.0	22.8	21.0	19.9	19.5	19.3	19.2	19.2	21.1	24.2
6	19.1	19.1	19.2	19.0	18.9	18.9	18.9	19.1	19.4	19.7	20.0	20.1	20.8	21.6	21.9	21.9	21.2	20.6	19.5	18.9	18.4	18.0	17.9	17.9	19.6	21.9
7	18.0	18.3	18.5	18.2	18.4	18.6	18.6	18.4	18.6	19.7	20.8	21.2	21.5	22.0	22.4	22.5	22.0	20.9	19.6	18.7	18.4	18.4	18.3	18.3	19.6	22.5
8	18.4	18.5	18.8	19.0	19.2	19.4	19.4	18.7	19.7	21.5	22.7	23.5	23.7	23.9	24.0	24.1	23.7	22.3	20.8	19.5	18.9	18.4	18.2	18.3	20.6	24.1
9	18.6	18.6	19.0	19.2	19.4	19.6	19.5	19.0	20.4	22.4	23.2	23.5	23.6	23.8	23.9	23.9	23.6	22.6	21.0	19.9	19.3	18.9	18.6	18.3	20.8	23.9
10	18.1	18.3	18.8	19.0	19.2	19.0	19.0	20.6	22.7	24.3	24.7	24.9	24.6	24.1	23.9	23.6	22.8	21.2	19.5	18.6	18.0	17.7	17.9	16.8	20.7	24.9
11	16.2	15.6	15.7	15.6	15.7	15.8	15.7	16.1	17.9	19.1	19.7	20.1	20.7	21.2	21.3	21.5	21.3	20.1	18.2	17.0	16.2	15.7	15.4	15.1	17.8	21.5
12	15.1	15.1	15.4	15.4	15.4	15.7	16.0	16.1	18.3	21.0	22.6	23.6	24.1	24.4	24.3	24.1	23.4	21.8	19.8	18.4	17.4	16.6	15.9	15.3	19.0	24.4
13																										

Delta Temp [99238]

LAX AIR QUALITY MONITORING PROGRAM, #706211

*
* FINAL DATA *
* AS OF 26/FEB/98 *
*

DEGREES CENTIGRADE

SITE 1 LAX

OCT, 1997

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

CLOCK HOUR [LOCAL STANDARD TIME]

DX	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK	
1	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.0	-0.6	-0.1	0.3	0.6	0.8	1.3	1.1	0.9	0.1	-0.9	-0.9	-0.9	-1.0	-1.0	-1.0	-0.9	-0.8	-0.5	1.3	
2	-0.7	-0.7	-0.6	-0.8	-0.8	-0.8	-0.6	-0.4	-0.2	-0.1	0.2	0.2	0.5	0.5	0.7	0.6	0.2	-0.5	-0.5	-0.7	-1.0	-1.1	-0.8	-0.6	-0.3	0.7	
3	-0.9	-1.0	-1.1	-1.0	-1.0	-1.3	-1.1	-0.4	-0.1	0.4	0.8	1.0	1.3	1.1	0.8	0.6	0.0	-0.9	-1.1	-1.0	-1.3	-1.6	-1.8	-1.8	-0.5	1.3	
4	-1.5	-1.3	-1.4	-1.5	-1.3	-1.6	-2.4	-1.1	-1.0	-0.5	0.4	0.7	0.9	0.8	0.4	0.0	-0.7	-0.9	-1.1	-1.2	-1.3	-1.3	-1.3	-0.8	0.9		
5	-1.2	-1.2	-1.3	-1.3	-1.3	-1.3	-1.1	-0.6	-0.6	-0.4	-0.1	0.2	0.9	1.0	0.9	0.5	-0.2	-1.1	-1.2	-1.0	-0.8	-0.8	-0.7	-0.8	-0.6	1.0	
6	-0.8	-0.7	-0.7	-0.6	-0.5	-0.5	-0.5	-0.7	-0.6	-0.6	-0.5	0.0	0.7	0.5	0.4	0.1	0.0	-0.5	-0.4	-0.4	-0.8	-0.5	-0.6	-0.7	-0.4	0.7	
7	-0.2	-0.1	-0.1	-0.1	-0.1	0.0	0.4	0.5	0.7	1.3	1.7	1.6	1.2	0.9	0.4	0.2	-0.1	-0.1	-0.3	-0.2	-0.5	-0.4	-0.3	0.3	1.7	1.6	
8	-0.2	-0.2	-0.2	-0.2	-0.2	0.0	0.3	0.8	0.8	0.8	0.9	1.3	1.6	1.3	1.5	1.2	0.9	0.4	-0.2	-0.3	-0.4	-0.2	-0.3	-0.3	-1.0	0.0	1.5
9	-0.5	-0.5	-0.5	-1.0	-0.8	-1.4	-0.4	0.2	0.5	0.6	0.9	1.3	1.3	1.3	1.5	1.2	0.9	0.4	-0.2	-0.3	-0.4	-0.2	-0.3	-0.3	-1.0	0.0	1.5
10	-1.2	-0.5	-0.4	-0.5	-0.3	-0.1	-0.1	0.1	0.5	0.7	1.1	1.6	1.6	1.4	1.3	0.8	0.2	-0.2	-0.1	0.0	0.0	0.0	-0.1	-0.1	-0.1	0.2	1.6
11	-0.1	-0.2	-0.1	-0.1	-0.2	-0.2	0.0	0.3	0.6	0.8	0.8	0.9	1.3	1.3	0.8	0.6	0.3	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	0.1	1.3	
12	-0.1	-0.4	-0.3	-0.3	-1.0	-1.1	-0.4	0.3	0.6	0.7	0.9	1.1	1.3	1.6	1.3	0.9	0.3	-0.5	-0.6	-0.5	-0.5	-0.4	-0.5	-0.8	0.1	1.6	
13	-1.5	-0.8	-1.2	-1.9	-2.0	-1.3	-1.0	0.2	0.5	0.7	0.7	0.8	0.8	1.1	1.0	0.6	0.1	-0.9	-0.7	-0.8	-1.2	-1.5	-2.0	-1.8	-0.5	1.1	
14	-2.3	-2.3	-2.9	-2.7	-2.8	-2.7	-1.0	0.2	0.5	0.7	0.7	0.8	0.8	0.9	0.8	0.5	0.0	-1.1	-1.2	-0.9	-0.7	-1.5	-1.6	-0.6	-0.8	0.9	
15	-0.7	-0.8	-0.9	-1.4	-0.5	-0.7	-0.6	0.3	0.6	0.9	0.7	0.5	[PA]	1.2	1.0	0.6	0.0	-0.9	-1.1	-1.0	-0.7	-0.7	-1.0	-1.3	-0.3	1.2	
16	-3.5	-1.6	-1.0	-1.1	-1.4	-0.8	-0.4	0.4	0.7	0.7	0.9	0.9	1.1	1.4	1.2	0.8	0.0	-0.6	-0.8	-0.8	-0.6	-0.7	-0.5	-1.1	-0.3	1.4	
17	-1.4	-1.0	-1.0	-1.1	-1.1	-1.6	-1.2	0.2	0.5	0.5	0.9	1.6	1.4	1.5	1.2	0.7	0.3	-0.4	1.3	0.9	0.0	-0.3	-0.3	0.2	0.1	1.6	
18	-0.9	0.6	1.7	2.7	6.0	3.2	6.7	6.9	-0.1	0.7	1.2	1.2	1.4	1.5	1.1	0.7	0.1	-0.7	-0.9	-1.0	-1.1	-0.9	-0.3	-0.5	1.2	6.9	
19	-0.5	-0.2	-0.2	-0.3	-0.3	-0.3	-0.2	0.0	0.4	0.7	0.7	1.3	1.4	1.3	1.0	0.8	0.2	-0.4	-0.5	-0.7	-0.5	-0.2	-0.1	0.0	0.1	1.4	
20	-0.1	-0.1	-0.1	0.0	-0.1	0.0	0.0	0.2	0.3	0.3	0.5	0.8	1.1	1.1	1.0	0.6	0.2	-0.1	-0.1	-0.2	-0.6	-0.8	-0.8	-0.5	0.1	1.1	
21	-0.3	-0.3	-0.6	-1.1	-0.8	-0.6	-0.3	0.1	0.4	0.7	1.0	1.4	1.0	1.4	1.2	0.8	0.2	-0.4	-0.5	-0.5	-0.6	-0.8	-0.4	-0.3	0.0	1.4	
22	-0.2	-0.1	-0.1	-0.2	-0.4	-0.4	-0.4	0.3	0.4	0.8	1.0	1.1	1.4	1.4	1.2	0.8	0.1	-0.4	-0.3	-0.3	-0.4	-0.1	-0.1	-0.1	0.2	1.4	
23	-0.1	-0.1	-0.1	-0.2	-0.3	-0.3	-0.2	0.2	0.6	0.6	1.5	1.2	1.2	1.1	1.1	0.6	0.1	-0.1	0.0	-0.2	-0.4	-0.5	-0.3	0.0	0.2	1.5	
24	-0.1	-0.2	-0.2	-0.4	-0.3	-0.3	-0.3	0.2	0.4	1.0	1.2	1.4	1.5	1.5	1.0	0.3	0.0	-0.5	-0.6	-0.5	-0.4	-0.5	-0.6	-0.6	0.1	1.5	
25	-0.9	-0.9	-0.8	-0.8	-0.6	-0.8	-0.6	0.1	0.4	0.7	0.7	0.7	0.7	1.0	0.9	0.3	-0.2	-1.1	-0.6	-0.6	-0.9	-0.7	-0.9	-1.1	-0.2	1.0	
26	-1.1	-0.8	-1.7	-1.3	-0.8	-1.2	-1.3	0.1	0.6	0.9	0.9	0.8	1.1	1.4	1.1	0.7	0.1	-0.5	-0.3	-0.8	-0.8	-0.6	-0.5	-0.4	-0.2	1.4	
27	-0.9	-1.4	-1.6	-2.0	-1.5	-0.9	-0.8	0.3	0.4	0.5	0.8	0.8	1.2	1.3	1.3	0.8	0.0	-0.5	-0.8	-0.8	-0.8	-1.1	-1.2	-0.4	-0.3	1.3	
28	-0.5	-0.5	-0.8	-1.0	-1.1	-0.7	-0.4	0.1	0.6	0.7	0.6	1.2	1.4	1.4	1.3	0.8	0.1	-0.4	-0.4	-0.6	-0.4	-0.8	-0.7	-0.5	0.0	1.4	
29	-0.5	-0.6	-1.1	-0.7	-0.5	-1.2	-0.7	0.1	0.5	0.8	0.6	1.1	1.3	1.3	1.1	0.7	0.1	-0.6	-0.6	-0.6	-0.5	-0.8	-0.8	-0.7	-0.1	1.3	
30	-0.6	-0.6	-0.5	-1.0	-0.9	-0.9	-0.8	0.0	0.4	0.6	0.6	1.2	1.4	1.4	1.2	0.8	0.1	-0.4	-0.6	-0.9	-0.6	-0.6	-0.6	-0.6	-0.1	1.4	
31	-0.7	-1.0	-1.2	-1.6	-1.2	-1.0	-1.3	-0.1	0.3	0.5	0.7	1.0	1.3	1.1	1.0	0.6	-0.2	-0.6	-0.8	-0.6	-0.4	-0.5	-0.9	-1.0	-0.3	1.3	
AV	-0.9	-0.7	-0.7	-0.8	-0.6	-0.7	-0.4	0.2	0.3	0.5	0.9	1.0	1.2	1.2	1.0	0.6	0.1	-0.5	-0.5	-0.6	-0.6	-0.7	-0.7	-0.7	-0.1		
SD	0.8	0.6	0.8	0.9	1.4	0.9	1.4	1.3	0.4	0.4	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.3	0.5	0.4	0.4	0.4	0.5	0.5	0.5		
PK	-0.1	0.6	1.7	2.7	6.0	3.2	6.7	6.9	0.9	1.0	1.5	1.7	1.6	1.6	1.3	0.9	0.4	0.9	1.3	0.9	0.0	0.0	-0.1	0.2		6.9	

00000 [Program: EDMS_MONTHSUM]

Version: LC:15-OCT-93]

CARBON MONOXIDE [42101]

LAX AIR QUALITY MONITORING PROGRAM, #706211

*
* FINAL DATA *
* AS OF 26/FEB/98 *
*

PARTS PER MILLION

SITE 1 LAX

NOV, 1997

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

CLOCK HOUR [LOCAL STANDARD TIME]

DX	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK	
1	7.7	[XS]	[XS]	10.6	5.9	8.3	6.7	7.2	4.5	3.6	1.2	0.5	0.0	0.0	0.0	0.6	0.5	0.4	0.3	1.3	3.4	3.8	4.3	5.7	3.7	10.6	
2	6.8	[XS]	[XS]	4.1	4.2	2.4	1.9	2.0	1.6	1.2	0.9	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.5	0.4	2.4	3.2	4.3	3.1	1.8	6.8	
3	0.9	[XS]	[XS]	0.1	0.0	0.1	1.5	2.0	2.3	1.8	1.0	1.0	0.6	0.6	0.7	1.0	1.4	0.7	0.7	0.7	0.5	1.7	2.8	3.6	1.2	3.6	
4	3.7	[XS]	[XS]	5.0	5.6	5.8	6.6	6.9	5.7	3.3	3.4	2.1	1.2	0.7	0.7	0.7	0.6	0.2	0.1	0.4	0.2	0.0	0.0	0.0	0.0	2.4	6.9
5	0.2	[XS]	[XS]	0.3	0.3	0.2	0.5	0.8	0.8	1.0	1.3	0.5	0.1	0.1	0.1	0.5	0.6	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.4	1.3	
6	0.6	[XS]	[XS]	1.2	1.6	2.1	2.6	[SC]	[SC]	1.6	1.0	1.3	1.1	0.8	0.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.8	2.6	
7	0.9	[XS]	[XS]	0.1	0.0	0.1	0.9	0.5	0.1	0.3	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.9	
8	0.9	[XS]	[XS]	2.0	2.1	2.3	2.2	2.6	1.2	0.5	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	1.9	0.8	2.6
9	2.9	[XS]	[XS]	2.4	1.9	1.7	1.7	1.8	1.5	0.8	0.4	0.4	0.3	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	2.9	
10	0.0	[XS]	[XS]	0.0	0.0	0.0	0.0	[SC]	[SC]	0.2	0.3	0.1	0.0	0.3	0.6	0.3	0.2	0.2	0.0	0.1	0.4	0.9	0.5	1.3	0.3	1.3	
11	1.3	[XS]	[XS]	1.4	1.5	1.6	2.3	2.4	2.2	1.1	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.4	1.2	2.0	1.3	0.9	2.4	
12	1.2	[XS]	[XS]	1.1	0.6	0.5	0.9	0.9	0.6	0.5	0.1	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5	1.1	1.6	1.4	1.8	0.6	1.8
13	2.1	[XS]	[XS]	1.0	0.7	0.8	1.5	2.0	1.7	0.6	1.0	0.7	0.6	0.5	0.7	0.4	0.8	0.9	1.1	0.4	0.4	0.4	0.6	0.6	0.9	2.1	
14	2.3	[XS]	[XS]	1.7	1.6	1.1	1.8	3.1	2.0	[SC]	[SC]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.6	1.4	2.0	2.5	1.0	3.1	
15	3.9	[XS]	[XS]	1.9	0.8	1.0	1.2	1.4	1.8	1.4	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.5	0.8	1.5	1.8	0.9	3.9	
16	2.1	[XS]	[XS]	2.3	1.8	1.6	1.6	1.3	1.0	1.0	0.9	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.4	0.4	0.9	2.6	0.8	2.6	
17	0.9	[XS]	[XS]	0.9	0.9	1.2	2.4	2.3	1.7	1.7	0.8	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.5	3.0	4.2	4.5	4.9	1.4	4.9	
18	4.0	[XS]	[XS]	1.0	1.3	0.6	1.3	[SC]	[SC]	1.0	1.2	1.0	0.7														

SULFUR DIOXIDE [42401]

LAX AIR QUALITY MONITORING PROGRAM, #706211

PARTS PER BILLION

SITE 1 LAX

* FINAL DATA *

NOV, 1997

* AS OF 26/FEB/98 *

AEROENVIRONMENT ENVIRONMENTAL SERVICES INC.

CLOCK HOUR [LOCAL STANDARD TIME]

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK	
1	1.5	[SS]	[SS]	3.4	2.5	2.6	1.7	3.2	2.8	1.1	0.0	0.0	0.0	6.2	2.9	3.4	0.2	1.6	0.9	1.8	1.7	1.8	3.4	3.9	2.1	6.2	
2	2.9	[SS]	[SS]	1.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	2.7	2.3	0.0	1.1	2.4	1.1	0.7	2.8	
3	0.0	[SS]	[SS]	0.0	0.0	0.0	1.0	0.1	0.0	0.0	0.0	0.0	0.0	3.1	3.4	1.8	1.9	1.4	0.7	0.5	3.6	7.3	4.8	1.3	1.2	1.5	7.3
4	1.4	[SS]	[SS]	1.4	2.2	2.4	3.2	3.4	9.3	6.0	5.1	7.9	3.4	2.5	1.4	2.6	2.3	0.3	0.3	1.8	1.4	1.3	4.4	5.6	3.2	9.3	
5	2.4	[SS]	[SS]	5.1	4.2	7.4	7.4	6.6	6.9	7.6	8.0	10.3	0.9	0.0	0.0	0.9	0.5	0.0	0.0	0.2	0.0	0.2	0.0	0.0	3.1	10.3	
6	0.0	[SS]	[SS]	0.0	0.0	0.0	0.0	[SC]	[SC]	4.3	9.0	10.2	9.3	5.1	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	10.2	
7	0.0	[SS]	[SS]	0.0	0.3	0.6	0.0	1.6	0.3	0.0	0.0	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.6	
8	0.0	[SS]	[SS]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
9	0.0	[SS]	[SS]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
10	0.0	[SS]	[SS]	0.0	0.0	0.0	0.0	[SC]	[SC]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
11	0.0	[SS]	[SS]	0.0	0.0	0.0	0.0	0.8	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.8	
12	0.0	[SS]	[SS]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	
13	0.0	[SS]	[SS]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
14	0.0	[SS]	[SS]	0.0	0.0	0.0	0.0	0.5	0.0	[SC]	[SC]	0.0	0.0	0.9	0.7	0.6	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.9	
15	0.4	[SS]	[SS]	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	1.2	0.0	0.0	0.2	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.2	
16	0.0	[SS]	[SS]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.0	
17	0.0	[SS]	[SS]	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.6	1.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.8	0.3	0.1	1.1	
18	0.4	[SS]	[SS]	0.0	0.0	0.0	0.0	[SC]	[SC]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.5	0.3	0.3	0.0	0.0	0.0	0.1	0.5	
19	0.0	[SS]	[SS]	0.0	0.0	0.0	0.0	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	
20	0.0	[SS]	[SS]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.5	0.0	2.6	1.0	0.0	0.0	1.7	0.0	0.0	0.0	0.3	2.6	
21	0.0	[SS]	[SS]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.6	2.5	1.6	0.0	0.0	0.0	0.0	2.6	2.7	2.1	0.6	0.8	0.7	0.7	
22	0.5	[SS]	[SS]	0.6	0.3	0.3	0.4	[SC]	[SC]	0.0	0.0	0.0	0.0	0.0	2.3	4.1	1.8	2.9	1.6	2.1	0.0	0.0	1.6	1.6	1.0	4.1	
23	2.2	[SS]	[SS]	0.6	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.8	0.8	0.7	0.0	0.4	0.0	0.0	0.4	0.1	0.0	0.0	0.0	0.0	0.3	2.2	
24	0.0	[SS]	[SS]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.7	1.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.0	
25	0.0	[SS]	[SS]	0.0	0.0	0.0	0.0	0.0	0.9	1.1	1.9	1.9	1.2	1.6	7.5	7.2	3.5	3.8	13.5	7.4	5.9	1.9	4.3	0.7	2.9	13.5	
26	1.2	[SS]	[SS]	0.0	0.0	0.0	0.0	[CA]	[CA]	[CA]	4.0	3.9	4.7	5.6	3.7	4.5	6.5	3.8	2.7	2.2	2.0	2.8	2.3	2.1	2.7	6.5	
27	2.0	[SS]	[SS]	3.3	3.2	3.1	3.2	3.3	2.6	2.4	2.6	3.2	4.0	4.0	4.6	4.7	4.2	3.9	3.7	3.5	2.7	2.6	3.3	4.3	3.4	4.7	
28	5.7	[SS]	[SS]	4.4	4.0	3.9	4.2	4.3	4.2	2.8	4.1	5.5	6.5	7.4	7.7	7.7	5.5	5.1	5.3	3.8	3.5	4.3	4.8	5.1	7.7		
29	4.4	[SS]	[SS]	5.8	5.4	4.4	4.3	4.6	4.1	3.7	4.3	4.0	3.8	4.6	4.8	5.1	3.4	2.5	2.6	2.8	4.1	3.9	4.5	4.1	4.1	5.8	
30	3.3	[SS]	[SS]	3.2	2.5	2.3	2.5	2.6	2.2	2.0	1.7	1.7	1.9	2.4	1.6	1.7	1.3	1.5	2.0	1.7	2.0	1.9	2.5	2.8	2.2	3.3	
AV	0.9	[]	[]	1.0	0.8	0.9	0.9	1.3	1.4	1.1	1.4	1.8	1.5	1.6	1.5	1.5	1.2	1.0	1.3	1.3	1.2	0.9	1.2	1.1	1.2		
SD	1.5	[]	[]	1.7	1.6	1.8	1.8	1.9	2.4	2.0	2.5	3.0	2.3	2.2	2.2	2.3	2.0	1.5	2.7	1.9	1.9	1.4	1.6	1.7			
PK	5.7	[]	[]	5.8	5.4	7.4	7.4	8.6	9.2	7.6	9.0	10.3	9.3	6.5	7.5	7.7	7.7	5.5	13.5	7.4	7.3	4.8	4.5	5.6		13.5	

OU000 [Program: EDMS_MONTHSUM]

Version: LC:15-OCT-93]

NITRIC OXIDE [42601]

LAX AIR QUALITY MONITORING PROGRAM, #706211

PARTS PER BILLION

SITE 1 LAX

* FINAL DATA *

NOV, 1997

* AS OF 26/FEB/98 *

AEROENVIRONMENT ENVIRONMENTAL SERVICES INC.

CLOCK HOUR [LOCAL STANDARD TIME]

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	337	[SS]	[SS]	551	497	429	321	393	148	103	30	14	25	58	37	38	20	4	10	48	124	147	204	306	175	551
2	369	[SS]	[SS]	232	232	155	132	132	78	29	15	6	10	24	32	24	48	59	36	14	94	147	239	191	104	369
3	86	[SS]	[SS]	45	48	73	161	151	113	64	27	29	22	27	31	26	8	4	1	14	25	91	140	180	62	180
4	206	[SS]	[SS]	312	373	417	426	398	328	142	105	33	23	35	8	5	2	4	8	4	4	2	0	6	129	426
5	8	[SS]	[SS]	7	4	6	15	26	25	31	31	10	6	6	4	2	2	0	8	5	3	1	0	0	9	31
6	43	[SS]	[SS]	47	80	128	133	[SC]	[SC]	66	28	25	20	6	4	0	4	3	0	0	0	0	0	31	31	133
7	64	[SS]	[SS]	19	17	11	11	24	15	8	7	11	9	7	3	5	13	0	3	5	6	9	18	29	14	64
8	68	[SS]	[SS]	117	136	158	151	132	60	15	8	8	6	2	4	18	3	1	0	6	11	0	22	77	46	158
9	140	[SS]	[SS]	125	108	94	80	76	54	21	5	4	3	1	10	11	18	23	3	0	0	0	0	0	35	140
10	0	[SS]	[SS]	0	0	0	3	[SC]	[SC]	5	0	8	3	11	16	8	6	8	5	8	14	58	39	73	14	73
11	72	[SS]	[SS]	106	124	134	175	140	100	40	15	10	9	13	5	7	7	2	2	11	50	102	69	54	175	
12	86	[SS]	[SS]	80	46	42	68	46	25	21	15	8	7	17	42	33	11	10	9	20	52	73	87	100	41	100
13	143	[SS]	[SS]	99	88	91	127	129	89	33	76	53	40	43	41	16	27	53	50	16	23	25	54	37	62	143
14	166	[SS]	[SS]	170	160	113	168	221	101	[SC]	[SC]	17	12	31	33	48	46	16	26	8	23	57	107	145	83	221
15	226	[SS]	[SS]	152	89	104	107	104	103	68	27	9	3	2	5	3	10	8	9	1	16	40	92	108	58	226
16	134	[SS]	[SS]	146	130	122	113	87	46	32	11	11	9	3	10	20	17	31	2	6	3	11	40	154	52	154
17	64	[SS]	[SS]	88	95	132	183	141	89	75	34	25	12	20	7	3	2	8	18	70	137	187	264	282	98	282
18	253	[SS]	[SS]	87	136	67	98	[SC]	[SC]	43	54	35	15	33	21	11	3	15	25	11	20	18	91	140	59	253
19	175	[SS]	[SS]	154	165	192	230	236	195	67	24	15	24	6	7	13	20	4	6	11	7	11	17	24	73	236
20	34	[SS]	[SS]	38	52	81	97	91	62	41	21	20	27	31	34	22	55	21	3	4	30	104	181	219	58	219
21	224	[SS]	[SS]	137	103	159	203	197	193	76	50	31	32	31	24	9	16	5	14	87	146	127	155	205	101	224
22	270	[SS]	[SS]	316	270	268	204	[SC]	[SC]	52	45	32	22	14	16	31	22	45	75	89	48	158	266	347	130	347
23	332	[SS]	[SS]	299	249	302	249	189	106	57	37	19	11	10	23	14	15	17	11	1	1	16	94	111	37	332
24	159	[SS]	[SS]	87	95	135	168	177	187	154	107	59	38	34	12	12	7	5	6	21	58	48	165	161	86	167
25	171	[SS]	[SS]	135	219	178	241	257	268	206	191	162	101	91	110	85	51	38	53	30	23	9	65	129	131	268
26	174	[SS]	[SS]	173	165	205	116	[CA]	[CA]	6	30	31	44	31	41	70	22	8	11	29	65	22	16	66	205	205
27	17	[SS]	[SS]	120	114	107	158	188	87	39	13	9	13	8	12	10	1	0	8	103	111	192	287	72	287	
28	257	[SS]	[SS]	166	149	137	179	180	181	65	18	13	11	10	9	16	16	6	9	44	101	236	263	95	263	
29	295	[SS]	[SS]	293	222	180	203	194	147	103	32	6	4	6	5	1	0	0	3	15	2	59	93	84	88	295
30	72	[SS]	[SS]	40	37	35	28	16	25	12	10	9	8	6	3	6	3	22	36	28	45	71	114	142	35	142
AV	155	[]	[]	147	140	142	152	154	113	59	37	24	18	21	20	18	18	14	15	18	37	60	103	130	72	
SD	104	[]	[]	117	108	103	90	97	78	47	40	29	19	20	21	18	19	16	18	24	42	54	84	98		
PK	369	[]	[]	551	497	429	426	398	328	206	191	162	101	91	110	85	70	59	75	89	146	187	266	347		551

NITROGEN DIOXIDE [42602]

LAX AIR QUALITY MONITORING PROGRAM, #706211

PARTS PER MILLION

SITE 1 LAX

NOV, 1997

AEROENVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 26/FEB/98 *
*

CLOCK HOUR [LOCAL STANDARD TIME]

DX	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	94	[28]	[28]	86	84	102	106	111	138	120	57	43	50	122	101	78	56	59	51	63	77	76	87	96	84	138
2	73	[28]	[28]	54	49	54	43	47	51	46	44	29	27	51	58	58	70	82	84	75	72	74	73	70	58	84
3	55	[28]	[28]	45	43	39	46	49	54	56	45	58	63	58	68	78	87	51	48	72	86	95	85	82	62	95
4	81	[28]	[28]	87	77	77	76	85	114	108	123	90	53	40	32	38	43	30	31	52	41	38	30	35	63	123
5	44	[28]	[28]	48	40	35	42	44	45	56	68	37	23	20	30	30	42	28	28	25	27	38	14	19	36	68
6	45	[28]	[28]	48	54	50	59	[SC]	[SC]	78	72	72	55	35	32	14	17	17	18	14	23	23	24	39	39	78
7	42	[28]	[28]	39	37	39	47	41	34	33	35	36	22	16	15	18	18	13	15	24	22	35	39	40	30	47
8	37	[28]	[28]	35	36	35	35	40	40	30	24	27	18	10	11	13	14	12	14	22	24	27	38	46	27	46
9	45	[28]	[28]	44	41	37	36	37	45	40	23	22	18	14	21	15	17	22	14	12	11	9	11	10	25	45
10	11	[28]	[28]	4	4	5	16	[SC]	[SC]	24	28	24	15	32	36	25	29	31	27	35	35	47	45	41	25	45
11	39	[28]	[28]	36	34	33	34	38	45	42	32	29	21	23	17	13	17	18	21	27	38	44	43	39	31	45
12	38	[28]	[28]	37	34	32	33	35	32	31	24	16	10	14	25	25	21	26	32	45	40	47	45	44	32	48
13	46	[28]	[28]	41	40	39	40	39	38	38	38	39	37	40	41	35	44	46	45	42	44	43	51	41	41	51
14	37	[28]	[28]	32	32	30	30	39	41	[SC]	[SC]	20	14	22	23	22	25	27	34	35	43	46	44	42	32	46
15	44	[28]	[28]	34	28	31	28	30	37	40	34	24	12	12	14	9	17	34	37	25	38	40	41	40	29	44
16	36	[28]	[28]	32	28	26	25	26	30	34	25	28	27	8	19	23	22	29	25	26	34	37	41	40	29	41
17	38	[28]	[28]	33	31	29	38	36	39	48	42	43	26	25	14	12	18	30	41	46	47	50	52	52	36	52
18	50	[28]	[28]	39	38	36	36	[SC]	[SC]	39	50	50	39	51	42	33	29	43	44	46	43	54	56	57	44	57
19	59	[28]	[28]	54	53	54	54	53	66	61	47	31	33	17	18	20	24	14	16	25	25	28	31	32	37	66
20	32	[28]	[28]	30	33	33	30	30	31	35	32	34	32	29	29	25	37	26	20	24	36	42	43	44	32	44
21	47	[28]	[28]	40	36	37	39	41	51	47	51	46	43	43	41	29	25	29	39	48	48	44	46	46	42	51
22	50	[28]	[28]	47	54	52	46	[SC]	[SC]	38	43	38	36	35	51	56	75	78	77	77	62	59	63	64	55	78
23	65	[28]	[28]	52	44	45	43	39	42	49	53	49	43	34	54	39	30	28	26	16	16	25	40	43	40	65
24	49	[28]	[28]	46	44	43	41	43	49	56	71	72	62	48	21	21	21	22	24	37	37	34	36	37	41	72
25	37	[28]	[28]	48	47	47	45	48	59	73	90	97	88	89	94	95	86	81	90	77	56	39	43	66	68	97
26	72	[28]	[28]	59	56	57	34	[CA]	[CA]	[CA]	11	17	15	21	14	19	31	20	23	39	44	45	40	42	35	72
27	43	[28]	[28]	42	39	35	32	32	39	37	25	23	28	20	30	30	24	34	40	52	48	48	49	50	36	52
28	47	[28]	[28]	35	33	31	31	34	43	37	35	34	35	32	32	37	46	46	53	56	62	57	57	57	42	62
29	59	[28]	[28]	60	51	47	45	44	48	60	42	26	23	22	22	20	15	24	39	51	36	56	56	54	41	60
30	51	[28]	[28]	48	45	43	40	36	38	33	29	28	19	25	18	25	28	44	43	41	41	41	41	39	36	51
AV	49	[]	[]	44	42	42	42	44	50	50	45	39	33	34	34	32	34	35	37	41	42	44	46	47	41	
SD	16	[]	[]	16	15	17	16	18	25	22	23	20	18	24	22	21	21	19	20	19	17	17	17	17		
PK	94	[]	[]	87	84	102	106	111	138	120	123	97	88	122	101	95	87	82	90	77	86	95	87	96		138

00000 [Program: EDMS MONTHSUM]

Version: LC:15-OCT-93]

OXIDES OF NITROGEN [42603]

LAX AIR QUALITY MONITORING PROGRAM, #706211

PARTS PER BILLION

SITE 1 LAX

NOV, 1997

AEROENVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 26/FEB/98 *
*

CLOCK HOUR [LOCAL STANDARD TIME]

DX	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	431	[28]	[28]	637	581	532	427	504	286	224	87	57	75	181	138	116	76	64	61	112	202	224	292	402	259	637
2	442	[28]	[28]	285	281	209	175	179	130	75	60	35	37	75	90	82	118	142	120	89	166	222	313	261	163	442
3	141	[28]	[28]	90	91	112	207	201	167	121	73	67	85	85	99	104	96	55	49	86	110	187	225	262	124	262
4	268	[28]	[28]	399	450	494	502	483	443	250	227	123	75	76	41	42	45	33	39	56	45	40	30	42	192	502
5	52	[28]	[28]	54	44	41	57	70	70	87	89	47	29	26	34	40	44	28	36	30	30	40	14	19	45	99
6	89	[28]	[28]	96	135	179	192	[SC]	[SC]	144	101	97	75	41	36	14	21	20	18	14	23	23	24	70	70	192
7	105	[28]	[28]	58	55	50	78	66	49	41	42	47	31	23	18	23	31	13	19	29	27	44	57	69	44	105
8	105	[28]	[28]	152	172	193	187	172	100	45	31	35	25	12	15	31	17	14	14	28	35	28	61	123	72	193
9	185	[28]	[28]	169	149	132	116	113	99	61	28	26	21	15	31	26	35	46	17	12	11	9	11	10	60	185
10	11	[28]	[28]	4	4	5	20	[SC]	[SC]	29	36	31	18	43	52	33	35	39	32	43	49	100	84	114	39	114
11	117	[28]	[28]	142	159	168	209	177	145	82	47	39	29	35	22	21	24	20	23	29	49	94	145	108	85	209
12	124	[28]	[28]	117	80	75	102	81	57	52	39	24	17	30	67	58	31	35	41	65	100	120	132	144	72	144
13	189	[28]	[28]	141	127	131	167	168	127	71	114	91	78	83	83	51	71	100	95	58	68	68	105	78	103	189
14	203	[28]	[28]	202	192	143	198	260	142	[SC]	[SC]	37	25	52	55	70	71	42	59	43	65	103	151	187	115	260
15	270	[28]	[28]	186	117	135	134	134	140	108	61	33	15	14	19	12	27	42	47	27	53	80	133	148	89	270
16	170	[28]	[28]	178	158	148	137	113	76	66	37	39	37	11	29	43	39	60	28	62	37	48	81	194	80	194
17	102	[28]	[28]	121	127	165	219	177	128	123	76	69	37	45	21	15	19	39	59	117	184	237	316	334	124	334
18	304	[28]	[28]	126	175	103	134	[SC]	[SC]	82	104	86	53	84	69	44	32	59	69	59	63	72	147	197	103	304
19	235	[28]	[28]	208	216	246	284	269	261	128	71	47	37	23	24	33	43	18	22	36	31	39	48	56	110	289
20	66	[28]	[28]	69	86	114	127	120	94	75	53	54	59	60	63	47	92	47	23	27	66	147	224	263	30	263
21	271	[28]	[28]	177	140	196	242	239	244	124	101	77	75	74	65	39	43	34	53	136	193	171	201	251	143	271
22	320	[28]	[28]	363	324	320	250	[SC]	[SC]	90	89	70	57	48	68	87	97	123	152	166	110	217	329	411	185	411
23	397	[28]	[28]	351	294	347	292	194	149	106	90	69	54	44	77	54	45	45	36	48	17	40	134	183	137	397
24	268	[28]	[28]	133	139	178	209	220	236	210	178	132	100	82	33	33	28	26	30	58	95	61	202	198	128	236
25	208	[28]	[28]	243	266	225	265	287	305	327	278	282	260	189	181	143	119	143	107	79	49	114	195	199	327	
26	246	[28]	[28]	232	222	262	151	[CA]	[CA]	[CA]	17	48	46	64	45	60	101	41	32	50	73	110	62	57	101	262
27	60	[28]	[28]	161	153	142	190	190	126	77	37	33	41	29	42	40	25	35	48	61	151	161	241	337	108	337
28	304	[28]	[28]	201	183	169	211	214	223	192	63	46	46	43	41	53	62	52	59	66	107	156	294	319	337	319
29	354	[28]	[28]	353	273	227	248	239	194	163	74	32	28	28	27	21	16	25	41	66	79	115	149	138	129	354
30	123	[28]	[28]	88	82	78	26	68	52	63	45	40	37	26	31	21	31	66	79	69	86	111	156	182	71	182
AV	204	[]	[]	191	182	184	194	198	163	109	81	64	51	55	54	50	52	49	51	60	79	104	149	177	113	
SD	116	[]	[]	129	120	117	161	112	95	64	59	46	35	41	40	35	33	32	35	37	54	67	96	110		
PK	442	[]	[]	637	581	532	504	504	443	278	282	260	189	191	208	181	143	142	152	166	202	237	329	411		637

WIND SPEED [61101]

METERS/SECOND

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

NOV, 1997

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

 *
 * FINAL DATA *
 * AS OF 26/FEB/98 *
 *

CLOCK HOUR [LOCAL STANDARD TIME]

DY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	0.9	0.5	0.4	0.5	0.8	1.3	0.9	0.7	0.8	1.1	1.1	1.5	2.7	5.1	5.1	4.8	3.7	2.8	2.4	1.2	1.8	1.5	1.0	0.8	1.8	5.1
2	1.0	0.6	1.4	1.4	1.1	0.7	0.9	1.1	1.2	1.8	1.7	1.3	2.5	5.2	4.9	4.5	4.5	4.2	3.8	2.7	1.7	2.2	1.7	1.3	2.2	5.2
3	1.7	1.9	2.0	2.4	1.2	1.0	0.9	1.5	2.5	3.1	2.3	2.1	4.6	4.5	4.0	3.4	2.5	3.4	3.1	2.6	2.3	1.1	0.9	1.1	2.3	4.6
4	0.8	0.6	0.3	0.3	0.7	0.4	0.9	2.5	1.8	2.0	1.6	2.8	5.1	5.5	4.3	4.0	3.0	4.2	3.3	1.6	1.7	2.1	1.0	1.6	2.1	5.6
5	0.7	0.6	0.7	1.3	1.8	1.1	1.3	1.4	1.2	1.2	1.4	4.4	4.2	4.2	4.1	3.7	3.5	4.3	4.9	3.7	2.8	1.9	2.9	1.6	2.5	4.9
6	1.3	1.4	0.7	1.4	1.3	1.8	2.2	1.2	0.8	2.1	1.1	2.7	4.6	4.6	4.3	3.6	5.0	4.3	3.2	3.1	1.5	1.6	1.5	0.9	2.3	5.0
7	1.1	1.5	1.1	1.0	1.0	1.2	1.5	1.9	2.0	2.3	1.6	2.7	4.1	5.2	5.0	4.9	5.2	4.5	3.9	3.7	3.3	2.6	2.2	1.4	2.7	5.8
8	1.0	0.9	1.1	1.1	0.8	0.7	0.6	1.4	1.6	1.4	1.7	2.7	4.4	5.9	5.6	5.4	4.9	4.5	4.0	3.9	3.6	1.8	0.9	1.1	2.5	5.9
9	0.7	0.9	1.9	1.1	0.9	1.2	1.3	1.5	2.0	1.6	1.2	2.7	4.5	4.4	5.9	5.7	5.8	6.1	4.8	3.6	3.7	3.5	2.1	1.4	2.9	6.1
10	1.3	1.0	0.7	1.7	2.1	3.0	2.1	2.5	2.7	1.8	2.0	3.7	3.8	1.7	2.4	5.5	4.3	5.2	6.7	4.2	1.7	1.2	1.5	1.1	2.7	6.7
11	1.4	1.6	1.3	1.7	1.1	1.2	1.0	1.9	1.7	1.8	1.6	1.4	3.2	3.7	3.8	4.0	3.8	2.4	2.5	1.1	1.1	1.1	1.3	1.0	1.9	4.0
12	1.4	1.7	1.0	1.5	2.5	1.8	0.7	1.5	1.7	1.5	2.6	3.9	5.6	6.9	7.6	7.7	6.9	5.9	4.4	2.2	1.6	1.4	1.1	1.5	3.1	7.7
13	1.7	1.9	1.7	1.4	1.5	1.3	1.9	2.0	2.3	2.2	2.9	3.1	3.4	3.6	3.3	2.8	1.6	2.9	3.1	2.7	2.2	2.1	1.5	0.6	2.2	3.6
14	1.5	1.2	1.0	0.9	1.3	1.3	0.8	1.1	1.9	1.3	1.7	4.5	6.0	7.0	8.1	8.7	7.7	6.2	4.3	3.5	2.1	1.3	0.9	1.3	3.2	8.7
15	1.2	1.1	1.6	1.6	1.7	2.1	1.6	1.8	2.6	2.4	2.6	2.8	3.4	4.0	4.4	3.9	2.3	1.0	1.6	1.4	1.1	1.1	0.5	0.7	2.0	4.4
16	1.0	1.2	0.7	0.4	1.2	1.1	1.3	1.0	2.0	1.6	1.1	1.5	3.4	5.2	5.6	5.6	5.8	6.6	4.3	1.9	2.2	1.7	0.9	1.2	2.5	6.6
17	1.5	1.3	0.9	0.9	1.5	1.2	1.2	1.2	2.1	1.9	1.0	2.4	3.5	4.6	4.4	3.9	3.4	3.4	2.2	1.4	1.7	1.3	1.5	1.6	2.1	4.6
18	1.6	1.6	1.5	1.1	0.8	1.6	1.2	1.7	2.1	2.7	2.3	1.9	1.6	3.8	4.8	4.6	4.7	5.2	5.6	4.2	3.5	1.3	1.5	1.5	2.6	5.6
19	1.9	1.2	1.0	1.0	0.9	0.7	0.8	1.1	0.7	1.1	2.5	4.1	5.0	4.4	4.7	5.7	5.5	5.9	5.0	2.2	1.1	1.7	1.2	1.4	2.5	5.9
20	1.3	1.5	1.1	1.1	1.2	0.9	1.6	1.6	1.7	1.2	0.9	1.5	3.3	5.4	4.7	4.5	6.1	6.2	4.2	3.1	2.4	1.7	1.5	1.1	2.5	6.2
21	1.4	1.2	1.1	1.0	1.2	1.3	0.6	0.9	1.1	1.3	1.1	3.2	3.9	2.9	4.4	4.3	4.0	3.4	2.3	1.1	1.5	1.6	0.9	1.4	2.0	4.4
22	1.1	0.9	0.6	1.1	1.1	1.4	1.7	2.3	1.6	2.7	2.7	3.0	2.5	1.5	3.1	3.8	3.2	2.2	0.8	1.0	0.9	0.7	1.0	1.2	1.8	3.6
23	0.9	1.1	1.1	0.9	1.1	0.9	1.3	1.0	1.5	1.8	1.6	1.4	3.8	4.6	4.4	5.0	4.6	5.0	4.6	4.0	3.5	2.2	1.6	1.4	2.5	5.0
24	1.8	1.4	1.9	1.4	1.2	0.6	0.6	0.6	1.3	1.2	1.1	1.2	2.2	4.5	4.5	4.3	3.8	4.3	3.1	1.1	1.4	1.1	1.7	1.7	2.0	4.5
25	1.0	1.6	1.9	1.1	0.9	0.8	1.1	1.1	1.4	1.7	1.3	0.8	1.2	1.5	2.5	2.9	2.0	3.0	2.8	2.4	3.3	2.0	1.3	1.9	1.7	3.3
26	1.2	1.1	1.3	1.8	1.2	2.5	3.7	5.7	8.4	10.9	8.5	10.2	11.6	11.5	10.3	10.4	8.6	8.5	5.9	2.4	1.7	2.0	2.8	1.6	5.6	11.6
27	0.7	1.4	0.6	0.8	1.4	1.4	0.8	0.9	2.4	2.2	1.4	1.4	2.5	3.5	2.7	2.4	1.5	1.2	1.4	0.5	1.3	0.6	1.1	0.9	1.5	3.5
28	0.7	0.6	0.8	1.1	0.7	1.0	1.2	1.4	2.0	2.6	1.5	2.1	2.4	3.1	3.2	3.9	3.7	3.0	2.4	2.0	1.4	0.7	0.9	0.8	1.8	3.9
29	1.6	1.0	0.9	1.0	1.4	2.0	1.8	2.0	1.6	2.3	1.9	1.4	2.3	2.9	3.6	2.9	2.9	2.7	1.9	1.6	1.8	1.5	1.8	1.9	1.9	3.6
30	1.9	1.5	1.4	1.3	1.3	1.2	1.9	2.8	3.1	3.0	4.1	2.7	2.7	2.7	1.6	1.9	2.0	1.3	1.3	1.6	1.5	1.2	0.9	1.2	1.8	4.1
AV	1.2	1.2	1.1	1.2	1.2	1.3	1.3	1.6	2.0	2.2	2.0	2.7	3.8	4.5	4.6	4.6	4.2	4.1	3.5	2.4	2.0	1.6	1.4	1.3	2.4	
SD	0.4	0.4	0.5	0.4	0.4	0.6	0.6	0.9	1.3	1.7	1.4	1.7	1.9	1.9	1.8	1.8	1.7	1.8	1.4	1.1	0.8	0.6	0.6	0.3		
PK	1.9	1.9	2.0	2.4	2.5	3.0	3.7	5.7	8.4	10.9	8.5	10.2	11.6	11.5	10.3	10.4	8.6	8.5	6.7	4.2	3.7	2.5	2.9	1.9		11.6

00000 [Program: RMS_MONTREUM]

Version: LC:15-OCT-93]

WIND DIRECTION AVERAGE [61102]

DEGREES, COMPASS

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

NOV, 1997

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

 *
 * FINAL DATA *
 * AS OF 26/FEB/98 *
 *

CLOCK HOUR [LOCAL STANDARD TIME]

DY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	PREV	
1	ENE	ENE	E	E	ENE	NW	N	N	N	N	NW	WSW	WSW	W	W	W	W	WSW	WSW	E	NE	ENE	N	[VA]		
2	E	E	E	ENE	ENE	E	N	ENE	ENE	ENE	E	ESE	S	WSW	W	W	W	W	W	N	WSW	E	ENE	NE	ENE	[VA]
3	NE	WSW	NE	NE	ENE	ENE	NE	ENE	NE	NE	ENE	WSW	W	WSW	W	W	WSW	W	N	W	NE	ENE	ENE	[VA]		
4	E	ESE	SE	ENE	E	NE	ENE	ENE	E	ESE	SE	SW	W	W	WSW	WSW	WSW	W	WSW	WSW	W	SW	S	W	WSW	
5	WSW	WSW	NE	ENE	NE	NE	ENE	ENE	E	ESE	S	WSW	WSW	WSW	WSW	WSW	WSW	W	WSW	WSW	W	WSW	WSW	WSW	WSW	
6	ENE	NE	WSW	WSW	E	ESE	ESE	NE	E	WSW	W	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	S	S	ESE	[VA]	
7	E	ENE	NE	E	E	E	E	ESE	ESE	ESE	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	[VA]	
8	ENE	E	ENE	E	ENE	E	NE	ENE	ENE	ESE	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	[VA]	
9	ENE	NE	NE	NE	W	NE	NE	ENE	ENE	E	ESE	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	[VA]	
10	WSW	WSW	WSW	WSW	SW	SW	ESE	SE	S	ESE	ESE	SE	S	ENE	ENE	E	WSW	WSW	W	WSW	WSW	WSW	WSW	WSW	[VA]	
11	ENE	ENE	E	E	WSW	ENE	ENE	ENE	ENE	E	ENE	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	[VA]	
12	ENE	N	SE	N	N	N	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	[VA]	
13	E	E	E	N	N	N	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	[VA]	
14	E	ENE	E	ESE	NE	NE	ENE	ENE	ENE	ENE	ENE	E	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	[VA]	
15	E	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	[VA]	
16	NE	NE	E	N	NE	ENE	ENE	ENE	ENE	ENE	NE	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	[VA]	
17	NE	E	E	E	E	ENE	ENE	NE	NE	ENE	NE	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	[VA]	
18	ENE	NE	ENE	ENE	NE	NE	ENE	NE	NE	ENE	NE	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	[VA]	
19	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	NE	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	[VA]	
20	SE	ESE	SE	ENE	ENE	ENE	NE	N	N	WSW	ESE	SW	W	W	WSW	W	W	WSW	W	W	WSW	WSW	WSW	WSW	[VA]	
21	NE	E	E	ENE	E	ENE	N	NE	NE	ENE	NW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	[VA]	
22	E	ENE	ESE	E	NE	ENE	ENE	NE	NE	ENE	NE	NE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	[VA]	
23	ENE	ENE	ENE	ENE	E	ESE	E	A	ENE	ENE	SE	S	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	[VA]	
24	NE	NE	NE	NE	NE	NE	NE	ENE	ENE	ENE	ENE	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	[VA]	
25	ENE	NE	ENE	ENE	E	ENE	E	ENE	ENE	ENE	N	ESE	ESE	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	[VA]	
26	ESE	ENE	ENE	E	ESE	E	ESE	ESE	SW	WSW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	[VA]	
27	ENE	NE	ENE	NE	NE	NE	ENE	E	ENE	E	ESE	E	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	[VA]	
28	ESE	NE	E	ENE	ENE	E	E	E	ENE	ENE	WSW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	[VA]	
29	ENE	E	E	E	ENE	ENE	ENE	ENE	ENE	ENE	E	ESE	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	[VA]	
30	N	ESE	ESE	E	ENE	NE	ENE	ESE	ESE	E	E	ESE	ESE	E	N	N	N	N	N	N	N	N	N	N	N	[VA]
PV	ENE	NE	E	ENE	ENE	ENE	ENE	ENE	ENE	ENE	[VA]	SW	WSW	WSW	W	W	W	W	W	WSW	[VA]	NE	ENE	ENE	ENE	

WIND DIRECTION AVERAGE [61102]
DEGREES, COMPASS

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

NOV, 1997

ARMORCMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 26/FEB/98 *
*

CLOCK HOUR [LOCAL STANDARD TIME]

DY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	PREV
1	71	17	84	66	75	318	5	359	2	1	355	321	250	254	264	267	265	269	257	327	80	41	68	8	[VA]
2	96	91	68	63	83	10	74	76	72	80	114	190	237	263	274	264	262	267	270	287	82	59	47	14	[VA]
3	39	20	42	48	58	59	37	28	38	46	64	290	262	255	265	274	290	267	259	254	274	52	70	70	[VA]
4	88	103	142	60	90	51	67	78	83	104	145	217	262	264	256	255	250	259	258	247	260	235	185	266	12
5	346	18	34	62	49	46	74	65	86	165	181	256	256	255	258	257	262	262	257	266	259	243	245	228	12
6	64	44	30	74	99	118	103	50	100	240	281	219	258	252	254	249	247	251	256	243	196	185	184	150	[VA]
7	95	59	55	99	96	80	96	125	160	102	119	227	253	258	256	259	261	250	254	267	254	269	269	319	[VA]
8	63	100	61	91	76	81	40	58	64	114	193	248	252	251	256	255	253	250	252	253	259	297	80	100	[VA]
9	57	47	51	48	10	49	55	87	66	79	102	231	255	252	259	256	280	257	251	245	247	247	226	211	[VA]
10	329	323	195	240	214	231	147	131	186	153	157	141	178	22	71	95	344	291	279	292	358	57	73	80	[VA]
11	67	68	92	94	58	76	78	57	70	80	72	220	246	259	257	258	261	275	261	335	43	53	10	7	[VA]
12	23	3	126	350	353	3	342	321	321	306	286	279	251	258	268	274	278	270	278	307	341	345	27	81	[VA]
13	88	86	85	61	46	87	119	98	91	74	71	79	67	59	28	21	350	283	319	313	307	308	327	313	5
14	81	77	100	112	56	43	14	31	58	69	301	263	266	270	269	264	264	271	283	295	328	0	17	70	[VA]
15	83	77	59	69	75	67	71	69	70	84	115	177	222	215	250	258	246	239	276	157	50	32	34	354	[VA]
16	39	39	84	8	51	72	70	57	60	75	53	231	250	254	265	264	269	269	288	315	305	342	11	66	4
17	46	84	85	88	83	69	64	44	39	57	356	243	251	263	266	256	256	263	286	36	65	31	47	50	3
18	57	51	32	39	48	38	38	33	21	35	66	72	20	283	272	264	259	261	264	278	275	304	115	77	[VA]
19	60	65	58	58	70	77	38	58	52	38	245	264	256	253	263	267	267	258	256	313	24	57	71	86	[VA]
20	134	60	18	78	57	345	359	9	360	359	163	215	271	265	263	257	264	265	261	263	235	57	64	70	[VA]
21	45	88	101	69	88	76	1	44	51	59	324	248	256	249	257	255	251	249	238	45	136	108	90	62	[VA]
22	79	13	164	82	36	73	64	37	34	22	38	81	71	71	218	262	286	284	310	301	0	22	120	91	3
23	70	32	64	73	92	104	85	90	57	75	135	174	253	256	262	264	259	269	269	253	251	270	67	75	[VA]
24	53	46	42	40	43	42	73	22	40	75	27	302	281	287	260	264	276	257	261	32	165	241	58	77	3
25	73	45	59	68	87	33	82	69	66	65	66	5	120	154	258	274	293	249	252	243	264	258	51	93	[VA]
26	168	61	58	87	115	96	105	115	200	248	236	237	254	258	255	260	265	259	284	337	19	101	159	106	[VA]
27	27	38	70	55	50	34	61	89	65	80	105	100	237	256	255	251	227	222	281	343	6	54	63	75	3
28	70	35	87	63	23	77	91	82	80	78	76	239	231	250	262	261	268	266	282	296	339	40	73	78	4
29	63	94	90	88	62	62	72	54	71	75	97	159	237	251	251	231	217	209	212	218	210	90	80	50	5
30	93	110	108	94	61	34	76	111	113	89	94	136	122	100	10	359	6	346	65	39	49	64	76	72	4
PV	4	3	5	4	4	4	4	4	4	4	[VA]	11	12	12	13	13	13	13	13	12	[VA]	3	4	4	

OU001 [Program: EDMS MONTHSUM]

Version: LC:15-OCT-93]

RESULTANT SPEED [61103]
METERS/SECOND

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

NOV, 1997

ARMORCMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 26/FEB/98 *
*

CLOCK HOUR [LOCAL STANDARD TIME]

DY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG FEAR		
1	0.8	0.4	0.1	0.3	0.7	1.3	0.6	0.5	0.6	1.0	1.0	1.0	2.3	5.0	5.1	4.7	3.6	2.7	2.3	0.2	1.7	1.3	0.7	0.5	1.6	5.1	
2	0.7	0.4	1.3	1.0	0.9	0.2	0.4	0.9	1.1	1.6	1.2	0.5	2.1	5.1	4.7	4.4	4.5	4.2	3.7	2.3	1.5	2.1	1.6	1.2	2.0	5.1	
3	1.6	1.9	2.0	2.3	1.1	0.8	0.8	1.5	2.4	2.9	1.9	0.9	4.5	4.4	3.9	3.3	2.4	3.3	3.1	2.5	2.0	0.8	0.9	1.1	2.2	4.5	
4	0.8	0.4	0.3	0.1	0.5	0.3	0.9	1.4	1.7	1.8	1.3	1.8	5.0	5.5	4.2	4.0	2.9	4.2	3.2	1.4	1.6	1.9	0.8	1.4	2.0	5.5	
5	0.4	0.3	0.5	0.9	1.7	0.4	0.8	1.3	0.9	1.0	1.0	4.1	4.0	4.1	4.0	3.5	3.5	4.2	4.9	3.6	2.7	1.7	2.8	1.4	2.2	4.9	
6	1.1	1.4	0.3	1.2	1.1	1.4	2.0	1.0	0.7	1.7	0.5	2.2	4.5	4.5	4.2	3.6	4.9	4.2	3.1	3.1	1.3	1.5	1.4	0.8	2.2	4.9	
7	0.9	1.5	1.1	0.9	1.0	1.1	1.4	1.7	1.9	1.9	1.0	1.6	4.0	5.1	5.7	4.8	5.1	4.4	3.8	3.6	3.2	2.3	2.1	1.3	2.6	5.7	
8	0.9	0.9	1.0	1.0	0.7	0.7	0.5	1.4	1.6	0.7	1.0	2.4	4.3	5.7	5.5	5.3	4.8	4.4	4.0	3.8	3.5	1.4	0.8	0.9	2.4	5.7	
9	0.7	0.8	1.8	1.0	0.8	1.1	1.3	1.4	1.9	1.3	0.6	2.0	4.3	4.2	5.8	5.6	5.7	6.1	4.7	3.5	3.6	3.5	1.9	1.1	2.7	6.1	
10	1.2	0.8	0.7	1.7	2.0	2.8	1.7	2.2	2.5	1.4	1.8	3.6	3.5	1.5	1.7	5.0	2.8	4.7	6.6	4.0	1.4	0.8	0.7	1.1	2.3	6.6	
11	1.3	1.6	1.2	1.6	1.0	1.0	0.9	1.8	1.6	1.7	1.3	1.0	3.0	3.6	3.7	3.9	3.6	2.2	2.4	0.6	0.1	0.7	1.2	1.0	1.8	3.9	
12	1.4	1.5	0.4	1.4	2.4	1.7	0.6	1.2	1.4	1.3	2.4	3.6	5.4	6.8	7.5	7.6	6.9	5.8	4.3	2.0	1.6	1.4	0.7	1.5	3.0	7.6	
13	1.7	1.8	1.6	1.2	1.3	0.9	1.9	1.9	2.2	2.1	2.8	3.1	3.3	3.5	2.9	2.5	1.3	2.8	2.7	2.6	2.1	1.7	1.4	0.1	2.1	3.5	
14	1.5	1.1	0.8	0.9	1.2	1.3	0.6	0.8	1.8	1.0	1.0	4.3	5.8	6.8	8.0	6.7	7.7	6.1	4.2	3.4	1.9	0.9	0.8	1.2	3.0	8.7	
15	1.1	1.0	1.6	1.5	1.7	2.0	1.6	1.7	2.5	2.3	2.4	2.1	3.2	3.8	4.0	3.8	2.1	0.7	1.0	0.5	0.9	1.0	0.4	0.7	1.8	4.0	
16	0.9	1.1	0.5	0.1	1.1	1.0	1.4	1.8	1.9	1.5	0.6	0.7	3.3	5.1	5.5	5.6	5.7	6.5	4.2	1.8	2.0	1.6	0.7	1.2	2.3	6.5	
17	1.4	1.1	0.9	0.9	1.4	1.2	1.2	1.0	2.0	1.6	0.5	1.7	3.4	4.5	4.2	3.9	3.4	3.3	2.0	0.9	1.5	1.0	1.5	1.9	4.5		
18	1.6	1.5	1.5	1.0	0.7	1.8	0.9	1.6	2.0	2.5	2.0	1.6	0.6	3.0	4.7	4.6	4.6	5.1	5.5	4.1	3.4	0.9	1.4	1.3	2.4	5.5	
19	1.8	1.1	0.9	0.9	0.9	0.5	0.6	1.0	0.5	0.6	1.9	4.2	4.9	4.2	4.6	5.5	5.4	5.8	5.0	1.7	1.0	1.7	1.2	1.3	2.4	5.8	
20	1.2	1.4	1.1	0.9	0.8	0.8	1.5	1.5	1.6	0.9	0.4	0.8	2.7	5.3	4.6	4.4	6.1	6.1	4.1	2.9	0.5	1.7	1.5	1.1	2.2	6.1	
21	1.3	1.1	1.0	1.8	1.1	1.2	0.1	0.7	0.9	0.9	0.8	3.1	3.8	2.8	4.3	4.2	4.0	3.3	2.0	0.4	1.2	1.3	0.8	1.3	1.8	4.3	
22	1.0	0.6	0.2	1.0	0.8	1.3	1.6	2.2	1.5	2.3	2.6	2.8	2.2	0.6	2.7	3.7	3.1	2.0	0.7	0.9	0.7	0.5	0.5	1.1	1.5	3.7	
23	0.4	1.0	1.0	0.6	1.0	0.9	1.2	0.9	1.4	1.7	1.0	0.7	3.7	4.5	4.3	4.9	4.6	4.9	4.5	4.0	3.4	1.6	1.6	1.3	2.3	4.9	
24	1.7	1.4	1.3	1.3	1.2	0.5	0.4	0.4	1.2	1.1	0.3	0.8	2.0	4.4	4	4.5	4.2	3.6	4.2	2.9	0.1	1.0	0.4	1.7	1.8	4.5	
25	0.9	1.5	1.8	1.0	0.9	0.7	1.0	0.9	1.4	1.4	0.6	0.3	0.9	1.0	0.6	2.3	2.7	1.8	3.0	2.8	2.3	3.1	1.7	0.4	1.8	1.5	
26	0.8	0.5	0.6	1.8	0.8	2.5	3.6	5.6	5.1	10.6	8.3	9.9	11.3	11.4	10.2	10.3	8.5	8.4	5.2	2.0	1.6	1.5	2.5	1.4	8.2	11.4	
27	0.4	1.2	0.5	0.8	1.3	1.2	0.7	0.8	2.4	2.1	1.0	0.7	2.3	3.3	2.6	2.2	1.3	1.1	1.0	0.3	1.3	0.5	1.1	0.9	1.3	3.3	
28	0.6	0.5	0.7	1.1	0.5	0.9	1.2	1.4	2.0	2.4	1.2	1.9	2.3	3.0	3.6	3.8	3.6	2.9	2.3	1.8	1.4	0.5	0.8	0.8	1.7	3.8	
29	1.6	0.9	0.9	1.0	1.4	2.0	1.8	1.9	1.6	2.2	1.2	1.1	2.1	2.9	3.5	2.7	2.9	2.5	1.8	1.4	1.6	1.3	1.7	1.9	1.8	3.5	
30	1.9	1.5	1.3	1.2	1.1	0.9	1.8	2.8	3.1	2.9	4.1	1.8	2.4	1.7	1.4	1.8	1.9	1.0	0.6	1.5	1.2	1.1	0.9	3.1	1.7	4.1	
AV	1.1	1.1	1.0	1.1	1.1	1.1	1.2	1.5	1.8	1.9	1.6	2.2	3.6	4.2	4.4	4.5	4.1	4.0	3.3	2.1	1.8	1.3	1.2	1.2	2.2		
SD	0.4	0.4	0.5	0.5	0.4	0.6	0.7	0.9	0.9	1.7	1.5	1.9	1.9	2.6	1.8	1.8	1.3	1.8	1.5	1.3	0.9	0.6	0.6	0.4			
PK	1.9	1.9	2.0	2.3	2.4	2.8	3.6	5.6	5.3	10.6	8.3	9.9	11.3	11.4	10.2	10.3	8.5	8.4	6.5	4.1	3.6	3.5	2.8	1.9	11.4		

RESULTANT DIRECTION [61104]

DEGREES, COMPASS

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

NOV, 1997

AEROSOL/ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 26/FEB/98 *

CLOCK HOUR (LOCAL STANDARD TIME)

BY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	PREV	
1	E	NNE	SSE	E	E	NW	N	NNW	N	N	N	NW	WSW	WSW	W	W	W	W	WSW	W	ENE	NE	ENE	N	[VA]	
2	E	E	ENE	ENE	E	NNE	E	E	ENE	E	ESE	S	WSW	W	W	W	W	W	W	E	ENE	NE	NE	N	[VA]	
3	NE	NNE	NE	NE	ENE	NE	NE	NNE	NE	NE	ENE	W	W	WSW	W	W	W	W	W	ENE	ENE	ENE	ENE	[VA]	[VA]	
4	E	E	SE	NE	E	NE	ENE	ENE	E	ESE	SSE	WSW	W	W	WSW	WSW	WSW	W	W	WSW	W	WSW	S	W	WSW	
5	NNW	ENE	NE	ENE	NE	NE	ENE	ENE	E	ESE	S	WSW	WSW	WSW	WSW	WSW	WSW	W	W	WSW	W	WSW	WSW	WSW	WSW	
6	ENE	NE	NE	ENE	E	ESE	ESE	NE	ESE	WSW	W	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	[VA]	
7	E	ENE	NE	E	E	E	E	SE	ESE	ENE	ESE	WSW	WSW	WSW	WSW	WSW	WSW	W	W	WSW	W	WSW	W	WSW	[VA]	
8	ENE	E	ENE	E	ENE	E	ENE	ENE	ESE	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	[VA]	
9	NE	NE	NE	ENE	NE	NE	NE	NE	ENE	ENE	E	ESE	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	[VA]	
10	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	[VA]	
11	ENE	ENE	E	E	ENE	ENE	ENE	ENE	ENE	ENE	E	ESE	SE	S	NNE	E	E	NNW	NNW	W	WSW	W	WSW	W	[VA]	
12	ENE	ENE	N	SE	N	N	N	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	[VA]	
13	E	E	E	ENE	NE	ENE	ESE	E	E	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	[VA]	
14	E	ENE	E	ESE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	[VA]	
15	E	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ESE	S	SW	SW	WSW	WSW	WSW	SW	W	W	WSW	WSW	WSW	WSW	[VA]	
16	NE	NE	E	ENE	NE	ENE	NE	ENE	NE	ENE	NE	SW	WSW	WSW	W	W	W	W	W	W	W	W	W	W	[VA]	
17	NE	E	E	E	E	ENE	ENE	NE	NE	ENE	N	WSW	WSW	W	W	WSW	WSW	W	W	W	W	W	W	W	[VA]	
18	NE	NE	NNE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	[VA]	
19	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	WSW	W	WSW	WSW	W	W	W	W	W	W	W	W	W	[VA]	
20	SE	ENE	ENE	ENE	ENE	ENE	NNW	N	N	NNW	SSE	SW	W	W	W	WSW	W	W	W	W	W	W	W	W	[VA]	
21	NE	E	E	ENE	E	ENE	NE	NE	ENE	ENE	NNW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	[VA]	
22	ENE	ENE	SE	E	NE	ENE	ENE	NE	NNW	NNW	NE	NE	ENE	ENE	SW	W	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	[VA]	
23	E	NNE	ENE	ENE	E	ESE	E	E	ENE	ENE	SE	SSW	WSW	WSW	W	W	WSW	W	W	WSW	WSW	WSW	WSW	WSW	[VA]	
24	ENE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	[VA]	
25	ENE	NE	ENE	ENE	E	NNE	E	ENE	ENE	ENE	ENE	N	SE	S	W	W	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	[VA]	
26	SSE	ENE	ENE	E	E	ESE	ESE	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	[VA]	
27	NE	NNE	ENE	NE	NE	NE	ENE	E	ENE	ENE	ESE	ESE	WSW	WSW	WSW	WSW	SW	SW	W	NNW	N	NE	ENE	ENE	[VA]	
28	ENE	NE	E	ENE	NE	ENE	E	E	E	ENE	WSW	SW	WSW	W	W	W	W	W	W	NNW	NNW	NNW	NNW	NNW	[VA]	
29	ENE	E	E	E	ENE	ENE	NE	ENE	ENE	E	SSE	WSW	WSW	WSW	WSW	SW	SW	SSW	SSW	SW	SSW	SW	SSW	SW	[VA]	
30	E	ESE	ENE	E	ENE	NE	ENE	ESE	ESE	E	E	ESE	ESE	E	N	N	N	N	N	ENE	NE	ENE	ENE	ENE	[VA]	
PV [VA]	NE	ENE	ENE	[VA]	ENE	ENE	NE	ENE	ENE	[VA]	WSW	WSW	WSW	W	W	W	W	W	W	W	W	W	W	W	W	[VA]

00004 [Program: EDEE MONTHSUM]

Version: LC:15-OCT-93

RESULTANT DIRECTION [61104]

DEGREES, COMPASS

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

NOV, 1997

AEROSOL/ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 26/FEB/98 *

CLOCK HOUR (LOCAL STANDARD TIME)

BY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	PREV
1	79	16	159	80	80	319	2	335	359	358	353	322	247	284	264	267	265	268	258	277	77	43	71	3	[VA]
2	92	98	68	68	84	15	90	80	74	80	111	187	248	263	273	263	262	246	260	272	84	58	48	11	[VA]
3	35	19	42	47	58	51	39	29	38	46	62	267	282	255	265	273	289	247	259	262	275	63	71	69	[VA]
4	90	97	141	51	84	48	64	78	83	105	147	245	261	263	255	255	250	259	259	248	261	239	189	265	12
5	348	26	41	58	48	41	73	64	94	161	190	257	256	255	250	250	260	260	257	265	259	246	245	234	12
6	82	46	56	74	88	113	104	49	105	247	276	240	253	256	256	258	261	249	254	267	254	261	256	316	[VA]
7	88	60	55	96	97	82	95	126	161	104	119	240	253	256	256	258	261	249	254	267	254	261	256	316	[VA]
8	61	101	59	89	78	80	61	62	64	100	203	244	252	251	256	255	253	250	252	253	258	283	61	99	[VA]
9	51	44	51	60	14	46	54	66	67	83	102	241	255	252	259	254	260	257	251	246	247	247	230	220	[VA]
10	336	345	199	241	223	234	140	129	188	172	156	182	180	22	83	96	343	284	278	288	353	49	65	80	[VA]
11	70	69	91	92	62	72	79	56	70	80	75	220	249	259	256	259	261	274	258	336	36	52	10	8	[VA]
12	23	7	136	353	353	0	334	317	316	308	285	274	251	258	268	273	275	270	277	303	342	345	30	82	[VA]
13	89	86	85	68	47	75	120	100	91	73	71	78	67	59	26	20	327	279	310	311	305	303	329	305	4
14	80	77	97	114	53	42	53	58	74	276	263	266	269	269	264	264	271	281	294	325	0	17	69	[VA]	
15	94	75	59	61	74	66	71	68	70	84	115	182	221	214	255	258	252	236	269	177	52	28	42	2	[VA]
16	47	44	79	72	46	71	68	56	61	76	52	221	250	254	265	264	269	269	285	314	303	341	15	66	4
17	48	75	84	68	82	63	64	49	40	61	358	247	251	263	266	256	256	264	280	50	72	38	47	49	3
18	56	51	32	35	51	37	41	34	21	35	70	72	39	266	271	262	259	262	264	276	272	283	118	75	[VA]
19	60	66	58	57	78	78	46	61	58	42	248	263	257	253	263	266	267	280	255	309	29	55	72	66	[VA]
20	135	60	19	70	73	346	353	0	354	336	162	218	267	285	263	257	264	265	261	265	259	57	63	69	[VA]
21	47	90	97	68	84	72	56	42	59	58	323	247	254	249	258	255	251	250	243	66	133	102	87	61	[VA]
22	78	18	135	84	44	71	67	37	30	25	40	52	72	73	224	263	284	259	312	303	348	10	107	82	4
23	81	25	58	73	82	103	85	82	59	76	133	193	253	256	263	264	258	269	269	254	251	255	68	75	[VA]
24	53	46	41	44	50	44	69	36	80	77	38	293	282	256	260	283	274	258	260	278	151	245	57	78	3
25	75	46	60	71	87	32	84	79	66	69	57	6	125	175	259	274	292	248	251	243	266	263	52	93	[VA]
26	158	70	62	85	98	97	106	116	219	250	237	238	254	259	255	260	264	259	277	334	17	117	163	111	12
27	39	31	70	55	50	41	69	80	65	78	102	106	239	256	254	253	228	222	273	335	5	48	64	74	4
28	72	49	84	61	50	74	90	83	79	79	77	245	234	250	262	261	268	265	280	292	339	38	72	78	4
29	62	90	89	87	61	62	70	53	74	75	99	163	240	251	252	230	216	208	210	216	211	91	84	89	5
30	94	111	109	94	70	42	77	111	112	89	95	139	116	103	8	359	6	352	73	38	54	63	71	73	[VA]
PV [VA]	3	4	4	[VA]	4	4	3	4	4	[VA]	12	12	12	13	13	13	13	13	13	13	13	13	13	13	13

SIGMA THETA STABILITY [61191]

LAX AIR QUALITY MONITORING PROGRAM, #706211

DEGREES, COMPASS

SITE 1 LAX

NOV, 1997

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 26/FEB/98 *
*

CLOCK HOUR [LOCAL STANDARD TIME]

DX	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	6	6	6	6	6	6	6	1	1	1	1	1	1	4	4	4	4	4	4	6	6	6	6	6	4	6
2	6	6	6	6	6	6	6	1	1	1	1	1	1	4	3	3	5	4	4	6	6	6	6	6	4	6
3	6	5	5	4	6	6	6	2	3	2	1	1	4	4	3	3	4	4	4	6	6	6	5	5	4	6
4	6	6	6	6	6	6	6	3	2	1	1	1	4	4	3	4	4	4	4	6	6	6	6	6	4	6
5	6	6	6	6	6	6	6	6	1	1	1	3	3	3	2	4	4	4	4	4	6	6	6	6	4	6
6	6	5	6	6	6	6	6	6	1	1	1	1	4	4	4	4	4	4	4	4	4	6	6	6	4	6
7	6	4	5	6	6	6	6	5	2	1	1	1	3	4	4	3	4	4	4	4	4	6	6	6	4	6
8	6	5	6	5	6	6	6	1	2	1	1	1	3	3	4	3	4	5	4	4	4	6	6	6	4	6
9	6	5	4	6	6	6	6	5	3	3	1	1	3	3	4	4	4	4	4	4	4	4	6	6	4	6
10	6	6	6	5	6	4	6	6	6	1	1	2	2	1	6	4	4	4	4	4	6	6	6	6	5	6
11	6	5	6	6	6	6	6	3	3	2	1	1	2	3	3	3	4	5	5	6	6	6	5	5	4	6
12	5	6	6	6	6	4	5	6	6	1	1	2	3	4	4	4	4	4	4	6	5	4	6	5	4	6
13	4	5	4	6	6	6	6	5	3	3	4	3	4	2	1	6	4	5	4	6	6	6	6	6	5	6
14	5	6	6	5	5	6	6	1	2	1	1	3	4	4	4	4	4	4	4	4	6	6	6	6	4	6
15	5	6	5	5	5	4	5	3	3	1	1	2	3	3	4	5	6	5	6	6	6	6	6	6	4	6
16	6	6	6	6	6	6	6	3	2	1	1	2	4	3	4	4	4	4	4	5	6	6	6	6	4	6
17	6	6	6	6	6	5	5	3	3	1	1	3	3	3	4	4	4	4	6	6	6	6	6	6	4	6
18	4	5	5	6	6	6	6	2	3	2	1	1	2	3	3	3	4	4	4	4	4	6	6	6	4	6
19	4	6	6	6	6	6	6	1	1	1	1	3	4	3	3	3	4	4	4	4	6	6	6	6	4	6
20	6	6	6	6	6	6	6	3	2	1	1	1	2	4	4	4	4	4	4	4	6	6	6	6	4	6
21	5	6	6	4	6	6	6	1	1	1	1	2	2	3	3	4	4	4	4	4	6	6	6	6	5	6
22	6	6	6	6	6	6	6	2	1	1	2	2	1	1	2	3	4	5	6	6	6	6	6	6	4	6
23	6	6	6	6	6	6	6	4	1	2	2	1	3	4	3	4	4	4	4	4	4	6	6	5	4	6
24	5	4	4	6	6	6	6	1	1	1	1	1	4	4	1	4	4	4	4	4	6	6	6	4	5	6
25	6	5	4	6	5	6	6	6	3	1	1	1	1	1	1	5	6	4	4	4	4	6	6	6	4	6
26	6	6	6	5	6	4	4	4	4	4	4	4	4	4	4	4	4	4	4	6	6	6	6	6	5	6
27	6	6	6	6	4	6	6	1	4	2	1	1	1	2	2	2	6	6	6	6	5	6	5	5	4	6
28	6	6	6	6	6	6	6	4	3	3	3	1	1	2	3	3	4	4	4	6	6	6	5	5	4	6
29	4	6	4	4	5	4	4	2	3	1	1	1	1	4	3	2	4	5	6	6	6	6	6	5	4	6
30	4	6	4	5	6	6	4	4	4	4	4	5	1	1	1	1	6	6	6	6	6	6	6	6	5	6
AV	6	6	6	6	6	6	6	3	2	2	1	2	2	3	3	3	4	4	5	5	5	6	6	6	4	
SD	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0		
PK	6	6	6	6	6	6	6	6	6	4	4	5	4	4	6	5	6	6	6	6	6	6	6	6	6	6

00000 [Program: MDMS_MONTHSUM]

Version: LC:15-OCT-93]

TEMPERATURE [62101]

LAX AIR QUALITY MONITORING PROGRAM, #706211

DEGREES CELSIUS/FAHRENHEIT
LEVEL HEIGHT : 9 METERS

SITE 1 LAX

NOV, 1997

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 26/FEB/98 *
*

CLOCK HOUR [LOCAL STANDARD TIME]

DT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	20.6	20.1	19.5	18.9	18.0	19.0	19.1	20.7	24.6	28.8	32.8	35.0	36.2	31.5	30.6	28.8	27.0	26.2	25.9	25.5	25.2	25.3	25.6	24.8	25.4	36.2
2	23.5	22.6	23.4	22.6	21.2	22.5	22.2	23.7	27.5	30.7	33.1	35.2	36.7	32.5	31.4	30.9	28.9	27.7	28.8	27.9	26.7	25.7	26.1	26.2	27.4	36.7
3	27.0	25.6	25.2	25.3	24.8	25.2	24.9	25.5	27.9	30.5	32.4	33.1	31.3	30.0	29.0	28.5	27.4	25.6	25.1	24.9	25.0	24.5	23.8	23.3	26.9	33.1
4	22.6	22.0	21.5	20.8	20.1	19.8	20.2	21.2	22.7	24.9	27.0	27.6	23.7	21.9	21.9	22.2	22.3	21.8	21.9	21.9	21.8	21.2	21.1	21.3	22.2	27.6
5	20.9	20.8	20.8	20.4	20.1	20.1	20.1	20.4	21.3	22.9	22.7	22.3	22.1	22.1	22.2	21.7	21.4	21.2	21.3	21.2	21.3	21.1	21.0	21.2	22.9	
6	20.5	19.8	19.7	19.0	18.7	18.0	18.9	18.5	18.4	19.2	22.1	23.2	22.5	22.2	22.5	22.1	21.6	21.4	21.3	21.3	21.2	20.9	20.7	20.5	20.6	23.2
7	20.1	20.0	20.6	20.6	20.7	20.8	20.8	20.8	21.1	21.9	22.6	23.1	22.7	22.1	21.8	21.7	21.3	20.9	20.9	21.1	20.8	20.7	20.4	20.3	21.2	23.1
8	19.6	19.2	19.0	17.9	17.8	17.6	17.7	18.2	19.6	20.8	21.9	22.1	22.4	21.9	21.4	21.0	20.6	20.4	20.4	20.2	20.2	20.2	19.7	19.3	19.0	22.4
9	18.5	18.1	17.7	17.2	16.9	16.8	16.7	17.0	18.5	20.3	21.6	22.4	22.0	21.7	21.3	20.7	20.3	20.1	19.8	19.7	19.8	19.8	19.9	19.8	19.4	22.4
10	20.0	19.9	19.9	19.7	19.6	19.4	19.5	19.4	18.7	18.0	17.5	16.5	16.8	17.1	16.8	17.6	17.0	17.7	18.6	18.5	17.9	16.0	15.5	15.8	18.1	20.0
11	15.5	15.7	15.5	15.3	15.2	15.2	15.2	15.7	16.5	17.7	18.5	19.1	19.5	19.3	19.3	19.2	19.1	19.0	19.0	19.1	19.0	18.8	18.4	17.9	17.6	19.5
12	17.5	17.5	17.3	17.1	17.1	17.2	17.6	18.2	18.7	19.1	20.1	21.1	20.9	21.0	20.9	20.5	20.2	20.1	20.4	20.3	19.4	19.1	19.0	18.4	19.1	21.1
13	17.4	17.1	17.0	16.8	16.3	15.8	15.7	15.4	14.9	14.5	14.6	15.0	15.0	14.9	15.3	15.3	17.1	17.7	17.6	17.0	17.0	17.1	17.0	16.3	16.2	17.7
14	14.5	13.8	13.7	13.3	13.1	13.4	12.8	13.8	15.5	16.9	18.6	19.0	19.5	20.1	20.5	20.3	19.7	19.4	19.4	19.2	18.6	18.1	17.7	16.8	17.0	20.5
15	15.9	15.5	15.0	14.6	14.6	14.3	14.3	14.8	15.8	17.5	19.3	20.3	20.6	20.5	20.0	19.2	18.2	17.9	17.2	16.6	16.8	16.6	16.3	16.0	17.9	20.6
16	15.7	15.5	14.7	14.4	14.3	13.8	13.4	14.2	16.1	17.7	19.2	20.3	20.8	20.2	19.7	19.5	19.5	19.3	19.5	19.0	18.4	17.9	17.4	16.4	17.4	20.8
17	16.5	15.3	14.8	14.2	13.6	13.5	13.7	14.9	16.6	18.1	20.0	20.9	20.9	20.2	20.2	20.0	19.9	20.0	20.2	19.6	18.5	18.2	17.5	16.6	17.7	20.9
18	15.9	15.4	15.6	15.2	14.6	15.2	14.9	15.5	17.6	19.5	20.7	22.5	23.1	23.4	22.2	21.2	20.5	20.1	19.8	20.0	19.8	19.8	18.8	17.9	18.7	23.7
19	16.6	16.3	16.1	15.6	15.1	14.8	14.8	15.3	17.4	19.4	20.5	20.5	20.5	20.4	20.7	20.5	20.3	20.4	19.8	19.4	18.8	19.2	19.7	19.9	20.4	20.7
20	21.3	21.7	22.4	23.1	23.9	25.4	24.7	20.7	19.6	20.8	21.3	21.9	22.1	21.4	21.2	20.9	20.7	20.9	20.6	20.5	20.6	20.6	20.0	19.3	21.5	25.4
21	18.9	18.1	17.4	16.7	16.5	16.4	16.4	17.1	19.2	21.7	23.3	23.3	22.8	22.7	22.2	21.6	21.2	20.9	21.1	21.2	20.9	20.6	20.5	19.7	20.6	23.3
22	18.8	18.9	18.1	18.8	17.3	17.0	17.1	19.0	20.5	22.8	24.6	26.4	27.5	28.0	26.9	25.9	23.4	22.8	22.4	22.1	21.2	20.4	20.1	19.3	21.6	28.0
23	18.6	18.3	17.4	16.5	15.7	15.4	15.3	16.1	18.4	20.7	22.4	23.9	23.6	22.6	21.9	21.2	20.7	20.4	20.4	20.1	20.1	20.2	19.0	18.2	19.5	23.9
24	17.6	17.3	17.0	16.2	15.9	15.5	15.5	16.3	16.9	18.0	19.6	20.6	21.0	20.4	20.1	20.2	19.9	19.9	20.1	20.2	20.0	20.0	18.6	16.3	18.5	21.9
25	17.8	17.7	17.4	17.2	16.8	16.9	16.8	17.0	18.1	19.3	20.3	21.3	22.1	22.4	21.3	21.0	20.5	20.0	20.0	20.0	19.9	19.9	19.5	19.0	19.3	22.4
26	19.1	18.9	19.0	18.6	18.2	17.9	18.3	19.0	18.4	17.0	17.8	18.4	19.2	18.5	18.2	18.4	17.5	17.4	16.5	15.2	15.1	14.9	14.5	13.7	17.5	19.5
27	13.3	13.3	13.1	13.0	12.7	12.6	12.6	12.0	12.3	13.3	14.8	16.1	17.2	17.8	17.8	17.9	17.9	17.7	17.5	17.0	16.3	15.6	15.4	14.5	15.3	17.9
28	14.0	13.7	13.0	12.8	12.7	12.3	12.0	12.3	13.7	16.0	17.9	19.0	19.5	19.3	19.2	18.8	18.5	18.1	18.2	18.0	17.0	16.5	16.3	15.7	16.0	19.5
29	14.8	14.3	14.0	13.6	13.6	13.2	12.8	13.6	15.0	16.6	18.7	19.5	19.6	19.4	19.2	19.3	18.9	18.4	18.0	17.7	16.8	17.9	17.5	17.4	16.7	19.6
30	17.3	17.3	17.3	17.0	16.6	16.4	16.1	16.4	16.5	16.5	15.7	15.7	14.6	15.2	15.8	15.6	15.8	15.5	15.3	15.2	14.9	14.6	14.6	14.3	15.8	17.3
AV	18.3	18.0	17.8	17.3	17.0	17.0	17.0	17.4	18.6	20.0	21.4	22.3	22.3	21.7	21.4	21.1	20.6	20.3	20.2	20.0	19.7	19.4	19.1	18.6	19.4	
SD	3.0	2.9	3.1	3.1	3.1	3.1	3.4	3.4	3.2	3.5	4.1	4.7	5.0	5.0	4.1	3.8	3.5	3.0	2.6	2.7	2.8	2.7	2.8	2.8	2.9	
FK	20.9	25.6	25.2	25.3	24.8	25.4	24.5	25.5	27.9	30.7	33.1	35.2	36.7	32.5	31.4	30.9	28.9	27.7	28.8	27.9	26.7	25.7	26.1	26.2	27.4	36.7

SOLAR RADIATION [63301]

WATTS PER SQUARE METER

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

NOV. 1997

AEROSOL/ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 26/FEB/98 *
*

CLOCK HOUR [LOCAL STANDARD TIME]

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	0	0	0	0	0	0	24	176	366	529	643	687	670	599	439	230	69	0	0	0	0	0	0	0	184	687
2	0	0	0	0	0	0	27	192	387	546	653	703	684	601	449	233	69	0	0	0	0	0	0	0	189	703
3	0	0	0	0	0	0	28	152	301	539	637	659	660	590	457	200	23	0	0	0	0	0	0	0	180	659
4	0	0	0	0	0	0	15	164	282	494	596	605	601	489	400	210	48	0	0	0	0	0	0	0	163	605
5	0	0	0	0	0	0	6	59	250	450	560	628	634	546	393	197	55	0	0	0	0	0	0	0	157	634
6	0	0	0	0	0	0	7	45	152	419	557	599	587	512	277	204	46	0	0	0	0	0	0	0	146	599
7	0	0	0	0	0	0	8	90	245	482	527	592	610	463	375	218	54	0	0	0	0	0	0	0	153	610
8	0	0	0	0	0	0	17	147	335	446	447	480	622	558	410	198	66	0	0	0	0	0	0	0	155	622
9	0	0	0	0	0	0	11	135	318	479	571	633	606	453	319	203	51	0	0	0	0	0	0	0	157	633
10	0	0	0	0	0	0	0	21	20	76	180	181	143	97	54	32	16	0	0	0	0	0	0	0	14	181
11	0	0	0	0	0	0	9	176	260	293	288	374	342	304	319	168	33	0	0	0	0	0	0	0	107	374
12	0	0	0	0	0	0	2	49	125	206	452	545	614	556	413	237	52	0	0	0	0	0	0	0	135	614
13	0	0	0	0	0	0	1	27	62	84	93	94	79	96	81	112	43	0	0	0	0	0	0	0	32	112
14	0	0	0	0	0	0	11	164	307	433	530	589	579	504	376	231	44	0	0	0	0	0	0	0	137	589
15	0	0	0	0	0	0	6	104	233	285	312	561	526	319	146	42	6	0	0	0	0	0	0	0	114	561
16	0	0	0	0	0	0	8	126	297	447	528	541	534	415	216	97	44	0	0	0	0	0	0	0	136	541
17	0	0	0	0	0	0	6	112	266	431	518	568	573	497	364	207	22	0	0	0	0	0	0	0	149	573
18	0	0	0	0	0	0	8	109	281	422	526	567	548	460	319	174	36	0	0	0	0	0	0	0	144	567
19	0	0	0	0	0	0	5	99	249	398	479	504	477	441	278	147	25	0	0	0	0	0	0	0	129	504
20	0	0	0	0	0	0	2	75	229	370	514	465	495	425	243	115	26	0	0	0	0	0	0	0	115	495
21	0	0	0	0	0	0	4	108	262	420	470	451	449	456	333	188	25	0	0	0	0	0	0	0	132	470
22	0	0	0	0	0	0	5	80	137	363	380	600	546	458	329	170	32	0	0	0	0	0	0	0	129	600
23	0	0	0	0	0	0	3	97	261	408	506	552	539	475	343	181	36	0	0	0	0	0	0	0	142	552
24	0	0	0	0	0	0	1	52	123	211	282	303	316	225	122	85	18	0	0	0	0	0	0	0	72	316
25	0	0	0	0	0	0	0	42	197	169	171	201	228	160	124	68	11	0	0	0	0	0	0	0	57	228
26	0	0	0	0	0	0	1	69	23	151	194	230	550	267	367	146	40	0	0	0	0	0	0	0	85	550
27	0	0	0	0	0	0	2	90	216	376	523	555	530	469	340	177	31	0	0	0	0	0	0	0	138	555
28	0	0	0	0	0	0	1	88	247	396	496	533	533	468	345	178	30	0	0	0	0	0	0	0	138	533
29	0	0	0	0	0	0	0	67	186	374	478	457	373	256	215	160	33	0	0	0	0	0	0	0	108	478
30	0	0	0	0	0	0	1	48	31	59	94	52	358	61	127	128	13	0	0	0	0	0	0	0	41	358
AV	0	0	0	0	0	0	7	99	225	359	440	484	500	407	302	164	36	0	0	0	0	0	0	0	126	
SD	0	0	0	0	0	0	8	48	102	141	163	175	153	153	115	57	17	0	0	0	0	0	0	0		
PK	0	0	0	0	0	0	28	192	387	546	653	703	684	601	457	237	69	0	0	0	0	0	0	0		703

00000 [Program: EDMS_MONTESUM]

Version: LC:15-OCT-93]

SIGMA WS [70012]

DEGREES, COMMASS

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

NOV. 1997

AEROSOL/ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 26/FEB/98 *
*

CLOCK HOUR [LOCAL STANDARD TIME]

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	33	34	74	43	28	16	51	48	36	25	28	46	28	9	9	11	10	13	17	75	23	29	44	46	32	75
2	47	47	24	43	40	67	59	31	26	22	41	65	32	12	14	12	7	11	12	30	26	18	17	15	30	67
3	21	12	15	13	26	40	24	17	15	17	33	60	13	10	14	15	17	12	12	15	30	38	16	17	21	60
4	20	46	38	69	37	43	18	14	18	26	38	47	11	11	13	11	11	12	15	29	18	22	36	34	27	69
5	49	53	46	43	17	62	49	17	43	30	46	21	18	13	14	18	11	12	8	15	17	31	9	30	28	62
6	30	13	65	27	36	37	18	39	35	34	59	37	13	12	9	7	12	13	13	33	22	21	30	26	65	
7	28	10	13	20	13	23	13	21	32	31	52	15	11	10	13	10	13	13	13	14	27	20	24	20	52	
8	24	15	24	17	21	18	43	16	19	59	54	28	16	12	12	12	10	7	10	12	14	39	35	29	23	59
9	27	23	11	21	26	22	12	15	13	34	60	40	13	14	11	11	9	10	10	12	9	9	24	37	20	60
10	28	37	22	16	22	21	38	28	21	39	20	16	24	23	44	24	46	25	11	16	35	47	60	19	28	60
11	22	14	17	21	17	30	22	17	17	21	36	42	19	15	14	14	15	21	19	53	77	45	15	12	25	77
12	13	29	62	22	12	15	25	32	32	31	17	25	14	9	10	11	9	7	11	23	14	11	46	13	20	62
13	11	13	11	29	24	45	16	19	15	14	13	12	15	11	28	28	34	15	29	16	17	33	23	72	23	72
14	12	39	39	14	16	18	37	42	18	40	52	18	15	13	10	7	7	9	15	14	23	43	24	25	22	52
15	14	20	12	16	17	11	13	14	14	15	24	42	18	16	24	11	26	45	49	64	34	22	37	22	24	64
16	25	20	34	76	22	21	20	13	18	23	46	61	16	9	13	9	10	8	17	16	23	17	30	16	23	76
17	18	29	22	16	14	14	16	38	15	29	61	42	15	14	15	21	12	14	20	47	29	40	10	14	23	61
18	12	12	17	29	20	15	40	18	18	19	30	33	63	38	14	15	9	9	7	14	16	47	23	29	23	63
19	10	24	30	12	15	42	41	29	42	57	40	16	12	13	13	12	11	8	8	41	29	18	21	21	23	57
20	21	17	18	31	47	27	23	14	19	42	58	56	13	12	10	12	8	8	13	19	72	10	12	19	25	72
21	17	21	22	11	21	19	73	41	35	46	43	16	18	16	14	11	8	13	28	64	35	34	34	16	27	73
22	28	48	63	28	44	21	16	19	24	28	19	22	28	84	29	13	15	24	37	27	37	48	59	14	31	64
23	57	21	24	45	13	22	11	27	21	18	51	58	13	8	13	9	7	11	12	10	14	44	14	16	22	58
24	13	10	11	19	19	38	45	49	24	29	67	49	24	11	12	15	16	15	20	78	45	65	12	14	29	78
25	32	14	10	23	14	35	22	36	13	35	54	62	37	63	23	20	28	9	11	17	19	28	66	22	29	66
26	47	62	61	14	50	9	11	12	50	13	11	13	12	8	9	7	10	8	29	33	17	39	27	32	24	62
27	30	28	22	18	11	28	10	30	10	18	42	59	23	17	19	20	27	21	41	47	14	36	12	16	25	59
28	33	36	27	17	40	27	10	12	14	17	40	26	20	17	15	13	15	11	14	26	17	45	15	13	12	45
29	8	20	11	8	13	10	11	12	17	16	47	41	22	11	13	22	13	19	20	24	26	30	17	15	19	47
30	12	13	24	15	25	40	21	13	12	13	11	46	29	49	23	23	21	39	50	22	36	22	20	24	25	50
AV	25	25	29	26	24	28	27	24	22	28	40	38	21	18	16	14	15	15	19	29	27	32	27	24	25	
UD	13	14	19	16	11	15	16	12	10	12	16	17	11	15	8	5	9	9	12	20	16	13	15	12		
PK	57	62	74	76	50	67	73	49	50	59	67	65	63	64	44	28	46	45	50	78	77	65	66	72		78

[illegible]

* SYNOPSIS DATA *

* AS OF 26/FEB/98 *

1996年12月16日

[illegible]

Version: LC:15-OCT-93}

■■■■■

★ FINAL DATA ★

• AS OF 26/FEB/98 •

[illegible][illegible]

Version: LC:15-OCT-981

SIGMA THREE (CALCULATED) [09090]

LAX AIR QUALITY MONITORING PROGRAM, #706211

DEGREES, COMPASS

SITE 1 LAX

NOV, 1997

AEROENVIRONMENT ENVIRONMENTAL SERVICES INC.

* FINAL DATA *

* AS OF 26/FEB/98 *

CLOCK HOUR [LOCAL STANDARD TIME]

DX	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	37	39	103	52	34	27	56	69	37	33	36	51	41	9	9	11	10	13	16	99	19	26	53	65	40	103
2	65	55	26	43	57	82	89	37	34	23	49	73	40	11	15	13	7	11	12	42	26	18	18	21	36	89
3	30	13	17	14	45	47	29	18	16	18	34	92	12	10	14	15	17	12	13	16	32	59	16	17	25	92
4	21	56	43	89	39	48	27	15	18	26	45	65	11	11	14	11	11	11	15	29	20	26	39	38	30	89
5	59	42	54	56	20	75	65	19	50	41	53	19	18	13	14	18	12	14	8	15	16	31	10	35	32	75
6	33	15	72	25	32	33	19	59	48	43	75	55	13	12	12	9	7	12	13	14	36	20	25	44	31	75
7	36	10	14	25	14	24	14	21	27	37	65	65	16	11	10	14	10	12	13	13	14	30	21	26	22	65
8	25	15	26	16	22	19	74	26	21	73	61	32	17	13	12	13	10	7	9	11	15	49	36	31	26	74
9	30	26	10	38	36	28	13	16	13	37	76	55	13	14	11	11	9	10	10	11	9	9	26	35	23	76
10	37	64	23	16	24	22	40	30	24	41	23	18	33	23	53	24	48	26	12	17	31	58	64	21	32	64
11	22	13	18	20	19	36	35	17	21	26	58	22	15	15	14	16	20	21	71	98	47	16	15	28	98	
12	13	34	82	26	13	15	33	30	31	33	18	27	14	9	10	11	9	8	11	21	15	12	51	15	22	82
13	11	14	12	47	38	50	16	23	14	15	13	12	15	12	27	29	35	15	31	17	18	33	25	94	26	94
14	13	21	45	13	17	19	49	47	19	53	71	19	15	14	11	7	7	9	15	14	24	34	27	27	25	71
15	13	19	13	17	17	11	13	16	14	15	24	46	19	17	25	11	29	48	52	89	36	26	51	26	27	89
16	29	36	48	89	26	23	20	14	18	25	62	84	23	9	13	9	10	8	17	17	20	19	37	17	28	89
17	22	33	27	22	15	17	16	33	16	34	83	53	18	14	15	11	12	13	24	64	26	32	10	14	26	83
18	12	13	17	35	28	17	48	20	17	19	28	39	78	71	14	15	10	8	7	15	16	67	26	28	27	78
19	11	24	33	14	16	60	54	32	46	73	59	16	12	14	13	13	11	8	9	41	27	19	22	21	27	73
20	24	18	18	32	45	33	24	14	20	51	77	68	60	12	11	12	8	8	13	16	92	10	13	20	29	92
21	17	23	23	11	25	25	92	61	43	52	51	24	21	17	14	12	8	13	34	62	34	33	47	17	33	92
22	29	56	74	43	52	23	29	20	26	27	20	23	32	83	39	13	15	26	37	30	33	58	66	15	36	83
23	77	24	31	58	13	22	11	29	22	19	57	79	14	9	13	9	8	11	12	9	12	66	15	16	83	
24	13	11	12	36	28	44	56	82	26	30	77	55	25	12	15	16	14	19	93	48	79	12	14	34	93	
25	34	15	11	23	15	46	27	49	14	36	58	70	41	67	24	21	26	10	11	16	18	27	93	24	32	93
26	52	76	80	15	63	10	11	13	59	13	11	13	12	9	9	7	11	7	31	32	20	51	30	41	28	50
27	35	29	28	18	12	57	38	34	10	22	55	74	26	19	19	20	25	22	54	73	15	53	14	16	32	74
28	52	45	37	21	72	32	10	13	14	17	48	47	22	17	15	13	15	11	14	26	18	16	16	26	72	
29	9	20	11	9	13	11	11	12	18	17	55	59	27	11	14	23	15	20	21	27	29	32	18	15	21	59
30	12	13	24	15	32	42	22	13	12	13	11	50	33	66	23	25	21	45	56	23	35	22	23	24	27	66
AV	29	29	34	32	29	33	34	29	25	32	48	48	25	21	17	14	15	15	20	35	28	36	31	27	29	
SD	17	18	25	21	16	19	23	18	13	16	22	23	15	21	9	5	9	10	14	28	20	18	20	17		
PK	77	76	103	89	72	82	92	82	58	73	83	92	78	83	53	29	48	48	56	99	98	79	93	94		103

00000 [Program: EDMS MONTHSUM]

Version: 10:15-OCT-93]

TEMPERATURE 2M HEIGHT [99144]

LAX AIR QUALITY MONITORING PROGRAM, #706211

DEGREES CENTIGRADE

SITE 1 LAX

NOV, 1997

AEROENVIRONMENT ENVIRONMENTAL SERVICES INC.

* FINAL DATA *

* AS OF 26/FEB/98 *

CLOCK HOUR [LOCAL STANDARD TIME]

DX	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK	
1	19.6	19.0	17.9	17.5	17.1	17.7	18.1	20.3	25.1	29.5	33.6	35.7	37.2	32.9	31.7	29.4	26.9	25.5	24.8	24.8	24.6	24.4	23.5	22.9	25.0	37.2	
2	21.6	20.8	20.4	20.1	19.3	19.2	19.9	23.6	27.9	31.2	33.8	35.9	37.6	33.8	32.4	31.5	28.6	26.8	27.6	26.9	26.1	25.2	25.2	24.7	26.7	37.6	
3	25.6	25.4	24.5	24.6	22.9	23.1	21.9	25.5	28.4	31.2	33.1	33.9	32.5	31.2	29.9	28.8	27.4	25.2	24.4	24.2	24.7	24.3	23.3	22.8	24.6	33.9	
4	22.0	21.0	19.7	18.9	19.0	18.3	18.7	21.1	23.1	25.6	27.7	28.5	25.0	23.1	22.7	22.7	22.2	21.8	21.4	21.1	21.3	20.8	20.7	20.9	22.0	28.5	
5	20.6	20.2	20.5	20.3	20.0	20.0	20.0	20.5	21.8	23.5	23.8	23.4	23.2	22.9	22.7	21.7	21.1	20.8	21.0	20.8	20.7	20.4	20.2	21.3	23.8		
6	20.1	19.5	19.0	18.6	18.2	17.6	17.3	18.7	22.6	19.3	22.6	24.2	23.8	23.5	23.5	22.7	21.7	21.3	21.1	21.1	20.9	20.6	20.5	20.2	20.8	24.2	
7	19.8	19.9	20.5	20.4	20.5	20.7	20.7	21.0	21.6	22.7	23.4	24.0	23.9	23.4	23.1	22.4	21.4	20.6	20.8	21.1	20.5	20.3	20.0	20.1	21.4	24.0	
8	19.3	18.7	18.6	17.7	17.5	17.0	17.2	18.2	20.0	21.4	22.5	22.9	23.7	23.5	22.6	21.6	20.7	20.0	19.7	19.6	19.7	19.9	19.3	18.7	20.0	23.7	
9	18.0	17.4	17.5	16.7	16.4	16.2	16.4	17.0	18.9	20.9	22.3	23.3	23.2	22.7	22.3	21.4	20.4	19.6	19.5	19.3	19.5	19.7	19.9	19.9	19.5	23.3	
10	20.0	20.0	19.8	19.5	19.6	19.4	19.4	19.5	18.9	17.6	17.3	17.7	16.4	16.4	16.7	17.5	16.6	17.2	18.2	18.2	17.5	15.2	15.2	15.3	17.9	20.0	
11	15.4	15.4	15.4	15.7	15.8	16.6	17.9	16.8	17.4	18.2	18.9	19.6	20.1	19.9	20.0	19.5	19.0	18.8	18.6	19.0	18.9	18.6	18.3	17.7	18.0	20.1	
12	17.6	17.4	17.1	17.1	17.1	17.1	17.3	18.2	18.6	19.3	20.6	22.0	22.3	22.6	22.0	21.1	20.2	19.7	20.1	20.0	19.0	18.8	18.5	18.1	19.3	22.6	
13	17.2	16.9	16.9	16.6	16.2	15.0	14.8	15.5	14.9	14.7	15.0	15.8	16.5	17.4	19.0	18.0	18.9	19.1	18.8	17.4	17.3	17.2	16.8	16.0	16.8	19.1	
14	16.4	16.6	17.9	17.1	16.0	13.6	13.4	14.1	15.8	17.3	19.2	20.0	20.7	21.3	21.4	20.9	19.5	19.0	19.1	19.1	18.5	17.7	16.7	16.3	17.8	21.4	
15	15.7	15.4	15.0	14.6	14.4	14.2	14.1	14.8	16.1	17.9	20.1	21.1	21.5	21.1	20.4	19.1	18.0	17.9	17.7	17.7	17.7	17.6	17.5	17.3	17.4	21.5	
16	17.0	16.1	17.0	17.0	16.3	14.7	14.1	14.8	16.6	18.3	19.8	20.9	21.6	21.2	20.3	19.7	19.5	19.1	19.4	18.9	18.2	17.6	16.7	15.9	17.9	21.6	
17	15.9	14.8	13.9	13.4	13.1	13.1	13.3	14.8	17.0	19.9	21.2	23.0	24.3	24.0	22.8	21.3	20.0	19.4	19.2	19.7	19.6	19.2	18.2	17.4	18.5	24.3	
18	15.4	15.0	15.2	14.2	13.4	14.7	14.3	15.4	17.9	20.3	21.2	21.3	21.3	21.5	21.0	20.7	20.4	19.7	19.4	18.9	18.8	18.6	18.6	18.7	18.2	21.5	
19	16.3	16.0	15.5	14.7	14.0	14.1	14.2	15.2	17.6	19.8	21.2	21.3	21.3	21.5	21.0	20.6	19.9	19.3	18.9	19.0	19.1	18.3	18.0	17.2	19.8	23.6	
20	18.8	18.7	18.6	18.6	18.6	20.2	23.6	20.8	19.0	20.3	20.7	21.9	22.5	21.9	21.2	20.6	19.9	19									
21	17.0	16.7	14.9	13.4	14.7	14.8	14.1	16.6	19.3	22.0	23.8	23.8	23.4	23.2	22.6	21.6	20.4	19.8	19.9	20.5	20.1	19.7	19.5	18.9	19.3	23.5	
22	17.7	17.4	16.5	15.8	16.0	15.9	16.3	18.7	20.4	23.2	24.9	27.1	28.0	28.9	27.5	22.8	23.3	21.5	21.5	23.1	20.3	19.2	18.1	23.0	28.0		
23	17.3	16.7	15.8	14.2	15.0	14.7	14.6	15.8	18.5	21.1	22.9	24.5	24.4	23.5	22.5	21.5	20.3	20.0	19.8	19.2	19.2	19.2	18.1	17.4	19.0	24.4	
24	17.0	16.8	16.3	15.5	15.0	14.2	14.4	15.4	16.7	18.0	19.6	21.1	21.4	20.8	20.2	20.5	20.7	19.7	19.5	19.7	19.5	19.5	19.5	18.2	17.9	18.2	21.4
25	17.2	17.4	17.1	16.6	16.2	16.3	15.7	16.4	18.1	19.4	20.3	21.4	22.3	22.5	21.3	21.0	20.3	19.2	19.3	19.4	19.5	19.3	19.0	18.5	18.9	22.5	
26	18.0	18.0	17.6	17.1	16.8	17.2	17.7	18.6	18.1	16.4	17.4	19.7	19.7	18.5	18.5	18.3	16.9	16.6	16.1	14.9	14.9	14.6	14.1	13.2	17.0	19.7	
27	15.7	13.1	12.4	11.9	12.0	12.0	13.1	11.9	13.4	15.0	16.5	17.6	18.3	18.4	18.3	17.9	17.2	17.0	16.8	16.3	15.6	14.9	14.4	13.7	15.1	18.4	
28	13.0	12.5	11.8	11.7	11.1	10.9	13.4	12.0	13.8	16.2	18.2	19.5	20.0	19.8	19.6	18.6	18.0	17.1	17.7	17.5	16.6	15.5	15.6	15.0	15.6	20.0	
29	14.3	12.3	13.4	13.0	13.1	12.8	12.3	13.4	15.0	16.9	19.1	19.6	19.9	19.6	19.4	19.3	18.4	17.9	17.4	17.2	17.8	17.6	17.2	17.1	16.5	19.9	
30	17.4	17.0	17.0	16.7	16.4	16.2	15.9	16.2	15.8	15.3	15.6	14.6	15.6	15.8	14.8	16.0	15.6	15.2	15.1	14.7	14.3	14.1	13.9	13.7	15.5	17.0	
AV	17.9	17.4	17.1	16.7	16.4	16.3	16.3	17.3	18.9	20.3	21.9	22.6	23.1	22.5	22.0	21.4	20.4	19.8	19.7	19.5	19.3	18.9	18.4	18.0	19.3		
SD	2.5	2.7	2.7	2.8	2.6	2.8	3.1	3.2	3.7	4.3	4.8	5.2	5.1	4.3	3.9	3.5	3.0	2.5	2.5	2.6	2.6	2.7	2.6	2.7			
PK	25.6	25.4	24.5	24.6	22.9	23.1	23.6	25.5	28.4	31.2	33.8	35.9	37.6	33.8	32.4	31.5	28.6	26.8	27.6	26.9	26.1	25.2	25.2	24.7			
																										37.6	

STATION TEMPERATURE [99231]

LAX AIR QUALITY MONITORING PROGRAM, #706211

DEGREES CENTIGRADE

SITE 1 LAX

NOV, 1997

AERONAUTICAL ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 26/FEB/98 *
*

CLOCK HOUR [LOCAL STANDARD TIME]

BY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	22.0	22.6	22.7	22.2	21.7	21.5	21.5	21.5	21.5	23.8	26.7	29.4	31.7	32.9	32.3	31.5	29.8	27.8	25.7	24.1	22.8	22.1	21.4	20.8	25.0	32.9
2	20.6	20.5	20.6	20.5	20.7	21.5	21.8	20.9	22.2	25.1	28.0	30.4	32.8	33.8	33.1	32.6	31.0	28.3	26.0	24.7	23.6	22.5	21.7	21.0	25.2	33.8
3	20.8	20.7	20.8	20.8	20.8	20.8	20.6	20.7	22.4	25.3	27.9	30.0	31.2	31.3	31.1	30.6	28.6	26.6	25.0	23.7	22.8	22.3	21.7	21.0	24.5	31.3
4	20.6	20.5	21.1	21.6	21.6	21.4	21.7	21.2	20.6	21.8	24.0	26.1	27.3	26.6	25.7	25.0	24.2	22.9	21.6	20.7	20.4	20.2	20.1	20.0	22.4	27.1
5	20.0	20.2	20.4	20.1	20.2	20.3	20.3	20.3	20.1	20.7	22.4	23.7	24.1	24.4	24.3	24.3	23.6	22.2	20.8	20.3	20.1	20.1	20.4	20.9	21.4	24.5
6	21.7	21.6	22.2	22.2	22.1	21.9	21.7	22.1	22.8	22.5	22.0	23.3	24.1	24.5	24.6	24.5	23.8	22.3	21.1	20.4	20.3	20.5	20.6	21.4	22.3	24.6
7	22.2	21.3	20.7	20.5	20.4	20.5	20.6	20.6	20.4	21.2	22.7	23.9	24.6	24.9	24.6	24.2	23.5	22.2	20.9	20.6	20.5	20.6	20.9	21.4	21.8	24.9
8	21.3	22.0	22.2	22.3	21.7	21.2	20.9	21.1	20.8	21.1	22.4	22.7	23.2	23.6	23.6	23.2	22.2	21.0	20.7	21.0	21.0	20.8	20.9	21.5	21.8	23.6
9	21.7	21.5	21.5	21.2	20.8	20.4	20.2	20.4	20.5	20.5	21.7	22.9	23.6	23.8	23.6	22.9	21.9	20.8	20.7	21.2	21.0	20.8	20.5	20.5	21.4	23.8
10	20.8	20.5	20.7	20.7	20.9	21.1	21.7	21.7	22.3	22.6	21.5	22.0	22.0	22.2	22.4	22.5	22.1	21.7	21.7	21.7	21.4	21.1	20.6	21.5	22.6	
11	20.1	19.8	19.9	19.7	19.6	19.5	19.2	19.3	20.6	20.6	20.6	20.1	20.1	20.2	21.1	20.7	21.0	22.0	21.9	21.3	21.4	21.4	21.5	21.9	20.6	22.0
12	22.0	22.2	22.3	22.1	22.1	22.1	21.9	21.9	21.8	20.9	20.5	20.6	21.1	21.6	21.9	21.6	21.0	20.7	20.8	20.6	20.9	21.6	21.5	21.9	21.5	22.3
13	22.3	22.3	22.5	22.2	21.8	21.5	21.2	21.0	20.9	21.0	21.1	21.0	21.1	21.1	21.2	21.4	22.0	21.8	21.8	21.7	21.3	21.1	20.9	20.3	21.4	22.5
14	19.7	19.1	18.7	18.0	17.5	17.2	16.9	17.1	18.0	21.5	22.3	21.2	20.6	20.6	20.8	20.7	20.4	21.4	22.3	21.8	22.2	22.4	22.0	21.4	20.2	22.4
15	20.1	20.6	20.4	19.8	19.4	19.2	19.0	19.0	20.1	21.6	20.9	21.1	21.5	21.8	21.1	20.9	22.0	22.3	22.4	22.0	21.8	21.5	21.0	20.4	20.9	22.4
16	19.9	19.6	19.4	19.0	18.2	18.1	17.8	18.0	19.7	21.4	20.7	21.0	21.4	21.6	21.1	20.4	20.5	21.5	21.6	22.7	22.3	22.3	21.8	21.1	20.4	22.3
17	20.6	20.3	19.9	19.0	18.4	17.9	17.6	17.9	20.0	21.3	20.5	21.1	21.6	21.9	22.0	21.9	21.3	21.5	22.1	21.3	22.0	22.2	21.9	21.4	20.6	22.2
18	20.9	20.3	20.0	19.5	18.8	18.4	18.3	19.2	21.8	21.1	20.8	21.3	22.4	23.6	23.7	23.1	21.9	21.2	20.9	20.8	20.7	20.7	20.1	21.3	20.9	23.7
19	22.4	23.0	23.3	23.0	22.7	22.4	22.0	22.1	22.1	21.0	21.5	21.9	22.1	22.2	22.5	22.0	21.4	21.1	21.0	21.1	21.2	21.5	22.3	21.9	22.0	23.3
20	22.7	23.1	22.6	23.6	24.2	24.4	24.4	24.2	23.4	21.7	21.7	22.0	22.5	22.6	22.3	21.6	21.1	21.0	21.5	23.0	22.3	21.3	21.4	21.8	22.5	24.4
21	22.5	22.8	23.0	22.6	22.3	22.1	21.8	22.0	21.2	20.9	21.8	22.8	22.9	23.0	23.8	23.6	22.4	21.3	21.0	20.8	20.8	20.8	21.1	22.0	22.1	23.8
22	22.5	21.7	22.5	22.9	22.9	22.9	22.9	23.3	22.1	21.1	21.5	22.6	24.2	26.0	27.3	26.9	25.7	23.6	22.1	21.4	21.1	20.9	21.0	21.4	22.9	27.3
23	21.6	22.2	22.8	22.6	22.4	22.1	22.0	22.1	21.7	21.1	21.9	23.2	24.2	24.7	24.7	24.3	23.5	22.2	21.5	21.5	21.7	22.1	22.2	23.0	22.6	24.7
24	23.3	23.4	23.4	23.1	22.7	22.3	21.9	21.8	22.3	21.9	21.1	20.8	20.9	21.1	20.9	20.8	20.8	21.0	21.2	21.3	22.4	22.2	21.9	23.0	21.9	23.4
25	23.5	23.7	24.0	23.5	22.5	22.5	22.8	22.8	22.8	21.9	20.9	20.7	20.7	20.7	20.7	20.7	20.6	20.8	20.9	21.0	20.8	20.9	21.4	22.1	21.7	24.0
26	22.5	23.6	24.3	22.5	23.0	23.5	23.0	22.1	21.1	21.7	22.4	23.0	21.7	21.2	21.9	21.4	21.3	21.9	22.0	22.1	22.2	22.2	21.9	23.0	22.3	24.3
27	21.8	21.4	21.3	20.8	20.4	20.2	20.0	19.9	21.4	22.9	21.9	21.4	21.6	21.1	21.1	21.1	21.5	22.3	23.0	23.3	23.3	23.0	22.7	22.3	21.7	23.3
28	21.8	21.3	21.1	20.4	20.0	19.5	19.2	19.2	20.5	21.9	21.0	20.6	20.6	21.0	21.4	21.4	21.2	22.5	23.2	22.1	22.4	22.7	22.6	22.5	21.3	23.2
29	22.4	22.3	22.1	21.6	21.4	21.3	21.0	20.8	21.6	22.1	21.1	21.1	21.2	21.0	20.9	20.9	21.1	22.5	23.5	22.7	22.0	21.6	21.5	21.4	21.6	23.5
30	21.4	21.5	21.6	21.7	22.0	22.1	22.6	23.0	22.2	22.7	23.1	22.2	22.8	22.3	23.1	22.7	22.9	23.2	23.2	23.1	22.7	22.3	22.0	21.7	22.5	23.2
AV	21.5	21.5	21.6	21.3	21.1	21.0	20.9	20.9	21.3	21.8	22.3	22.8	23.3	23.6	23.6	23.3	22.8	22.4	22.1	21.8	21.7	21.5	21.4	21.5	22.0	
SD	1.0	1.2	1.4	1.5	1.6	1.7	1.8	1.7	1.0	1.2	2.0	2.7	3.3	3.5	3.3	3.2	2.7	1.9	1.4	1.1	0.9	0.8	0.6	0.7		
PK	23.5	23.7	24.3	23.6	24.2	24.4	24.4	24.2	23.4	25.3	28.0	30.4	32.8	33.8	33.1	32.6	31.0	28.3	26.0	24.7	23.6	23.0	22.7	23.0		33.8

00000 [Program: EDMS_MONTHSUM]

Version: 10:15-OCT-93]

Delta Temp [99238]

LAX AIR QUALITY MONITORING PROGRAM, #706211

DEGREES CENTIGRADE

SITE 1 LAX

NOV, 1997

AERONAUTICAL ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 26/FEB/98 *
*

CLOCK HOUR [LOCAL STANDARD TIME]

BY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	-1.0	-1.6	-1.6	-1.3	-0.9	-1.2	-1.0	-0.4	0.5	0.7	0.8	0.8	1.0	1.4	1.1	0.6	-0.1	-0.7	-1.1	-0.8	-0.6	-0.9	-2.1	-1.9	-0.4	1.4
2	-1.9	-1.7	-2.9	-2.6	-1.9	-3.3	-2.3	-0.1	0.4	0.6	0.7	0.7	0.9	1.4	1.0	0.6	-0.4	-0.9	-1.1	-1.1	-0.6	-0.5	-0.9	-1.4	-0.7	1.4
3	-1.4	-0.7	-0.7	-0.8	-1.8	-2.1	-3.0	0.0	0.5	0.7	0.7	0.8	1.3	1.2	0.9	0.3	0.0	-0.4	-0.6	-0.7	-0.3	-0.4	-0.5	-0.4	-0.3	1.3
4	-0.6	-1.1	-1.8	-1.9	-1.1	-1.5	-1.5	0.0	0.4	0.7	0.7	0.9	1.4	1.2	0.9	0.6	-0.1	0.0	-0.5	-0.9	-0.5	-0.5	-0.3	-0.4	-0.2	1.4
5	-0.3	-0.6	-0.3	-0.1	0.0	0.0	-0.1	0.0	0.2	0.5	0.7	1.2	1.1	1.1	0.9	0.5	0.0	-0.3	-0.4	-0.4	-0.5	-0.6	-0.8	-0.8	0.0	1.2
6	-0.4	-0.3	-0.8	-0.4	-0.6	-0.3	-1.6	0.1	4.2	0.1	0.5	1.0	1.3	1.2	0.9	0.6	0.1	-0.1	-0.3	-0.2	-0.3	-0.3	-0.2	-0.4	0.2	4.2
7	-0.3	-0.1	-0.1	-0.1	-0.1	-0.1	0.2	0.5	0.8	0.7	0.9	1.3	1.2	1.2	0.7	0.1	-0.3	-0.2	0.0	-0.3	-0.3	-0.4	-0.2	-0.2	1.3	
8	-0.4	-0.5	-0.4	-0.2	-0.3	-0.6	-0.5	0.0	0.4	0.6	0.6	0.8	1.3	1.6	1.3	0.6	0.1	-0.4	-0.7	-0.6	-0.6	-0.2	-0.4	-0.6	0.0	1.6
9	-0.5	-0.7	-0.2	-0.5	-0.5	-0.6	-0.3	0.0	0.4	0.6	0.7	0.9	1.2	1.0	1.0	0.7	0.1	-0.2	-0.3	-0.4	-0.2	-0.1	0.0	0.0	1.1	1.2
10	0.1	0.0	-0.1	-0.2	0.0	0.0	0.0	0.0	0.2	-0.4	-0.2	-0.8	-0.4	-0.7	-0.1	-0.1	-0.5	-0.5	-0.4	-0.3	-0.3	-0.7	-0.3	-0.2	-0.2	0.2
11	-0.1	-0.1	-0.1	0.4	0.6	1.4	2.6	1.1	0.8	0.5	0.4	0.5	0.6	0.6	0.7	0.3	-0.1	-0.2	-0.4	-0.1	-0.1	-0.2	-0.2	-0.2	0.4	2.6
12	0.0	0.0	-0.2	0.0	0.1	-0.1	-0.2	0.0	0.1	0.3	0.5	0.8	1.4	1.6	1.1	0.6	0.0	-0.4	-0.4	-0.3	-0.4	-0.3	-0.5	-0.3	0.1	1.6
13	-0.2	-0.1	-0.1	-0.2	-0.1	-0.8	-0.9	0.0	0.0	0.1	0.3	0.8	1.5	2.4	3.7	3.5	1.8	1.4	1.2	0.4	0.2	0.1	-0.2	-0.4	0.6	3.7
14	1.9	2.7	4.2	3.8	2.9	0.2	0.5	0.3	0.3	0.4	0.6	1.0	1.2	1.2	0.9	0.6	-0.2	-0.4	-0.3	-0.2	-0.2	-0.5	-1.0	-0.5	0.8	4.2
15	-0.2	-0.1	0.0	0.0	-0.2	-0.2	-0.2	0.1	0.3	0.3	0.8	0.8	0.9	0.6</												

CARBON MONOXIDE (#2101)

LAX AIR QUALITY MONITORING PROGRAM, #706211

PARTS PER MILLION

SITE 1 LAX

DEC, 1997

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 26/FEB/98 *
*

CLOCK HOUR [LOCAL STANDARD TIME]

DT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK	
1	2.8	[28]	[28]	2.7	3.5	4.5	5.5	5.6	5.4	2.9	0.4	0.1	[SC]	[SC]	0.4	0.9	0.5	0.7	2.9	3.9	3.0	2.3	4.1	4.8	2.8	5.6	
2	3.9	[28]	[28]	1.6	1.1	1.2	2.0	2.8	3.3	2.5	1.4	0.9	0.6	0.3	0.3	0.2	0.2	0.5	0.6	0.9	1.6	2.0	4.7	4.0	1.6	4.7	
3	3.1	[28]	[28]	1.6	1.2	1.7	2.5	3.2	3.0	2.0	1.2	0.8	0.9	0.8	0.8	0.6	0.6	1.0	1.3	1.4	2.3	3.9	5.7	4.2	2.0	5.7	
4	2.8	[28]	[28]	0.5	0.6	0.6	1.0	2.1	2.2	1.4	0.9	0.9	0.6	0.3	0.4	0.5	0.7	1.1	1.8	2.4	3.0	2.8	2.9	2.2	1.4	3.0	
5	1.8	[28]	[28]	0.3	0.3	0.4	0.9	1.2	1.3	0.7	0.2	0.5	1.0	1.0	0.9	1.7	1.7	2.3	1.7	1.3	0.8	0.6	0.6	0.6	1.0	2.3	
6	0.4	[28]	[28]	0.1	0.4	0.5	0.8	[SC]	[SC]	0.6	0.7	0.6	0.6	0.5	0.5	0.6	1.0	1.3	1.2	1.0	1.0	1.1	1.2	0.9	0.8	1.3	
7	1.1	[28]	[28]	0.9	0.8	0.6	0.7	1.3	1.4	1.4	1.1	0.6	0.3	0.1	0.0	0.0	0.3	0.3	0.6	0.6	0.6	0.6	0.6	0.7	1.4		
8	0.5	[28]	[28]	0.0	0.0	0.0	0.3	1.7	1.7	0.7	0.5	0.3	0.3	0.3	0.2	0.4	0.6	1.2	0.9	0.9	0.8	0.8	0.6	0.5	0.6	1.7	
9	0.0	[28]	[28]	0.0	0.0	0.0	0.2	0.4	0.6	0.7	0.4	0.4	0.4	0.4	0.4	0.5	0.6	0.9	0.8	1.0	0.8	0.6	0.4	0.2	0.4	1.0	
10	0.1	[28]	[28]	0.1	0.0	0.2	1.8	[SC]	[SC]	2.1	0.4	0.1	0.0	0.0	0.2	0.3	0.8	0.9	1.1	1.2	1.2	1.3	1.7	3.2	0.8	3.2	
11	3.5	[28]	[28]	2.2	1.6	2.0	2.1	3.3	1.4	1.3	0.2	0.0	0.0	0.0	0.1	0.4	0.8	1.4	2.9	3.2	3.4	3.6	4.0	2.6	1.8	4.0	
12	2.7	[28]	[28]	4.0	3.2	3.4	4.4	4.2	7.7	4.8	1.5	0.3	0.0	0.0	0.2	0.4	0.4	0.8	1.2	4.1	4.9	5.6	4.9	5.2	2.9	7.7	
13	2.9	[28]	[28]	1.0	0.6	1.3	2.8	2.2	2.3	2.8	1.6	1.0	0.6	0.6	0.5	0.6	0.8	1.0	1.4	1.4	1.6	2.1	3.6	4.3	1.7	4.3	
14	5.6	[28]	[28]	2.8	1.9	2.9	2.8	[SC]	[SC]	2.2	1.6	1.6	1.6	1.0	0.6	0.7	0.7	0.7	0.7	0.8	0.8	0.9	1.2	0.6	1.6	5.6	
15	0.8	[28]	[28]	1.4	2.1	2.4	3.0	3.7	3.9	2.8	3.3	2.9	1.3	1.1	0.7	0.7	0.7	0.6	0.5	0.6	2.5	2.7	4.0	4.6	2.1	4.6	
16	3.1	[28]	[28]	2.8	1.9	1.9	2.6	3.1	3.4	4.6	3.7	1.7	1.5	1.5	1.4	0.8	0.8	1.1	1.0	1.5	4.4	4.6	6.0	4.7	2.6	6.0	
17	3.4	[28]	[28]	1.8	1.6	2.3	3.2	3.8	5.0	3.4	2.6	2.7	2.9	2.4	1.7	1.4	1.0	0.7	0.6	2.5	3.3	4.7	4.5	3.1	2.7	5.0	
18	2.1	[28]	[28]	0.7	0.7	0.9	1.5	[SC]	[SC]	2.8	1.5	1.0	1.3	1.9	1.8	1.3	1.4	3.4	2.0	3.5	4.0	3.7	4.1	5.2	5.0	2.3	5.2
19	3.6	[28]	[28]	0.0	0.9	3.4	8.7	8.1	1.7	5.2	2.7	1.4	1.3	1.0	1.0	1.1	1.3	2.3	2.2	2.3	2.5	4.5	5.0	7.3	3.0	8.7	
20	7.5	[28]	[28]	5.8	5.1	4.1	3.8	3.7	4.2	3.0	2.3	1.9	1.7	1.2	1.6	0.9	0.8	0.8	0.7	0.9	4.0	5.1	4.7	4.4	3.1	7.5	
21	3.7	[28]	[28]	1.1	1.1	1.5	1.9	1.9	1.6	1.6	1.2	1.2	1.2	1.5	1.2	1.2	1.1	1.1	1.0	0.9	0.7	0.5	0.6	0.5	0.4	1.3	3.7
22	0.1	[28]	[28]	0.0	0.0	0.0	0.3	[SC]	[SC]	1.6	1.0	1.1	1.0	1.2	1.1	1.1	1.2	1.8	2.5	2.4	2.9	6.2	5.6	5.1	6.2	2.0	6.2
23	5.4	[28]	[28]	5.1	4.8	5.5	6.5	6.1	4.3	3.1	2.5	2.1	2.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	6.5	
24	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
25	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
26	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
27	3.2	[28]	[28]	1.5	1.7	1.3	2.2	1.8	2.0	1.2	1.4	1.3	1.0	1.2	0.9	0.5	1.2	1.1	3.4	5.4	5.2	5.1	6.4	7.3	2.6	7.3	
28	7.8	[28]	[28]	5.8	7.3	7.5	7.4	7.0	2.9	0.9	1.0	1.1	1.2	1.1	0.9	0.9	1.0	1.2	1.5	1.3	2.1	5.0	4.5	4.4	3.4	7.8	
29	5.6	[28]	[28]	4.6	5.1	4.5	5.3	5.3	5.5	5.6	4.0	3.9	3.4	2.8	2.0	1.6	3.0	4.2	3.7	2.5	3.5	5.6	5.2	5.1	4.2	6.3	
30	2.3	[28]	[28]	2.9	1.1	2.0	2.5	[SC]	[SC]	2.9	2.5	1.7	1.9	1.6	2.0	2.3	1.6	1.7	1.9	1.7	2.3	1.8	1.8	3.5	3.0	3.8	
31	4.0	[28]	[28]	5.0	4.0	4.8	5.7	5.0	5.9	5.4	5.2	4.5	2.4	2.3	1.8	1.5	1.5	1.5	1.7	1.9	1.7	3.4	4.8	6.0	3.6	6.0	
AV	3.0	[]	[]	2.0	1.9	2.2	3.0	3.6	3.1	2.4	1.5	1.3	1.2	1.0	0.9	0.8	1.0	1.3	1.7	2.0	2.5	3.1	3.6	3.6	2.1		
SD	2.1	[]	[]	1.9	1.9	1.9	2.2	2.0	1.8	1.5	1.2	1.1	0.8	0.8	0.6	0.5	0.6	0.8	1.0	1.3	1.6	1.8	1.9	2.2			
PK	7.8	[]	[]	5.8	7.3	7.5	8.7	8.1	7.7	5.6	5.2	4.5	3.4	2.8	2.3	1.7	3.0	4.2	3.7	5.4	6.2	5.6	6.4	7.3		8.7	

00000 [Program: KIMS_MONTESUM]

Version: LG:15-OCT-93]

SULFUR DIOXIDE (#2401)

LAX AIR QUALITY MONITORING PROGRAM, #706211

PARTS PER BILLION

SITE 1 LAX

DEC, 1997

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 26/FEB/98 *
*

CLOCK HOUR [LOCAL STANDARD TIME]

DT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK	
1	2.6	[28]	[28]	3.8	4.2	4.8	5.1	4.5	3.9	4.1	3.3	2.6	[SC]	[SC]	1.6	2.2	3.9	3.3	4.9	6.2	4.5	4.2	4.3	4.9	3.9	6.2	
2	4.4	[28]	[28]	3.3	3.3	3.3	3.4	4.1	4.0	4.6	4.6	3.7	6.3	3.9	3.4	3.8	6.5	4.4	2.1	3.4	4.4	4.8	4.2	4.1	6.5		
3	3.4	[28]	[28]	4.3	2.6	3.2	3.7	4.3	3.8	3.8	3.5	3.7	3.4	4.3	8.2	9.4	6.6	4.2	4.1	3.9	3.8	4.5	5.4	5.9	4.5	9.4	
4	5.0	[28]	[28]	4.7	4.1	4.1	5.8	4.1	7.1	4.7	4.7	4.1	5.7	4.5	7.4	6.1	3.2	3.9	10.2	6.2	4.5	4.6	5.2	4.8	5.2	10.2	
5	4.1	[28]	[28]	2.0	3.8	3.1	4.7	4.3	3.7	3.3	2.8	3.0	2.9	2.8	2.0	2.2	2.3	2.5	1.8	1.8	1.4	1.3	1.4	1.6	2.7	4.7	
6	1.4	[28]	[28]	1.6	1.6	1.3	2.0	[SC]	[SC]	1.9	1.6	2.3	2.3	2.3	2.6	2.4	1.8	1.5	1.6	1.4	2.1	1.7	1.7	1.3	1.8	2.6	
7	2.1	[28]	[28]	2.9	2.2	1.7	1.6	1.9	2.0	2.3	2.9	2.8	2.6	3.1	2.8	2.6	2.1	2.5	1.7	2.2	2.6	4.1	7.1	11.6	3.1	11.6	
8	8.9	[28]	[28]	1.7	1.5	1.6	2.2	2.5	1.7	2.0	2.4	2.9	4.6	7.3	6.2	5.3	3.0	1.9	1.3	1.4	1.7	2.0	2.1	2.2	3.0	8.9	
9	2.0	[28]	[28]	2.4	2.2	2.3	2.4	2.2	2.0	1.5	2.0	2.0	2.1	2.1	2.2	2.5	2.0	2.1	1.9	2.0	2.0	2.1	2.3	2.1	2.1	2.5	
10	2.0	[28]	[28]	2.2	1.0	2.2	4.6	[SC]	[SC]	3.4	2.0	2.2	2.1	2.0	1.9	2.2	2.0	2.9	2.2	2.1	2.0	2.4	2.9	7.7	2.6	7.7	
11	11.1	[28]	[28]	7.4	6.6	7.6	6.9	6.7	3.5	3.7	1.8	1.6	1.7	1.8	2.0	2.3	2.2	2.4	3.2	4.5	4.8	5.7	6.0	11.0	4.8	11.1	
12	8.2	[28]	[28]	9.7	7.5	8.0	8.4	8.6	11.5	8.1	4.7	3.8	3.7	3.8	5.4	4.9	3.5	3.3	2.9	5.0	6.0	9.1	6.0	6.4	6.3	11.5	
13	5.0	[28]	[28]	3.7	3.0	3.4	5.3	5.0	4.0	3.9	3.3	3.7	4.7	5.9	4.0	4.8	5.5	4.8	5.3	5.2	4.1	3.9	4.2	4.7	4.4	5.9	
14	5.7	[28]	[28]	6.0	4.3	5.0	4.7	[SC]	[SC]	3.1	2.0	2.0	2.3	6.0	3.5	3.0	4.7	3.9	5.2	4.1	2.5	2.1	1.8	1.9	3.7	6.0	
15	2.1	[28]	[28]	2.4	3.3	3.8	4.0	4.6	4.6	4.1	3.5	3.2	2.6	4.2	2.8	2.3	4.3	9.3	3.8	3.6	4.9	3.9	4.2	4.6	3.9	9.3	
16	4.2	[28]	[28]	5.0	4.9	4.8	5.4	5.4	5.2	5.1	4.1	2.1	1.3	6.1	5.3	4.0	3.1	4.7	2.8	5.2	4.7	4.5	5.6	5.5	4.5	6.1	
17	4.9	[28]	[28]	4.4	4.4	5.1	5.7	6.1	5.8	4.7	4.7	3.6	4.5	6.0	4.6	2.9	2.5	2.6	4.0	4.7	4.7	5.5	4.9	3.8	4.5	6.1	
18	3.5	[28]	[28]	3.5	3.4	3.6	3.6	[SC]	[SC]	11.7	3.2	2.9	2.1	2.0	2.1	1.8	1.7	1.5	1.9	2.3	3.4	3.2	3.8	4.7	4.9	3.4	11.7
19	4.1	[28]	[28]	2.4	2.8	5.0	7.1	7.5	3.1	4.0	5.9	3.8	2.1	1.3	6.4	7.6	3.7	0.8	1.7	2.1	3.0	7.2	7.7	7.3	4.4	7.7	
20	8.4	[28]	[28]	7.8	7.1	6.3	5.7	5.5	5.0	3.3	2.2	2.4	2.9	3.5	5.3	1.8	2.6	2.5	2.3	3.1	4.5	4.7	5.4	5.4	4.4	8.4	
21	4.8	[28]	[28]	3.5	3.3	3.3	3.1	3.3	3.4	3.0	1.9	1.4	0.8	0.6	0.3	0.2	0.0	0.6	1.2	1.4	1.4	1.7	2.0	1.8	2.0	4.8	
22	1.7	[28]	[28]	2.0	1.8	2.3	1.9	[SC]	[SC]	11.7	1.3	0.3	0.0	0.0	0.1	0.1	0.2	1.3	3.1	1.8	3.5	5.9	8.4	7.7	8.3	3.0	11.7
23	7.4	[28]	[28]	7.2	7.3	7.7	8.3	8.2	6.8	5.3	5.4	5.1	8.0	1.7	3.2	1.1	[]	[]	[]	[]	[]	[]	[]	[]	[]	6.0	8.3
24	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
25	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
26	[]	[]	[]	[]	[]	11.0	8.5	[SC]	[SC]	6.5	6.1	0.6	0.0	0.5	2.8	3.2	1.9	3.9	3.8	5.5	6.6	7.2	6.4	7.1	11.0	[]	
27	5.4	[28]	[28]	4.6	4.3	4.2	5.3	4.7	4.0	2.3	1.3	0.7	1.1	3.3	2.0	1.7	2.3	3.0	3.8	3.5	3.5	3.5	3.5	3.5	3.5	6.8	
28	7.2	[28]	[28]	6.6	7.1	7.1	7.3	8.1	7.0	5.7	5.5	3.9	3.7	3.2	5.6	4.7	2.1	5.9	16.0	8.3	6.5	6.6	4.6	4.4	6.2	16.0	
29	5.6	[28]	[28]	5.7	5.6	5.5	6.4	7.0	5.7	4.9	3.5	3.1	1.6	1.7	1.0	1.3	1.9	2.3	1.9	1.1	2.3	3.5	3.4	3.6	3.6	7.0	
30	2.5	[28]	[28]	3.2	3.0	0.0	1.9	3.7	[SC]	6.4	1.6	0.0	1.2	1.5	0.2	9.6	8.2	7.0	7.8	6.9	11.1	8.5	6.6	5.9	4.6	5.1	11.1
31	3.9	[28]	[28]	6.9	5.9	5.7	5.4	5.5	5.5	3.8	4.4	10.2	1.3	6.9	5.5	10.3	8.8	7.2	7.0	6.5	7.6	8.1	6.5	3.5	4.0	6.3	10.3
AV	4.7	[]	[]	[]	4.4	4.9	5.2	5.3	3.7	3.2	3.0	2.8	3.6	3.9	3.6	3.2	3.6	3.9	4.0	4.0	4.5	4.6	5.1	4.1			
SD	2.5	[]	[]	[]	2.1	1.9	2.3	2.0	1.9	2.0	1.5	1.6	1.8	1.6	2.2	2.7	2.5	1.7	2.1	3.1	2.4	1.9	2.0	2.9	2.6		
PK 11.1	[]	[]	[]	[]	7.7	7.5	11.0	8.5	8.6	11.7	8.1	6.1	10.1	6.9	8.2	10.3	9.4	7.2	9.3	16.0	11.1	8.5	9.1	7.7	11.6	16.0	

PARTS PER MILLION

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 DAY

DEC. 1997

AEROWATCHMENT ENVIRONMENTAL SERVICES INC.

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*****
*
*      FINAL DATA
*      AS OF 26/FEB/98
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CLOCK HOUR [LOCAL STANDARD TIME]

DT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg Peak	
1	162	[28]	[28]	187	252	341	364	305	268	147	20	8	[8C]	[8C]	6	11	10	22	115	159	144	111	209	250	155	354
2	244	[28]	[28]	68	84	105	152	161	165	113	64	26	12	5	3	2	2	3	2	6	47	72	214	197	79	266
3	169	[28]	[28]	113	70	112	152	145	147	87	42	19	18	13	14	15	13	27	27	171	170	274	235	90	281	
4	185	[28]	[28]	46	30	36	66	146	7	68	49	34	16	6	10	10	9	25	72	100	141	134	172	146	72	155
5	127	[28]	[28]	10	30	30	66	79	80	10	19	46	76	64	39	69	58	52	41	18	12	18	13	50	127	
6	4	[28]	[28]	1	2	4	12	[8C]	[8C]	10	12	14	13	13	13	13	17	25	25	16	30	30	37	27	16	37
7	44	[28]	[28]	28	24	11	14	46	47	41	27	13	4	1	2	0	0	18	3	3	0	3	32	110	21	110
8	82	[28]	[28]	0	1	6	10	87	65	15	12	8	14	48	32	13	6	10	7	6	5	13	13	19	22	87
9	6	[28]	[28]	4	1	4	4	9	12	9	6	6	4	3	4	5	3	11	12	23	16	9	3	1	7	23
10	4	[28]	[28]	9	2	21	114	[8C]	[8C]	88	13	9	5	5	6	7	10	19	34	41	45	72	114	265	44	266
11	342	[28]	[28]	211	187	215	231	255	81	64	14	5	5	7	11	14	23	32	128	176	210	253	278	179	123	342
12	205	[28]	[28]	410	189	379	395	357	514	273	90	9	15	17	10	19	13	18	36	250	323	353	323	385	212	514
13	210	[28]	[28]	69	36	101	204	152	121	123	63	31	16	20	8	9	23	27	48	36	70	115	215	262	89	262
14	355	[28]	[28]	216	149	341	195	[8C]	[8C]	95	37	33	38	53	14	10	32	16	5	4	9	7	26	17	77	355
15	23	[28]	[28]	60	135	190	222	217	189	99	97	76	21	33	6	6	20	28	3	14	145	153	216	266	101	266
16	186	[28]	[28]	214	160	170	218	234	204	241	167	47	36	74	50	28	20	19	8	57	227	250	347	289	147	347
17	246	[28]	[28]	158	172	242	285	288	265	157	91	92	92	76	54	30	16	6	18	124	163	250	257	172	148	288
18	138	[28]	[28]	53	62	73	84	[8C]	[8C]	96	63	36	50	70	62	20	23	18	41	122	178	165	215	316	316	316
19	225	[28]	[28]	16	62	263	560	490	67	196	96	38	22	11	17	21	37	25	82	101	140	224	318	440	160	560
20	497	[28]	[28]	425	401	327	258	222	214	106	55	37	29	11	28	9	21	6	2	17	172	229	242	2		

0000 [Program: 2048 MONTHSUM

Version: LC:15-OCT-93)

NITROGEN DIOXIDE [42602]

PARTS PER BILLION

LAX AIR QUALITY MONITORING PROGRAM. #706211

SITE 1 LAK

DEC. 1997

AEROVIRONNEMENT ENVIRONMENTAL SERVICES INC.

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*****
*                                     *
*          FINAL DATA              *
*    AS OF 26/FEB/98              *
*                                     *
*****
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CLOCK HOUR [LOCAL STANDARD TIME]

DY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG PEAK	
1	38	[XS]	[XS]	34	31	35	35	37	51	65	22	15	[SC]	[SC]	16	36	37	41	51	60	54	47	46	49	40	65
2	48	[XS]	[XS]	35	37	36	36	37	41	45	45	37	29	28	14	12	14	21	23	27	44	45	45	43	32	48
3	59	[XS]	[XS]	35	31	33	34	35	47	39	34	38	37	41	38	42	49	53	54	57	54	56	53	42	57	
4	48	[XS]	[XS]	41	40	40	41	42	43	43	42	41	35	52	26	36	48	55	55	54	57	52	46	43	49	
5	48	[XS]	[XS]	41	43	42	43	44	45	39	36	43	45	45	48	46	46	44	44	38	37	28	36	43	49	
6	28	[XS]	[XS]	17	21	25	33	[SC]	[SC]	25	27	27	25	25	26	28	36	39	39	37	39	38	37	36	30	39
7	35	[XS]	[XS]	34	33	31	30	30	31	34	36	26	24	14	13	9	8	17	12	20	21	27	35	42	26	42
8	35	[XS]	[XS]	6	6	16	25	40	38	25	20	15	17	30	22	20	23	37	29	32	34	38	34	26	40	
9	24	[XS]	[XS]	14	21	12	21	26	23	18	14	13	10	11	14	20	26	38	37	40	39	33	23	21	22	40
10	25	[XS]	[XS]	18	15	26	41	[SC]	[SC]	47	21	17	13	14	17	22	35	43	46	46	48	48	46	49	32	49
11	52	[XS]	[XS]	46	46	46	49	52	41	46	20	11	12	14	21	28	37	43	45	49	47	47	47	47	38	52
12	48	[XS]	[XS]	56	54	61	62	59	47	71	49	21	19	23	26	39	36	44	47	50	56	65	62	63	48	71
13	52	[XS]	[XS]	47	42	42	41	41	40	52	43	38	31	40	28	40	49	56	57	54	50	48	46	46	45	57
14	47	[XS]	[XS]	48	41	40	40	[SC]	[SC]	43	39	43	49	44	24	23	30	26	31	35	39	39	45	40	38	49
15	42	[XS]	[XS]	41	39	42	42	43	49	58	74	76	33	29	16	14	20	39	27	37	44	42	43	48	41	76
16	51	[XS]	[XS]	46	43	40	43	45	45	61	69	47	46	59	59	36	41	50	38	47	51	53	55	59	49	69
17	53	[XS]	[XS]	45	45	46	44	46	51	61	63	75	91	93	72	60	49	33	44	47	55	64	59	46	56	93
18	43	[XS]	[XS]	37	37	36	36	[SC]	[SC]	33	39	35	37	38	40	36	38	38	41	44	49	54	47	52	41	54
19	57	[XS]	[XS]	21	34	46	49	56	44	64	57	44	37	29	38	42	48	50	53	55	56	53	52	60	47	64
20	68	[XS]	[XS]	54	56	51	49	46	49	53	47	46	48	32	51	29	33	31	29	33	46	55	57	55	46	68
21	50	[XS]	[XS]	40	38	37	37	39	38	38	28															

00000 [Program] EDMS MONTHSLIM

Version: LC:15-OCT-931

OXIDES OF NITROGEN [42603]

LAX AIR QUALITY MONITORING PROGRAM, #706211

PARTS PER BILLION

SITE 1 LAX

DEC, 1997

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 26/FEB/98 *
*

CLOCK HOUR (LOCAL STANDARD TIME)

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK	
1	200	[28]	[28]	222	203	374	399	342	319	211	42	23	[SC]	[SC]	22	47	48	63	165	219	199	159	255	299	195	399	
2	292	[28]	[28]	104	121	141	170	198	206	160	110	63	42	23	17	14	15	24	25	33	91	117	259	240	112	292	
3	209	[28]	[28]	140	101	144	185	220	177	128	82	53	57	50	58	57	57	62	80	81	129	224	328	288	135	328	
4	234	[28]	[28]	87	107	87	97	142	135	111	91	75	50	29	36	45	45	73	127	155	195	188	225	195	115	234	
5	174	[28]	[28]	59	72	72	113	123	125	87	55	89	121	110	87	116	104	145	96	84	56	48	56	48	93	174	
6	32	[28]	[28]	18	22	29	45	[SC]	[SC]	36	40	40	38	38	39	42	53	64	65	53	68	68	75	63	46	75	
7	79	[28]	[28]	62	57	42	44	77	70	75	63	39	28	15	14	10	8	32	15	23	21	31	67	152	47	152	
8	117	[28]	[28]	6	7	25	36	128	103	40	32	23	31	77	54	33	30	48	36	38	39	51	48	52	48	128	
9	30	[28]	[28]	17	12	16	26	35	34	27	20	19	15	15	18	25	29	49	49	63	55	42	26	22	29	63	
10	29	[28]	[28]	27	17	47	155	[SC]	[SC]	135	34	26	18	19	24	29	45	62	81	87	99	121	160	115	76	315	
11	394	[28]	[28]	258	234	261	280	307	121	120	34	17	18	21	32	42	60	75	173	225	257	301	324	226	171	394	
12	253	[28]	[28]	466	361	440	457	415	567	344	138	30	34	40	36	58	49	62	63	300	379	419	384	418	260	561	
13	263	[28]	[28]	116	78	143	245	193	162	175	106	68	47	60	35	43	72	83	105	90	120	163	261	308	134	308	
14	402	[28]	[28]	262	190	281	236	[SC]	[SC]	138	76	76	87	97	39	33	62	41	37	39	48	46	72	57	116	402	
15	65	[28]	[28]	100	174	232	264	260	237	157	172	153	54	62	22	20	41	67	31	51	189	195	259	314	142	314	
16	237	[28]	[28]	260	203	210	262	279	249	302	236	93	82	132	110	65	61	69	47	104	278	304	403	348	197	403	
17	299	[28]	[28]	203	217	208	329	334	316	218	154	167	183	170	126	89	65	40	63	171	217	314	316	218	294	334	
18	191	[28]	[28]	90	99	109	120	[SC]	[SC]	131	102	72	87	108	102	57	61	56	83	166	227	220	263	363	369	146	369
19	282	[28]	[28]	37	95	309	609	546	111	261	153	82	59	40	53	65	85	76	135	156	194	347	370	500	207	609	
20	565	[28]	[28]	479	457	378	308	267	264	159	102	83	77	43	79	39	54	56	31	50	218	284	299	290	207	565	
21	252	[28]	[28]	73	82	91	112	107	92	71	46	39	18	35	18	16	15	18	16	15	14	20	17	15	53	252	
22	13	[28]	[28]	13	11	14	25	[SC]	[SC]	50	37	26	24	35	27	19	28	66	137	117	156	360	369	358	460	112	460
23	449	[28]	[28]	448	444	513	563	480	319	206	145	119	117	43	36	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	299	563
24	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
25	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
26	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
27	282	[28]	[28]	154	177	140	213	158	161	76	50	48	58	72	50	39	29	41	151	324	338	321	427	489	175	489	
28	550	[28]	[28]	445	522	531	539	530	270	48	41	40	38	32	65	39	39	98	168	81	168	311	296	296	234	550	
29	395	[28]	[28]	342	386	382	440	461	358	341	246	223	177	145	95	75	165	223	227	157	233	354	346	344	278	461	
30	250	[28]	[28]	229	66	168	295	[SC]	[SC]	155	150	82	98	86	140	165	140	127	128	95	163	129	97	204	237	153	295
31	261	[28]	[28]	397	314	383	435	371	366	315	313	356	159	135	145	97	107	104	100	120	133	198	248	328	246	435	
AV	242	[]	[]	183	175	212	254	272	204	153	101	80	67	64	54	50	58	75	98	125	170	206	246	261	153		
SD	149	[]	[]	154	149	154	169	150	122	93	75	72	48	46	40	31	34	43	64	84	105	125	131	143			
PK	565	[]	[]	479	522	531	609	546	561	344	333	356	183	170	165	140	165	223	231	324	379	419	433	500		609	

CU000 [Program: RMS_MONTHSUM]

Version: LC:15-OCT-93]

WIND SPEED [61101]

LAX AIR QUALITY MONITORING PROGRAM, #706211

METERS/SECOND

SITE 1 LAX

DEC, 1997

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 26/FEB/98 *
*

CLOCK HOUR (LOCAL STANDARD TIME)

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	1.0	0.7	0.9	0.7	0.9	0.7	0.8	1.3	1.0	1.1	3.5	3.7	4.0	3.7	4.1	2.4	4.5	2.9	1.6	1.0	1.2	1.0	1.5	1.9	1.9	4.5
2	1.9	1.3	1.9	2.3	1.8	2.2	2.2	3.0	3.2	2.5	2.6	2.6	3.1	2.9	3.8	4.1	3.9	3.6	2.8	1.1	1.6	1.5	1.7	2.4	2.5	4.1
3	1.5	2.0	1.6	1.2	1.9	1.8	1.9	2.5	2.3	3.0	2.1	2.2	1.7	2.5	3.2	4.0	3.2	2.2	1.7	1.6	1.0	1.6	2.0	1.9	2.1	4.0
4	1.4	2.0	1.8	1.3	1.8	3.1	3.6	3.2	3.0	3.4	2.7	2.8	4.2	3.9	4.2	4.0	3.3	2.4	2.4	2.6	2.4	3.0	1.9	2.4	2.8	4.2
5	2.5	3.1	1.5	3.0	2.6	2.6	3.0	3.5	4.2	5.7	6.1	4.3	2.6	3.5	3.8	2.9	2.3	1.9	2.3	3.8	4.5	3.1	3.0	3.0	3.4	6.1
6	4.2	4.7	6.1	6.1	2.9	2.2	2.6	3.9	4.0	4.3	4.3	4.7	4.2	4.0	4.8	4.7	3.8	3.0	2.9	2.6	1.5	2.5	3.2	3.5	3.8	6.1
7	1.8	2.0	2.1	2.1	1.8	1.7	1.7	1.2	1.4	1.4	1.6	2.2	1.8	3.3	4.4	5.4	6.9	5.7	5.6	5.4	4.8	6.5	8.2	9.7	3.7	9.7
8	8.5	7.5	7.5	7.5	6.7	4.5	4.5	2.0	1.8	2.8	3.7	5.2	6.3	8.7	9.4	9.1	5.4	1.9	3.7	3.2	3.0	2.5	3.0	2.9	5.1	9.4
9	3.4	3.5	3.4	4.6	4.4	4.9	2.9	2.4	3.9	3.8	4.6	5.0	5.2	5.0	4.5	4.2	4.2	4.2	5.0	3.4	3.4	4.0	5.5	4.6	4.2	5.5
10	4.5	4.8	2.3	3.8	4.5	3.5	1.9	1.7	1.1	1.0	4.7	4.3	3.1	3.7	4.1	3.2	2.5	2.1	2.1	2.5	2.0	2.2	1.7	1.4	2.9	4.8
11	0.7	1.2	0.9	1.0	1.2	1.3	0.9	1.1	3.0	3.0	6.0	7.1	7.1	6.6	3.8	2.5	2.7	1.7	1.4	1.4	1.9	1.8	1.6	2.0	2.6	7.1
12	1.7	0.8	0.9	0.7	0.5	0.8	0.8	0.9	0.9	1.9	1.9	1.8	3.1	2.9	1.5	3.3	3.7	2.1	1.3	1.5	1.4	2.3	2.5	2.6	1.7	3.7
13	2.7	1.9	3.0	3.6	3.6	1.4	1.4	1.8	2.3	2.9	3.0	2.0	1.5	4.2	4.1	3.1	3.0	1.8	1.1	1.0	1.6	1.4	1.1	3.2	2.4	4.2
14	0.9	0.6	1.1	1.1	1.0	0.7	0.7	0.6	1.2	1.8	2.6	2.1	2.3	5.1	4.7	4.2	4.8	4.7	5.1	3.5	2.1	1.4	2.3	1.7	2.3	5.1
15	1.1	1.3	0.6	0.6	0.8	0.9	0.7	1.0	1.6	1.7	1.6	1.2	3.2	3.8	4.1	4.7	4.9	4.8	3.2	1.8	1.2	1.8	1.7	1.0	2.1	4.9
16	2.7	1.1	1.4	1.0	0.5	1.3	0.9	1.0	1.6	2.0	2.2	1.9	1.1	2.5	4.5	5.0	3.7	3.4	3.1	1.4	1.1	0.9	1.3	2.5	2.0	5.0
17	1.8	2.3	1.5	1.3	0.8	0.7	1.2	0.8	1.5	1.5	2.3	1.8	1.2	2.8	3.6	3.7	3.3	4.1	2.0	0.7	1.2	1.3	1.2	1.2	1.8	4.1
18	1.7	2.0	2.2	1.9	2.9	1.9	2.6	3.5	3.9	2.8	4.1	5.2	2.7	2.8	3.6	5.4	5.9	4.0	2.7	0.9	1.3	1.4	1.5	1.0	2.8	5.9
19	1.0	1.5	1.3	2.3	3.1	1.6	0.8	1.5	1.1	3.1	2.3	2.5	2.0	1.7	1.4	3.3	3.4	2.8	3.2	2.1	2.6	1.7	1.6	1.2	2.0	3.4
20	0.8	1.2	0.9	0.9	0.8	0.8	0.8	1.2	1.3	1.5	1.7	2.4	2.0	1.5	3.2	4.4	3.7	4.2	3.2	2.5	2.3	2.2	2.2	2.3	2.0	4.4
21	1.8	2.4	2.6	3.0	2.8	2.2	1.8	1.1	2.1	2.0	1.5	2.5	3.9	2.9	2.7	5.4	7.2	8.3	8.0	8.2	7.7	7.2	5.7	5.1	4.1	8.3
22	5.6	5.3	5.7	5.3	4.0	4.5	5.1	3.9	4.5	2.6	3.2	3.9	4.8	4.1	4.9	5.6	4.5	2.7	1.5	1.6	1.5	1.8	1.4	0.8	3.7	5.7
23	0.8	0.9	1.1	0.8	0.8	1.2	1.2	1.2	1.9	1.3	2.0	1.8	2.4	2.2	3.7	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	1.5	3.7
24	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3.7
25	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3.7
26	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3.7
27	1.0	1.4	0.8	0.8	0.5	0.7	0.8	0.8	1.5	1.1	1.7	1.4	1.2	1.6	4.2	3.3	2.8	2.0	1.1	0.9	0.8	1.2	1.7	1.0	1.4	4.2
28	1.4	0.6	0.7	0.8	0.9	1.2	0.9	0.6	0.9	0.8	2.1	3.0	3.3	2.7	2.9	2.9	3.2	1.2	1.0	1.8	1.5	1.1	1.1	1.0	1.6	3.3
29	1.1	0.8	0.8	0.8	0.7	0.4	0.5	0.8	1.1	1.1	1.8	2.1	1.7	1.7	2.2	2.3	2.0	1.2	1.4	1.8	1.2	0.8	1.5	2.0	1.6	3.3
30	1.0	1.1	1.3	0.8	1.3	1.3	1.2	1.0	1.6	2.4	1.8	2.4	2.7	1.4	3.4	2.4	5.1	3.5	3.4	3.6	2.0	3.2	1.4	1.5	2.2	5.1
31	1.8	1.7	1.1	0.8	1.0	1.0	0.8	0.9	1.4	1.0	1.6	1.0	1.6	1.0	3.6	5.3	3.2	3.4	2.7	1.9	1.6	1.4	1.2	1.4	1.2	5.1
AV	2.1	2.1	2.0	2.1	2.0	2.0	1.7	1.7	2.1	2.3	2.8	2.9	2.9	3.3	3.8	4.1	3.9	3.1	2.8	2.3	2.1	2.3	2.3	2.4	2.5	
SD	1.7	1.7	1.7	1.8	1.5	1.4	1.2	1.0	1.2	1.1	1.3	1.5	1.5	1.6	1.4	1.4	1.4	1.3	1.6	1.6	1.5	1.6	1.6	1.8		
PK	8.5	7.5	7.5	7.5	7.5	6.7	5.1	5.1	3.9	4.5	5.7	6.1	7.1	7.1	8.7	9.4	9.1	7.2	8.0	8.2	7.7	7.2	8.2	9.7	9.7	

WIND DIRECTION AVERAGE [61102]

DEGREES, COMPASS

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

DEC, 1997

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

* FINAL DATA *

* AS OF 26/FEB/98 *

CLOCK HOUR [LOCAL STANDARD TIME]

DY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	PREV
1	NNE	NNE	N	NNE	E	E	NNE	NNE	E	SSE	NNW	NNW	NNW	NNW	N	NNW	NNW	NE	NE	NE	NNE	NNE	NNE	NNE	[VA]
2	NNE	NNE	NNE	NE	NNE	NNE	NNE	NNE	NNE	NNE	E	SSE	SSE	S	SW	WSW	W	WSW	S	NNE	NNE	NNE	NNE	NNE	NNE
3	E	NNE	NNE	NE	NE	NE	NNE	NNE	NE	NNE	E	SSE	SSW	WSW	W	W	NNW	NNW	NNW	N	NNE	NNE	NNE	NNE	NNE
4	NNE	NE	NNE	SSE	E	NNE	NNE	NNE	E	E	E	SSE	SSE	SSE	SSE	SSE	SSE	SE	SE	E	NNE	NNE	NNE	NNE	NNE
5	NNE	NNE	E	NNE	NNE	E	E	E	E	E	E	SSE	SSE	E	NNE	N	NE	NNE	NE	NE	NE	NNE	NNE	NNE	NNE
6	NNE	NNE	NNE	E	E	NNE	NE	E	E	E	E	NNE	NNE	NNE	NNE	NNE	NNE	NE	NE	E	NNE	NNE	NNE	NNE	NNE
7	NNE	NNW	NNW	NE	NNE	NNE	NE	NNE	NNE	NNE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	WSW	WSW	WSW	WSW	WSW	WSW	WSW	[VA]
8	W	W	W	W	W	WSW	WSW	NNW	N	NNW	NNW	NNW	W	W	W	W	W	N	NNW	NNW	NNW	NNW	NNW	NNW	[VA]
9	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	N	N	N	N	N	N	N	N	N	N	NNW	NNW	NNW	NNW	NNW	NNW	N
10	N	NNE	NNW	NNW	NNW	N	NE	NE	NE	E	NNE	NE	NNE	NNE	NNE	N	N	N	N	NNW	N	NE	N	N	N
11	NNE	E	NE	NNE	E	NNE	NNE	NNW	NE	NNE	NNE	NNE	NNE	NNE	NNE	NE	NE	NNE	NNE	NE	E	E	NNE	NNE	NNE
12	NNE	SE	NNE	SSE	NNW	NNW	NNW	NNW	NNE	S	S	S	WSW	WSW	WSW	WSW	WSW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	[VA]
13	NE	NNE	NNE	N	NNE	NE	E	NE	E	E	E	SSE	SSE	SSE	SSE	SSE	SSE	W	WSW	WSW	WSW	WSW	WSW	WSW	NNE
14	E	NNW	SE	W	N	NNE	NNW	NNE	N	NE	E	SSE	S	W	W	W	W	W	W	W	W	W	W	W	[VA]
15	N	NE	NNE	SE	SE	SE	SE	SE	NNE	E	NNE	SSE	WSW	W	W	WSW	W	WSW	W	WSW	W	WSW	W	WSW	NNE
16	N	E	E	NNE	NNE	E	NNE	NNE	N	N	E	SSE	SSE	SW	W	WSW	W	WSW	W	WSW	W	WSW	W	WSW	NNE
17	NE	NE	NE	NNE	NE	E	E	NE	E	E	E	SSE	SSE	SW	W	WSW	WSW	W	WSW	WSW	E	NNE	NNE	NNE	[VA]
18	NNE	NNW	E	E	E	E	E	E	E	E	E	SSE	NNE	NE	NNE	NE	NE	E	NNE	N	SE	NNE	NNE	NNE	E
19	N	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	N	NNE	NNE	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW
20	NNE	N	NNE	NNW	NNW	NNW	NNW	NNW	NNW	E	NE	NNE	SSE	SSW	SW	WSW	W	W	WSW	WSW	SW	E	E	E	NNE
21	E	E	E	E	E	E	E	E	E	N	NNW	NNW	NNW	NNW	N	NE	N	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW
22	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	N	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NE	NNW	NNW	NNW	NNW	NNW	NNW	[VA]
23	N	NNE	E	NNE	E	NNE	E	NNE	NE	NNE	SE	SE	S	SW	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	NNE
24	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
25	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
26	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
27	NNE	NE	E	NNE	SW	N	NNE	E	NE	N	NNE	SSE	WSW	SW	SW	SW	SW	SSE	NNE	N	NNE	NE	NNE	NNE	NNE
28	NNE	SSE	NE	E	N	SSE	NNW	SSE	SSE	WSW	SW	SW	SW	SW	SW	W	SW	SW	W	W	WSW	WSW	WSW	WSW	NNE
29	NE	SSE	NNE	NNE	SW	NE	WSW	SW	E	NE	NNE	SSE	E	NNE	N	N	N	N	NNW	NNW	NNW	NNW	NNW	NNW	[VA]
30	E	NNE	SE	NE	NNE	NNE	SSE	NE	NE	NNE	NNE	NE	NNE	SE	WSW	W	W	W	W	W	W	W	W	W	[VA]
31	E	NNE	SE	WSW	NNE	E	NNE	E	NNE	E	WSW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	[VA]

PV [VA] [VA] NNE NNE E [VA] NNE NNE [VA] [VA] NNE [VA] [VA] [VA] WSW W W [VA] [VA] [VA] NNW [VA] NNE NNE

CU004 [Program: KIMS MONTESUM]

Version: LC:15-OCT-93]

WIND DIRECTION AVERAGE [61102]

DEGREES, COMPASS

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

DEC, 1997

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

* FINAL DATA *

* AS OF 26/FEB/98 *

CLOCK HOUR [LOCAL STANDARD TIME]

DY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	PREV	
1	30	16	356	76	79	98	78	73	83	154	347	340	334	340	338	354	282	297	37	41	36	63	64	65	[VA]	
2	58	66	61	47	57	62	61	61	59	61	75	99	116	164	189	225	255	262	257	175	78	65	68	88	4	
3	79	64	59	39	32	47	56	60	56	72	77	83	154	210	251	262	275	295	292	346	6	63	67	76	4	
4	78	56	69	115	100	67	61	64	89	84	96	105	144	144	116	155	157	133	106	93	57	63	47	69	4	
5	69	70	87	67	61	88	89	84	82	90	104	104	79	22	349	52	57	34	40	42	52	63	75	67	4	
6	66	72	72	92	97	76	44	92	99	86	88	76	67	76	63	63	64	56	45	87	59	26	51	64	4	
7	72	30	25	39	18	23	38	62	64	65	78	105	174	203	198	232	246	255	253	286	288	278	275	268	[VA]	
8	273	278	276	273	278	288	295	21	6	320	309	288	279	268	269	273	307	356	317	328	339	340	339	347	[VA]	
9	339	328	322	310	322	340	343	347	359	357	352	355	352	351	1	352	358	355	343	337	327	341	346	349	1	
10	350	33	284	347	345	8	40	54	38	88	21	41	17	19	20	21	5	349	354	4	347	349	52	97	1	
11	68	85	53	31	86	66	346	333	42	69	22	23	23	30	48	53	23	20	54	34	88	81	67	61	2	
12	13	124	12	161	287	14	328	21	18	173	184	191	251	254	251	284	298	308	325	75	11	33	52	54	[VA]	
13	39	31	33	2	20	44	84	44	92	88	76	132	226	250	253	251	270	297	302	296	327	345	21	45	2	
14	89	344	135	279	5	30	342	20	3	39	83	116	184	272	267	261	264	263	276	285	300	347	334	344	[VA]	
15	2	39	67	145	74	58	69	58	64	94	78	142	255	262	264	257	261	272	261	234	66	67	59	48	[VA]	
16	355	86	95	77	76	64	60	49	55	83	63	91	122	156	231	259	257	254	259	241	245	82	67	63	59	4
17	46	54	53	67	52	56	80	55	83	84	88	100	108	68	53	32	45	34	45	82	33	355	59	75	5	
18	76	76	94	92	93	87	95	95	93	84	88	100	108	68	53	32	45	34	45	82	33	355	59	75	5	
19	351	329	301	347	348	38	120	80	68	355	81	118	154	106	137	197	210	216	328	15	357	25	144	58	16	
20	59	4	75	325	36	27	68	62	70	82	34	69	122	205	220	258	263	263	257	249	231	96	89	97	4	
21	85	87	94	94	101	109	71	75	5	1	339	347	335	350	52	1	343	343	341	340	340	334	331	324	[VA]	
22	321	333	330	330	340	338	343	328	347	358	15	16	10	15	17	23	23	50	291	325	117	54	4	11	[VA]	
23	6	21	90	67	96	71	93	109	76	55	62	78	128	171	216	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
24	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
25	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
26	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
27	61	51	99	32	230	4	26	79	37	9	38	359	28	148	256	252	259	270	219	65	35	62	69	65	4	
28	102	122	55	191	356	122	334	109	108	247	211	201	217	219	226	263	219	197	277	261	239	13	64	13	4	
29	52	105	65	59	230	49	258	142	84	53	64	73	96	30	3	357	354	352	349	329	324	12	62	81	[VA]	
30	92	59	127	47	71	33	120	50	46	12	12	37	59	143	257	276	261	262	266	259	273	255	253	90	[VA]	
31	98	76	106	251	359	15	94	74	36	109	77	177	258	320	287	262	265	266	266	274	267	283	94	81	[VA]	

PV [VA] [VA] 4 4 5 [VA] 4 4 [VA] [VA] 4 [VA] [VA] [VA] 12 13 13 [VA] [VA] [VA] 16 [VA] 4 4

CU001 [Program: KIMS MONTESUM]

Version: LC:15-OCT-93]

METERS / SECOND

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

DEC. 1997

AEROENVIRONMENT ENVIRONMENTAL SERVICES INC.

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*****
*                                     *
*      FINAL DATA                   *
*      AS OF 26/FEB/98              *
*                                     *
*****
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CLOCK HOUR [LOCAL STANDARD TIME]

Dr	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Weak	
1	0.9	0.3	0.8	0.1	0.8	0.5	0.7	1.2	0.9	0.4	3.3	3.5	3.8	3.5	3.9	2.3	4.4	2.8	1.3	0.3	0.3	0.6	1.4	1.8	2.4	1.7	4.4
2	1.8	1.3	1.8	2.3	1.7	2.2	2.2	2.5	2.3	2.5	2.4	2.4	2.6	2.6	3.0	4.0	3.9	3.5	2.6	0.9	1.2	1.4	1.7	2.4	1.4	4.0	
3	1.5	2.0	1.6	1.1	1.9	1.8	1.8	2.4	2.2	2.8	1.9	2.0	1.3	2.0	3.0	3.9	3.1	2.0	1.4	1.2	0.6	1.5	1.9	1.9	2.0	3.9	
4	1.4	2.0	1.7	1.2	1.7	3.0	3.8	3.1	2.9	3.2	2.5	2.4	3.9	3.7	4.0	3.6	3.2	2.2	2.3	2.5	2.3	1.9	1.8	2.3	2.7	4.0	
5	2.4	3.0	1.5	2.9	2.6	2.2	2.8	3.4	4.1	5.6	6.0	4.2	2.4	2.6	3.6	2.7	2.0	1.0	2.2	3.7	4.3	5.0	2.8	2.6	3.2	6.0	
6	3.9	4.5	6.0	1.8	2.6	2.1	1.9	3.8	4.0	4.3	4.2	4.5	4.0	3.9	4.6	4.7	3.7	2.9	2.9	2.3	1.1	2.4	3.1	3.5	3.4	6.0	
7	1.7	1.9	2.1	2.0	1.7	1.6	1.6	1.1	1.3	1.2	1.6	1.9	1.3	3.2	4.2	5.0	4.8	5.6	5.5	5.3	4.6	6.3	8.1	9.6	2.8	9.6	
8	8.4	7.4	7.3	7.3	6.5	4.4	4.1	3.8	1.6	2.4	3.4	4.9	6.2	0.6	9.3	9.0	4.8	1.0	3.6	3.0	3.8	2.4	2.9	2.8	4.9	9.3	
9	3.3	3.4	3.3	4.5	4.2	4.7	2.1	2.0	3.7	3.6	4.4	4.8	5.0	4.8	4.2	4.0	4.0	4.0	4.9	3.4	3.3	3.9	5.4	4.4	4.0	5.4	
10	4.3	4.5	1.6	3.7	4.4	3.0	1.4	1.1	0.8	0.4	4.3	4.1	2.9	3.3	3.8	2.9	2.3	2.0	2.4	1.9	2.1	1.2	1.3	2.6	4.5	4.5	
11	0.5	0.7	0.4	0.7	0.5	0.8	0.6	0.5	0.5	2.7	2.7	5.8	6.9	6.3	3.5	2.3	2.6	1.6	1.3	1.2	1.6	1.6	1.5	0.7	2.2	6.9	
12	1.8	0.2	0.5	0.2	0.4	0.6	0.6	0.6	0.3	1.8	1.2	1.5	2.9	2.8	3.2	3.2	3.5	2.0	0.9	1.3	1.0	2.2	2.4	2.5	1.5	3.5	
13	2.6	1.7	2.8	3.4	3.3	3.1	0.8	1.2	2.1	2.8	2.9	1.9	1.1	4.1	4.1	3.1	2.8	1.6	1.0	1.6	1.3	1.4	0.8	2.2	2.1	4.1	
14	0.4	0.3	0.5	1.0	0.6	0.2	0.6	0.6	1.1	1.5	2.4	1.9	1.4	5.1	4.6	4.2	4.7	4.6	5.0	3.4	1.9	1.2	2.2	1.7	2.1	5.1	
15	1.1	1.1	0.4	0.5	0.7	0.8	0.7	0.9	1.5	1.5	1.2	0.9	3.2	3.8	4.0	4.6	4.8	4.7	3.0	1.1	1.0	1.6	1.6	1.7	1.9	4.8	
16	2.4	0.7	1.3	0.8	0.2	1.2	0.6	0.6	1.2	1.9	2.0	1.7	0.8	2.0	4.3	4.9	3.6	3.3	3.0	0.7	1.0	0.8	1.3	2.4	1.8	4.9	
17	1.7	2.2	1.5	1.2	0.6	0.6	1.2	0.7	1.5	1.5	2.2	1.7	0.7	2.3	3.5	3.6	3.2	4.0	1.8	0.3	1.0	1.1	1.1	1.2	1.7	4.0	
18	0.7	2.0	2.1	2.8	1.8	1.6	2.5	3.5	3.9	2.7	4.0	5.1	2.3	2.7	3.4	5.2	5.7	3.7	2.5	0.8	0.7	1.2					

00000 [Program: E063 MONTHSUM

Version: LC:15-OCT-93)

RESULTANT DIRECTION [61104]

DEGREES, COMPASS

LAX AIR QUALITY MONITORING PROGRAM.. #705211

SITE 1 LAX

DEC, 1997

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

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*****
*                                     *
*          FINAL DATA              *
*    AS OF 26/FEB/98              *
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CLOCK HOUR [LOCAL STANDARD TIME]

[illegible]

00004 [Program: MEM9 MONTHEND]

Version: LC:15-OCT-93)

DEGREES, COMPASS

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

DEC, 1997

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

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* FINAL DATA *

* AS OF 26/FEB/98 *

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Abstract

CLOCK HOUR (LOCAL STANDARD TIME)

DY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	PREV
1	29	23	352	115	87	109	90	74	83	187	246	339	333	340	393	225	282	296	38	92	64	64	68	64	[VA]
2	57	63	59	46	52	62	61	61	60	62	75	100	118	164	193	325	288	263	259	177	69	63	66	68	4
3	75	64	61	46	51	47	68	61	58	74	78	83	158	216	253	262	273	291	284	341	3	59	66	75	4
4	18	57	64	109	100	66	61	63	87	84	96	106	145	147	117	154	150	133	107	94	59	64	51	69	4
5	68	70	86	67	61	85	87	84	82	90	104	104	84	10	349	54	62	41	40	43	53	63	72	64	4
6	62	72	72	72	80	98	74	56	92	99	86	87	76	67	63	65	57	46	83	56	27	51	64	4	4
7	69	28	24	39	17	23	35	62	67	15	84	105	193	202	197	237	247	258	294	285	287	277	274	269	[VA]
8	271	277	276	273	278	280	291	280	1	316	307	286	278	267	269	273	294	353	317	329	340	342	340	347	[VA]
9	339	329	321	309	323	341	341	350	358	357	351	384	352	350	1	351	357	354	343	338	327	341	346	349	1
10	350	17	291	346	346	387	37	42	45	91	23	41	17	17	19	19	9	349	355	5	347	350	32	103	1
11	75	81	68	49	73	76	339	346	46	71	22	23	23	30	48	51	22	19	58	34	90	85	68	66	[VA]
12	5	141	31	141	289	1	335	12	162	173	183	190	252	254	251	284	297	308	305	73	18	31	52	52	4
13	39	20	33	0	17	45	88	45	90	86	77	126	227	250	254	285	268	298	299	287	326	344	34	44	3
14	86	33	66	281	342	2	337	17	5	42	85	116	218	271	261	261	264	263	275	261	297	338	334	344	[VA]
15	335	38	54	127	75	54	70	63	65	95	73	150	256	261	265	257	262	271	264	268	65	69	58	48	[VA]
16	351	92	95	76	65	81	66	43	58	83	66	61	54	269	267	261	258	262	254	275	56	70	61	45	[VA]
17	47	54	53	67	54	92	76	58	84	84	90	121	183	246	259	257	255	260	248	246	74	66	61	61	[VA]
18	77	75	94	92	93	88	95	95	93	87	89	100	106	67	55	31	46	34	41	83	41	352	57	78	[VA]
19	354	330	303	348	346	44	93	80	69	355	77	120	151	110	132	201	210	215	329	12	357	13	145	69	16
20	72	4	67	329	61	26	69	40	72	79	36	70	120	214	220	258	263	263	258	250	236	96	87	96	4
21	96																								

00001 [Program: EDMS_MONTESUM

Version: LC:15-OCT-93]

SIGMA THETA STABILITY [61191]

DEGREES, COMPASS

LAX AIR QUALITY MONITORING PROGRAM, #7D5211

SITE 1 LAX

DEC, 1997

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

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FINAL DATA	
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* AS OF 26/FEB/98 *

114 JOURNAL OF DOCUMENTATION

育月金德信古礼集古古知古古育古育育育育育

CLOCK HOUR [LOCAL STANDARD TIME]

DT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	6	6	6	6	6	6	6	3	4	1	2	2	3	2	3	1	4	6	6	6	6	6	6	6	4	6
2	5	6	6	6	4	4	4	4	4	1	2	2	2	1	3	3	4	4	5	6	6	6	6	6	4	6
3	4	5	4	6	4	4	4	4	2	2	1	1	2	1	2	3	4	5	6	6	6	6	5	4	4	6
4	3	4	6	6	6	4	4	4	4	3	1	1	3	2	3	4	6	5	4	6	6	6	5	4	5	6
5	4	4	5	4	4	6	5	4	4	4	4	6	5	4	6	5	6	5	4	4	5	4	5	5	4	6
6	4	4	4	4	5	6	6	4	4	4	3	3	3	3	4	4	4	4	4	4	4	4	5	4	4	6
7	6	6	5	5	6	5	5	6	2	1	1	1	2	3	3	3	4	4	4	4	4	4	4	4	4	6
8	4	4	4	4	4	4	4	4	5	1	2	3	4	4	4	4	4	4	4	4	5	4	4	4	4	6
9	4	4	4	4	4	4	5	1	2	2	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	6
10	4	4	4	4	4	4	5	6	1	1	3	3	2	2	3	2	6	6	6	4	4	5	6	6	4	5
11	6	6	6	6	5	6	6	6	1	2	4	4	4	4	2	1	5	6	6	6	6	6	5	6	5	6
12	6	6	6	6	6	6	6	6	1	1	1	1	2	3	1	3	4	6	6	6	6	6	4	5	4	6
13	5	6	6	5	4	4	6	6	5	1	3	3	1	1	4	4	4	5	6	6	6	4	6	4	4	6
14	6	6	6	6	6	6	6	6	2	1	1	1	1	4	4	4	4	4	4	4	4	6	6	5	4	6
15	6	6	6	6	6	6	6	5	6	2	1	1	1	3	4	4	4	4	6	6	6	6	4	6	4	6
16	6	6	6	6	6	6	6	6	2	1	1	1	3	4	4	4	4	4	4	6	6	6	4	6	4	6
17	5	4	4	4	4	6	6	6	1	3	1	1	1	1	3	4	4	4	4	6	6	6	5	4	4	6
18	5	4	4	4	4	6	6	6	3	3	2	1	1	1	2	4	4	4	6	6	6	6	6	6	4	6
19	6	6	6	6	6	6	6	4	4	4	4	4	6	5	4	4	4	4	5	6	6	6	6	6	6	6
20	6	6	6	6	6	6	6	6	1	2	1	1	1	1	1	2	4	6	4	6	5	6	6	6	4	6
21	4	4	4	4	4	5	6	6	3	1	2	1	2	1	1	2	3	4	4	4	4	5	6	6	4	6
22	4	4	4	4	4	4	4	4	3	1	2	2	2	3	3	3	4	4	4	4	4	4	4	4	4	6
23	6	6	6	6	6	6	6	6	1	1	2	1	1	1	1	3	4	6	6	6	6	6	6	6	4	6
24	[]	[]	[]	[]</																						

00000 [Program: EDMS MONTHSUM

Version: LC:15-OCT-93J

TEMPERATURE [62101]
DEGREES CENTIGRADE
LEVEL HEIGHT : 9 METERS

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

DEC, 1997

AMROVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 26/FEB/98 *
*

CLOCK HOUR [LOCAL STANDARD TIME]

DT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK	
1	14.0	13.7	13.8	13.3	12.6	12.7	13.0	13.5	14.7	16.8	20.0	21.4	22.5	23.2	23.6	23.5	21.5	20.7	20.1	19.6	19.2	18.6	17.4	16.1	17.7	23.6	
2	15.2	14.7	14.2	14.5	14.5	14.2	14.3	14.5	15.6	17.3	18.8	19.6	20.4	20.7	20.8	19.8	19.0	18.7	18.7	18.8	18.5	18.3	17.3	16.5	17.3	20.8	
3	15.7	15.3	15.3	14.8	14.6	14.7	14.5	14.6	15.8	17.3	18.9	20.2	20.9	21.1	20.5	19.9	19.5	19.1	18.9	18.5	18.2	17.5	16.7	16.2	17.5	21.1	
4	15.7	15.4	15.6	15.3	14.7	15.3	15.4	15.9	17.2	18.8	20.2	21.4	22.2	22.3	22.2	21.8	21.1	20.5	19.8	19.2	18.6	18.4	17.8	17.5	18.4	22.2	
5	17.0	17.1	17.0	16.8	16.8	17.2	17.2	17.6	18.0	19.4	20.3	20.3	19.4	17.6	15.5	15.1	18.5	16.1	15.2	15.2	15.5	15.9	15.6	14.4	17.0	20.3	
6	14.2	14.0	14.7	14.9	14.9	14.6	15.3	15.5	15.7	16.0	16.3	16.5	16.8	17.8	18.3	17.8	17.0	16.4	15.6	15.3	14.4	15.3	15.3	14.9	15.7	18.3	
7	14.6	15.0	15.2	14.9	14.8	14.9	15.1	15.1	15.7	16.6	17.5	18.2	18.9	18.8	18.4	18.8	18.0	17.7	17.5	18.2	17.9	17.7	17.5	17.3	16.8	18.9	
8	17.1	16.5	16.4	15.8	15.6	15.6	15.6	13.9	15.0	16.6	16.9	17.1	17.5	17.6	17.3	17.4	17.0	16.3	15.5	14.3	13.6	13.2	13.1	13.0	15.8	17.5	
9	13.0	13.3	13.3	12.9	12.9	12.8	12.6	13.1	14.4	15.7	17.2	18.1	18.7	19.2	19.7	19.5	19.6	17.4	15.2	14.6	14.3	14.6	14.7	14.8	15.4	19.7	
10	14.8	17.1	14.7	14.0	13.8	13.7	12.8	12.7	15.0	17.1	19.9	20.4	20.6	21.2	21.8	21.5	20.8	19.8	19.2	19.2	18.8	18.3	17.7	14.5	17.5	21.5	
11	13.3	13.2	11.7	11.5	12.1	11.8	11.6	12.4	17.1	17.9	19.0	19.1	19.5	19.9	20.4	20.5	19.6	18.5	17.8	17.5	16.7	16.3	14.7	14.5	16.1	20.5	
12	14.5	12.7	11.0	11.3	11.9	10.5	10.4	11.4	13.2	16.2	18.3	19.2	19.8	20.0	20.2	19.5	18.8	18.0	17.3	16.8	16.0	15.3	14.2	13.4	15.4	20.2	
13	13.0	13.4	13.8	13.9	13.9	12.3	11.0	12.5	14.6	16.5	18.9	20.2	21.0	20.7	20.0	19.5	19.0	18.8	18.6	18.4	17.8	17.3	16.9	16.3	16.6	21.0	
14	14.9	14.2	13.7	13.4	12.9	12.8	12.2	12.7	15.4	18.1	19.7	20.9	21.1	19.3	19.2	18.7	18.4	18.2	18.5	18.7	17.6	17.1	16.4	15.6	15.1	16.7	19.0
15	16.4	16.4	16.0	15.2	14.4	14.4	14.2	14.2	15.2	16.6	17.8	19.0	19.0	18.9	18.6	18.1	18.0	17.9	17.6	17.7	17.1	16.4	15.9	15.2	16.2	21.2	
16	15.3	14.4	13.0	13.1	13.5	13.6	13.8	14.5	16.3	16.5	18.9	21.0	22.5	23.2	23.1	19.5	19.2	18.8	18.6	19.4	17.3	17.1	16.2	15.4	15.2	16.9	20.7
17	16.3	15.7	15.5	14.8	14.4	14.1	13.7	14.1	15.6	17.9	19.4	20.4	20.7	20.0	19.5	19.2	18.5	17.8	17.5	17.8	17.3	16.5	15.7	14.4	14.6	16.6	
18	14.8	14.7	14.9	14.8	14.8	14.5	14.9	15.0	15.0	15.9	16.6	14.2	13.7	13.8	13.1	13.8	14.1	14.4	14.3	14.4	14.1	13.7	13.5	13.5	14.4	16.6	
19	13.4	14.9	15.2	16.4	14.6	11.9	10.5	12.8	18.1	18.2	19.0	20.5	21.3	21.9	21.2	20.5	19.9	19.6	18.6	17.7	17.3	16.1	15.1	13.1	14.0	21.9	
20	13.9	12.5	12.5	11.0	10.5	10.5	11.2	11.8	12.7	15.7	17.5	18.6	19.3	18.9	18.4	18.1	17.3	17.1	17.1	17.0	15.6	14.5	13.5	13.1	14.9	19.3	
21	12.5	13.0	12.9	12.7	12.7	12.8	12.3	12.4	13.1	14.0	15.0	16.0	16.7	16.9	16.8	15.9	14.8	13.9	13.2	13.0	13.1	13.2	13.1	13.1	13.9	16.9	
22	13.2	13.1	12.7	12.4	12.2	12.5	12.5	12.4	17.5	18.4	19.8	19.4	19.8	20.0	20.1	19.8	19.0	18.7	17.1	15.4	15.1	15.0	14.0	16.1	20.1		
23	13.4	11.9	11.3	10.5	10.7	9.8	10.0	10.6	13.0	15.1	17.1	18.2	19.0	18.9	18.2										13.8	19.0	
24																											
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27	11.5	9.9	10.2	10.3	10.0	9.6	9.1	9.9	11.9	15.0	16.9	18.0	19.0	18.2	17.8	17.7	17.5	17.0	16.5	15.3	15.0	14.3	13.6	12.3	14.0	19.0	
28	11.9	11.1	10.4	10.5	9.7	10.1	10.4	11.0	16.6	20.2	21.5	22.6	23.2	23.1	22.7	23.2	23.0	21.9	20.6	19.6	18.9	18.1	17.3	16.7	17.3	23.2	
29	15.4	14.8	14.1	14.0	13.8	14.5	15.0	15.1	16.8	18.4	20.7	21.7	23.8	24.1	25.6	25.7	25.2	24.2	23.1	22.1	21.8	20.6	19.6	18.5	19.5	25.7	
30	19.1	17.1	17.8	17.1	20.0	18.1	17.7	18.4	19.4	22.4	24.3	25.8	26.8	24.4	23.2	21.3	20.4	20.3	20.7	20.6	19.9	19.3	18.7	17.7	20.4	26.8	
31	16.9	16.0	16.1	16.0	16.7	16.1	16.6	17.1	18.2	20.0	21.3	22.0	23.3	23.1	20.6	21.0	20.5	19.6	19.9	19.8	19.6	19.5	19.1	18.5	19.1	23.3	

00000 [Program: RMS MONTEUM

Version: LC:15-OCT-93]

SOLAR RADIATION [63301]

WATTS PER SQUARE METER

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

DEC, 1997

AMROVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 26/FEB/98 *
*

CLOCK HOUR [LOCAL STANDARD TIME]

DT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK	
1	0	0	0	0	0	0	0	2	74	207	368	485	540	527	451	345	179	32	0	0	0	0	0	0	0	134	540
2	0	0	0	0	0	0	0	0	52	152	362	450	375	403	346	370	182	31	0	0	0	0	0	0	0	113	450
3	0	0	0	0	0	0	0	0	70	223	374	459	495	479	416	304	169	30	0	0	0	0	0	0	0	126	495
4	0	0	0	0	0	0	0	0	69	193	391	522	543	414	321	323	106	14	0	0	0	0	0	0	0	121	543
5	0	0	0	0	0	0	0	1	18	55	201	80	75	39	31	20	21	3	0	0	0	0	0	0	0	23	201
6	0	0	0	0	0	0	0	0	26	130	123	108	178	228	278	241	110	14	0	0	0	0	0	0	0	60	278
7	0	0	0	0	0	0	0	0	32	99	185	215	401	172	141	209	90	8	0	0	0	0	0	0	0	65	401
8	0	0	0	0	0	0	0	0	65	255	435	395	466	546	447	347	193	48	0	0	0	0	0	0	0	133	546
9	0	0	0	0	0	0	0	0	71	240	394	486	553	543	475	356	188	35	0	0	0	0	0	0	0	139	553
10	0	0	0	0	0	0	0	0	65	228	384	499	567	559	493	370	200	34	0	0	0	0	0	0	0	142	567
11	0	0	0	0	0	0	0	0	63	231	377	491	561	553	489	362	187	32	0	0	0	0	0	0	0	139	561
12	0	0	0	0	0	0	0	0	57	224	376	477	549	521	450	383	145	51	0	0	0	0	0	0	0	135	549
13	0	0	0	0	0	0	0	0	68	233	356	466	525	517	307	193	90	12	0	0	0	0	0	0	0	114	525
14	0	0	0	0	0	0	0	0	63	222	371	442	430	276	225	261	98	17	0	0	0	0	0	0	0	100	442
15	0	0	0	0	0	0	0	0	57	202	349	435	494	485	449	330	174	38	0	0	0	0	0	0	0	126	494
16	0	0	0	0	0	0	0	0	63	125	247	459	537	534	469	375	218	53	0	0	0	0	0	0	0	127	537
17	0	0	0	0	0	0	0	0	39	185	368	458	514	508	421	336	179	25	0	0	0	0	0	0	0	126	514
18	0	0	0	0	0	0	0	0	17	30	87	65	41	28	14	44	69	13	0	0	0	0	0	0	0	17	85
19	0	0	0	0	0	0	0	0	71	237	387	498	552	543	476	351	188	29	0	0	0	0	0	0	0	139	552
20	0	0	0	0	0	0	0	0	58	188	391	500	509	499	414	351	195	28	0	0	0	0	0	0	0	131	509
21	0	0	0	0	0	0	0	0	60	127	125	159	457	302	348	293	184	36	0	0	0	0	0	0	0	87	457
22	0	0	0	0	0	0	0	0	54	227	391	500	580	545	479	360	189	30	0	0	0	0	0	0	0	139	580
23	0	0	0	0	0	0	0	0	63	224	382	483	538	521	471	357	171	31	0	0	0	0	0	0	0	203	538
24	[[[[[[[[[[[[[[[[[[[[[[[[[[
25	[[[[[[[[[[[[[[[[[[[[[[[[[[
26	[[[[[[[[[[[[[[[[[[[[[[[[[[
27	0	0	0	0	0	0	0	0	43	210	395	507	569	576	508	380	204	36	0	0	0	0	0	0	0	151	576
28	0	0	0	0	0	0	0	0	43	234	403	521	577	566	498	380	207	39	0	0	0	0	0	0	0	145	577
29	0	0	0	0	0	0	0	0	36	196	365	493	569	585	542	418	226	58	0	0	0	0	0	0	0	145	585
30	0	0	0	0	0	0	0	0	[M]	[M]	[M]	[M]	[M]	[M]	[M]	[M]	[M]	[M]	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	20	172	390	506	532	536	276	247	180	10	0	0	0	0	0	0	0	120	536
31	0	0	0	0	0	0	0	0	52	203	177	234	288	484	324	176	92	25	0	0	0	0	0	0	0	86	484
AV	0	0	0	0	0	0	0	0	52	188	325	408	464	448	377	303	158	29	0	0	0	0	0	0	0	114	
SD	0	0	0	0	0	0	0	0	17	57	103	144	147	159	139	98	53	14	0	0	0	0	0	0	0	0	
PK	0	0	0	0	0	0	0	2	74	255	435	522	577	585	542	418	226	58	0	0	0	0	0	0	0	0	585

DEGREES, COMPASS

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

DEC, 1997

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

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*****
*                                     *
*      FINAL DATA                  *
*      AS OF 26/FEB/98              *
*                                     *
*****
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CLOCK HOUR [LOCAL STANDARD TIME]

DY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg Peak		
1	18	60	23	73	29	43	30	17	27	64	22	18	17	20	10	22	11	37	39	69	68	54	21	16	33	73	
2	15	16	18	12	13	10	12	10	12	23	21	34	25	37	13	8	15	22	33	38	23	15	13	19	36		
3	12	7	10	25	12	12	12	14	23	20	25	27	43	37	17	14	16	26	33	40	54	19	12	13	22	54	
4	15	11	17	23	20	11	10	12	12	17	23	29	22	20	15	16	15	22	20	13	17	13	17	13	17	29	
5	12	16	12	16	12	12	29	23	13	11	11	10	12	23	42	20	22	30	58	15	16	14	11	23	30	20	58
6	22	16	11	68	28	18	42	12	11	11	13	14	16	17	16	12	10	14	14	29	42	19	15	10	20	68	
7	17	19	16	12	17	12	17	15	16	27	24	29	42	17	17	22	9	9	11	14	13	11	11	8	17	42	
8	11	9	10	13	14	11	23	28	29	30	25	18	12	11	9	9	26	21	16	18	17	17	14	16	17	30	
9	14	19	15	12	15	16	42	35	17	18	19	19	17	17	22	18	19	19	13	13	14	14	13	15	18	42	
10	18	20	45	17	15	31	43	49	41	61	21	20	23	25	20	23	23	20	21	16	10	14	44	21	27	61	
11	40	52	60	48	61	48	47	60	25	27	16	16	16	17	23	25	18	21	28	27	31	28	17	65	34	65	
12	23	70	53	65	41	36	37	44	67	23	50	31	21	14	32	17	16	17	47	26	45	18	16	17	34	70	
13	17	26	18	16	22	38	53	47	25	15	14	48	40	10	7	8	18	30	29	29	32	11	48	11	25	33	
14	58	57	61	19	49	65	30	23	16	31	22	28	52	10	11	8	9	11	10	15	28	32	13	11	28	65	
15	20	33	43	35	30	19	15	14	17	26	40	44	12	10	13	8	12	13	19	50	35	25	11	18	29	50	
16	28	49	13	33	62	29	42	56	41	16	24	30	45	37	15	7	10	13	10	59	22	34	13	10	29	62	
17	15	8	14	12	37	35	18	29	16	16	19	22	50	35	13	11	11	11	22	63	35	29	24	15	23	63	
18	15	10	13	12	10	15	9	10	11	14	12	11	31	17	15	17	11	22	30	53	25	54	40	20	54	30	
19	44	16	20	14	31	65	14	29	18	31	24	45	33	44	42	13	23	18	38	10	66	29	53	32	66	40	
20	40	33	35	75	65	51	54	50	25	18	26	21	36	43	19	16	13	9	16	18	25	41	21	14	32	75	
21	12	9	10	9	10	14	17	38	19	17</																	

00000 [Program: EDMS_MONTHSUM

Version: LC:15-OCT-93]

DELTA T STABILITY CLASS [88925]

DEGREES, COMPASS

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

DEC, 1997

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

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*****
*                                     *
*      FINAL DATA                  *
*      AS OF 26/FEB/98             *
*                                     *
*****
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CLOCK HOUR [LOCAL STANDARD TIME]

DY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	5	5	5	5	5	5	5	2	2	1	2	2	2	2	3	3	4	4	5	5	5	5	5	5	4	5
2	5	5	5	5	5	5	5	5	3	2	2	2	2	3	3	3	4	4	5	5	5	5	5	5	4	5
3	5	5	5	5	5	5	5	5	3	2	2	2	1	2	3	3	4	5	5	5	5	5	5	5	4	5
4	5	5	5	5	5	5	4	4	3	2	2	2	2	3	3	4	5	5	5	5	5	4	5	5	4	5
5	5	4	5	5	5	5	5	4	4	4	3	5	4	5	5	5	5	5	5	4	5	4	5	5	5	5
6	4	5	4	4	5	6	6	4	3	3	3	3	3	3	3	4	5	5	5	5	5	5	4	4	6	5
7	5	5	5	5	5	5	5	5	2	2	2	2	2	3	3	4	4	4	4	4	4	4	4	4	4	5
8	4	4	4	4	4	4	4	5	2	2	2	3	4	4	4	4	4	5	4	4	5	5	5	5	4	5
9	4	4	4	4	4	4	5	3	3	2	3	3	3	2	3	4	4	4	4	4	4	4	4	4	4	5
10	4	4	5	4	4	4	5	3	2	1	2	2	2	2	3	5	5	5	5	5	5	5	5	5	4	5
11	5	5	5	5	5	5	5	5	3	2	4	4	4	4	2	3	5	5	5	5	5	5	5	5	4	5
12	5	5	5	5	5	5	5	5	2	1	1	1	2	2	1	3	4	5	5	5	5	5	5	5	4	5
13	5	5	5	4	4	5	5	5	3	3	2	2	1	3	3	5	5	5	5	5	5	5	5	5	4	5
14	5	5	5	5	5	5	5	5	2	1	2	2	3	4	3	3	4	4	4	4	5	5	5	5	4	5
15	5	5	5	5	5	5	5	5	2	2	1	1	2	2	3	3	4	4	4	5	5	5	5	5	4	5
16	5	5	5	5	5	5	5	5	2	2	2	1	1	2	2	3	4	4	4	5	5	5	5	5	4	5
17	5	5	5	5	5	5	5	5	2	1	2	1	1	2	3	3	4	4	5	5	5	5	5	5	4	5
18	5	5	5	5	5	5	5	4	4	5	3	4	5	5	5	4	4	4	5	5	5	5	5	5	5	5
19	5	5	5	5	4	5	5	5	2	2	2	2	1	1	1	3	4	5	4	5	5	5	5	5	4	5
20	5	5	5	5	5	5	5	5	2	1	1	2	2	1	2	3	4	4	4	5	5	5	5	5	4	5
21	5	5	5	5	5	5	5	5	3	2	2	2	3	3	3	4	4	4	4	4	4	4	4	4	4	5
22	4	4	4	4	4	4	4	4	3	2	2	2	2	2	2	4	4	4	5	5	5	5	5	5	4	5
23	5	5	5	5	5	5	5	5	2	1	1	1	1	2	2	2	3	4	4	5	5	5	5	5	5	5
24	[[[[[

00000 [Project: BOHE MONTEBLOM

Version: LC:15-OCT-93]

BATTERY VOLTAGE [99034]

LAX AIR QUALITY MONITORING PROGRAM, #706211

VOLTS

SITE 1 LAX

* FINAL DATA *

DEC, 1997

* AS OF 26/FEB/98 *

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

CLOCK HOUR [LOCAL STANDARD TIME]

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	13.8	13.8	13.8	13.8	13.8	13.9	13.9	13.9	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
2	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
3	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
4	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
5	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
6	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
7	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
9	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
10	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
11	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
12	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
13	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
14	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
15	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
16	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
17	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
18	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
19	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
20	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
21	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
22	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
23	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
24	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
25	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
26	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
27	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
28	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
29	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
30	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
31	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
AV	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
SD	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PK	13.9	13.9	13.9	14.0	14.0	14.0	14.1	14.1	14.0	13.9	13.9	13.8	13.8	13.8	13.8	13.9	13.9	13.8	13.8	13.8	13.8	13.8	13.8	13.9	13.9	14.1

CU000 [Program: EDMS_MONTHSUM]

Version: LC:15-OCT-93]

SIGMA THETA (CALCULATE) [99090]

LAX AIR QUALITY MONITORING PROGRAM, #706211

DEGREES, COMPASS

SITE 1 LAX

* FINAL DATA *

DEC, 1997

* AS OF 26/FEB/98 *

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

CLOCK HOUR [LOCAL STANDARD TIME]

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	18	74	26	95	44	52	34	17	31	73	24	19	17	21	18	28	14	17	31	88	70	54	23	19	38	95
2	15	23	20	12	13	11	12	10	10	12	23	22	37	29	41	13	8	13	21	34	40	21	13	13	19	41
3	12	7	12	31	12	12	13	14	20	20	31	31	55	43	19	13	16	23	33	38	54	24	11	13	23	55
4	15	11	28	30	20	12	10	13	13	17	23	29	23	21	16	17	16	23	21	13	16	12	17	13	18	30
5	13	13	17	12	12	30	24	12	11	11	12	23	33	21	24	32	61	16	14	11	28	40	11	28	40	61
6	31	18	11	81	28	20	55	12	11	12	13	14	17	18	17	12	11	15	14	31	42	19	16	10	22	81
7	10	21	15	13	18	13	17	21	21	28	29	30	59	18	18	24	9	11	14	13	11	11	8	19	59	
8	11	9	11	13	14	11	29	25	39	34	27	18	13	11	9	10	36	24	17	19	18	18	14	16	18	36
9	14	19	15	12	16	17	52	37	30	18	19	20	17	18	22	19	19	20	14	13	14	15	13	15	19	52
10	18	23	48	17	16	47	43	53	40	77	36	21	23	27	21	23	25	21	23	16	20	14	63	27	31	77
11	52	69	72	75	71	54	56	81	32	31	18	16	16	18	23	27	19	24	27	25	31	27	14	81	40	81
12	27	76	70	91	53	49	64	48	97	27	57	36	23	14	36	17	16	19	62	30	49	18	16	18	42	97
13	18	27	19	17	22	67	64	61	24	15	15	50	52	12	7	8	18	27	30	35	28	12	57	12	29	67
14	73	80	94	20	77	83	34	37	18	31	24	31	55	10	11	8	9	11	10	17	25	41	14	11	34	94
15	24	39	54	52	30	20	15	18	18	26	50	56	13	1												

TEMPERATURE 2M HEIGHT [99144]

LAX AIR QUALITY MONITORING PROGRAM, #706211

DEGREES CENTIGRADE

SITE 1 LAX

* FINAL DATA *

DEC, 1997

* AS OF 26/FEB/98 *

AEROSOL ENVIRONMENTAL SERVICES INC.

CLOCK HOUR [LOCAL STANDARD TIME]

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK	
1	13.1	12.5	12.4	11.9	11.4	11.1	11.6	13.1	14.6	17.1	20.4	21.9	23.1	23.7	24.0	23.6	21.2	20.5	19.7	18.9	18.4	17.9	16.5	15.3	17.3	24.0	
2	14.7	14.1	13.8	14.2	14.2	13.9	14.0	14.3	15.6	17.6	19.1	19.9	20.7	20.9	21.0	19.7	18.3	17.7	17.7	18.3	18.0	17.9	16.8	16.0	17.0	21.0	
3	15.1	14.9	14.8	14.1	14.4	14.4	14.0	14.3	15.8	17.4	19.2	20.6	21.2	21.4	20.7	19.8	19.0	18.8	18.2	18.0	17.8	17.1	16.2	15.6	17.2	21.4	
4	15.2	14.8	15.1	14.4	13.8	14.7	15.0	15.6	17.0	19.9	20.6	21.8	22.3	22.0	22.2	21.5	20.7	19.9	19.2	19.5	18.3	18.0	17.6	17.1	18.1	22.3	
5	16.6	16.8	16.6	16.6	16.6	16.9	16.9	17.3	17.7	19.3	20.1	20.1	19.0	17.4	14.9	14.7	18.1	16.0	15.0	15.1	15.6	16.0	15.3	14.3	16.8	20.1	
6	14.0	14.1	14.6	14.3	14.7	14.7	15.7	15.8	15.8	16.0	16.3	16.6	16.9	18.0	18.4	17.7	16.9	16.3	14.6	14.9	14.2	14.8	15.3	16.8	15.7	18.4	
7	14.3	14.0	15.1	14.6	14.8	14.9	15.0	15.0	15.7	16.7	17.7	18.5	19.0	18.9	18.5	18.7	17.8	17.3	17.2	17.9	17.6	17.2	17.0	16.6	16.7	19.0	
8	16.5	16.1	15.9	15.2	15.3	15.3	15.3	15.3	15.3	17.0	17.3	17.6	18.2	18.2	17.7	17.5	16.9	15.9	15.4	14.1	13.4	12.9	12.8	15.5	15.0	18.2	
9	12.0	13.0	13.0	12.7	12.7	12.7	13.4	13.4	13.1	11.7	11.7	11.9	13.0	17.2	20.1	20.7	21.1	21.5	21.7	21.4	20.4	19.2	18.4	19.4	17.9	17.1	21.7
10	14.4	16.7	13.4	14.3	13.4	13.1	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	20.0	
11	12.2	10.9	10.2	9.7	10.0	9.9	9.4	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	20.5	
12	12.8	10.9	9.6	8.7	8.2	7.8	8.2	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	20.5	
13	12.6	12.6	13.4	13.3	13.4	10.7	9.3	11.6	14.5	16.5	18.6	19.5	20.2	20.2	20.3	19.3	18.6	17.6	16.8	15.9	15.0	14.7	13.6	16.3	14.7	20.3	
14	13.6	11.6	12.3	10.9	11.0	9.8	9.4	10.4	15.4	18.3	19.8	21.0	21.3	20.5	19.3	18.0	18.1	18.4	18.1	17.9	17.2	16.6	15.3	15.0	16.0	21.3	
15	16.3	16.3	15.5	13.8	13.7	13.3	12.5	13.5	15.2	16.8	18.1	19.3	19.5	19.3	18.8	18.0	17.3	17.4	16.6	16.7	16.6	15.9	15.0	14.7	16.3	19.5	
16	14.8	13.7	12.5	12.3	11.3	12.4	12.2	13.0	15.9	16.4	19.1	21.2	22.7	23.4	21.2	19.2	17.8	17.4	17.0	17.5	16.8	16.4	15.8	14.3	16.4	23.4	
17	15.5	15.0	14.5	14.0	12.3	11.6	12.2	12.9	15.3	18.0	19.6	20.6	20.9	20.2	19.5	18.5	17.0	16.7	17.3	16.8	16.5	15.8	15.0	14.7	16.3	20.9	
18	14.4	14.4	14.6	14.5	14.4	14.1	14.6	14.7	14.4	15.7	16.4	16.9	17.7	15.7	13.6	13.8	14.0	14.2	13.7	13.8	13.4	12.9	16.7	12.2	14.2	16.7	
19	12.5	12.7	14.3	15.7	13.6	8.8	9.8	11.2	17.9	18.2	19.2	20.7	21.4	21.9	21.0	19.8	18.6	19.2	17.9	17.1	16.2	14.5	13.7	11.7	16.2	21.9	
20	11.0	10.6	9.0	8.2	8.5	8.5	9.2	10.5	12.2	16.0	17.6	18.7	19.4	18.8	18.4	17.5	16.0	15.7	15.1	15.5	14.7	13.7	13.8	12.5	13.9	19.4	
21	12.0	12.6	12.5	12.3	12.3	12.5	11.6	12.2	13.2	14.1	15.1	16.4	17.0	17.0	17.1	16.0	14.7	13.7	13.1	12.9	13.0	13.0	12.9	12.8	13.8	17.1	
22	12.9	12.8	12.5	12.1	12.0	12.2	12.2	13.2	15.4	17.7	18.8	19.2	19.8	20.1	20.1	20.0	19.2	18.3	17.9	16.1	14.8	14.2	12.6	12.7	15.7	20.1	
23	11.0	10.4	10.0	8.9	8.9	8.9	8.7	9.8	13.0	15.2	17.3	18.5	19.2	19.0	18.3	17.1	16.1	15.1	14.1	13.1	12.1	11.1	10.1	9.1	13.1	19.2	
24	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
25	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
26	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
27	10.0	8.7	8.1	7.4	8.0	7.7	6.8	8.9	12.0	15.3	17.3	18.4	14.3	18.5	18.0	17.3	16.4	16.0	15.8	14.1	13.8	13.1	12.1	11.4	12.9	18.5	
28	10.0	9.5	8.8	8.3	8.3	8.6	8.4	9.6	15.3	20.1	21.6	22.8	23.4	23.3	22.7	22.9	21.9	20.6	19.3	18.2	17.6	16.8	15.7	15.4	16.2	23.4	
29	14.1	13.4	13.1	11.7	11.3	11.4	11.6	13.8	16.2	18.3	20.5	21.6	20.8	24.2	25.9	25.5	24.4	23.2	22.2	21.4	20.7	19.4	18.6	17.4	18.4	25.9	
30	17.3	15.6	16.0	15.2	15.2	15.2	16.4	15.6	17.2	19.1	22.7	24.5	26.0	26.9	24.2	23.1	21.0	19.3	18.6	18.9	19.0	18.9	18.5	17.9	16.9	19.9	
31	16.1	15.2	14.7	15.0	15.9	15.0	14.8	15.9	17.9	19.0	21.2	22.0	23.7	23.2	20.4	20.4	19.6	18.7	19.3	19.2	19.1	19.1	18.5	17.6	18.4	23.7	
AV	13.8	13.4	13.1	12.7	12.6	12.0	11.9	12.7	15.1	17.2	18.8	19.7	20.1	20.2	19.8	19.2	18.3	17.7	17.1	16.8	16.3	15.6	15.3	14.8	16.0		
SD	1.9	2.2	2.3	2.5	2.8	2.9	2.5	2.0	2.0	2.3	2.7	2.4	2.4	2.5	2.5	2.2	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0		
PK	17.3	16.8	16.6	16.6	19.2	16.9	16.9	17.3	19.1	22.7	24.5	26.0	26.0	24.2	25.9	25.5	24.4	23.2	22.2	21.4	20.7	19.4	18.5	17.6	26.9		

00000 (Program: EDMS_MONTESUM)

Version: LC:15-OCT-93)

STATION TEMPERATURE [99231]

LAX AIR QUALITY MONITORING PROGRAM, #706211

DEGREES CENTIGRADE

SITE 1 LAX

* FINAL DATA *

DEC, 1997

* AS OF 26/FEB/98 *

AEROSOL ENVIRONMENTAL SERVICES INC.

CLOCK HOUR [LOCAL STANDARD TIME]

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	21.4	21.1	21.0	20.7	20.3	19.9	19.6	19.6	21.3	21.8	20.5	20.5	21.0	22.3	23.4	23.8	23.3	21.7	21.2	21.9	21.6	21.0	22.4	22.5	21.4	23.8
2	22.3	22.1	21.9	21.4	21.3	21.3	21.2	21.0	21.7	22.0	20.9	20.8	21.0	21.3	21.8	21.9	21.5	22.1	23.2	23.8	22.9	21.9	22.0	22.7	21.0	23.8
3	22.7	22.5	22.4	22.1	21.7	21.5	21.3	21.2	22.1	21.5	20.9	21.0	21.2	21.9	22.4	22.1	21.5	21.9	23.3	23.2	22.0	22.0	22.4	22.5	22.0	23.3
4	22.4	22.1	22.0	21.6	21.3	21.0	21.0	21.2	22.2	21.3	20.7	21.1	21.6	21.6	21.8	22.0	21.5	21.0	20.7	20.8	21.0	21.4	21.6	22.0	21.5	22.4
5	22.6	22.9	22.8	22.6	22.7	22.5	22.3	22.0	21.7	21.3	21.0	21.0	20.9	20.9	21.9	22.5	22.5	21.8	22.4	22.9	23.1	23.2	23.2	23.2	23.2	23.2
6	22.7	22.3	22.3	22.1	22.0	22.2	22.5	23.1	23.3	22.3	22.6	21.8	21.4	21.1	21.0	21.5	22.8	23.5	23.5	23.3	23.1	23.0	23.1	23.1	22.5	23.5
7	22.9	22.7	22.3	22.1	22.0	22.3	23.1	23.2	23.1	23.4	22.3	21.5	21.0	20.9	20.9	21.2	21.3	21.8	22.6	23.5	23.8	24.1	22.5	22.9	22.5	24.1
8	22.6	22.7	22.7	22.5	22.3	22.2	22.2	22.4	22.9	21.6	21.0	21.0	21.0	21.1	21.3	21.3	21.2	21.9	22.6	22.6	22.4	21.8	21.3	20.8	21.9	22.9
9	20.5	20.3	20.2	19.9	19.8	19.9	19.8	19.5	20.9	22.5	21.7	21.4	21.5	21.5	21.6	21.7	21.6	21.7	22.8	22.7	22.1	21.6	21.5	21.5	21.2	22.8
10	21.5	21.6	21.6	21.4	21.4	21.3	20.4	20.0	20.6	22.4	21.3	21.4	22.7	22.0	22.5	22.6	22.4	21.8	22.6	23.4	23.6	23.6	23.4	22.9	22.0	23.6
11	22.1	22.2	20.6	19.7	19.0	18.5	18.1	18.0	19.9	22.1	21.7	22.0	22.2	22.3	22.4	22.3	22.3	22.2	23.1	23.2	22.9	22.6	22.1	21.5	21.3	23.2
12	20.9	20.3	19.7	18.7	17.8	17.0	16.4	16.2	18.0	21.4	21.9	21.4	21.6	21.7	22.1	22.2	21.8	21.8	22.9	23.1	22.7	22.3	21.9	21.3	20.6	23.1
13	20.6	20.0	19.6	19.7	19.8	19.6	18.8	18.1	19.6	22.1	21.8	21.3														

Delta Temp [59238]

DEGREES CENTIGRADE

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

DEC, 1997

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

* FINAL DATA *

* AS OF 26/FEB/98 *

CLOCK HOUR [LOCAL STANDARD TIME]

DY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK	
1	-0.9	-1.2	-1.4	-1.5	-1.2	-1.6	-1.3	-0.4	0.0	0.2	0.4	0.5	0.6	0.5	0.4	0.1	-0.2	-0.2	-0.4	-0.7	-0.7	-0.7	-0.9	-0.6	-0.5	0.6	
2	-0.5	-0.6	-0.4	-0.3	-0.3	-0.3	-0.2	0.0	0.2	0.3	0.2	0.3	0.2	0.3	0.2	0.3	-0.1	-0.6	-1.0	-1.0	-0.5	-0.4	-0.3	-0.5	-0.6	-0.3	0.3
3	-0.5	-0.4	-0.5	-0.7	-0.4	-0.4	-0.5	-0.2	0.1	0.2	0.3	0.3	0.3	0.3	0.2	-0.1	-0.5	-0.4	-0.6	-0.4	-0.5	-0.5	-0.5	-0.6	-0.3	0.3	
4	-0.5	-0.5	-0.5	-0.9	-0.9	-0.6	-0.4	-0.3	-0.2	0.1	0.4	0.4	0.2	0.1	0.0	-0.3	-0.4	-0.5	-0.6	-0.7	-0.4	-0.4	-0.3	-0.4	-0.3	0.4	
5	-0.4	-0.3	-0.4	-0.3	-0.2	-0.3	-0.3	-0.3	-0.2	-0.1	-0.2	-0.2	-0.4	-0.2	-0.6	-0.3	-0.4	-0.1	-0.1	-0.1	0.2	0.1	-0.3	-0.3	-0.2	0.2	
6	-0.2	0.2	-0.2	-0.6	-0.1	0.1	0.4	0.0	0.1	0.0	0.0	0.1	0.1	0.2	0.1	-0.1	-0.1	-0.1	-0.9	-0.4	-0.2	-0.6	-0.1	-0.1	-0.1	0.4	
7	-0.3	-0.2	-0.1	-0.1	-0.1	-0.2	-0.1	0.1	0.1	0.2	0.3	0.1	0.1	0.2	-0.1	-0.2	-0.3	-0.4	-0.3	-0.3	-0.5	-0.5	-0.7	-0.1	0.3		
8	-0.6	-0.4	-0.5	-0.4	-0.4	-0.3	-0.3	-0.1	0.3	0.4	0.4	0.5	0.7	0.6	0.5	0.1	-0.3	-0.3	-0.2	-0.2	-0.2	-0.3	-0.3	-0.3	-0.1	0.7	
9	-0.3	-0.3	-0.3	-0.2	-0.2	-0.2	-0.3	-0.1	0.2	0.4	0.4	0.5	0.5	0.5	0.3	0.2	-0.2	-0.3	-0.2	-0.3	-0.3	-0.3	-0.3	-0.4	-0.1	0.5	
10	-0.4	-0.4	-1.3	-0.4	-0.4	-0.6	-1.1	-0.8	-0.1	0.1	0.2	0.3	0.5	0.3	0.2	-0.1	-0.4	-0.6	-0.7	-0.7	-0.9	-1.2	-1.2	-1.2	-0.5	0.5	
11	-1.1	-2.3	-1.5	-1.8	-2.1	-1.9	-2.2	-1.7	-0.2	0.1	0.3	0.3	0.3	0.2	0.1	-0.2	-0.3	-0.4	-0.8	-0.9	-1.1	-1.4	-0.9	-1.1	-0.9	0.3	
12	-1.7	-1.7	-1.4	-2.6	-3.7	-2.7	-2.2	-1.3	-0.3	0.2	0.2	0.3	0.4	0.2	0.2	-0.2	-0.2	-0.3	-0.5	-0.9	-0.9	-0.6	-0.6	-0.6	-0.9	0.4	
13	-0.4	-0.8	-0.5	-0.5	-0.6	-1.6	-1.6	-0.9	-0.1	0.0	0.2	0.3	0.3	-0.3	-0.7	-1.4	-0.9	-0.4	-0.6	-0.6	-0.6	-0.7	-1.6	-0.6	-0.6	0.3	
14	-1.2	-2.4	-1.4	-2.6	-1.9	-2.0	-2.8	-2.3	0.0	0.3	0.2	0.1	-0.1	0.0	0.0	-0.5	-0.6	-0.5	-0.7	-0.2	-0.2	-0.2	-0.1	-0.1	-0.8	0.3	
15	-0.1	-0.1	-0.5	-1.3	-0.7	-1.0	-1.7	-0.7	0.0	0.2	0.3	0.3	0.5	0.4	0.3	-0.1	-0.7	-0.6	-1.1	-1.0	-0.5	-0.5	-0.5	-0.4	-0.4	0.5	
16	-0.5	-0.8	-0.6	-0.9	-2.2	-1.1	-1.7	-1.5	-0.4	-0.1	0.2	0.2	0.2	0.2	0.2	-0.2	-1.4	-1.4	-1.5	-0.9	-0.7	-0.7	-0.7	-0.6	-0.7	0.2	
17	-0.7	-0.7	-1.0	-0.8	-2.0	-2.5	-1.5	-1.2	-0.3	0.1	0.2	0.2	0.2	0.2	0.2	0.0	-0.7	-1.2	-1.1	-0.6	-0.7	-0.6	-0.5	-0.4	-0.5	0.2	
18	-0.4	-0.3	-0.9	-0.4	-0.3	-0.4	-0.3	-0.3	-0.6	-0.2	-0.2	-0.3	0.0	-0.1	0.5	0.0	-0.1	-0.2	-0.6	-0.6	-0.7	-0.8	-0.8	-1.2	-0.4	0.5	
19	-0.9	-2.2	-1.0	-0.7	-1.0	-2.1	-0.7	-1.6	-0.3	0.0	0.1	0.1	0.1	0.0	-0.2	-0.7	-1.3	-0.4	-0.7	-0.6	-1.1	-1.6	-1.4	-1.5	-0.8	0.1	
20	-2.0	-1.9	-2.7	-1.8	-2.2	-1.9	-2.0	-1.2	-0.5	0.2	0.2	0.1	0.1	0.0	0.0	-0.6	-1.3	-1.4	-2.0	-1.5	-1.0	-0.7	-0.8	-0.6	-1.1	0.2	
21	0.4	-0.4	-0.5	-0.5	-0.4	-0.3	-0.6	-0.2	0.1	0.1	0.1	0.4	0.3	0.1	0.2	0.1	-0.1	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2	-0.1	0.4	
22	-0.2	-0.2	-0.2	-0.3	-0.3	-0.3	-0.3	-0.2	0.1	0.3	0.3	0.4	0.4	0.3	0.1	-0.1	-0.6	-0.7	-0.8	-1.0	-0.5	-0.9	-1.6	-1.3	-0.3	0.4	
23	-2.4	-1.5	-1.3	-1.6	-1.8	-0.9	-1.3	-0.8	0.0	0.2	0.2	0.3	0.2	0.1	0.0	[]	[]	[]	[]	[]	[]	[]	[]	[]	-0.7	0.3	
24	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
25	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
26	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
27	-1.4	-1.2	-2.1	-2.9	-2.0	-1.9	-2.3	-1.0	0.1	0.3	0.4	0.3	0.3	0.3	0.3	0.1	-0.5	-1.3	-0.8	-1.0	-0.9	-1.0	-1.1	-1.1	-1.4	-0.6	0.3
28	-1.8	-1.6	-1.6	-2.6	-1.4	-1.5	-2.0	-1.4	-1.9	-0.1	0.1	0.2	0.2	0.1	0.0	-0.2	-1.1	-1.3	-1.3	-1.4	-1.3	-1.3	-1.6	-1.2	-1.1	0.2	
29	-1.3	-1.4	-1.0	-2.3	-2.5	-3.1	-3.2	-1.2	-0.6	-0.1	-0.1	-0.1	-0.2	0.1	0.2	-0.2	-0.7	-1.0	-0.9	-0.8	-1.1	-1.2	-1.1	-1.1	-1.0	0.2	
30	-1.9	-1.5	-1.8	-1.9	-0.7	-1.7	-2.2	-1.2	-0.2	0.4	0.2	0.2	0.1	-0.2	-0.1	-0.3	-1.1	-0.7	-0.9	-0.8	-1.0	-0.8	-0.8	-0.8	-0.8	0.4	
31	-0.7	-1.0	-1.4	-1.1	-0.7	-1.2	-1.8	-1.1	-0.3	-0.1	-0.1	0.0	0.4	0.1	-0.2	-0.5	-0.8	-0.9	-0.6	-0.5	-0.4	-0.4	-0.6	-1.0	-0.6	0.4	
AV	-0.8	-0.9	-0.9	-1.1	-1.1	-1.2	-1.3	-0.8	-0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.1	-0.3	-0.6	-0.6	-0.7	-0.7	-0.6	-0.7	-0.8	-0.7	-0.5	
SD	0.6	0.7	0.7	0.9	0.9	0.9	0.9	0.6	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.4		
PK	-0.1	0.2	-0.1	-0.1	0.1	0.1	0.4	0.0	0.3	0.4	0.4	0.5	0.7	0.6	0.5	0.2	-0.1	-0.1	-0.1	-0.1	0.2	0.1	-0.1	-0.1	0.7		

Q0000 [Program: RMS MONTHSUM]

Version: LC:15-OCT-93]

CARBON MONOXIDE [42101]

LAX AIR QUALITY MONITORING PROGRAM, #706211

PARTS PER MILLION

SITE 1 LAX

JAN, 1998

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

* FINAL DATA *

* AS OF 26/FEB/98 *

CLOCK HOUR [LOCAL STANDARD TIME]

DY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	7.5 [28]	[28]	7.9	8.0	8.3	8.7	6.1	3.6	1.9	1.7	1.5	1.8	2.1	1.9	1.6	1.4	1.6	1.6	2.3	3.3	2.3	3.2	3.1	3.7	8.7	
2	1.6 [28]	[28]	1.6	1.4	1.3	1.7	2.7	2.7	1.8	1.6	1.4	1.2	1.2	1.2	1.2	1.1	1.1	1.1	1.1	1.2	1.4	1.3	1.1	1.5	2.7	
3	0.8 [28]	[28]	1.0	1.1	1.0	1.2 [SC]	1.3	1.4	1.6	1.5	1.1	0.8	0.9	1.1	1.0	0.7	0.6	0.8	1.4	1.4	1.6	1.1	1.6	1.1	1.6	
4	1.5 [28]	[28]	3.0	2.9	3.0	3.5	2.9	2.6	2.1	2.1	1.8	1.7	0.8	0.6	0.8	0.8	1.0	1.7	1.0	0.6	0.6	0.7	0.6	1.6	3.8	
5	0.4 [28]	[28]	0.3	0.3	0.5	0.8	3.4	4.1	2.6	2.1	1.1	1.2	1.1	1.2	1.1	1.2	1.2	1.3	1.2	1.3	2.6	2.8	2.3	2.7	4.1	
6	3.7 [28]	[28]	1.9	2.0	2.4	2.6	2.3	1.7	1.7	1.9	1.9	1.3	1.0	1.2	1.2	1.1	1.1	1.4	2.3	4.6	5.9	6.9	6.2	2.6	6.9	
7	6.4 [28]	[28]	3.6	2.6	2.6	3.3 [SC]	[SC]	3.9	3.3	2.4	1.9	1.5	1.2	1.3	1.5	1.5	3.3	4.1	3.9	5.5	4.6	4.8	3.2	4.4	6.4	
8	4.1 [28]	[28]	2.8	2.5	2.2	3.1	3.9	4.2	4.0	3.3	2.7	2.5	2.6	2.0	1.4	1.7	1.5	2.3	3.4	3.4	3.2	3.0	4.5	2.9	4.5	
9	3.0 [28]	[28]	2.1	2.5	2.1	2.2	2.6	2.7	2.4	2.0	2.0	2.1	1.7	1.3	1.5	2.0	2.2	2.5	2.7	2.7	2.2	1.3	1.1	2.1	3.0	
10	0.9 [28]	[28]	0.6	0.7	0.9	1.9	2.8	2.4	2.6	2.5	0.9	0.9	1.1	1.1	1.1	1.2	1.2	1.0	1.0	1.3	2.2	1.4	1.9	1.4	2.8	
11	2.2 [28]	[28]	4.9	4.9	3.6	3.5 [SC]	[SC]	3.0	2.5	2.0	1.5	1.0	1.0	1.0	1.0	1.1	1.2	1.2	1.1	1.3	2.0	4.2	5.0	2.3	5.0	
12	4.9 [28]	[28]	4.2	3.3	3.6	4.0	5.2	6.8	5.3	2.9	2.0	1.6	1.6	1.6	1.6	1.6	1.6	1.4	1.4	1.5	1.6	1.7	1.4	2.8	6.8	
13	1.4 [28]	[28]	2.1	1.8	1.7	2.2	3.1	3.8	2.9	2.1	1.7	1.8	1.4	1.3	1.3	1.3	1.4	1.4	1.6	2.2	2.6	5.4	5.4	2.3	5.4	
14	5.3 [28]	[28]	3.6	3.8	3.6	3.6	4.5	4.8	3.6	3.3	1.7	1.5	1.4	1.3	1.5	1.2	1.2	1.2	1.5	1.2	1.9	4.7	5.1	2.8	5.3	
15	5.9 [28]	[28]	4.5	4.4	4.1	3.8 [SC]	[SC]	3.9	3.3	2.8	2.6	2.5	2.8	3.2	3.1	3.4	3.3	3.6	3.3	3.0	2.7	2.8	3.5	5.9	5.9	
16	3.1 [28]	[28]	3.2	3.2	3.4	3.9	5.9	5.4	3.7	2.5	2.1	2.0	2.1	1.9	1.8	1.7	1.4	1.4	1.4	2.0	3.6	1.6	1.9	2.7	5.9	
17	3.5 [28]	[28]	4.8	5.3	5.5	4.4	5.5	5.6	4.9	4.8	4.4	2.4	2.0	1.8	1.6	1.6	1.7	1.8	2.0	2.1	2.4	2.5	1.8	3.3	5.6	
18	1.8 [28]	[28]	2.0	2.1	2.1	2.5	2.7	2.7	2.3	2.4	2.2	2.0	1.6	1.2	1.5	1.7	1.5	1.2	1.2	1.7	1.6	1.5	1.3	1.9	2	

SULFUR DIOXIDE [42401]

LAX AIR QUALITY MONITORING PROGRAM, #706211

PARTS PER BILLION

SITE 1 LAX

JAN, 1998

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 26/FEB/98 *
*

CLOCK HOUR [LOCAL STANDARD TIME]

DY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK	
1	4.0	[SS]	[SS]	5.4	4.9	5.0	5.7	5.3	3.6	1.5	1.7	2.8	20.6	14.3	6.6	6.4	4.5	5.4	4.0	5.2	5.4	2.4	2.0	2.0	5.4	20.6	
2	0.8	[SS]	[SS]	2.1	1.7	1.6	1.7	1.9	2.2	2.0	2.9	3.1	3.9	2.5	0.6	1.4	0.8	1.9	3.1	7.8	3.2	2.5	2.0	1.6	2.3	7.8	
3	1.1	[SS]	[SS]	1.1	1.1	1.0	1.7	[SC]	5.3	1.4	1.5	1.4	1.1	0.7	0.5	0.1	0.8	1.5	1.8	2.4	2.1	1.4	1.5	1.6	1.5	5.3	
4	1.8	[SS]	[SS]	2.6	2.6	2.6	2.8	3.4	3.3	3.4	2.5	3.0	3.0	1.8	2.2	2.0	4.4	2.3	1.9	1.5	1.6	1.3	1.3	1.7	2.4	4.4	
5	1.1	[SS]	[SS]	1.7	1.6	1.7	1.6	4.2	3.5	2.3	1.5	0.7	0.2	0.0	1.3	1.6	0.5	1.9	1.8	2.0	2.5	2.3	2.8	3.2	1.6	4.2	
6	4.0	[SS]	[SS]	4.0	4.4	4.8	5.1	4.0	2.7	1.7	1.7	1.0	0.1	1.3	1.9	1.4	2.0	1.8	3.4	2.2	3.9	4.8	5.0	5.0	3.0	5.1	
7	5.5	[SS]	[SS]	4.8	4.2	4.4	4.7	[SC]	[SC]	4.7	3.2	2.9	4.1	2.7	2.4	1.8	1.8	2.6	3.1	2.8	3.6	4.3	4.5	5.1	3.7	5.5	
8	5.1	[SS]	[SS]	4.2	3.6	3.1	4.6	3.7	4.1	3.3	3.8	4.2	4.5	4.8	3.9	2.7	1.4	2.0	2.8	3.1	3.1	2.1	2.2	2.4	3.4	5.1	
9	2.4	[SS]	[SS]	3.2	2.5	1.8	2.0	2.4	1.9	1.4	1.6	1.5	1.1	1.1	1.1	0.4	0.5	0.9	1.3	0.9	1.0	0.7	1.2	0.9	1.4	3.2	
10	1.8	[SS]	[SS]	0.9	1.3	0.7	1.3	1.7	1.4	1.0	1.5	0.6	0.0	0.0	0.1	0.3	0.0	0.4	2.1	1.4	0.7	1.5	0.7	0.8	0.9	2.1	
11	1.0	[SS]	[SS]	3.0	2.6	1.9	1.7	[SC]	8.3	3.7	3.5	1.7	2.7	1.1	1.9	4.1	6.6	0.9	1.4	1.3	1.8	2.4	2.2	2.5	2.7	0.3	
12	2.2	[SS]	[SS]	3.1	2.6	4.1	3.4	3.3	4.1	5.3	4.8	2.5	2.9	2.0	1.7	2.2	0.9	1.7	1.4	2.1	1.9	0.7	1.1	0.7	2.5	5.3	
13	0.6	[SS]	[SS]	1.5	1.8	1.1	0.8	1.2	1.6	1.2	0.5	0.0	0.9	1.6	2.1	2.9	3.2	2.9	2.9	2.3	2.0	1.4	2.8	2.4	1.7	3.2	
14	2.7	[SS]	[SS]	3.0	2.7	2.4	2.5	2.7	2.8	3.5	4.2	3.0	2.7	3.6	3.2	2.2	0.8	1.5	1.7	2.3	2.1	2.2	2.6	2.0	2.6	4.2	
15	3.7	[SS]	[SS]	4.5	3.3	4.6	3.0	[SC]	[SC]	3.2	3.4	2.9	2.1	2.3	2.1	1.9	1.8	1.6	1.7	1.5	1.3	1.1	1.7	1.8	2.5	4.6	
16	1.3	[SS]	[SS]	3.4	2.8	3.2	3.4	4.1	4.6	4.1	3.1	1.8	1.4	3.9	3.4	3.4	2.3	1.9	9.5	14.0	4.3	2.6	1.0	0.5	3.6	14.0	
17	0.8	[SS]	[SS]	2.7	2.7	2.9	2.3	3.1	2.6	2.8	3.5	3.3	6.7	7.3	6.3	3.8	3.6	4.4	5.2	3.7	5.3	5.3	4.7	2.8	3.9	7.3	
18	1.0	[SS]	[SS]	1.0	0.6	0.9	1.0	0.6	0.5	1.8	1.0	0.7	0.5	2.6	5.1	1.7	0.6	0.3	0.0	2.1	1.3	0.7	1.4	1.9	3.0	1.3	5.1
19	0.3	[SS]	[SS]	2.1	1.5	1.4	1.2	[SC]	4.6	0.4	0.4	0.7	0.6	2.0	1.6	2.8	2.2	2.3	0.9	0.0	0.2	0.3	0.7	0.4	1.2	4.6	
20	0.1	[SS]	[SS]	0.9	0.7	1.2	2.1	2.7	3.2	2.3	3.0	2.0	1.1	0.8	0.0	0.6	1.5	1.3	1.9	1.9	0.7	0.9	0.3	0.2	0.3	1.0	2.1
21	4.0	[SS]	[SS]	3.3	2.7	2.9	3.4	4.1	3.2	1.7	1.5	0.8	3.8	3.8	2.9	3.0	3.3	1.6	2.6	3.2	3.1	3.9	4.9	2.5	3.1	3.0	4.9
22	3.2	[SS]	[SS]	3.4	3.3	3.3	2.9	[SC]	[SC]	4.7	5.5	6.3	5.6	3.0	5.3	4.0	4.5	4.4	2.1	3.0	4.4	4.7	2.8	2.4	4.0	6.3	
23	3.0	[SS]	[SS]	3.9	3.9	3.9	3.5	3.8	3.3	3.1	2.8	2.6	3.5	5.8	3.9	1.6	0.0	0.0	2.1	3.2	3.6	2.4	2.6	2.6	3.0	5.8	
24	3.0	[SS]	[SS]	4.4	4.3	4.2	3.9	4.3	3.6	2.4	1.9	3.8	6.8	4.2	2.4	4.0	2.0	1.4	2.5	4.1	6.6	5.2	3.4	3.6	3.7	6.8	
25	2.9	[SS]	[SS]	4.9	4.5	4.2	3.6	4.5	5.6	4.6	3.5	5.7	8.4	7.5	3.9	1.9	2.7	13.6	8.6	6.3	5.8	5.8	2.8	3.6	5.2	13.6	
26	2.8	[SS]	[SS]	3.2	4.1	4.9	4.7	[SC]	[SC]	3.8	12.1	14.2	7.5	5.0	2.3	2.6	5.4	3.0	1.0	3.0	5.4	3.3	3.3	2.9	4.7	14.2	
27	2.9	[SS]	[SS]	4.2	3.4	4.4	5.0	4.4	4.3	4.1	3.2	3.7	3.3	5.0	6.0	1.7	0.9	1.2	5.0	2.2	5.0	2.9	2.7	2.4	3.5	6.0	
28	2.8	[SS]	[SS]	1.4	0.9	1.0	1.2	1.4	1.4	1.0	1.6	1.7	2.2	7.6	7.0	3.9	4.5	2.9	2.0	4.1	2.6	1.0	2.1	1.2	0.9	2.5	7.6
29	1.2	[SS]	[SS]	2.4	2.2	2.5	3.1	3.4	3.0	3.2	3.5	2.3	2.5	2.1	1.2	0.4	1.3	3.2	2.1	2.6	2.2	3.5	2.9	3.7	2.5	3.7	
30	3.6	[SS]	[SS]	2.6	3.1	3.2	2.6	[SC]	[SC]	2.7	2.2	1.5	0.4	0.4	0.5	0.3	0.3	0.4	0.4	0.7	1.5	1.6	1.7	1.6	2.1	1.6	3.6
AV	2.3	[]	[]	2.9	2.7	2.8	2.8	3.1	3.4	2.7	2.8	2.7	3.6	3.4	2.6	2.3	2.1	2.4	2.8	3.0	3.0	2.6	2.3	2.3	2.9		
SD	1.4	[]	[]	1.3	1.2	1.4	1.4	1.2	1.5	1.3	2.1	2.6	4.0	2.9	1.7	1.5	1.7	2.4	2.0	2.6	1.8	1.6	1.2	1.3			
PK	5.5	[]	[]	5.4	4.9	5.0	5.7	5.3	8.3	5.3	12.1	14.2	20.6	14.3	6.6	6.4	6.6	12.6	9.5	14.0	6.6	5.8	5.0	5.1		20.6	

00000 [Program: EMS MONITORUM]

Version: LC:15-OCT-93]

NITRIC OXIDE [42601]

LAX AIR QUALITY MONITORING PROGRAM, #706211

PARTS PER BILLION

SITE 1 LAX

JAN, 1998

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 26/FEB/98 *
*

CLOCK HOUR [LOCAL STANDARD TIME]

DY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK	
1	324	[SS]	[SS]	378	393	423	457	313	186	58	42	25	40	63	46	17	3	2	12	41	95	39	81	78	140	457	
2	14	[SS]	[SS]	37	25	30	40	66	61	18	9	3	2	2	0	0	0	2	0	0	0	2	2	0	14	66	
3	0	[SS]	[SS]	4	5	6	15	[SC]	24	24	16	11	5	1	0	5	4	0	3	3	25	38	62	12	62		
4	63	[SS]	[SS]	122	129	132	163	126	94	59	56	37	28	4	10	3	25	7	29	7	0	0	1	0	50	163	
5	0	[SS]	[SS]	0	0	2	6	155	160	85	54	13	9	5	14	5	2	7	23	101	146	104	150	161	54	161	
6	240	[SS]	[SS]	129	188	220	215	142	58	52	64	38	26	20	15	14	27	5	30	72	218	281	356	360	125	360	
7	385	[SS]	[SS]	240	193	196	235	[SC]	[SC]	165	127	72	53	23	16	11	8	19	101	157	141	240	203	250	142	385	
8	244	[SS]	[SS]	137	111	104	149	188	182	175	127	80	56	59	32	6	6	8	41	94	99	96	83	164	102	244	
9	125	[SS]	[SS]	95	108	84	86	83	85	70	53	55	57	51	1	2	17	18	32	47	55	41	27	5	55	125	
10	21	[SS]	[SS]	0	8	3	55	95	52	47	51	1	1	1	3	0	4	4	13	2	7	54	17	52	22	96	
11	79	[SS]	[SS]	181	184	143	138	[SC]	[SC]	68	46	18	6	4	5	8	8	2	5	8	9	48	165	193	62	193	
12	188	[SS]	[SS]	173	134	185	182	235	300	199	64	19	27	14	16	4	3	3	0	7	7	3	12	10	81	300	
13	4	[SS]	[SS]	53	39	39	56	86	120	75	35	14	17	11	13	19	15	10	14	11	50	56	245	240	56	245	
14	249	[SS]	[SS]	173	199	207	196	206	198	119	92	24	14	26	27	30	5	4	16	23	13	41	192	186	102	249	
15	255	[SS]	[SS]	209	195	191	164	[SC]	[SC]	150	117	93	80	74	91	100	88	100	92	106	110	106	101	104	126	255	
16	111	[SS]	[SS]	131	154	167	205	291	210	120	54	33	32	40	44	40	29	13	15	13	33	114	14	24	86	291	
17	103	[SS]	[SS]	177	239	267	250	279	234	165	128	99	58	50	43	9	13	8	13	9	11	19	19	3	98	279	
18	4	[SS]	[SS]	1	23	18	31	47	47	32	31	20	16	8	0	0	1	0	16	4	11	20	12	9	17	47	
19	19	[SS]	[SS]	1	35	18	[SC]	[SC]	12	7	5	10	21	43	18	29	15	14	13	16	8	17	30	26	17	43	
20	12	[SS]	[SS]	102	83	75	68	126	166	85	57	22	27	19	15	21	10	5	6	17	55	22	12	3	46	166	
21	4	[SS]	[SS]	1	22	64	139	182	186	88	59	24	19	12	8	24	20	8	13	16	20	17	10	1	46	186	
22	297	[SS]	[SS]	112	95	146	183	138	176	91	69	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	
23	252	[SS]	[SS]	226	211	219	253	[SC]	[SC]	172	116	59	28	20	20	53	35	31	24	2	3	31	154	181	138	114	253
24	231	[SS]	[SS]	281	250	232	233	240	169	105	58	29	27	59	18	0	0	16	29	31	29	31	154	181	138	114	253
25	299	[SS]	[SS]	352	345	346	278	336	151	83	55	56	46	28	21	39	14	7	22	9	34	38	151	179	131	322	
26	191	[SS]	[SS]	288	323	309	251	284	303	197	113	69	24	49	22	3	7	46	43	51	84	92	246	136	322		
27	165	[SS]	[SS]	186	261	299	268	[SC]	[SC]	192	77	44	19	20	31	2	2	6	9	8	8	3	93	178	79	229	
28	179	[SS]	[SS]	229	219	118	137	151	156	144	64	16	9	7	8	22	6	2	0	0	0	0	0	0	0	0	
29	156	[SS]	[SS]	9	5	13	17	29	30	20	18	6	35	54	19	46	24	5	21	19	17	30	25	8	27	8	
30	28	[SS]	[SS]	100	78	118	160	170	116	77	39	21	14	11	8	12	6	10	8	3	30	151	170	2	61	170	
31	239	[SS]	[SS]	67	76	86	162	[SC]	[SC]	67	25	14	9	9	9	5	9	12	61	104	106	122	144	190	71	239	
AV	144	[]	[]	136	138	144	152	176	134	93	62	34	28	26	20	18	13	11	22	31	46	76	107	123	78		
SD	117	[]	[]	105	110	110	102	89	79	55	36	27	20	21	19	20	17	18	25	41	52	68	89	106			
PK	385	[]	[]	378	393	423	457	336	303	199	128	99	80	74	91	100	88	100	101	157	218	281	356	360		457	

NITROGEN DIOXIDE (42602)

LAX AIR QUALITY MONITORING PROGRAM, #706211

PARTS PER BILLION

SITE 1 LAX

JAN, 1998

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 26/FEB/98 *
*

CLOCK HOUR [LOCAL STANDARD TIME]

DT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	60	[28]	[26]	78	75	71	70	56	46	41	47	44	70	78	67	55	53	54	61	64	61	48	50	51	59	78
2	48	[28]	[28]	49	48	46	44	44	41	30	27	19	12	11	7	11	15	16	14	21	28	41	36	29	29	49
3	15	[28]	[28]	28	29	28	31	[SC]	30	30	30	29	32	10	9	8	17	23	19	27	35	39	39	41	26	41
4	40	[28]	[28]	37	35	34	35	36	36	37	39	37	39	18	17	25	26	28	40	34	21	15	19	13	30	40
5	9	[28]	[28]	8	7	19	29	41	43	42	39	21	23	20	28	28	29	33	43	50	50	48	47	46	32	50
6	52	[28]	[28]	47	44	45	48	46	39	40	45	41	43	34	31	29	38	34	46	51	57	60	65	66	46	66
7	63	[28]	[28]	52	45	44	45	[SC]	[SC]	68	74	69	65	41	38	34	39	48	56	58	57	67	69	74	55	74
8	74	[28]	[28]	60	57	52	57	57	61	66	67	62	64	72	57	36	41	43	52	53	42	49	47	52	56	74
9	52	[28]	[28]	47	47	44	42	42	43	43	35	37	38	27	12	20	26	38	42	43	42	41	34	18	37	52
10	28	[28]	[28]	10	21	21	44	46	42	44	49	14	8	8	13	9	14	19	25	24	35	46	39	40	27	49
11	40	[28]	[28]	48	48	42	40	[SC]	32	36	30	19	14	13	14	15	18	29	32	27	39	47	53	53	33	53
12	53	[28]	[28]	49	47	54	46	51	63	61	47	39	45	35	37	29	28	32	20	31	34	31	37	27	41	63
13	32	[28]	[28]	40	38	37	38	39	44	40	32	27	33	24	24	31	27	28	32	39	45	44	54	54	36	54
14	60	[28]	[28]	43	45	46	44	45	51	57	65	36	23	36	38	44	26	27	37	45	35	28	54	55	43	65
15	63	[28]	[28]	61	58	57	53	[SC]	[SC]	56	54	51	48	46	47	48	44	45	45	47	47	44	44	46	50	63
16	48	[28]	[28]	51	51	51	53	59	57	56	43	34	40	48	47	43	45	35	33	31	32	38	24	30	43	59
17	34	[28]	[28]	48	57	58	52	55	62	76	80	90	56	48	51	36	44	51	61	55	58	60	56	31	55	90
18	30	[28]	[28]	41	47	45	49	50	49	44	46	42	42	29	11	12	20	14	20	21	32	34	32	30	34	50
19	17	[28]	[28]	17	24	37	40	[SC]	28	20	15	19	22	31	21	27	23	32	43	52	45	49	52	47	32	53
20	45	[28]	[28]	45	42	41	40	45	53	45	47	32	37	32	35	32	23	27	33	46	52	44	36	25	39	53
21	21	[28]	[28]	22	37	41	49	55	56	53	57	42	39	34	24	34	40	28	30	36	52	64	64	72	43	72
22	73	[28]	[28]	50	46	48	52	55	57	52	59	58	63	52	38	34	32	40	52	40	38	65	62	70	52	73
23	72	[28]	[28]	61	59	59	63	[SC]	[SC]	75	81	68	53	46	62	40	46	33	28	34	47	59	55	57	55	81
24	63	[28]	[28]	73	71	65	61	61	64	66	58	59	70	58	43	16	15	47	52	52	52	56	61	56	73	81
25	63	[28]	[28]	75	79	77	69	78	63	60	64	75	73	56	53	82	82	63	55	42	49	53	60	59	65	82
26	64	[28]	[28]	88	77	71	66	81	84	86	79	81	54	73	41	24	32	57	64	65	62	63	56	67	65	88
27	65	[28]	[28]	61	81	81	74	[SC]	[SC]	65	73	67	41	36	26	21	19	26	22	28	29	26	41	49	47	81
28	52	[28]	[28]	66	67	57	53	56	63	68	57	49	29	25	29	31	24	29	39	45	39	51	57	58	47	68
29	62	[28]	[28]	42	36	36	41	42	51	42	31	16	30	33	24	29	22	20	33	39	49	51	53	38	37	62
30	39	[28]	[28]	39	37	39	41	41	40	42	41	36	29	34	26	32	28	36	34	30	33	60	71	8	37	71
31	65	[28]	[28]	43	44	44	42	[SC]	[SC]	44	35	31	30	32	27	30	37	42	47	50	48	47	48	52	42	65

AV 48 [] [] 48 48 48 49 51 50 51 50 43 40 37 33 31 32 34 39 41 44 47 49 46 43
SD 18 [] [] 18 18 15 15 13 13 13 13 17 17 19 17 15 14 12 13 12 11 12 13 17
PK 74 [] [] 88 81 81 74 81 84 86 81 90 73 78 67 82 82 63 64 65 62 67 71 74 90

00000 [Program: EDMS_MONTHSUM]

Version: LC:15-OCT-93]

OXIDES OF NITROGEN (42603)

LAX AIR QUALITY MONITORING PROGRAM, #706211

PARTS PER BILLION

SITE 1 LAX

JAN, 1998

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 26/FEB/98 *
*

CLOCK HOUR [LOCAL STANDARD TIME]

DT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	384	[28]	[28]	456	468	494	527	369	202	100	88	69	110	142	113	72	56	57	73	105	156	86	131	129	199	527
2	62	[28]	[28]	86	73	76	85	109	102	48	36	22	14	13	7	11	15	18	14	21	28	43	37	29	43	109
3	15	[28]	[28]	32	34	34	46	[SC]	54	54	56	40	27	11	10	8	21	27	19	31	38	64	77	103	38	103
4	104	[28]	[28]	160	164	166	197	162	130	97	95	74	67	22	27	28	54	34	68	42	21	15	21	13	80	197
5	9	[28]	[28]	8	7	21	36	196	202	127	93	31	33	26	42	33	30	36	65	151	196	152	196	207	86	207
6	282	[28]	[28]	176	232	265	262	188	99	93	108	79	69	54	46	44	65	39	76	122	275	321	421	427	171	427
7	448	[28]	[28]	292	238	240	280	[SC]	[SC]	233	201	142	118	64	53	45	46	67	157	216	198	307	272	324	197	448
8	319	[28]	[28]	196	168	156	206	244	244	241	194	142	120	131	89	42	47	51	92	147	150	145	130	216	158	319
9	177	[28]	[28]	142	154	128	128	131	129	133	88	92	103	78	13	22	93	57	74	89	97	82	60	23	92	177
10	40	[28]	[28]	10	29	24	99	142	98	91	100	15	9	9	15	10	18	24	38	26	42	100	56	92	80	142
11	113	[28]	[28]	230	232	185	178	[SC]	100	82	48	25	18	18	22	23	20	34	38	27	49	96	218	246	95	246
12	241	[28]	[28]	223	181	239	228	286	363	260	111	58	72	48	54	33	31	35	20	39	41	34	50	37	122	363
13	41	[28]	[28]	93	76	77	94	125	165	116	67	41	50	35	38	50	42	38	45	50	95	110	299	294	93	299
14	309	[28]	[28]	216	243	253	240	250	247	176	157	61	37	42	65	74	31	31	53	68	88	79	246	241	145	309
15	317	[28]	[28]	270	253	248	218	[SC]	[SC]	206	171	144	128	120	138	148	132	144	197	153	157	150	146	150	176	317
16	159	[28]	[28]	181	205	218	258	350	268	175	97	67	72	88	90	85	75	49	48	44	65	152	38	53	129	350
17	127	[28]	[28]	226	295	325	272	334	294	241	208	190	114	98	94	46	57	59	74	64	69	80	76	35	154	334
18	33	[28]	[28]	56	70	63	81	97	91	76	77	62	58	37	12	12	20	14	36	26	43	54	45	39	50	97
19	36	[28]	[28]	18	24	73	58	[SC]	40	27	19	30	43	74	39	56	38	46	55	68	54	67	82	73	48	82
20	67	[28]	[28]	147	125	115	108	172	220	130	104	54	64	51	49	53	34	32	39	63	108	86	48	28	85	220
21	24	[28]	[28]	23	59	105	188	237	292	141	126	66	58	46	32	59	60	36	35	44	80	240	272	325	113	325
22	370	[28]	[28]	163	141	194	245	273	233	143	143	106	110	89	48	54	40	53	78	48	55	215	247	343	155	370
23	324	[28]	[28]	287	270	278	316	[SC]	[SC]	247	197	127	81	66	115	76	77	60	30	37	79	214	236	255	168	324
24	295	[28]	[28]	355	321	297	294	301	229	170	124	88	117	88	61	16	15	63	81	83	145	253	303	172	355	
25	362	[28]	[28]	427	424	423	347	414	216	143	118	131	119	85	74	120	97	7	77	51	83	141	211	238	196	427
26	255	[28]	[28]	376	400	381	317	366	387	283	192	150	78	121	63	27	35	64	110	108	113	145	148	313	202	400
27	231	[28]	[28]	347	342	380	342	[SC]	[SC]	157	151	112	59	56	38	31	21	30	22	36	37	29	134	227	134	380
28	231	[28]	[28]	296	286	175	190	207	219	212	122	65	37	33	36	53	30	31	40	47	47	104	163	167	127	296
29	218	[28]	[28]	51	41	49	59	71	82	62	50	32	65	87	43	75	47	25	54	58	66	81	78	45	65	218
30	67	[28]	[28]	138	116	158	201	151	156	110	80	57	43	45	34	44	34	46	42	33	63	211	242	38	99	242
31	305	[28]	[28]	109	128	119	113	[SC]	[SC]	110	61	46	39	42	36	34	46	55	109	134	154	169	191	242	113	305

WIND SPEED (61101)

METERS/SECOND

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

JAN, 1998

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

 * FINAL DATA *
 * AS OF 26/FEB/98 *
 * *****

CLOCK HOUR (LOCAL STANDARD TIME)

DY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	1.2	1.0	1.3	0.7	0.7	0.9	1.2	0.9	1.2	1.8	1.9	1.6	2.0	3.1	5.0	4.2	2.5	1.7	1.4	1.1	1.7	1.0	3.0	2.3	1.9	5.0
2	2.9	2.9	2.9	1.2	1.2	2.3	1.4	2.1	2.4	3.4	3.3	2.8	2.9	3.3	5.0	5.8	3.9	3.4	3.4	2.3	1.0	0.7	0.6	0.9	2.6	5.8
3	1.4	1.1	0.8	0.9	1.3	1.1	2.0	1.5	1.6	1.9	2.3	2.2	1.4	1.8	3.4	3.4	3.3	3.1	4.1	4.2	3.4	2.1	1.9	2.2	2.2	4.2
4	1.5	1.5	0.7	1.1	0.7	0.5	1.2	1.0	1.6	2.4	2.5	2.9	3.1	3.5	4.1	4.2	2.3	5.1	4.4	2.1	2.8	3.4	4.5	3.1	2.5	5.1
5	4.7	4.5	4.4	4.5	3.9	4.9	2.8	2.9	2.2	1.6	1.9	2.6	2.7	1.6	1.4	2.1	2.9	4.1	3.9	2.6	2.3	2.0	1.7	1.4	2.9	4.9
6	1.2	1.1	1.1	1.4	0.7	0.5	1.6	1.0	1.1	2.5	2.5	2.0	1.2	1.5	3.6	3.7	4.3	4.6	3.8	2.3	0.6	0.9	1.6	1.3	1.9	4.6
7	0.6	1.3	1.2	0.6	1.2	1.0	1.3	1.0	1.4	1.4	1.9	1.9	1.1	2.1	3.8	2.6	3.6	3.0	1.1	2.1	2.2	2.6	2.0	2.1	1.8	3.8
8	1.8	1.1	1.4	1.0	1.5	2.8	2.2	2.0	1.9	2.5	1.7	1.0	1.5	1.2	1.6	2.6	1.6	1.6	0.9	1.3	2.2	2.2	2.1	1.8	1.8	2.8
9	2.4	1.8	1.5	1.2	1.6	2.2	2.5	2.7	3.1	4.5	4.3	4.0	3.1	3.0	4.9	3.1	2.4	3.5	2.5	2.1	2.3	2.2	4.1	4.4	2.9	4.9
10	3.9	3.6	4.5	4.2	2.8	1.4	0.9	0.6	1.3	2.1	2.0	2.9	3.0	3.3	2.8	4.1	4.0	4.1	3.9	3.2	1.4	0.8	1.5	1.5	2.7	4.5
11	1.0	1.1	1.2	1.6	1.2	1.3	2.0	1.8	2.1	1.8	2.3	1.9	3.6	3.6	3.6	3.4	3.3	3.0	3.4	2.9	1.5	0.6	0.8	1.2	2.1	3.6
12	1.3	0.6	1.4	0.9	0.9	1.2	1.2	1.3	1.7	2.3	2.2	1.3	1.9	3.1	2.7	3.5	1.9	2.6	3.2	3.3	2.6	1.8	1.2	1.6	1.9	3.5
13	1.1	1.0	2.1	2.6	1.4	2.0	1.7	1.4	2.0	2.0	1.2	1.1	2.2	5.1	4.0	3.4	5.6	4.7	4.4	2.9	2.0	1.3	0.9	1.0	2.4	5.6
14	0.7	1.2	1.0	1.1	0.8	0.9	1.4	1.3	2.1	1.8	1.4	2.8	3.6	3.5	3.8	4.0	3.7	3.8	3.1	1.3	2.7	2.1	1.8	1.6	2.1	4.0
15	1.1	0.7	1.2	1.1	0.8	1.3	2.0	1.8	1.8	2.2	2.1	1.9	2.0	2.0	1.9	2.2	2.0	2.4	2.8	2.8	2.4	2.1	1.3	1.3	1.8	2.8
16	1.0	0.9	1.0	1.2	1.1	1.0	0.9	0.8	1.9	1.9	1.5	1.6	1.2	3.5	4.9	4.3	3.9	2.4	2.1	1.8	1.3	1.6	1.8	1.5	1.9	4.9
17	1.2	1.9	1.4	0.8	1.0	1.0	1.1	0.5	1.5	1.8	1.8	1.2	4.0	1.9	3.9	3.8	3.2	2.4	1.9	1.5	1.0	1.2	2.4	2.2	2.0	4.0
18	2.0	2.1	1.6	1.7	1.2	0.9	1.6	1.7	1.6	2.8	2.6	1.7	2.2	3.2	3.8	3.3	3.1	2.6	6.2	3.1	2.0	3.1	2.8	2.6	2.5	6.2
19	4.6	4.5	4.8	2.0	1.2	1.9	2.5	4.4	3.8	3.9	4.9	4.9	6.1	8.1	8.4	8.2	7.2	5.3	2.7	2.1	1.9	1.9	1.1	1.3	4.1	8.4
20	1.5	1.4	1.7	1.9	1.4	1.6	1.9	1.3	1.6	1.6	1.3	1.6	1.3	1.7	2.0	5.1	5.2	4.6	4.1	2.0	1.8	1.8	2.6	3.1	2.2	5.2
21	3.4	2.1	1.8	2.1	1.2	1.5	0.7	1.0	1.4	1.5	1.9	1.3	2.4	3.2	3.6	4.6	4.4	4.4	3.9	3.3	1.7	1.3	1.2	1.2	2.3	4.6
22	0.6	1.3	1.5	1.8	1.7	1.7	1.3	1.5	1.4	2.0	1.6	1.5	2.8	4.0	4.2	4.1	4.4	4.1	4.3	3.5	2.7	1.2	1.3	1.6	2.3	4.6
23	1.8	1.7	1.4	1.3	1.0	1.5	1.3	1.5	1.9	2.0	1.0	1.7	3.1	4.6	5.0	5.0	5.5	5.7	3.9	2.9	2.7	1.1	1.6	1.3	2.5	5.7
24	1.7	0.7	1.2	0.8	0.6	0.9	1.0	0.9	1.3	1.9	2.1	2.4	5.1	4.0	4.1	3.5	2.1	1.1	0.9	0.8	0.6	0.8	0.5	1.7	5.1	
25	0.6	0.9	0.7	0.6	0.6	1.0	0.9	0.9	1.1	1.6	0.7	1.1	3.4	4.4	4.7	4.3	4.2	3.6	3.0	3.2	3.3	1.1	0.9	0.9	2.0	4.7
26	1.4	0.5	0.7	0.6	0.5	0.4	1.0	0.9	1.3	1.9	1.4	3.2	4.8	4.4	4.4	3.8	2.5	1.1	1.4	1.2	1.5	0.8	0.8	1.1	1.6	4.6
27	1.9	0.6	1.1	1.3	1.0	1.2	1.5	0.9	1.2	1.1	1.0	1.9	2.8	5.2	4.1	4.1	3.9	3.5	3.0	2.4	3.7	2.0	1.1	1.6	2.2	5.2
28	1.9	1.3	0.4	1.1	1.2	2.2	1.8	1.9	1.3	1.6	1.7	1.4	1.8	2.6	3.8	5.1	5.1	3.1	1.5	1.2	2.4	1.3	1.5	1.4	2.0	5.1
29	1.9	2.2	3.0	2.6	2.2	3.1	2.8	4.1	3.8	2.0	3.3	6.0	9.9	9.4	9.2	9.9	8.1	7.3	5.7	3.4	1.6	1.6	1.8	2.8	4.5	9.9
30	1.9	1.7	2.2	1.4	1.9	2.0	1.9	2.1	2.7	2.2	1.3	1.3	3.3	1.7	4.0	3.9	4.2	3.7	3.4	2.6	1.7	1.0	1.0	1.6	2.3	4.2
31	2.4	2.6	0.8	1.5	1.7	1.3	2.0	2.3	2.8	3.3	3.8	3.1	2.0	1.8	1.8	1.2	1.1	1.2	1.0	1.9	2.1	1.5	1.0	1.4	1.9	3.8
AV	1.8	1.6	1.7	1.6	1.3	1.5	1.6	1.6	1.9	2.2	2.1	2.2	2.8	3.5	4.0	4.1	3.8	3.5	3.1	2.4	2.0	1.6	1.7	1.7	2.3	
SD	1.1	1.0	1.1	0.9	0.7	0.9	0.6	0.9	0.7	0.7	1.0	1.1	1.6	1.8	1.6	1.6	1.5	1.4	1.4	0.8	0.7	0.7	0.9	0.8		
PK	4.7	4.5	4.8	4.5	3.9	4.9	2.8	4.4	3.8	4.5	4.9	6.0	8.9	9.4	9.2	9.9	8.1	7.3	6.2	4.2	3.7	3.4	4.5	4.4		9.9

00000 [Program: XDRS MONTHSUM]

Version: LC:15-OCT-93]

WIND DIRECTION AVERAGE (61102)

DEGREES, COMPASS

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

JAN, 1998

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

 * FINAL DATA *
 * AS OF 26/FEB/98 *
 * *****

CLOCK HOUR (LOCAL STANDARD TIME)

DY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	PREV	
1	ENE	SE	E	ENE	NNE	ENE	ENE	E	E	E	E	E	SE	SW	WSW	WSW	W	SW	SSW	SSW	SE	E	E	ENE	E	
2	E	E	E	NE	NE	ENE	E	E	E	E	E	E	SE	SW	WSW	WSW	SW	SW	WSW	WSW	N	N	SSW	[VA]		
3	WSW	S	SSW	NE	N	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	N	N	SSW	[VA]		
4	N	N	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	N	N	SSW	[VA]		
5	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	N	N	SSW	[VA]		
6	E	ENE	E	ENE	NE	E	E	NE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	N	N	SSW	[VA]		
7	NE	ENE	ENE	E	E	ENE	E	ENE	ENE	E	E	E	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	N	N	SSW	[VA]		
8	NE	E	ENE	ENE	ENE	NE	ENE	ENE	ENE	NE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	N	N	SSW	[VA]		
9	ENE	ENE	E	ENE	E	ENE	E	E	ENE	E	E	E	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	N	N	SSW	[VA]		
10	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	N	N	SSW	[VA]		
11	ENE	E	ENE	ENE	E	E	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	N	N	SSW	[VA]		
12	ENE	E	ENE	E	NE	NE	ENE	ENE	ENE	E	E	E	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	N	N	SSW	[VA]		
13	N	E	NE	ENE	NE	NNE	NE	NE	ENE	N	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	N	N	SSW	[VA]		
14	NE	ENE	ENE	ENE	ENE	NE	ENE	ENE	ENE	E	E	E	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	N	N	SSW	[VA]		
15	NE	ENE	NE	E	E	ENE	E	E	ENE	ENE	E	E	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	N	N	SSW	[VA]		
16	NE	ENE	NE	ENE	E	NE	NE	NE	E	E	ENE	ENE	E	SE	WSW	W	W	WSW	WSW	WSW	N	N	SSW	[VA]		
17	ENE	ENE	ENE	ENE	E	ENE	E	E	ENE	ENE	E	E	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	N	N	SSW	[VA]		
18	WSW	WSW	S	NE	ENE	ENE	ENE	ENE	ENE	E	E	E	SE	SW	WSW	WSW	WSW	WSW	WSW	WSW	N	N	SSW	[VA]		
19	SWW	W	W	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	N	N	SSW	[VA]		
20	WSW	WSW	NE	NE	ENE	ENE	NE	NE	ENE	E	E	E	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	N	N	SSW	[VA]		
21	N	N	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	N	N	SSW	[VA]		
22	NE	ENE	ENE	NE	NE	NE	NE	NE	ENE	NE	ENE	ENE	ENE	WSW	WSW	WSW	W	W	W	W	W	W	W	W	W	W
23	NE	NE	ENE	E	E	ENE	E	ENE	ENE	E	E	E	SW	WSW	WSW	WSW	W	W	W	W	W	W	W	W	W	W
24	NE	N	ENE	E	ENE	ENE	ENE	NE	E																	

WIND DIRECTION AVERAGE [61102]

DEGREES, COMPASS

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

JAN, 1998

AERONAUTICS ENVIRONMENTAL SERVICES INC.

 * FINAL DATA *
 * AS OF 26/FEB/98 *

CLOCK HOUR [LOCAL STANDARD TIME]

DT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	PREV
1	71	124	86	65	18	77	107	88	88	94	79	86	142	227	256	258	267	221	192	203	128	80	99	78	5
2	87	95	100	49	45	69	87	82	95	101	113	129	207	224	242	254	222	220	258	256	239	2	359	192	[VA]
3	257	182	116	35	9	64	66	65	56	58	48	49	19	263	209	213	206	237	263	255	259	311	341	340	[VA]
4	353	9	26	24	48	65	118	83	79	92	95	105	112	130	198	242	280	268	303	318	319	342	354	331	[VA]
5	342	241	338	345	331	320	23	2	66	108	78	76	76	94	195	231	227	253	255	267	355	18	14	56	[VA]
6	83	69	85	28	44	90	79	41	25	25	20	21	348	327	280	259	259	260	288	381	352	58	36	54	[VA]
7	47	76	75	90	82	104	85	73	65	60	87	95	115	239	254	248	255	247	274	112	95	73	72	64	4
8	55	93	66	64	73	56	71	76	69	52	64	136	343	3	272	243	221	236	48	87	99	97	86	56	4
9	58	68	89	110	82	78	84	86	91	65	86	50	89	188	214	192	147	91	55	68	83	97	295	251	5
10	259	269	266	274	280	351	85	54	75	89	112	207	245	247	247	254	260	268	274	286	325	313	344	348	13
11	119	101	76	71	80	96	59	56	71	77	120	183	260	240	249	256	256	266	264	253	309	55	64	110	[VA]
12	61	97	59	83	37	50	75	63	70	80	89	189	255	244	255	252	278	144	245	285	290	322	315	312	[VA]
13	352	87	49	66	40	14	50	31	12	355	30	39	313	284	270	268	273	271	265	277	294	342	61	56	[VA]
14	42	20	20	72	72	80	55	44	80	93	204	246	253	255	262	259	261	268	260	279	262	276	64	43	[VA]
15	55	29	52	89	99	106	80	79	76	72	84	97	104	103	122	106	90	83	92	83	79	70	51	41	5
16	14	40	75	75	60	34	48	56	88	70	67	90	143	255	260	260	259	254	240	265	165	85	87	128	[VA]
17	70	58	109	61	80	71	89	84	97	107	113	173	258	260	266	261	262	273	288	359	35	71	109	96	4
18	64	72	85	34	88	73	29	58	72	86	111	143	152	179	230	220	163	189	263	219	147	117	135	131	[VA]
19	208	271	278	307	335	23	299	288	293	294	285	276	264	270	269	272	277	278	304	326	323	329	339	296	13
20	314	348	49	56	22	24	34	31	26	7	369	394	17	68	142	264	267	272	285	312	340	353	348	355	[VA]
21	2	10	22	23	47	48	93	80	72	75	84	110	246	250	257	262	265	269	261	259	276	66	55	37	[VA]
22	52	63	61	42	54	68	60	70	33	44	76	161	237	252	265	265	267	267	264	263	264	51	66	64	[VA]
23	54	50	62	82	87	76	88	71	70	81	126	221	255	257	263	263	262	265	250	252	276	72	73	76	[VA]
24	47	2	70	90	62	72	76	37	51	84	81	97	220	255	265	261	268	237	291	282	312	18	72	355	4
25	52	83	62	70	116	108	100	101	88	62	67	240	246	269	262	262	259	267	362	262	269	289	65	83	[VA]
26	62	59	322	341	45	9	72	75	62	79	159	248	257	263	262	256	252	236	282	296	282	126	257	139	[VA]
27	345	351	144	59	55	79	56	65	70	95	192	204	250	258	267	258	255	261	254	250	250	238	62	61	[VA]
28	61	87	33	80	71	69	59	58	16	16	27	254	255	252	253	263	264	257	207	217	255	124	85	77	[VA]
29	83	91	98	126	92	82	70	94	329	18	313	282	271	269	266	268	272	270	279	297	311	305	328	318	[VA]
30	357	28	54	67	58	57	61	50	57	71	87	200	254	205	255	264	266	266	262	260	264	48	16	72	[VA]
31	79	84	20	57	74	76	80	78	92	97	100	93	127	76	77	34	92	57	47	127	142	100	32	2	5
AV	3	5	4	4	[VA]	4	5	4	4	5	5	[VA]	[VA]	12	13	13	13	13	13	13	[VA]	4	4	3	

00001 [Program: RMS MONTESUM]

Version: LC:15-OCT-93]

RESULTANT SPEED [61103]

METERS/SECOND

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

JAN, 1998

AERONAUTICS ENVIRONMENTAL SERVICES INC.

 * FINAL DATA *
 * AS OF 26/FEB/98 *

CLOCK HOUR [LOCAL STANDARD TIME]

DT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	1.1	0.7	1.3	0.4	0.5	0.7	1.2	0.9	1.2	1.8	1.8	1.3	1.9	2.6	4.9	4.1	2.3	1.7	1.4	0.9	1.5	1.8	3.0	2.2	1.7	4.9
2	2.8	2.9	2.9	0.9	1.0	2.3	1.4	2.1	2.3	3.3	3.2	2.6	2.3	3.1	4.8	5.7	3.7	3.2	3.3	2.1	0.7	0.2	0.2	0.4	2.4	5.7
3	1.1	0.8	0.7	0.7	1.2	1.1	1.9	1.3	1.5	1.9	2.2	2.1	0.7	1.4	3.3	3.3	3.2	2.9	4.1	4.2	3.4	1.8	1.9	2.2	2.0	4.2
4	1.5	1.5	0.9	0.7	0.6	0.3	1.1	0.9	1.6	2.3	2.4	2.8	3.0	3.2	3.6	3.9	2.0	4.9	3.9	2.0	2.7	3.1	4.3	3.0	2.3	4.9
5	4.6	4.4	4.3	4.4	3.7	4.7	2.5	2.7	2.0	1.5	1.8	2.4	2.6	0.7	0.8	1.7	2.8	4.1	3.8	2.1	2.2	1.9	1.6	1.1	2.7	4.7
6	0.9	1.0	0.9	1.2	0.3	0.3	1.5	0.8	1.0	2.4	2.4	1.7	0.7	1.2	3.4	3.5	4.3	4.6	3.7	2.1	0.4	0.6	1.5	1.3	1.7	4.6
7	0.3	1.3	1.1	0.5	1.1	0.8	1.1	1.0	1.3	1.3	1.7	1.5	0.7	2.0	3.7	2.5	3.5	3.0	0.8	2.0	2.1	2.5	1.9	2.0	1.7	3.7
8	1.7	1.0	1.3	1.7	1.4	2.7	2.1	1.9	1.9	2.5	1.3	0.1	0.8	0.9	1.4	2.6	1.5	1.5	0.7	1.2	2.1	2.1	2.0	1.7	1.5	2.7
9	2.3	1.7	1.4	1.2	1.5	2.1	2.5	2.6	3.1	4.4	4.2	3.9	2.4	2.8	4.7	2.9	2.1	3.0	2.0	1.8	2.2	1.8	3.7	4.4	2.7	4.7
10	3.7	3.5	4.4	4.2	2.6	0.9	0.5	0.7	1.2	2.0	1.5	1.4	2.9	3.2	2.7	4.0	3.9	4.0	3.8	3.0	1.3	0.2	1.5	1.4	2.5	4.4
11	0.5	1.1	0.9	1.5	1.2	1.3	1.9	1.8	2.1	1.7	2.1	1.3	3.5	3.4	3.4	3.3	3.0	3.3	2.8	1.1	0.3	0.6	1.0	1.9	3.5	
12	1.2	0.5	1.4	0.9	0.8	1.2	1.2	1.6	2.2	2.1	0.9	1.8	3.0	3.4	3.3	3.4	3.7	3.7	3.7	3.0	1.0	2.5	1.6	1.5	2.0	3.9
13	0.7	0.9	1.9	2.5	0.8	1.8	1.6	1.3	1.9	1.9	0.6	0.7	1.7	5.0	3.9	3.2	5.5	4.6	4.3	2.7	1.7	1.1	0.8	1.0	2.2	5.5
14	0.8	1.2	0.8	1.0	0.8	0.9	1.3	1.3	1.9	1.5	1.0	2.5	3.4	3.4	3.7	3.9	3.7	3.7	3.0	1.0	2.5	1.6	1.8	1.5	2.0	3.9
15	1.0	0.6	1.2	1.0	0.8	1.3	1.9	1.7	1.8	2.1	2.0	1.9	1.9	1.9	1.8	2.1	1.9	2.3	2.7	2.7	2.3	2.0	1.2	1.3	1.7	2.7
16	0.7	0.6	0.6	0.8	0.8	0.6	0.5	0.6	1.7	1.8	1.0	1.2	0.2	2.6	4.8	4.2	3.9	2.3	1.9	1.4	1.2	1.4	1.6	1.4	1.6	4.8
17	1.1	1.8	1.1	0.7	0.8	0.8	0.9	0.8	1.5	1.7	1.6	1.0	4.0	3.9	3.8	3.7	3.2	2.3	1.5	1.4	0.8	1.0	2.1	2.0	1.8	4.0
18	1.9	2.0	1.6	1.6	0.8	0.8	1.3	1.6	1.5	2.6	2.4	1.5	1.8	1.8	3.5	3.1	2.7	2.3	1.5	1.4	0.8	1.0	2.1	2.0	1.8	4.0
19	3.4	4.4	4.8	2.5	0.9	0.9	2.4	4.3	3.6	3.7	4.0	4.7	6.0	8.0	8.3	8.1	7.1	5.2	2.6	2.1	1.8	1.8	1.1	1.2	3.9	8.3
20	1.5	1.1	1.6	1.9	1.3	1.5	1.2	0.9	1.4	1.6	1.0	1.1	0.7	1.1	0.8	5.0	5.1	4.5	4.0	1.8	1.7	1.7	2.5	3.2	2.0	5.1
21	3.3	2.0	1.7	2.0	1.1	1.4	0.1	0.7	1.4	1.4	1.7	0.7	2.1	3.1	3.5	4.6	4.4	4.3	3.9	3.2	1.3	1.2	1.2	1.1	2.1	4.6
22	0.8	1.1	1.4	1.7	1.7	1.3	1.4	1.2	1.8	1.3	1.0	2.2	4.0	4.1	4.0	4.3	4.1	4.2	3.4	2.5	0.7	1.2	1.6	2.2	4.3	
23	1.7	1.6	1.4	1.3	1.0	1.4	1.2	1.5	1.9	1.9	0.4	1.4	3.0	3.6	5.0	5.4	5.6	3.9	2.8	2.3	0.9	1.5	1.5	2.4	5.6	
24	1.6	0.5	1.1	0.8	0.5	0.6	0.9	0.7	1.7	1.0	1.7	1.7	1.9	5.0	3.9	4.1	4.4	3.0	1.0	0.8	0.6	0.3	0.5	0.3	1.5	5.0
25	0.5	0.7	0.6	0.5	0.4	0.8	0.8	0.8	1.0	1.4	0.3	0.7	3.3	4.2	4.7	4.4	4.2	3.6	3.0	3.2	3.1	0.6	0.9	0.8	1.9	4.7
26	1.4	0.5	0.7	0.6	0.4	0.2	0.9	0.9	1.8	1.8	0.4	3.1	4.7	4.3	4.3	3.8	2.4	0.7	0.5	1.4	0.3	0.2	0.9	1.6	4.7	
27	1.9	0.4	0.3	1.3	0.9	1.1	1.4	0.6	1.1	0.9	0.6	1.7	2.7	5.1	3.9	4.0	3.8	4.4	2.9	1.2	0.8	1.5	2.0	5.1		
28	1.9	1.3	0.3	1.1	1.2	2.1	1.7	1.8	1.2	1.7	1.5	0.9	1.6	2.5	3.7	5.0	5.1	3.0	0.9	1.0	2.2	1.4	1.7	4.9	5.1	
29	1.8	2.2	3.0	2.5	2.2	3.0	2.5	2.7	3.2	1.8	2.3	5.9	8.8	9.2	9.1	9.8	8.0	7.3	5.5	3.0	1.6	1.4	1.7	2.7	4.2	
30	1.4	1.0	2.1	1.3	1.8	2.0	1.8	2.1	2.7	2.1	0.8	0.7	3.2	1.2	3.9	3.8	4.1	3.6	3.3	2.4	1.3	0.7	0.4	1.5	2.0	4.1
31	2.3	2.6	0.4	1.4	1.6	1.2	1.9	2.1	2.7	3.2	3.7	2.9	1.6	1.6	1.7	1.1	0.8	0.9	0.9	1.0	1.9	1.0	1.0	1.3	1.7	3.7
SD	1.6	1.5	1.5	1.4	1.2	1.4	1.4	1.5	1.8	2.0	1.8	1.9	2.5	3.2	3.8	4.0	3.7	3.4	2.9	2.2	1.9	1.3	1.5	1.6	2.1	
AV	1.0	1.1	1.2	1.0	0.7	0.9	0.6	0.8	0.7	0.8	1.1	1.3	1.7	1.9	1.7	1.7	1.6	1.4	1.4	0.9	0.8	0.8	0.9	0.8		
PK	4.6	4.4	4.8	4.4	3.7	4.7	2.5	4.3	3.6	4.4	4.8	5.9	8.8	9.2	9.1	9.8	8.0	7.3	6.1	4.2	3.5	2.1	4.3	4.4		9.8

RESULTANT DIRECTION [61104]

LAX AIR QUALITY MONITORING PROGRAM, #706211

DEGREES, COMPASS

SITE 1 LAX

JAN, 1998

AEROENVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA
* AS OF 26/FEB/98
*

CLOCK HOUR [LOCAL STANDARD TIME]

DX	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	PREV	
1	ENE	ENE	E	ENE	NE	E	ENE	E	E	E	E	E	SE	WSW	WSW	WSW	W	SW	S	SSW	SE	E	E	E	[VA]	
2	E	E	E	ENE	NE	ENE	E	E	E	ESE	ESE	SE	SSW	SW	WSW	WSW	SW	SW	WSW	WSW	WSW	N	NNW	S	[VA]	
3	WSW	S	ESE	NE	N	ENE	ESE	ENE	NE	ENE	NNE	WSW	SSW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	N	NNW	NNW	[VA]	
4	N	N	NNW	NNE	NE	ENE	ESE	E	E	E	ESE	ESE	SE	SSW	WSW	WSW	W	WSW	NNW	N	NNW	N	NNW	[VA]		
5	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	[VA]	
6	E	ENE	E	ENE	NE	E	ENE	NE	ENE	NNE	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	[VA]	
7	ENE	ENE	ENE	E	ENE	E	ENE	ENE	ENE	E	E	E	SSW	WSW	WSW	WSW	WSW	WSW	WSW	ESE	E	ENE	ENE	ENE	[VA]	
8	NE	E	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	[VA]	
9	ENE	ENE	E	ESE	E	ENE	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	[VA]	
10	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	[VA]	
11	SE	ESE	ENE	ENE	E	E	ENE	ENE	ENE	ESE	SSW	W	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	[VA]	
12	ENE	E	ENE	E	NE	NE	ENE	ENE	ENE	E	E	S	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	[VA]	
13	N	E	NE	ENE	NE	NNW	NE	NNW	N	NNW	NE	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	[VA]	
14	NE	NNW	NNW	ENE	ENE	ENE	ENE	NE	E	E	SSW	WSW	WSW	WSW	W	W	W	W	W	W	W	W	W	W	[VA]	
15	NE	NE	NE	E	ESE	E	E	ENE	ENE	E	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	[VA]	
16	NNW	NE	E	ENE	E	NE	ENE	ENE	E	ENE	E	E	ESE	WSW	W	W	W	W	W	W	W	W	W	W	[VA]	
17	ENE	NE	E	ENE	E	ENE	ESE	E	ESE	ESE	S	WSW	W	W	W	W	W	W	W	W	W	W	W	W	[VA]	
18	ENE	ENE	E	NE	NE	ENE	NNW	ENE	ENE	E	ESE	SE	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	[VA]	
19	SW	W	W	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	[VA]	
20	NNW	NNW	NE	ENE	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	[VA]	
21	N	N	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	[VA]	
22	NE	ENE	ENE	NE	NE	ENE	ENE	NE	NE	ENE	ESE	WSW	WSW	WSW	W	W	W	W	W	W	W	W	W	W	[VA]	
23	NE	NE	NE	E	ENE	E	ENE	E	ENE	E	ESE	WSW	WSW	WSW	W	W	W	W	W	W	W	W	W	W	[VA]	
24	NE	N	ENE	E	ENE	N	ENE	NE	NE	E	E	SSW	WSW	WSW	W	W	W	W	W	W	W	W	W	W	[VA]	
25	NE	E	ENE	E	ENE	E	ENE	E	ENE	E	E	SSW	WSW	WSW	W	W	W	W	W	W	W	W	W	W	[VA]	
26	NE	ENE	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	[VA]	
27	NNW	N	ESE	ENE	NE	E	ENE	ENE	ENE	E	SSW	WSW	WSW	WSW	W	W	W	W	W	W	W	W	W	W	[VA]	
28	ENE	E	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	[VA]	
29	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	[VA]	
30	N	NE	NE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	[VA]	
31	E	E	NE	ENE	ENE	ENE	ENE	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	[VA]	
PV	ENE	E	ENE	ENE	NE	ENE	ENE	ENE	ENE	E	E	[VA]	[VA]	WSW	N	W	W	W	W	W	W	W	W	W	W	[VA]

00004 [Program: EDMS MONTHSUM]

Version: LC:15-OCT-93

RESULTANT DIRECTION [61104]

LAX AIR QUALITY MONITORING PROGRAM, #706211

DEGREES, COMPASS

SITE 1 LAX

JAN, 1998

AEROENVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA
* AS OF 26/FEB/98
*

CLOCK HOUR [LOCAL STANDARD TIME]

DX	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	PREV	
1	69	118	86	67	37	84	109	87	89	94	79	86	145	239	256	258	264	223	191	205	125	86	100	81	[VA]	
2	87	96	101	68	48	69	87	82	95	102	114	130	202	223	244	255	222	222	258	256	252	356	336	173	[VA]	
3	254	184	115	38	9	59	67	67	60	58	50	69	20	253	208	214	205	239	263	255	260	305	341	340	[VA]	
4	353	10	12	15	51	72	117	87	79	91	96	107	113	131	205	243	287	269	297	317	319	341	353	332	[VA]	
5	342	342	339	346	331	318	11	356	64	107	78	79	79	99	179	239	227	253	255	257	355	16	13	52	[VA]	
6	84	67	97	25	28	92	74	45	27	24	20	21	346	321	256	259	259	260	259	275	353	67	37	52	[VA]	
7	57	78	70	88	76	101	77	71	65	81	87	91	204	244	253	248	255	248	254	115	97	73	72	64	[VA]	
8	55	87	64	62	71	57	70	76	63	52	62	104	339	359	261	244	223	239	54	92	100	97	89	59	[VA]	
9	58	68	88	108	80	78	84	86	90	65	86	89	94	211	215	191	143	99	56	70	82	98	256	252	[VA]	
10	260	267	267	273	275	337	80	55	74	91	117	206	245	247	248	253	259	267	272	284	320	300	345	348	[VA]	
11	128	102	78	70	79	95	58	50	71	78	117	193	260	242	249	257	257	266	284	253	280	46	70	110	[VA]	
12	47	90	59	81	39	50	74	67	73	80	88	185	254	244	256	252	275	243	245	284	283	321	315	315	[VA]	
13	355	90	51	66	51	16	50	30	10	355	32	53	298	284	270	268	273	271	256	272	290	339	64	58	[VA]	
14	48	14	32	70	73	78	57	47	80	94	203	250	254	255	262	259	261	269	261	268	265	256	65	45	[VA]	
15	56	34	33	87	101	106	80	81	76	72	85	97	106	105	123	108	91	85	92	84	80	73	54	41	[VA]	
16	15	45	82	61	95	49	65	60	90	73	82	91	112	257	260	268	259	255	243	265	161	82	90	128	[VA]	
17	68	56	97	66	79	77	102	94	87	108	118	174	258	260	266	261	262	271	294	358	32	76	114	101	[VA]	
18	64	71	84	34	51	66	19	60	74	90	112	144	148	197	230	220	160	149	263	235	146	117	136	131	[VA]	
19	223	265	277	299	333	345	294	286	291	291	284	274	263	269	269	272	277	277	302	326	323	329	323	297	[VA]	
20	312	345	52	57	21	21	34	37	30	6	357	340	19	66	218	364	287	272	284	331	343	352	348	354	[VA]	
21	1	6	21	21	47	48	36	85	73	73	86	119	253	251	257	262	265	269	261	260	269	85	57	43	[VA]	
22	50	59	58	42	53	66	62	69	35	46	74	161	243	252	264	265	266	287	266	264	264	51	65	64	[VA]	
23	55	49	64	82	83	74	90	75	69	82	120	234	255	257	263	263	263	267	261	253	262	59	73	76	[VA]	
24	46	10	67	62	83	73	47	52	84	81	96	233	253	255	265	261	259	237	284	276	303	18	75	9	[VA]	
25	55	68	71	79	120	103	97	94	87	64	95	229	248	248	262	262	259	267	261	269	267	284	86	75	[VA]	
26	62	58	319	336	51	39	80	77	63	78	159	251	257	262	262	256	253	238	282	274	273	144	252	341	[VA]	
27	344	353	115	57	54	82	59	63	73	89	197	205	251	258	267	259	256	262	254	253	253	245	60	63	[VA]	
28	61	86	62	78	71	72	71	59	20	19	26	256	255	252	254	263	264	258	223	216	256	125	86	80	[VA]	
29	83	91	98	123	93	81	79	101	325	19	278	281	271	269	266	268	272	270	277	285	311	301	329	318	[VA]	
30	354	37	54	65	57	57	61	53	58	71	82	197	254	218	257	264	267	266	262	262	258	57	34	73	[VA]	
31	81	61	35	60	72	75	81	59	93	96	100	194	130	75	28	32	93	55	49	128	143	96	35	3	[VA]	
PV	4	5	4	4	3	4	4	4	4	5	5	[VA]	[VA]	12	13	13	13	13	13	13	13	13	13	13	13	[VA]


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*
*      FINAL DATA
*      A9 OF 26/FEB/98
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*      FINAL DATA      *
*      A9 OF 26/FEB/98  *
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* A9 OF 26/FEB/98 *

[illegible]

	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	PRSV
1	2	6	4	4	6	6	6	4	6	3	3	2	1	1	2	4	4	5	5	6	6	6	4	6	1
2	4	4	4	6	6	6	5	4	4	3	4	2	1	1	2	3	4	4	4	4	6	6	6	6	1
3	6	6	6	6	6	6	6	5	6	3	3	3	2	1	1	2	2	4	4	4	5	4	6	5	1
4	5	4	6	6	6	6	5	6	3	3	2	3	3	2	3	3	6	4	4	6	4	5	4	4	1
5	4	4	4	4	4	4	6	5	1	2	2	1	1	1	1	1	4	5	4	6	5	6	6	5	1
6	6	6	6	6	6	6	6	6	1	3	3	1	1	1	2	3	4	4	4	6	6	6	5	6	1
7	6	4	6	6	6	6	6	6	1	2	1	1	1	1	1	4	3	5	4	6	6	6	4	4	1
8	5	6	5	6	6	6	4	5	5	3	5	1	1	1	1	1	4	6	6	6	6	6	6	6	1
9	4	5	5	5	5	4	4	4	4	4	3	4	5	2	3	5	6	5	6	6	6	6	4	4	1
10	4	4	4	4	4	5	6	4	6	2	2	1	1	3	3	3	4	4	4	4	6	6	6	5	1
11	6	6	6	6	6	6	6	5	3	4	2	1	1	3	2	2	3	4	4	4	4	6	6	6	1
12	6	6	5	5	5	6	6	6	6	3	2	1	1	3	2	3	4	4	4	4	6	6	6	6	1
13	6	6	6	4	6	6	6	6	6	3	2	1	1	4	2	4	6	4	4	4	6	6	6	6	1
14	6	6	6	6	6	5	6	6	2	2	1	1	1	4	3	2	4	4	4	5	6	6	6	5	1
15	6	6	5	6	4	6	5	6	2	1	1	1	3	3	3	4	4	4	4	6	6	5	5	5	1
16	6	6	6	6	6	6	6	5	3	1	3	5	6	6	6	6	5	5	4	4	5	5	6	5	1
17	5	6	6	6	6	6	6	6	1	1	1	1	2	4	4	4	4	4	6	6	6	6	6	6	1
18	5	6	6	5	5	6	6	5	2	1	1	1	4	4	4	4	4	4	6	6	6	6	6	6	1
19	4	4	4	6	6	6	5	4	3	2	3	3	4	4	4	4	4	4	5	6	4	5	4	4	1
20	5	6	5	4	6	6	5	6	1	3	1	1	1	1	1	4	4	4	4	6	6	6	4	4	1
21	4	6	5	5	6	4	6	6	2	1	1	1	2	1	3	4	4	4	4	4	6	5	5	6	1
22	6	6	6	5	4	4	5	5	1	1	1	1	1	4	4	4	4	4	4	4	5	6	4	4	1
23	4	5	5	4	6	5	5	4	3	1	1	2	3	4	4	4	4	4	4	4	6	6	5	5	1
24	5	6	5	6	6	6	6	6	2	1	1	1	1	4	3	4	3	5	5	6	6	6	6	6	1
25	6																								

Version: LC:15-OCT-93]

 *
 * FINAL DATA *
 * AS OF 26/FEB/98 *
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*      FINAL DATA      *
*      AS OF 26/FEB/98  *
*                        *
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* AS OF 26/FEB/98 *
 * *

[illegible][illegible]

Version: LC:15-OCT-93)

WATTS PER SQUARE METER

SITE 1 LAX

JAN, 1998

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

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*****
*
*      VITAL DATA
*      AS OF 26/FEB/98
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*****
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CLOCK HOUR [LOCAL STANDARD TIME]

Dr	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg Peak	
1	0	0	0	0	0	0	0	54	212	369	478	532	508	436	318	168	43	0	0	0	0	0	0	0	130	532
2	0	0	0	0	0	0	0	69	204	345	780	261	453	344	259	222	42	0	0	0	0	0	0	0	103	453
3	0	0	0	0	0	0	0	9	73	185	358	208	200	414	396	177	32	0	0	0	0	0	0	0	85	414
4	0	0	0	0	0	0	0	47	98	102	110	259	131	73	89	78	37	0	0	0	0	0	0	0	43	259
5	0	0	0	0	0	0	0	59	225	391	513	574	571	515	385	213	30	0	0	0	0	0	0	0	146	574
6	0	0	0	0	0	0	0	58	221	314	476	483	566	515	402	158	54	0	0	0	0	0	0	0	125	566
7	0	0	0	0	0	0	0	35	215	389	489	498	446	419	273	191	27	0	0	0	0	0	0	0	123	498
8	0	0	0	0	0	0	0	43	198	188	322	349	282	247	135	59	11	0	0	0	0	0	0	0	76	349
9	0	0	0	0	0	0	0	9	25	126	170	120	47	168	119	14	4	0	0	0	0	0	0	0	39	170
10	0	0	0	0	0	0	0	34	114	148	138	274	475	485	374	188	58	0	0	0	0	0	0	0	95	485
11	0	0	0	0	0	0	0	78	174	272	460	521	522	486	368	203	52	0	0	0	0	0	0	0	131	522
12	0	0	0	0	0	0	0	37	61	298	361	189	121	184	124	52	6	0	0	0	0	0	0	0	60	361
13	0	0	0	0	0	0	0	23	106	301	456	566	464	472	370	220	48	0	0	0	0	0	0	0	126	566
14	0	0	0	0	0	0	0	56	188	338	346	451	532	399	343	141	43	0	0	0	0	0	0	0	118	532
15	0	0	0	0	0	0	0	17	42	72	98	81	47	33	60	35	3	0	0	0	0	0	0	0	20	98
16	0	0	0	0	0	0	0	60	199	297	298	498	512	426	332	199	56	0	0	0	0	0	0	0	120	512
17	0	0	0	0	0	0	0	37	183	344	451	510	518	463	357	194	41	0	0	0	0	0	0	0	129	518
18	0	0	0	0	0	0	0	47	84	296	464	492	521	477	353	114	25	0	0	0	0	0	0	0	118	521
19	0	0	0	0	0	0	0	12	160	313	493	565	559	560	391	251	63	0	0	0	0	0	0	0	141	565
20	0	0	0	0	0	0	0	33	129	183	251	444	443	420	426	222	76	0	0	0	0	0	0	0	114	520
21	0	0	0	0	0	0	0	56	214	372	488	554	535	514	414	253	81	0								

00000 [Program: EDHS MONTHSUM

Version: LC;15-OCT-93]

DEGREES, COMPASS

SITE 1 LAX

JAN, 1998

AEROVIRONMENT ENVIRONMENTAL SERVICES INC

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*****
*
*      FINAL DATA
*      AS OF 26/FEB/98
*
*****
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CLOCK HOUR [LOCAL STANDARD TIME]

Dr	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG PEAK	
1	25	43	12	52	39	34	12	21	14	13	39	36	22	33	10	10	19	16	19	37	22	16	11	19	23	52
2	14	10	9	35	31	15	13	10	18	12	16	22	37	18	16	10	18	22	14	23	44	71	68	60	25	71
3	36	45	23	37	19	21	16	29	16	13	16	20	58	41	18	17	16	20	10	5	11	32	14	9	23	58
4	13	12	62	50	25	47	12	25	17	13	19	13	24	27	21	31	15	27	21	15	23	18	16	23	62	
5	13	14	15	14	17	15	26	24	25	19	20	23	24	36	51	34	16	7	15	37	15	17	22	41	23	60
6	39	19	33	34	61	52	17	37	24	14	14	28	54	36	19	19	10	7	13	22	51	46	14	15	28	61
7	58	10	19	36	20	33	31	23	23	21	30	39	50	24	12	16	10	7	13	22	51	46	14	15	28	61
8	14	22	14	21	19	12	15	13	12	15	40	77	54	36	34	12	26	23	39	24	15	19	17	12	12	58
9	10	13	14	16	13	12	13	11	14	11	14	12	37	37	27	21	29	33	39	24	15	19	17	18	25	77
10	16	17	15	11	23	49	34	35	19	21	40	34	15	13	14	9	13	11	14	18	35	23	9	20	37	
11	58	21	38	21	20	18	13	15	11	20	27	44	13	20	18	18	7	11	12	9	42	70	15	16	24	70
12	25	39	13	15	26	18	16	22	18	16	19	44	19	10	15	9	27	14	13	19	39	19	25	17	21	44
13	48	39	18	16	53	28	20	23	19	18	47	48	39	12	14	18	9	10	12	21	29	31	32	16	25	53
14	26	20	41	20	33	26	18	14	23	28	44	25	17	15	14	10	8	15	11	35	23	39	16	17	22	44
15	29	36	13	28	20	35	16	17	15	16	23	15	16	20	19	39	13	14	11	12	14	15	25	14	18	35
16	44	51	53	46	48	53	52	40	23	24	44	37	75	39	8	10	8	15	22	38	31	28	25	23	35	75
17	23	19	33	31	37	37	37	37	29	29	29	29	38	10	10	12	11	12	16	34	17	33	39	27	20	25
18	16	20	15	16	46	30	38	15	21	23	31	36	84	10	12	11	12	16	34	17	33	39	27	20	25	
19	41	14	10	25	38	60	18	12	17	17	15	15	13	10	10	10	10	10	10	10	10	10	10	10	10	10
20	16	37	14	11	18	17	14	44	32	15	36	45	15	13	10	9	9	9	9	9	9	9	9	9	9	9
21	15	20	15	14	25	11	72	42	17	23	25	56	25	1												

00000 [Program; ZIMS MONTHSUM

Version: LC:15-OCT-93)


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*****
*
*      FINAL DATA
*      AS OF 26/FEB/98
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*      FINAL DATA      *
*      AS OF 26/FEB/98  *
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AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

DT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	PREV
1	5	5	5	5	5	5	5	5	2	1	1	1	2	2	4	3	5	5	5	5	5	5	4	5	1
2	5	5	5	5	5	5	5	5	3	3	3	3	2	3	4	4	4	4	5	5	5	5	5	5	1
3	5	5	5	5	5	5	5	5	2	2	2	3	2	1	2	3	4	4	4	4	5	5	5	5	1
4	5	5	5	5	5	5	5	5	2	3	3	3	3	3	3	3	5	4	4	5	5	4	4	4	1
5	4	4	4	4	4	4	4	5	3	1	1	2	2	1	1	3	5	4	4	5	5	5	5	5	1
6	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4	4	5	5	5	5	5	1
7	5	5	5	5	5	5	5	5	5	2	1	1	1	2	3	3	4	4	5	5	5	5	5	5	1
8	5	5	5	5	5	5	5	5	5	2	3	2	2	2	2	5	5	5	5	5	5	5	5	5	1
9	5	5	5	5	5	5	5	5	5	5	3	3	4	3	3	4	6	5	6	6	6	6	6	4	1
10	4	4	4	4	4	5	5	5	2	3	2	3	2	2	2	2	3	4	4	4	5	5	5	5	1
11	5	5	5	5	5	5	5	5	2	3	2	2	1	2	2	3	4	4	4	5	5	5	5	5	1
12	5	5	5	5	5	5	5	5	6	3	2	2	2	3	3	4	5	5	4	5	5	5	5	5	1
13	6	5	5	4	4	5	5	5	2	2	1	1	2	3	2	3	4	4	4	4	5	5	5	5	1
14	5	5	5	5	5	5	5	5	5	3	2	2	2	2	6	3	4	4	4	5	5	5	5	5	1
15	5	5	5	5	5	5	5	5	5	3	2	2	2	2	3	4	4	4	4	5	5	5	5	5	1
16	5	5	5	5	5	5	5	5	6	6	3	3	2	6	6	6	6	6	4	5	5	5	5	5	1
17	5	5	5	5	5	5	5	5	2	2	2	1	1	2	3	3	5	6	6	5	5	5	5	5	1
18	5	5	5	5	5	5	5	5	2	2	1	1	2	2	2	3	4	4	5	5	5	5	5	5	1
19	5	5	5	5	5	5	5	5	4	2	3	2	1	2	2	3	5	6	4	4	6	5	6	6	1
20	5	5	5	5	6	6	6	6	4	3	3	2	2	4	4	4	4	4	5	5	5	5	5	5	1
21	4	5	5	5	5	5	5	5	2	2	1	1	2	2	2	3	4	4	4	4	5	5	5	4	1
22	5	5	5	5	5	5	5	5	5	2	1	1	2	2	2	3	4	4	4	4	5	5	5	5	1
23	5	5	5	5	5	5	5	5	5	2	1	1	2	2	2	3	4	4	4	4	5	5	5	5	1
24	5	5	5	5	5	5	5	5	5	2	1	1	2	2	2	3	4	4	4	4	5	5	5	5	1
25	5																								

Version: LC:15-OCT-93]

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*
*      FINAL DATA
*      AS OF 26/FEB/98
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*      FINAL DATA      *
*      AS OF 26/FEB/98  *
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AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

[illegible]

Version: LC:15-OCT-93)

SIGMA THETA (CALCULATE) [99090]

LAX AIR QUALITY MONITORING PROGRAM, #706211

DEGREES, COMPASS

SITE 1 LAX

JAN, 1998

AEROENVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 26/FEB/98 *
*

CLOCK HOUR [LOCAL STANDARD TIME]

DT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	27	49	12	72	60	40	12	21	15	13	18	34	24	43	10	10	18	16	21	47	24	18	12	19	26	72
2	14	10	9	43	34	16	14	10	17	12	17	24	37	19	17	11	18	20	14	22	54	92	87	78	29	92
3	44	49	24	41	19	23	15	28	17	14	16	21	79	53	19	18	17	20	10	5	10	31	14	9	25	78
4	14	12	87	61	25	69	15	25	15	14	20	13	17	26	33	20	43	16	32	21	16	24	20	16	27	87
5	14	14	15	15	17	16	27	26	25	21	22	24	81	67	36	16	7	14	45	15	18	23	43	26	81	
6	52	21	42	41	83	69	24	45	32	14	14	27	63	38	23	17	10	8	12	23	43	44	15	18	32	83
7	83	11	22	40	21	44	41	29	26	20	30	42	70	29	13	13	7	9	78	21	18	17	12	12	29	83
8	16	23	15	24	22	12	16	14	13	16	45	90	75	43	50	12	29	24	59	27	15	18	19	19	29	90
9	11	15	15	16	14	12	13	11	14	11	14	12	47	61	18	25	32	45	37	29	20	37	33	9	23	61
10	17	18	16	11	24	49	55	52	20	19	38	37	16	13	14	10	14	12	14	17	28	79	16	17	25	79
11	70	21	30	21	21	18	17	16	11	20	31	51	13	21	20	17	8	11	12	10	58	78	59	34	28	78
12	40	47	15	17	28	19	17	22	23	16	21	46	23	11	19	9	30	16	14	19	31	19	28	18	23	47
13	70	35	25	16	63	29	20	23	20	20	53	61	48	12	14	18	9	10	11	22	29	27	32	15	28	70
14	36	22	55	23	31	15	19	19	22	30	48	32	17	15	13	10	8	13	11	46	23	63	15	16	25	63
15	44	43	14	29	25	19	15	18	16	17	23	15	17	20	19	19	13	14	11	13	14	15	26	15	21	64
16	47	53	45	55	48	59	85	83	25	28	55	41	95	64	8	10	8	17	22	48	35	90	25	25	41	95
17	23	19	38	53	43	35	37	27	20	19	36	47	11	10	13	11	12	16	35	18	36	41	28	29	28	53
18	16	19	15	17	51	31	42	16	22	24	24	39	46	57	23	19	32	31	9	44	29	18	18	15	27	57
19	46	17	11	26	51	70	19	12	18	18	15	18	14	20	9	9	9	11	17	14	16	18	26	23	21	70
20	16	39	15	12	20	19	15	38	29	16	37	48	72	54	77	11	10	12	15	23	23	18	16	15	27	77
21	16	20	15	15	48	11	89	44	18	23	28	67	36	14	12	10	10	12	8	10	67	16	16	29	26	89
22	40	50	19	16	12	12	16	16	25	25	40	55	30	10	11	12	10	9	12	12	18	55	8	8	22	50
23	13	14	14	9	20	17	16	15	12	16	12	51	15	9	10	9	8	10	10	16	47	37	17	14	19	72
24	15	54	16	26	55	61	31	45	22	44	29	39	48	10	13	13	18	33	28	58	44	54	61	35	61	
25	54	41	42	65	68	38	34	34	18	29	73	71	13	18	9	9	7	8	11	6	17	63	25	32	33	73
26	10	26	20	25	41	78	33	20	15	22	79	17	13	12	12	10	14	51	26	48	29	84	51	31	34	51
27	12	54	89	15	39	23	17	50	21	37	52	27	19	10	16	9	11	13	12	20	17	29	49	21	27	89
28	10	16	53	17	12	15	20	17	22	23	24	62	43	19	12	9	8	14	51	26	20	41	17	16	24	62
29	9	12	12	16	14	13	47	60	36	26	86	13	10	10	10	8	11	8	13	23	26	28	16	14	22	60
30	47	59	19	24	14	12	13	12	15	23	62	72	15	64	18	14	12	12	10	18	64	54	72	17	31	72
31	9	15	73	16	27	14	14	14	14	14	14	22	25	30	23	28	56	44	46	18	31	52	21	20	27	73
AV	31	29	30	28	34	31	27	27	20	21	37	39	35	29	20	14	16	17	22	24	30	39	29	23	27	
SD	22	16	23	17	19	21	20	14	6	7	21	20	24	21	16	6	12	11	17	13	16	29	22	15		
PK	83	59	89	72	83	78	89	60	36	44	86	90	95	81	77	36	56	51	78	48	67	92	91	78		95

C0000 [Program: EDMS_MONITOR]

Version: LC:15-OCT-93)

TEMPERATURE 2M HEIGHT [99144]

LAX AIR QUALITY MONITORING PROGRAM, #706211

DEGREES CENTIGRADE

SITE 1 LAX

JAN, 1998

AEROENVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 26/FEB/98 *
*

CLOCK HOUR [LOCAL STANDARD TIME]

DT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK	
1	14.2	16.2	15.3	14.2	13.3	13.5	13.8	14.3	16.8	19.8	21.9	23.3	23.2	21.2	20.5	20.3	19.6	19.2	18.1	17.9	17.1	17.2	16.5	15.7	17.7	23.3	
2	15.8	15.2	14.8	15.2	15.5	15.8	15.9	16.4	17.4	18.5	19.1	19.1	19.5	18.8	18.0	17.7	16.9	16.4	16.3	16.7	16.7	16.7	15.7	14.8	16.8	19.5	
3	14.0	14.2	14.3	14.3	14.3	14.3	14.4	14.4	14.7	15.6	16.7	17.6	17.7	17.9	18.3	17.8	16.5	15.7	15.0	14.6	15.3	14.7	14.5	13.9	15.4	18.3	
4	13.2	12.7	13.3	11.8	10.5	10.7	11.0	11.7	12.3	13.3	11.8	13.8	14.4	13.7	13.8	15.5	15.4	14.8	13.7	13.1	13.3	13.2	12.6	12.7	13.0	15.5	
5	12.6	12.5	12.3	12.0	12.6	11.3	11.7	9.7	10.8	13.1	14.7	15.9	16.6	17.2	17.6	16.9	15.1	15.0	15.3	15.0	14.1	13.2	11.8	10.5	13.7	17.6	
6	9.4	9.1	9.5	8.1	7.5	8.0	8.2	8.6	12.9	14.6	16.1	17.2	18.4	18.3	17.4	15.9	15.4	14.9	13.9	15.4	14.9	14.2	13.1	11.5	13.1	16.4	
7	13.2	10.4	9.7	9.6	8.7	9.6	9.4	10.5	12.2	14.4	16.4	17.7	18.0	17.4	17.1	16.7	15.4	16.1	15.9	15.8	15.7	14.8	14.5	14.2	13.8	18.0	
8	13.6	13.7	13.6	13.6	13.8	13.6	13.7	13.6	15.0	15.8	17.3	20.3	19.1	19.5	19.0	18.1	17.9	17.5	18.0	17.3	16.8	16.5	16.4	16.2	16.2	19.5	
9	15.9	15.6	15.7	15.4	15.5	15.5	15.3	15.4	14.6	15.1	16.2	16.9	16.0	17.4	18.1	16.0	15.2	15.0	15.4	15.4	15.5	15.4	16.6	16.8	15.8	18.1	
10	16.9	16.5	15.7	15.7	16.0	15.7	15.0	15.1	16.1	16.7	17.1	17.1	18.0	18.1	18.2	17.5	16.8	16.6	16.9	16.9	16.4	15.9	16.3	16.1	16.6	18.2	
11	15.8	15.5	15.5	15.1	14.8	14.1	14.0	14.4	15.5	16.6	17.9	18.6	18.6	18.7	18.5	17.9	16.7	16.1	16.2	15.6	16.1	16.3	15.2	14.9	16.2	18.7	
12	14.3	13.5	13.9	13.6	14.1	14.1	13.4	13.7	14.3	15.7	17.1	17.5	17.6	17.5	17.4	17.1	16.9	16.7	16.5	17.3	17.2	17.1	16.9	16.8	15.8	17.6	
13	16.3	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	
14	13.5	13.4	12.3	11.9	11.5	11.5	12.9	12.3	14.0	15.7	16.9	17.8	18.1	17.9	17.9	17.0	16.2	15.8	15.6	16.1	15.9	15.9	15.4	15.0	15.0	18.1	
15	14.5	14.8	14.7	14.6	14.7	14.6	14.7	14.5	15.0	15.0	15.6	16.2	16.0	16.3	16.5	17.0	17.0	16.9	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	15.5	17.0
16	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	19.6	21.3
17	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	20.0	20.5
18	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	18.9	18.9
19	17.2	16.4	16.4	16.0	15.6	15.5	15.5	15.4	15.8	16.2	16.8	17.3	17.6	17.7	17.3	17.2	16.5	16.2	16.0	15.5	15.2	15.0	14.5	14.0	15.1	17.7	
20	14.2	13.4	12.4	11.7	11.8	12.0	12.3	12.5	13.1	14.4	15.1	16.0	16.5	17.4	17.6	16.4	15.5	15.1	15.7	15.3	14.7	14.5	14.3	13.8	14.4	17.6	
21	13.5	13.0	12.5	12.3	10.7	10.8	11.2	11.4	11.8	12.8	13.9	14.6	14.7	14.8	14.5	14.2	13.8	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	
22	12.1	11.9	12.1	12.4	12.2	10.7	11.0	11.1	11.4	12.2	13.3	13.9	14.6	14.7	14.8	14.5	14.2	13.8	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	
23	13.5	12.9	12.2	11.1	10.5	10.6	11.1	11.4	12.3	13.5	14.7	15.2	15.3	15.4	15.5	15.6	15.7	15.8	15.9	16.0	16.1	16.2	16.3	16.4	16.5	16.6	
24	14.1	13.1	12.2	11.8	11.4	10.8	10.6	11.3	12.3	13.5	14.7	15.2	15.3	15.4	15.5	15.6	15.7	15.8	15.9	16.0	16.1	16.2	16.3	16.4	16.5	16.6	
25	12.6	12.3	11.8	10.7	10.3	10.3	10.2	10.6	13.5	15.6	16.8	17.2	17.1	17.0	16.9	16.8	16.7	16.6	16.5	16.4	16.3	16.2	16.1	16.0	15.9	15.8	
26	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	15.1	21.7
27	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	18.5	20.0
28	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	18.2	19.3
29	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	18.9	18.9
30	14.4	13.2	12.0	11.2	11.7	11.3	11.3	12.1	13.7	15.6	17.3	18.3	18.6	18.9	18.9	17.9	16.8	16.0	15.6	15.4	16.1	15.8	15.6	15.4	15.2	17.1	16.9
31	13.4	13.3	13.7	13.9	13.8	14.0	13.9	14.1	14.8	15.5	16.3	16.6	16.7	16.7	16.7	16.4	15.8	15.8	15.6	15.1	14.4	14.1	13.5	13.2	12.7	14.4	16.6
AV	14.1	13.6	13.3	12.9	12.6	12.6	12.5	12.8	14.2	15.9	17.2	18.2	18.5	18.4	18.2	17.5	16.7	16.3	16.1	15.8	15.8	15.4	14.9	14.4	14.6		
SD	1.8	1.8	1.8	2.0	2.3	2.2	2.2	2.0	1.5	1.5	1.8	1.8	2.0	1.7	1.4	1.1	1.1	1.1	1.1	1.1	1.0	1.2	1.4	1.4	1.6		
PK	17.2	16.5	16.4	16.0	16.0	15.9	16.4	17.4	19.9	21.9	23.3	23.2	21.2	20.5	20.3	19.6	19.2	18.6	17.9	17.2	17.2	17.2	17.2	17.5	17.5	23.3	

STATION TEMPERATURE [99231]

DEGREES CENTIGRADE

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

JAN, 1998

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 26/FEB/98 *
*

CLOCK HOUR [LOCAL STANDARD TIME]

DY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	26.4	25.8	25.1	24.5	23.8	23.1	22.6	22.1	21.9	23.3	25.9	26.6	26.2	26.4	26.4	26.3	26.3	26.3	26.6	26.4	26.0	25.6	25.4	25.0	25.2	26.6
2	24.6	24.1	23.7	23.3	22.8	22.3	21.8	21.3	20.8	23.4	24.2	25.9	27.0	26.7	26.2	26.0	26.1	26.6	26.4	26.0	25.2	24.7	24.6	24.3	24.4	27.0
3	24.0	23.5	23.6	23.7	23.7	23.7	23.6	23.4	23.2	22.1	22.7	24.1	26.1	27.1	27.5	27.4	27.1	27.3	26.8	25.7	24.6	23.7	23.2	22.9	24.6	27.5
4	22.6	22.0	21.5	21.6	21.0	20.2	19.5	19.2	19.2	19.6	20.4	20.9	21.3	22.4	22.4	22.4	22.3	22.6	22.8	22.3	21.6	21.2	20.9	20.7	21.3	22.8
5	20.6	20.7	20.9	21.1	20.9	20.6	20.1	19.7	19.3	20.0	22.2	24.1	25.7	27.1	28.4	27.8	27.5	28.1	27.0	25.5	24.4	23.2	22.2	21.3	23.3	28.4
6	20.4	19.4	18.7	18.3	17.7	17.0	16.5	16.2	16.1	18.0	20.8	23.0	25.5	27.9	27.8	27.7	27.8	27.8	26.8	25.5	24.7	24.0	23.4	22.7	22.2	27.8
7	21.7	20.7	19.9	19.4	18.6	18.0	17.6	17.3	18.4	21.6	23.7	25.3	26.7	27.9	27.9	26.8	27.5	28.1	27.6	26.0	25.0	24.4	24.0	23.7	23.1	28.1
8	23.2	23.1	22.9	22.8	22.6	22.7	22.6	22.5	23.0	24.7	26.2	26.7	26.6	26.5	26.6	26.5	26.6	26.9	26.1	25.8	25.2	24.8	24.5	24.3	24.5	26.7
9	24.0	23.9	24.0	24.0	24.0	23.9	23.9	23.8	23.7	23.7	24.0	24.6	24.6	24.8	25.3	25.1	24.8	24.2	23.8	23.8	23.8	23.8	23.9	24.2	24.1	25.3
10	24.3	24.5	24.6	24.3	24.2	24.1	24.0	23.9	24.3	24.9	25.5	25.8	26.7	27.8	27.4	27.4	27.8	27.2	26.2	25.5	25.1	24.6	24.5	24.6	25.4	27.8
11	24.3	24.3	24.4	24.2	23.9	23.7	23.2	24.1	25.1	25.6	27.1	27.3	26.8	26.8	26.8	26.9	27.5	27.2	26.4	25.9	25.4	25.3	25.1	24.9	25.5	27.5
12	24.8	24.4	24.3	24.1	24.1	24.1	23.9	23.7	24.0	24.5	25.9	27.0	27.3	27.3	27.1	26.9	26.5	26.2	25.8	25.7	25.6	25.6	25.6	25.6	25.6	27.3
13	25.5	25.6	25.7	25.4	25.4	25.4	25.3	25.2	25.4	26.0	27.4	27.7	27.1	27.1	27.1	27.2	27.4	27.0	26.4	25.9	25.6	25.4	25.1	24.8	26.1	27.7
14	24.7	24.6	24.5	24.1	23.8	23.6	23.5	23.6	24.5	25.9	27.4	28.1	27.8	27.5	27.3	27.4	27.7	27.2	26.5	26.1	26.0	26.0	25.8	25.5	25.8	28.1
15	25.2	25.1	25.2	25.1	25.1	25.2	25.2	25.3	24.8	24.5	24.7	25.0	25.2	25.1	25.1	25.3	25.4	25.4	25.3	25.2	25.1	25.1	25.2	25.3	25.1	25.4
16	25.4	25.3	25.3	25.1	24.6	24.0	23.7	23.5	24.5	25.8	26.6	27.2	26.7	26.3	26.3	26.0	26.4	26.1	25.5	25.2	25.1	25.0	25.1	25.2	25.4	27.2
17	25.2	25.3	25.6	25.1	24.5	23.9	23.6	23.2	23.8	25.5	27.1	27.2	26.6	26.8	26.3	26.4	26.4	26.1	25.8	25.9	25.8	25.8	25.8	25.8	25.6	27.2
18	26.1	26.3	26.6	26.5	26.5	26.6	26.6	26.5	26.5	26.8	27.7	27.3	26.8	26.5	26.2	26.5	26.8	26.7	26.4	26.0	25.6	25.4	25.3	25.3	26.4	27.7
19	25.4	24.9	24.9	24.9	24.7	24.3	24.1	22.9	22.8	24.8	26.3	27.5	28.3	28.6	28.7	28.5	28.1	27.1	26.2	25.8	25.4	25.1	24.8	24.5	25.8	28.7
20	24.4	24.2	24.1	23.7	23.5	23.5	23.4	23.5	23.8	24.5	25.3	26.4	27.8	28.6	27.9	27.6	28.1	27.3	26.2	25.7	25.3	25.0	24.9	24.8	25.4	28.3
21	24.5	24.4	24.2	24.0	23.7	23.4	23.1	22.7	22.1	23.6	25.7	27.4	27.6	27.1	26.8	26.3	26.6	24.9	23.7	23.3	22.7	22.7	22.1	21.6	24.3	27.6
22	21.0	20.4	20.4	20.1	20.0	20.0	19.6	19.3	20.5	23.1	25.5	27.1	27.4	27.1	26.7	26.7	27.3	26.5	25.7	24.3	23.9	24.1	24.7	24.7	23.6	27.4
23	24.6	24.2	24.0	23.4	22.7	22.1	21.8	21.8	23.7	25.7	26.8	27.3	26.9	26.1	25.6	25.2	25.2	25.0	24.3	23.2	23.4	23.7	23.9	23.8	24.4	27.3
24	23.6	23.4	23.4	23.1	22.9	22.6	22.2	22.0	22.7	24.4	26.4	27.5	27.3	26.6	26.6	26.5	26.6	26.8	26.7	26.4	26.0	25.6	25.4	25.3	26.4	27.3
25	20.6	20.0	19.6	19.0	18.5	17.9	17.4	17.1	18.3	21.0	24.2	26.7	27.9	27.9	29.3	30.4	30.6	29.3	27.3	25.0	23.5	23.0	22.6	22.0	23.3	30.6
26	21.5	20.9	20.3	19.4	18.7	18.0	17.4	17.1	17.6	19.6	22.5	24.9	24.6	25.5	27.1	28.0	28.0	27.1	26.0	24.3	23.5	23.2	22.9	22.5	25.8	28.0
27	22.0	21.8	21.6	21.1	20.7	20.4	20.1	20.2	22.3	23.8	25.9	27.1	26.6	27.0	28.0	28.9	29.1	27.9	26.0	23.3	22.7	21.9	21.9	21.6	23.8	29.1
28	21.3	20.9	20.5	19.9	19.3	18.9	18.9	19.0	19.4	20.4	21.7	23.1	24.6	27.0	28.6	29.1	28.9	27.8	26.2	24.7	23.4	23.1	22.9	22.8	23.0	29.1
29	22.6	22.4	22.5	22.3	22.1	21.7	21.5	21.1	20.9	21.0	21.4	21.5	20.5	23.1	25.2	26.4	26.7	26.1	25.0	23.5	22.7	22.4	22.0	21.5	22.8	26.7
30	21.1	20.7	20.4	19.9	19.4	18.9	18.5	18.2	19.2	21.2	23.9	25.7	26.1	27.2	29.6	30.1	29.8	28.0	21.7	21.9	21.7	21.6	21.3	21.0	22.5	30.1
31	20.6	20.1	20.2	20.3	20.3	20.4	20.5	20.7	22.2	23.1	24.0	24.8	25.3	25.2	25.1	25.4	25.7	25.8	25.6	25.1	24.7	24.3	24.1	23.8	23.2	25.8

AV	23.4	23.1	23.0	22.7	22.4	22.1	21.8	21.7	22.1	23.3	24.8	25.9	26.2	26.5	26.8	27.0	27.1	26.5	25.7	24.9	24.4	24.0	23.8	23.6	24.3
SD	1.9	2.0	2.2	2.3	2.4	2.5	2.6	2.7	2.6	2.3	2.1	1.9	1.7	1.4	1.4	1.6	1.5	1.5	1.3	1.2	1.2	1.3	1.4	1.6	
PK	26.4	26.3	26.6	26.5	26.5	26.6	26.6	26.5	26.5	26.8	27.7	28.1	28.3	28.6	29.6	30.4	30.6	29.3	27.3	26.4	26.0	26.0	25.8	25.8	30.6

CU000 [Program: RMS MONTHSUM]

Version: LC:15-OCT-93]

Delta Temp [99238]

DEGREES CENTIGRADE

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

JAN, 1998

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 26/FEB/98 *
*

CLOCK HOUR [LOCAL STANDARD TIME]

DY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK	
1	-1.2	-0.7	-1.2	-1.7	-2.0	-1.1	-0.8	-1.0	-0.4	0.0	0.1	0.1	0.3	0.4	0.2	-0.2	-0.9	-0.7	-1.0	-0.8	-0.8	-0.7	-0.6	-0.6	0.4		
2	-0.5	-0.7	-0.8	-0.3	-0.3	-0.5	-0.6	-0.4	-0.2	0.0	0.0	0.0	0.3	0.3	0.2	-0.1	-0.5	-0.7	-0.7	-0.4	-0.2	-0.1	-0.2	-0.2	0.3	0.3	
3	-0.8	-0.6	-0.6	-0.4	-0.5	-0.2	-0.3	-0.1	-0.2	0.6	0.2	0.2	0.2	0.3	0.2	-0.2	-0.7	-0.8	-1.4	-1.7	-0.6	-0.4	-0.3	-0.5	0.4	0.6	
4	-0.7	-0.6	-0.6	-1.0	-1.5	-1.0	-0.5	-0.2	-0.1	0.0	0.1	-0.2	-0.3	-0.3	-0.2	-0.1	-0.5	-0.3	-0.3	-0.3	-0.4	-0.3	-0.3	-0.4	0.1	0.4	
5	-0.3	-0.3	-0.3	-0.3	-0.3	-0.4	-0.4	-0.4	0.1	0.3	0.3	0.4	0.3	0.3	0.1	-0.5	-1.5	-1.4	-1.5	-0.5	-0.5	-0.7	-1.1	-1.2	0.4	0.1	
6	-1.6	-1.0	-1.1	-2.0	-2.0	-1.2	-0.9	-0.8	0.0	0.2	0.4	0.3	0.4	0.3	0.2	-0.1	-0.4	-0.4	-0.6	-0.2	-0.6	-0.7	-0.5	-0.4	-0.2	0.2	
7	-0.9	-1.2	-1.2	-1.1	-1.6	-0.9	-1.1	-0.6	-0.1	0.1	0.2	0.3	0.3	0.3	0.3	0.1	-0.7	-1.2	-1.6	-1.0	-1.1	-0.6	-0.5	-0.9	-1.8	0.8	
8	-0.5	-0.4	-0.3	-0.2	-0.1	-0.3	-0.4	-0.3	0.0	0.0	0.1	0.2	0.2	0.2	-0.1	-0.4	-0.4	-0.6	-0.9	-0.9	-0.7	-0.4	-0.5	-0.4	-0.3	0.5	
9	-0.1	-0.2	-0.3	-0.3	-0.3	-0.2	-0.2	-0.2	-0.2	0.0	0.1	0.1	0.0	0.4	-0.1	-1.1	0.1	0.2	0.3	0.2	0.6	-0.7	-0.5	-0.4	-0.2	0.2	
10	-0.3	-0.4	-0.3	-0.2	-0.3	-0.2	-0.2	-0.2	-0.2	0.0	0.2	0.1	0.2	0.5	0.6	0.4	0.0	-0.4	-0.6	-0.4	-0.3	-0.4	-0.6	-0.2	-0.6	0.1	
11	-0.5	-0.5	-0.3	-0.2	-0.2	-0.4	-0.2	-0.1	0.1	0.2	0.4	0.3	0.5	0.4	0.3	0.0	-0.8	-1.0	-0.8	-1.3	-0.7	-0.5	-0.9	-0.6	-0.3	0.5	
12	-0.5	-0.7	-0.2	-0.3	-0.1	-0.2	-0.4	0.0	0.0	0.2	0.3	0.1	0.0	0.1	0.0	-0.2	-0.1	-0.3	-0.3	-0.2	-0.2	-0.1	-0.2	-0.1	-0.1	0.3	
13	0.0	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	0.7	0.5	0.4	0.4	0.6	0.4	0.0	-0.3	-0.5	-0.9	-0.8	-0.3	-0.5	-0.8	-0.7	-0.1	0.7
14	-0.9	-0.6	-1.5	-0.8	-0.8	-0.8	-0.4	-0.6	0.0	0.2	0.2	0.4	0.6	0.4	0.3	-0.2	-0.6	-0.8	-1.0	-0.7	-0.9	-0.7	-0.7	-0.3	-0.2	0.4	0.6
15	-0.3	-0.2	-0.1	-0.1	-0.2	-0.2	0.0	0.5	0.7	0.6	0.2	0.4	0.6	0.7	0.8	0.9	0.8	0.7	[00]	[00]	[00]	[00]	[00]	[00]	[00]	0.3	0.9
16	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	0.7	0.5	0.3	0.4	0.6	0.7	0.4	0.5	0.5	0.5	[00]	[00]	[00]	[00]	[00]	0.5	0.7
17	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	0.9	0.7	1.6	1.9	2.8	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	1.4	1.9
18	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	0.8	0.7	0.7	0.8	0.7	0.5	0.2	0.1	0.4	-0.3	0.1	0.7	1.0	1.0	1.0	1.5	1.9
19	1.3	0.6	0.0	0.2	0.3	0.6	0.1	-0.2	0.0	0.3	0.5	0.6	0.7	0.8	0.5	0.2	-0.3	-0.5	-0.3	-0.2	-0.3	-0.2	-0.5	-1.0	0.1	1.3	
20	-0.5	-0.7	-0.5	-0.7	-0.4	-0.4	-0.3	0.0	0.2	0.2	0.4	0.3	0.3	0.2	-0.1	-0.4	-0.7	-0.5	-0.4	-0.4	-0.4	-0.4	-0.3	-0.2	0.4	0.4	
21	-1.2	-1.2	-0.5	-0.6	-0.6	-0.7	-1.0	-0.6	0.1	0.2	0.3	0.3	0.4	0.3	0.2	-0.2	-0.8	-1.0	-1.5	-1.4	-1.4	-0.8	-0.8	-0.8	-0.6	0.4	
22	-0.6	-1.1	-0.9	-0.9	-1.2	-1.3	-0.8	-0.6	0.1	0.2	0.2	0.2	0.3	0.3	0.2	-0.2	-0.9	-1.2	-1.1	-1.4	-1.3	-0.7	-0.9	-0.8	-0.6	0.3	
23	-0.3	-1.0	-1.3	-0.9	-1.1	-1.2	-1.0	-0.9	-0.1	0.2	0.3	0.2	0.4	0.5	0.2	-0.2	-0.6	-0.6	-0.8	-0.9	-1.0	-0.6	-0.6	-0.7	-0.5	0.5	
24	-1.6	-1.2	-1.3	-1.5	-1.8	-1.9	-1.6	-0.3	0.1	0.3	0.3	0.4	0.5	0.4	0.1	-0.8	-1.3	-1.3	-0.9	-0.8	-1.1	-1.3	-1.5	-0.6	0.5	0.5	
25	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	-0.7	-0.2	0.1	0.3	0.1	0.0	-0.9	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	-0.7	0.5
26	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	-0.6	-0.8	-0.7	-0.5	-0.3	-0.4	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	-0.2	0.3
27	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	-0.8	-0.8	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	-0.6	-0.3
28	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	-0.8	-0.8
29	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	-0.4	0.6	0.8	0.9	0.7	0.4	-0.2	-0.5	-0.5	-0.5	-0.5	-0.5	0.0	0.9
30	-0.7	-0.9	-0.6	-0.7	-0.6	-0.4	-0.5	-0.3	0.1	0.3	0.4	0.4	0.6	0.4	0.4	0.0	-0.5	-1.0	-1.4	-1.4	-1.4	-1.2	-0.8	-0.3	-0.6	0.4	0.6
31	-0.6	-0.4	-0.4	-0.4	-0.5	-0.5	-0.6	-0.4	0.3	-0.2	-0.1	-1.8	-5.8	-1.4	-1.1	-0.2	-0.3	-0.4	-0.6	-0.9	-0.6	-0.8	-0.8	-0.6	-0.8	-0.8	-0.1
AV	-0.6	-0.6	-0.6	-0.6	-0.7	-0.6	-0.6	-0.4	-0.1	0.2	0.2	0.3	0.3	0.2	0.2	-0.1	-0.5	-0.6	-0.7	-0.7	-0.7	-0.5	-0.5	-0.5	-0.6	-0.3	
SD	0.6	0.4	0.4	0.5	0.7	0.5	0.5	0.4	0.3	0.3	0.3	0.3	0.6	1.2	0.5	0.4	0.5	0.5	0.6	0.5	0.4	0.4	0.5	0.5	0.5	0.5	
PK	1.3	0.6	0.0	0.2	0.3	0.6	0.1	0.5	0.7	0.7	0.9	0.7	1.6	1.9	1.8	0.9	0.8	0.7	0.5	0.2	0.4	0.7	1.0	1.0	1.0	1.4	


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*      FINAL DATA                  *
*      AS OF 23/APR/98              *
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*      FINAL DATA      *
*    AS OF 23/APR/98    *
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02	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PRM		
1	1	[]	[25]	[26]	5.1	3.3	2.8	3.0	2.5	2.5	2.6	2.4	2.0	1.5	1.5	0.0	0.0	1.5	1.4	1.6	1.8	2.1	2.0	1.9	2.0	5.1		
2	1	[5]	[26]	[16]	1.1	1.2	1.3	1.7	1.9	2.2	2.0	2.1	2.1	1.5	1.4	1.4	1.7	[]	[]	[]	[]	[]	[]	[]	1.6	2.0		
3	[]	[]	[]	[]	[]	[]	[]	1.2	1.1	1.7	2.0	2.4	1.3	1.3	1.3	1.3	1.6	1.7	1.8	1.4	1.8	1.9	1.5	1.3	1.5	2.2		
4	1.2	[2]	[26]	[26]	1.3	1.9	1.6	[3]	[3C]	[3C]	[CA]	[CA]	1.2	1.9	1.9	1.7	1.7	1.6	1.7	1.8	1.9	2.0	2.7	3.4	1.9	3.0		
5	4.2	[26]	[26]	[26]	3.1	2.5	2.3	3.3	4.3	4.9	3.1	2.4	2.1	2.1	1.9	1.9	2.0	2.2	2.2	2.2	2.2	2.7	3.4	1.9	3.1	4.7		
6	2.3	[26]	[26]	[26]	1.7	1.6	1.8	2.1	2.1	2.2	1.9	1.5	1.2	1.7	1.6	1.7	1.6	1.6	1.6	1.5	1.5	1.7	2.2	2.9	1.8	2.9		
7	2.9	[26]	[26]	[26]	2.0	2.7	2.5	3.5	3.9	3.7	3.1	2.3	1.9	1.6	1.7	1.7	1.8	1.9	2.0	2.0	1.9	1.9	1.8	2.2	1.9	2.4		
8	1.8	[26]	[26]	[26]	1.7	2.1	2.5	3.3	[3C]	[3C]	3.2	2.9	2.4	1.7	1.1	0.5	0.1	0.8	1.5	1.6	2.0	2.3	3.0	2.8	2.5	2.6	2.0	
9	2.6	[66]	[26]	[26]	2.3	2.3	2.6	4.9	5.1	4.1	3.5	2.5	2.5	2.1	1.4	0.0	0.0	0.9	1.9	2.4	2.6	2.2	2.4	2.7	2.8	2.4	5.1	
10	2.7	[66]	[26]	[26]	2.5	2.3	2.7	3.6	3.8	4.6	3.3	2.6	1.9	0.0	0.0	0.0	0.0	1.6	1.8	1.8	2.0	2.1	1.8	2.9	3.6	2.2	4.6	
11	2.8	[26]	[26]	[26]	1.9	3.3	4.1	4.5	4.7	4.8	3.6	2.1	2.0	1.2	0.0	0.0	0.0	0.0	0.0	2.1	2.1	2.0	2.3	2.7	3.1	2.2	4.8	
12	4.3	[26]	[26]	[26]	3.8	4.1	3.3	4.5	[3C]	[3C]	4.1	3.0	3.5	3.0	2.3	2.0	2.1	2.4	2.7	2.5	2.6	2.6	2.1	2.4	2.1	3.0	4.5	
13	2.2	[26]	[26]	[26]	2.6	3.0	3.4	3.9	5.5	4.9	3.7	2.6	2.5	2.1	2.0	2.1	1.9	1.9	2.0	2.1	2.1	2.1	2.2	3.0	3.7	4.0	2.9	5.5
14	3.6	[26]	[26]	[26]	2.8	2.4	2.2	2.3	2.4	2.6	2.1	2.1	2.0	2.1	2.3	1.9	1.9	2.1	2.1	2.1	2.1	1.9	1.9	2.0	1.9	2.2	3.6	
15	1.8	[26]	[26]	[26]	1.8	1.6	1.7	1.6	2.1	2.7	2.5	1.2	0.0	1.4	1.9	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.8	1.8	2.7	
16	1.6	[26]	[26]	[26]	2.1	2.3	2.4	3.0	[3C]	[3C]	2.7	2.2	2.0	1.9	1.7	1.8	1.7	2.4	2.4	1.9	1.9	2.1	2.2	1.7	1.7	2.1	3.0	
17	1.6	[26]	[26]	[26]	1.4	1.5	1.7	2.4	2.4	2.4	2.5	2.2	2.2	2.1	2.2	2.3	2.4	2.3	2.4	2.6	2.6	2.4	2.1	2.0	2.0	2.2	2.6	
18	1.4	[26]	[26]	[26]	1.5	1.8	2.5	4.0	4.4	4.1	3.2	2.4	2.3	2.4	2.4	2.1	2.1	2										

Version: LC:15-OCT-93]

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*      FINAL DATA                  *
*      AS OF 23/SEP/98              *
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*      FINAL DATA                    *
*      AS OF 23/APR/98                *
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* AS OF 23/APR/98 *

[illegible]

DT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	STDEV
1	1	[]	[S]	[S]	3.4	2.4	2.0	1.9	1.8	1.7	1.8	1.0	0.5	2.0	3.3	3.0	0.3	0.0	0.0	0.0	0.1	0.9	0.3	0.0	1.3	3.4
2	0	[]	[S]	[S]	0.4	0.2	0.3	0.4	0.5	0.4	0.6	0.6	0.8	0.3	0.2	0.1	1.2	[]	[]	[]	[]	[]	[]	[]	0.4	1.2
3	1	[]	[]	[]	[]	[]	0.2	0.0	1.6	2.9	0.6	0.5	0.5	0.8	0.9	1.1	1.3	0.9	0.3	0.6	0.3	0.8	0.6	0.5	0.8	2.9
4	0.8	[S]	[S]	[S]	1.0	1.3	1.0	3.2	[S]	[S]	[CA]	2.3	1.3	1.3	2.6	3.2	2.6	3.0	2.3	1.9	2.2	0.7	0.3	0.8	1.6	1.7
5	1.8	[S]	[S]	[S]	3.1	2.5	3.2	3.6	3.1	3.8	4.1	1.7	1.2	1.3	3.0	3.3	3.2	4.2	3.1	0.6	1.0	2.9	1.7	1.2	1.5	4.2
6	0.8	[S]	[S]	[S]	1.2	1.2	1.3	1.3	1.2	1.1	0.9	1.0	1.0	0.9	0.1	0.0	3.1	1.6	1.4	1.5	1.9	1.0	0.5	1.2	1.2	3.1
7	1.8	[S]	[S]	[S]	2.7	2.0	3.2	4.7	3.8	5.0	2.6	0.9	1.8	0.4	0.0	0.0	0.5	0.7	0.3	0.2	0.0	0.0	1.1	1.3	0.9	1.5
8	1.0	[S]	[S]	[S]	0.5	0.2	0.7	1.5	[S]	[S]	6.7	3.9	1.9	0.6	0.7	0.0	0.0	0.2	0.0	1.6	0.2	0.9	1.0	1.6	1.6	1.1
9	2.1	[S]	[S]	[S]	1.6	1.3	1.8	2.8	2.7	1.6	0.9	0.7	0.6	0.2	0.8	0.0	1.6	2.5	1.6	1.6	0.3	0.0	0.5	1.1	1.0	1.6
10	1.4	[S]	[S]	[S]	2.4	1.8	2.1	2.7	2.6	2.7	1.3	0.6	0.3	3.2	3.8	1.6	3.3	1.5	3.4	4.3	2.9	1.7	2.0	2.9	2.0	4.8
11	2.4	[S]	[S]	[S]	1.2	2.1	2.7	3.1	2.8	3.4	3.0	1.1	0.6	3.2	3.2	1.7	2.7	3.4	2.8	1.1	1.7	2.4	1.1	0.9	2.4	3.2
12	2.4	[S]	[S]	[S]	2.8	2.8	2.3	3.1	3.0	[S]	[S]	1.9	1.2	3.3	2.1	4.7	1.9	1.4	1.9	0.7	1.3	1.2	3.4	2.2	1.4	2.2
13	0.5	[S]	[S]	[S]	2.7	1.9	2.1	2.6	3.2	3.2	1.7	0.5	1.0	2.5	2.1	1.1	1.0	1.3	0.7	1.8	1.8	1.1	1.3	1.5	2.9	1.7
14	3.1	[S]	[S]	[S]	1.2	0.6	0.7	0.5	0.3	0.4	0.4	0.3	0.1	0.1	0.3	0.7	0.6	2.5	1.7	2.4	2.2	3.1	1.9	1.9	2.5	3.1
15	1.3	[S]	[S]	[S]	1.0	0.7	1.5	0.6	0.4	1.3	1.4	0.0	0.3	1.5	2.7	2.8	0.9	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.8
16	0.0	[S]	[S]	[S]	2.2	2.0	2.2	2.4	[S]	[S]	2.1	1.0	0.8	0.3	0.0	0.0	0.1	0.2	1.0	0.6	0.6	1.0	1.2	0.8	0.9	1.6
17	0.8	[S]	[S]	[S]	1.2	0.8	1.0	1.7	1.6	1.1	1.6	1.3	1.1	1.4	1.3	2.0	2.4	0.5	1.2	0.6	0.4	0.7	0.5	0.6	0.6	1.1
18	0.2	[S]	[S]	[S]	1.1	0.8	2.2	6.4	4.0	2.2	2.5	0.7	0.5	0.6	1.1	0.7	1.1	1.5	1.5	2.3	2.0	2.8	2.1	4.0	3.4	2.0
19	2.5	[S]	[S]	[S]	3.5	3.0	2.9	3.6	5.8	3.9	4.3	3.4	2.3	1.7	1.											

Version: LC:15-OCT-931

PARTS PER MILLION

SITE 1 LAX

FEB, 1998

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

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*      FINAL DATA                  *
* AS OF 23/APR/98                  *
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CLOCK HOUR [LOCAL STANDARD TIME]

DX	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK		
1	[	]	[28]	[28]	255	150	122	133	104	99	83	59	32	34	20	13	14	14	11	19	36	52	43	37	64	255	
2	33	[28]	[28]	10	16	34	54	59	66	71	84	96	49	35	39	45	[]	[]	[]	[]	[]	45	96
3	[]	[]	[]	[]	19	12	46	51	43	41	41	49	48	43	47	50	56	30	56	67	39	27	42	67
4	23	[28]	[28]	43	90	67	[9C]	[28]	[CA]	[CA]	57	28	53	78	54	56	103	40	41	50	41	50	95	162	63	162		
5	209	[28]	[28]	175	148	134	192	222	232	116	63	39	42	33	32	32	40	42	37	54	66	108	105	112	102	232		
6	75	[28]	[28]	23	23	34	66	52	70	60	52	23	37	11	11	103	17	32	21	32	34	30	67	109	45	109		
7	133	[28]	[28]	140	148	158	203	211	162	115	54	30	14	14	20	24	27	22	24	16	13	13	48	15	73	211		
8	17	[28]	[28]	9	52	109	129	[8C]	135	95	64	24	31	19	16	13	9	12	31	35	66	68	81	51	135			
9	93	[28]	[28]	73	94	137	262	232	146	99	44	52	36	39	16	42	56	32	62	62	52	57	79	99	85	262		
10	122	[28]	[28]	115	97	152	195	203	218	97	56	52	75	78	47	57	34	47	48	50	64	35	111	195	97	218		
11	153	[28]	[28]	45	180	261	261	261	237	166	44	53	90	75	39	28	40	37	33	36	40	60	86	123	107	261		
12	218	[28]	[28]	159	260	193	273	[8C]	[8C]	156	85	127	104	100	41	41	68	79	90	64	86	39	59	46	117	273		
13	23	[23]	[28]	84	123	193	208	252	206	116	76	59	35	23	28	25	22	15	19	23	29	82	121	140	86	252		
14	136	[23]	[28]	89	62	47	51	60	64	25	36	24	32	38	12	7	41	18	24	19	39	20	23	32	41	136		
15	22	[28]	[28]	46	44	47	12	37	62	46	33	32	45	67	63	27	18	16	20	17	18	17	15	18	13	67		
16	14	[24]	[28]	73	92	139	169	[8C]	[8C]	87	59	34	19	9	7	10	43	57	28	28	45	53	38	35	52	169		
17	21	[28]	[28]	17	20	38	69	65	60	59	32	22	31	28	29	37	17	26	45	43	38	34	39	17	36	69		
18	9	[28]	[28]	290	50	127	251	214	164	105	54	46	48	68	30	31	30	34	73	86	118	117	227	267	99	267		
19	230	[28]	[28]	190	176	196	207	230	221	198	111	127	107	80	63	48	21	56	46	58	52	64	47	57	117	230		
20	52	[28]	[28]	65	46	49	[8C]	[8C]	36	40	23	44	48	68	24	51	46											

00000 [Program; EDM48 MONTHS]

Version: LC:15-OCT-93)

PARTS PER BILLION

SITE 1 LAX

FEB, 1998

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

```
*****
*                                     *
*          FINAL DATA              *
*    AS OF 23/APR/98              *
*                                     *
*****
```

CLOCK HOUR [LOCAL STANDARD TIME]

[illegible]

0000 [Program: EDMS MONTHSUM

Version: LC:15-OCT-93]

PARTS PER BILLION

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

FEB, 1998

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

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*****
*                                     *
*      FINAL DATA                   *
*      AS OF 23/APR/98               *
*                                     *
*****
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CLOCK HOUR (LOCAL STANDARD TIME)

[illegible]

00000 (Program: EDMS_MONTHSUM

Version: LC:15-OCT-93]

WIND DIRECTION AVERAGE . (61102)

LAX AIR QUALITY MONITORING PROGRAM, #706211

DEGREES, COMPASS

SITE 1 LAX

FEB. 1998

AEROVIRGINMENT ENVIRONMENTAL SERVICES INC.

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*****
#
#      FINAL DATA      #
#  AS OF 23/APR/98    *
#                      *
*****
```

CLOCK HOUR [LOCAL STANDARD TIME]

IX	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	PRSV		
1	[	]	NE	NE	NE	NE	E	ENE	NE	ENE	ENE	E	SE	SE	SE	E	S	SSW	SW	SW	SE	SE	E	E	ENE	E	[VA]
2	E				E	ENE		E	E	E	E	E	ENE	SE	E	E	SSW	SW	SW	SE	SE	E	E	E	ENE	E	[VA]
3	[	[	]	]	[	[	[	SE	E	E	E	E	ENE	SE	E	E	SSW	SW	SW	SE	SE	E	E	E	E	E	[VA]
4	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	[VA]
5	W	W	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	[VA]
6	W	W	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	[VA]
7	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	[VA]
8	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	[VA]
9	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	[VA]
10	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	[VA]
11	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	[VA]
12	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	[VA]
13	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	[VA]
14	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	[VA]
15	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	[VA]
16	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	[VA]
17	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	[VA]
18	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	[VA]
19	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	[VA]
20	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	[VA]
21	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	[VA]
22	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	[VA]
23	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	[VA]
24	W	W	W	W																							

CU004 [Program: EDACS MONTHSUM

Version: LC:15-OCT-93}

WIND DIRECTION AVERAGE [61102]

DEGREES, COMPASS

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

FEB, 1998

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 23/APR/98 *
*

CLOCK HOUR [LOCAL STANDARD TIME]

DX	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	PREV
1	[]	43	56	44	54	87	71	55	72	68	100	132	139	154	174	183	212	223	209	155	126	99	104	91	[VA]
2	90	88	82	85	103	99	93	85	93	88	101	110	130	130	120	119	[]	[]	[]	[]	[]	[]	[]	[]	[]
3	[]	[]	[]	[]	[]	[]	135	170	107	87	89	81	89	74	71	68	10	294	317	317	317	317	317	317	[]
4	299	306	305	35	15	72	79	58	57	332	267	273	274	265	271	269	266	271	275	287	325	355	6	22	[VA]
5	70	87	92	63	57	81	63	67	63	98	113	116	129	131	151	166	144	177	169	134	80	97	92	102	5
6	106	94	100	105	105	101	94	103	103	105	109	176	219	191	213	269	245	244	247	273	247	313	28	67	6
7	111	104	59	57	47	78	74	73	93	110	121	163	170	166	163	147	143	149	151	157	175	113	171	255	[VA]
8	250	258	253	303	30	33	89	55	79	60	82	221	259	261	259	242	205	218	301	93	76	74	59	71	[VA]
9	56	28	338	343	43	97	86	66	76	80	75	64	248	255	255	255	260	276	315	8	351	2	2	13	[VA]
10	48	63	44	53	45	63	45	14	41	62	89	197	250	264	262	267	268	267	270	295	179	246	283	337	[VA]
11	300	309	303	325	71	36	69	69	59	61	155	194	258	251	253	250	265	262	254	264	281	321	4	117	[VA]
12	63	70	56	57	58	22	93	55	57	82	237	23	251	265	253	252	280	283	287	300	278	283	293	283	[VA]
13	298	316	66	63	109	125	26	66	75	102	153	203	241	240	262	260	260	258	259	229	198	110	84	111	[VA]
14	117	94	84	95	89	91	95	106	116	135	103	111	114	68	244	243	270	279	279	278	275	286	297	296	5
15	292	319	343	336	334	284	295	24	75	39	28	277	260	265	271	280	310	340	335	331	342	331	346	12	[VA]
16	329	9	45	75	57	57	60	68	79	103	118	130	165	217	218	229	74	181	200	173	80	100	97	88	4
17	95	94	99	101	97	87	90	15	29	306	287	273	262	270	278	279	282	284	326	320	316	344	334	355	[VA]
18	358	3	311	336	60	97	94	55	69	71	80	123	165	258	264	261	262	257	281	82	123	138	98	69	5
19	78	80	52	77	64	73	61	54	70	73	82	88	109	118	135	167	185	107	103	94	67	41	105	21	[VA]
20	22	331	330	341	318	325	314	343	333	334	292	270	273	277	276	280	304	307	335	345	360	1	23	[VA]	
21	64	59	45	60	71	67	60	62	65	85	121	140	190	230	248	258	256	254	250	233	153	106	105	103	[VA]
22	107	98	68	197	245	251	248	36	30	65	90	164	250	256	261	259	266	285	254	250	198	125	112	105	[VA]
23	96	105	141	172	186	184	191	199	185	174	163	167	179	196	175	190	279	242	231	280	266	156	115	70	9
24	55	55	76	66	29	64	26	331	327	313	268	254	262	271	272	271	272	276	338	345	337	353	326	333	[VA]
25	347	11	314	329	354	348	344	294	335	347	339	288	258	266	274	278	268	251	312	337	333	355	350	334	16
26	336	332	281	290	346	65	84	76	84	116	252	263	257	263	265	273	276	284	291	304	340	340	350	4	[VA]
27	116	88	346	335	330	330	3	29	11	54	85	285	255	255	253	262	258	262	245	244	13	342	46	51	[VA]
28	55	47	62	17	15	19	30	22	45	50	85	117	244	258	258	260	265	264	261	257	179	94	82	86	2
AV	[VA]	[VA]	3	[VA]	[VA]	4	5	4	4	4	5	[VA]	12	12	13	13	13	13	13	[VA]	[VA]	[VA]	[VA]	[VA]	

00001 [Program: EDAS_MONTHSUM]

Version: LC:15-OCT-93]

WIND SPEED [61101]

METERS/SECOND

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

FEB, 1998

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 23/APR/98 *
*

CLOCK HOUR [LOCAL STANDARD TIME]

DX	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG PEAK		
1	[]	2.2	2.1	1.2	1.7	1.1	1.2	2.5	2.1	2.8	2.7	2.2	2.3	2.8	3.8	3.9	3.3	3.3	2.4	2.0	2.0	2.4	3.2	2.5	2.4	3.9	
2	3.5	3.7	4.0	4.0	3.5	3.5	3.3	3.7	4.1	3.3	3.3	2.8	4.0	4.4	5.0	4.4	[]	[]	[]	[]	[]	[]	[]	[]	3.8	5.0	
3	[]	[]	[]	[]	[]	[]	1	6.5	6.2	4.9	7.3	5.9	6.6	5.5	3.7	6.0	5.0	3.0	3.5	2.8	2.6	1.6	1.9	2.6	3.1	4.4	7.3
4	3.9	4.0	3.1	1.3	1.5	1.0	1.6	2.0	1.7	1.3	3.0	5.3	7.0	9.4	10.2	9.3	9.2	9.0	6.5	4.6	2.2	1.1	1.0	0.9	4.2	10.2	
5	0.9	1.1	1.2	2.1	2.2	2.2	1.5	1.8	2.2	2.6	2.8	2.5	3.1	2.9	3.5	3.2	3.3	2.9	2.1	1.7	2.3	3.1	3.0	3.2	2.4	3.5	
6	3.1	3.4	4.2	4.4	5.0	6.0	5.9	7.7	6.6	5.8	5.2	5.7	1.8	4.7	6.9	6.5	5.6	6.7	5.7	5.2	4.7	4.1	1.6	1.8	4.9	7.7	
7	1.4	1.7	1.9	1.9	1.2	1.1	1.2	1.6	2.6	2.8	3.2	3.2	4.4	4.8	5.6	6.4	6.3	5.9	4.5	5.8	5.3	3.6	1.7	3.1	3.4	6.4	
8	3.4	4.1	2.5	1.7	0.8	0.5	0.6	1.1	1.5	2.1	2.0	1.8	3.4	3.8	4.4	3.9	4.7	3.5	3.1	1.7	2.6	2.6	2.3	1.1	2.5	4.7	
9	1.1	1.2	1.4	1.0	1.4	0.8	1.2	1.6	1.6	2.1	2.1	1.9	4.6	5.0	5.4	6.5	5.8	4.5	2.5	2.5	2.6	2.0	2.1	1.6	2.6	6.5	
10	2.1	1.0	1.1	1.8	2.1	1.0	1.3	2.1	1.0	2.2	1.4	1.2	2.9	5.2	5.0	5.5	5.3	6.0	6.4	2.9	1.0	2.1	1.8	1.6	2.7	6.4	
11	1.2	1.2	1.9	1.6	0.7	1.2	1.4	2.0	2.3	2.4	1.5	1.5	3.5	3.7	3.1	3.7	3.5	4.5	3.4	3.0	2.5	1.8	1.1	0.7	2.2	4.5	
12	1.0	1.0	1.1	0.6	0.7	1.1	0.8	1.6	2.0	1.9	1.7	1.9	4.0	6.1	4.1	2.1	1.6	2.3	3.4	2.3	3.9	5.3	2.8	5.0	2.4	6.1	
13	2.7	1.6	1.1	1.9	1.2	0.6	1.1	1.6	1.9	2.6	1.8	2.1	4.9	4.3	5.0	4.7	4.2	4.2	3.2	1.7	1.3	1.4	1.4	1.3	2.4	5.0	
14	1.4	1.5	1.7	2.0	2.4	3.0	2.7	3.6	2.8	4.3	4.2	5.9	4.9	3.9	8.0	10.3	7.7	8.8	9.0	9.2	10.6	9.1	5.2	4.6	5.3	10.6	
15	3.2	3.6	2.0	2.2	1.9	2.3	4.3	2.4	2.3	2.7	1.7	3.2	6.1	7.9	9.1	8.2	5.9	5.9	4.6	4.5	2.1	5.3	5.4	3.6	4.3	9.1	
16	3.8	2.7	1.2	1.6	1.5	1.4	1.9	2.5	2.5	3.6	4.0	3.7	3.0	4.8	4.8	3.9	1.9	1.4	2.6	2.0	1.8	4.7	4.0	4.3	2.9	4.9	
17	5.1	5.5	5.0	4.0	2.2	2.5	2.0	2.7	1.0	2.0	3.8	4.9	5.4	6.8	8.8	8.9	8.1	6.8	3.0	3.2	3.4	3.7	3.2	4.3	4.4	8.9	
18	4.3	6.0	2.5	1.8	1.6	1.3	1.2	1.3	2.3	2.3	1.8	2.1	1.6	5.0	4.8	4.3	4.1	3.4	1.8	1.0	1.8	1.3	1.2	1.6	2.5	6.0	
19	1.3	0.6	1.2	1.3	0.9	1.6	1.8	1.3	2.2	2.0	1.8	3.3	3.6	4.0	3.8	3.4	3.3	2.9	3.7	2.9	2.9	3.9	4.2	1.5	2.9	4.2	
20	1.7	1.9	1.5	1.7	1.6	2.0	2.2	1.8	2.8	3.6	4.3	5.1	6.3	6.7	7.9	8.0	7.4	3.7	3.1	2.8	2.1	1.4	1.6	1.7	3.5	5.0	
21	1.3	1.1	1.0	1.1	1.5	1.4	1.6	1.9	1.8	2.7	3.2	3.1	3.3	2.9	4.1	5.4	5.7	4.3	3.5	3.2	2.3	3.2	3.9	4.1	2.8	5.7	
22	2.9	3.3	2.2	3.0	7.2	5.4	2.1	2.1	2.5	2.3	2.0	1.5	2.9	4.1	3.6	3.5	3.3	3.6	3.1	2.8	1.9	1.7	2.6	1.7	3.0	7.2	
23	2.2	2.0	2.3	3.4	4.2	3.9	4.6	5.6	4.7	5.7	6.8	8.0	6.7	5.6	4.5	6.1	3.2	2.0	3.6	4.0	2.7	2.2	2.6	2.6	4.1	8.0	
24	2.4	3.6	3.5	4.1	2.9	2.4	1.8	1.7	1.2	2.4	4.4	5.2	6.0	9.4	11.5	11.0	9.4	7.9	3.8	3.1	2.5	2.7	1.8	3.1	4.5	11.5	
25	5.3	2.4	2.1	2.9	1.4	4.0	4.6	2.4	3.4	5.4	5.1	4.9	6.5	6.4	6.3	5.9	5.5	3.5	2.4	3.8	4.4	6.4	4.8	3.4	4.9	6.5	
26	2.6	2.0	2.2	2.0	1.6	1.7	1.3	1.5	1.9	1.6	1.3	4.3	5.2	6.4	6.5	7.1	6.6	4.9	3.6	3.5	2.9	5.4	4.5	3.7	3.5	7.1	
27	2.1	2.2	1.9	2.2	2.0	2.3	2.6	2.7	1.5	2.6	2.8	2.8	5.6	5.6	5.3	5.4	3.9	3.3	2.9	2.0	2.5	1.3	1.1	1.4	2.9	5.6	
28	1.2	1.1	1.0	1.2	2.2	1.1	1.5	1.6	1.9	2.6	2.3	2.5	4.1	4.9	5.4	5.4	5.0	4.1	3.7	2.8	1.0	0.8	1.0	1.3	2.5	5.4	
AV	2.6	2.4	2.1	2.2	2.1	2.1	2.3	2.5	2.6	3.0	3.1	3.6	4.4	5.2	5.8	5.8	5.1	4.5	3.7	3.2	2.9	3.1	2.7	2.5	3.3		
SD	1.4	1.4	1.1	1.0	1.4	1.4	1.5	1.6	1.3	1.4	1.5	1.8	1.5	1.7	2.1	2.2	2.1	2.0	1.6	1.6	1.9	1.9	1.3	1.3			
PK	5.3	6.0	5.0	4.4	7.2	6.0	6.5	7.7	6.8	7.3	6.8	8.0	7.0	9.4	11.5	11.0	9.4	9.0	9.0	9.2	10.6	9.1	5.4	5.0		11.5	

RESULTANT SPEED [61103]

METERS/SECOND

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

FEB, 1998

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 23/APR/98 *
*

CLOCK HOUR [LOCAL STANDARD TIME]

DX	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	[]	1.1	2.0	1.2	1.6	0.8	1.2	2.4	2.0	2.7	2.4	2.0	2.0	2.3	3.6	3.6	3.1	3.2	2.2	1.7	1.9	2.3	3.1	2.4	2.2	3.6
2	3.4	3.7	4.0	4.0	3.4	3.5	3.3	3.6	4.0	3.2	3.2	2.7	3.9	4.3	4.9	4.4	[]	[]	[]	[]	[]	[]	[]	[]	3.7	4.9
3	[]	[]	[]	[]	[]	[]	5.4	3.9	4.8	7.2	5.8	6.5	5.4	3.5	5.9	4.9	2.5	3.4	2.3	2.2	1.5	1.8	2.5	2.9	4.0	7.2
4	3.7	3.8	2.9	0.9	0.8	0.3	1.4	1.9	1.5	0.9	2.7	5.1	6.8	9.3	10.1	9.2	9.1	8.9	6.4	4.3	1.9	1.0	1.0	0.8	3.9	10.0
5	0.9	1.0	1.0	1.9	2.1	2.1	1.5	1.8	2.2	2.4	2.6	1.9	2.9	2.8	3.2	3.0	3.1	2.7	1.9	1.4	2.1	3.1	2.9	3.2	2.2	3.2
6	3.0	3.3	4.2	4.3	5.0	5.9	5.6	7.6	6.5	5.7	5.0	4.5	1.3	4.4	6.7	6.3	5.5	6.1	5.7	4.9	4.6	2.9	1.5	1.7	4.7	7.6
7	1.3	1.4	1.8	1.9	1.0	1.0	1.2	1.5	2.5	2.7	3.0	2.8	4.2	4.6	5.4	6.3	6.2	5.8	4.3	5.7	5.1	3.3	0.8	3.1	3.2	6.3
8	3.3	4.0	2.4	1.3	0.4	0.4	0.5	1.0	1.5	2.1	1.7	1.1	3.4	3.8	4.2	3.6	4.8	3.2	2.7	1.4	2.4	2.4	1.7	0.9	2.2	4.5
9	0.9	1.1	1.4	0.9	1.0	0.2	1.2	1.5	1.5	2.0	1.8	0.1	4.5	4.9	5.3	6.4	5.7	5.3	1.9	2.4	2.5	2.0	2.0	1.5	2.4	6.4
10	2.1	0.9	1.1	1.8	2.1	0.7	1.3	1.9	0.7	2.0	0.8	0.8	2.7	5.1	4.8	5.4	5.3	5.9	6.3	2.7	0.5	1.8	1.1	1.5	2.5	6.3
11	1.1	1.1	1.8	1.1	0.6	1.1	1.3	1.9	2.1	2.3	0.6	1.3	3.4	3.6	3.0	3.5	3.4	4.5	3.3	2.9	2.3	1.6	1.0	0.2	2.0	4.5
12	0.9	0.9	1.0	0.5	0.7	1.0	0.7	1.5	1.9	1.7	0.7	0.8	3.9	5.0	4.0	1.9	1.3	2.0	3.3	2.1	3.7	5.1	2.7	4.9	2.2	6.0
13	2.6	1.4	0.8	1.8	1.1	0.5	0.9	1.6	1.7	2.4	1.5	1.4	4.6	4.1	4.9	4.6	4.1	4.1	3.1	1.4	1.2	1.0	1.3	1.2	2.2	4.9
14	1.3	1.5	1.6	2.0	2.3	3.0	2.6	3.5	2.6	4.2	4.0	5.8	4.5	2.5	7.7	10.2	7.5	8.7	8.9	9.0	10.5	8.9	4.9	4.4	5.1	10.5
15	5.0	3.3	1.8	2.2	1.7	2.0	4.1	1.9	0.3	1.3	1.2	2.9	6.0	7.7	9.0	8.0	5.1	5.7	4.5	4.4	1.8	5.1	5.3	3.3	3.9	9.0
16	3.5	2.2	0.9	1.4	1.4	1.4	1.9	2.4	2.5	3.5	3.8	3.4	2.4	4.6	4.6	3.7	1.3	0.4	2.4	1.3	1.6	4.7	3.9	4.2	2.6	4.7
17	5.1	5.4	4.9	3.9	2.1	2.4	1.9	2.4	0.9	1.5	3.6	4.6	5.3	6.7	8.6	8.8	8.0	6.7	2.7	3.0	3.2	2.5	3.0	4.3	4.3	8.8
18	4.1	5.8	2.1	1.4	1.2	1.0	0.9	1.2	2.3	2.0	1.6	1.7	1.1	4.9	4.7	4.2	4.0	3.3	1.6	0.7	1.7	1.2	1.0	1.6	2.3	5.8
19	1.3	0.6	1.1	1.2	0.9	1.5	1.7	1.2	2.1	1.9	1.6	3.2	3.5	3.8	3.6	3.1	3.2	2.7	3.6	2.8	2.7	3.2	3.7	1.3	2.3	3.8
20	1.6	1.9	1.5	1.7	1.5	1.9	2.1	1.7	2.6	3.4	4.0	4.6	6.1	6.5	7.7	7.9	7.2	3.5	2.8	2.4	2.0	1.2	1.7	1.5	3.3	7.9
21	1.2	1.1	0.9	1.1	1.5	1.4	1.5	1.8	1.8	2.5	2.9	2.7	1.9	2.6	3.9	5.3	5.7	4.2	3.6	2.9	1.7	3.1	3.6	3.9	2.6	5.7
22	2.8	3.3	1.9	2.3	7.1	5.2	2.0	1.8	2.3	2.2	1.7	1.2	2.7	4.0	3.5	3.5	3.2	3.6	3.1	2.8	1.2	1.7	2.5	1.6	2.8	7.1
23	2.1	2.0	2.2	3.3	4.1	3.8	4.4	5.5	4.6	5.6	6.7	7.9	6.5	5.4	4.4	5.8	3.0	1.9	3.1	3.8	2.5	1.4	2.4	2.4	4.0	7.9
24	1.8	3.4	3.4	4.0	2.7	2.0	1.3	1.5	0.9	2.0	4.3	5.0	5.7	9.3	11.4	10.9	9.4	7.8	3.1	3.0	2.4	2.5	1.4	2.9	4.3	11.4
25	5.1	1.6	1.9	2.8	1.2	3.8	4.5	2.2	3.3	5.2	4.9	4.1	6.5	6.2	6.1	5.8	5.4	3.2	3.6	4.2	6.2	4.6	3.3	4.1	6.5	
26	2.5	1.8	2.2	1.9	1.2	1.7	1.3	1.5	1.7	1.2	0.5	4.2	5.1	6.2	6.4	7.0	6.5	4.8	3.6	3.4	2.8	5.3	4.3	3.4	3.3	7.0
27	0.9	1.9	1.5	1.7	2.0	2.2	2.4	1.1	3.0	2.1	2.5	1.5	5.3	5.5	5.2	5.3	3.8	3.2	2.8	1.0	2.3	1.1	0.8	1.2	2.5	5.5
28	1.0	0.9	0.8	1.0	2.1	1.0	1.2	1.5	1.8	2.5	1.9	2.2	3.4	4.9	5.3	5.3	4.9	4.0	3.6	2.6	0.5	0.6	1.0	1.2	2.3	5.3
AV	2.4	2.2	2.0	2.0	2.0	1.9	2.1	2.3	2.3	2.8	2.7	3.1	4.1	5.0	5.6	5.6	4.9	4.4	3.6	3.0	2.6	2.9	2.4	2.4	3.1	
SD	1.4	1.4	1.1	1.1	1.1	1.5	1.5	1.4	1.4	1.3	1.5	1.6	1.9	1.6	1.8	2.1	2.3	2.1	2.0	1.6	1.7	1.9	1.9	1.4	1.3	
PK	5.1	5.8	4.9	4.3	7.1	5.9	5.8	7.6	6.5	7.2	6.7	7.9	6.8	9.3	11.4	10.9	9.4	8.9	8.9	9.0	10.5	8.9	5.3	4.9		11.4

OU000 [Program: KINS_MONTHSUM]

Version: LC:15-OCT-93]

RESULTANT DIRECTION [61104]

DEGREES, COMPASS

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

FEB, 1998

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 23/APR/98 *
*

CLOCK HOUR [LOCAL STANDARD TIME]

DX	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	PREV
1	[]	NE	NE	NE	NE	ENE	ENE	NE	ENE	ENE	E	SE	SE	SE	S	S	SSW	SW	SSW	SE	SE	E	ESE	E	NE
2	E	E	E	E	ESE	E	E	E	E	E	E	ESE	SE	SE	SE	SE	SE	SE	SE	SE	SE	E	ESE	E	NE
3	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	E
4	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	E
5	ENE	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
6	ESE	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
7	ESE	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
8	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	E
9	ESE	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
10	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	E
11	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	E
12	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	E
13	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	E
14	ESE	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
15	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	E
16	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	E
17	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
18	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	E
19	ESE	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
20	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	E
21	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	E
22	ESE	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
23	ESE	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
24	ESE	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
25	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	E
26	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	E
27	ESE	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
28	ESE	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E

RESULTANT DIRECTION [61104]

DEGREES, COMPASS

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

FEB, 1998

AEROENVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 23/APR/98 *
*

CLOCK HOUR [LOCAL STANDARD TIME]

BY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	RECV
1	[]	43	56	51	53	78	67	56	70	69	99	132	138	158	174	183	213	223	210	156	127	99	103	91	3
2	91	88	82	85	103	99	92	85	100	108	132	130	120	119	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	5
3	[]	[]	[]	[]	[]	[]	129	181	107	87	69	81	89	77	71	68	10	297	313	320	328	315	302	302	5
4	294	303	301	30	19	51	79	59	62	331	273	273	272	264	271	268	266	271	274	280	328	352	5	33	[VA]
5	76	83	87	61	56	80	63	66	64	86	114	113	129	131	152	165	145	176	173	132	79	87	92	101	5
6	106	94	100	104	105	102	94	103	103	105	110	175	207	193	213	269	245	280	247	273	248	290	28	68	[VA]
7	109	99	60	57	53	88	74	74	94	111	121	161	169	165	163	147	149	149	151	187	176	215	200	255	[VA]
8	251	259	258	304	40	50	94	56	79	62	84	233	259	251	260	243	205	223	293	44	78	75	63	73	4
9	64	23	340	346	36	130	86	66	75	79	78	318	248	256	256	266	268	275	309	7	351	0	2	11	[VA]
10	47	63	48	49	44	65	45	15	57	64	94	195	263	255	263	267	268	267	270	288	170	256	279	337	[VA]
11	297	308	302	315	74	42	69	69	60	62	144	199	289	251	255	261	265	262	254	264	279	320	359	129	[VA]
12	60	71	58	69	56	23	98	55	60	82	244	24	257	264	257	259	277	288	283	298	276	281	292	282	[VA]
13	297	320	63	63	105	110	26	66	78	101	149	209	243	242	262	261	260	258	259	237	196	111	83	107	[VA]
14	117	94	82	85	88	91	95	106	117	136	103	111	114	70	244	242	269	278	278	277	275	285	291	292	5
15	289	310	345	337	335	282	293	20	11	32	27	272	260	265	271	279	306	341	335	331	344	331	346	5	[VA]
16	331	1	51	79	59	58	61	60	80	103	119	132	171	217	218	228	70	206	219	183	79	100	97	88	5
17	95	94	98	101	98	86	92	12	30	290	286	270	261	271	277	279	282	283	322	321	315	344	335	356	[VA]
18	357	2	316	332	61	92	87	62	70	71	78	120	156	258	263	261	262	258	277	90	124	139	104	68	[VA]
19	75	81	57	76	55	70	67	59	73	74	97	88	109	118	136	170	187	110	103	93	69	58	101	22	4
20	20	331	331	341	317	333	326	318	344	335	335	289	269	271	277	275	279	303	306	341	346	357	359	16	[VA]
21	65	60	46	68	70	66	59	63	65	86	121	140	204	251	250	258	256	254	250	233	150	106	101	103	[VA]
22	107	98	72	209	245	250	250	35	30	65	90	171	256	255	261	259	266	255	254	250	256	126	113	107	[VA]
23	96	105	143	171	186	184	191	199	185	174	163	167	179	196	175	190	276	243	245	278	265	155	115	71	9
24	59	56	75	66	32	68	24	331	332	312	268	253	263	270	272	271	272	275	333	345	338	349	331	334	[VA]
25	348	358	320	331	355	348	345	295	325	347	339	282	258	265	273	277	268	287	311	339	333	355	350	325	16
26	337	337	279	289	342	63	84	76	85	119	240	263	257	263	265	273	275	282	291	303	341	348	350	360	[VA]
27	114	92	343	331	331	330	360	35	4	54	86	267	255	256	253	262	259	262	246	252	11	345	41	47	[VA]
28	88	47	56	22	15	24	39	28	46	52	88	117	253	258	258	260	265	266	262	258	194	98	82	86	3

PV [VA] [VA] 4 [VA] 3 4 5 4 4 4 5 [VA] 12 12 13 [VA] [VA] 13 12 13 [VA] [VA] [VA] [VA]

00001 [Program: EDMS_MENTHUM]

Version: LC:15-OCT-93

SIGMA TRENT STABILITY [61191]

DEGREES, COMPASS

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

FEB, 1998

AEROENVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 23/APR/98 *
*

CLOCK HOUR [LOCAL STANDARD TIME]

BY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	[]	4	4	4	5	5	6	4	2	3	1	1	1	1	2	2	2	4	6	6	6	5	4	5
2	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5
3	[]	[]	[]	[]	[]	[]	[]	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5
4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5
5	6	6	6	6	5	5	4	4	3	2	1	2	3	4	4	4	4	4	4	4	4	4	4	5
6	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5
7	6	6	5	5	5	5	5	3	3	2	2	2	3	3	4	4	4	4	4	4	4	4	4	5
8	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5
9	6	6	6	6	6	6	5	3	2	2	1	1	1	3	4	4	4	4	4	4	4	4	4	5
10	5	6	6	6	5	5	5	6	1	1	1	1	1	3	4	4	4	4	4	4	4	4	4	5
11	6	6	5	6	6	6	5	5	2	2	1	1	1	3	4	4	4	4	4	4	4	4	4	5
12	6	6	5	6	6	6	6	3	2	1	1	1	1	3	4	4	4	4	4	4	4	4	4	5
13	4	6	6	4	6	6	6	3	2	2	1	1	1	3	3	4	4	4	4	4	4	4	4	5
14	5	5	4	4	4	4	4	4	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5
15	4	4	6	5	6	6	4	6	1	1	1	2	4	4	4	4	4	4	4	4	4	4	4	5
16	4	6	6	6	6	5	5	3	3	3	2	2	2	2	3	3	4	4	4	4	4	4	4	5
17	4	4	4	4	4	5	5	6	1	1	2	3	4	4	4	4	4	4	4	4	4	4	4	5
18	4	4	4	4	4	6	6	6	1	2	1	1	1	1	4	4	4	4	4	4	4	4	4	5
19	6	6	6	5	5	5	5	6	2	2	1	3	3	3	4	4	4	4	4	4	4	4	4	5
20	6	5	5	5	5	5	5	1	2	2	3	3	4	4	4	4	4	4	4	4	4	4	4	5
21	5	5	5	5	4	4	5	3	2	2	2	2	2	1	3	4	4	4	4	4	4	4	4	5
22	4	4	4	4	4	4	4	4	6	2	2	1	1	1	3	3	4	4	4	4	4	4	4	5
23	6	4	4	4	4	4	4	4	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	5
24	6	4	4	4	4	4	4	6	1	1	3	3	3	4	4	4	4	4	4	4	4	4	4	5
25	4	6	6	5	6	4	4	2	3	3	3	3	4	3	3	4	4	4	4	4	4	4	4	5
26	4	6	5	5	6	6	4	2	1	1	1	3	4	4	4	4	4	4	4	4	4	4	4	5
27	6	6	6	5	5	5	6	1	2	1	1	2	4	4	4	4	4	4	4	4	4	4	4	5
28	6	6	6	5	5	6	6	1	2	1	1	1	3	4	4	4	4	4	4	4	4	4	4	5

00001 [Program: EDMS_MENTHUM]

Version: LC:15-OCT-93

TEMPERATURE [62101]
DEGREES CENTIGRADE
LEVEL HEIGHT : 9 METERS

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

FEB, 1998

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 23/APR/98 *
*

CLOCK HOUR [LOCAL STANDARD TIME]

DT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK		
1	[]	12.9	12.5	11.7	11.7	11.3	11.2	11.0	12.9	14.6	16.2	17.2	17.7	18.3	18.6	18.2	17.5	17.2	17.3	17.4	17.5	17.3	15.4	19.4	15.5	19.4		
2	14.8	14.8	14.5	14.2	14.4	14.1	14.9	13.9	13.8	14.4	15.7	18.5	17.4	16.1	15.6	16.8	[]	[]	[]	[]	[]	[]	[]	[]	15.2	18.5		
3	[]	[]	[]	[]	[]	[]	[]	15.3	13.7	12.9	13.4	13.9	13.9	13.8	12.6	14.0	14.4	13.4	13.3	12.2	13.4	13.7	14.4	14.4	13.7	15.3		
4	14.3	14.5	14.3	12.6	12.6	12.5	11.7	11.6	13.1	14.7	15.8	16.7	17.2	17.1	17.3	17.2	17.0	16.7	16.7	16.5	16.1	15.7	15.5	15.0	15.1	17.3		
5	13.9	13.2	13.2	12.8	12.4	12.5	12.4	12.4	13.9	15.5	16.7	17.3	17.4	17.6	17.7	17.6	17.4	17.0	16.8	16.8	16.6	16.2	15.9	15.6	15.4	17.7		
6	15.4	15.3	15.4	15.4	15.5	15.5	15.4	15.5	14.3	13.2	15.1	15.8	16.3	17.4	18.0	16.0	17.4	16.2	16.8	15.1	15.7	15.0	13.9	13.5	15.5	18.0		
7	13.2	13.1	12.4	11.9	12.0	11.6	11.7	12.2	13.6	15.1	16.5	17.0	17.9	18.2	18.0	17.5	17.2	16.8	15.7	16.1	16.6	16.4	16.0	16.6	15.1	18.2		
8	16.4	16.5	16.4	15.9	15.2	14.6	14.5	14.8	14.9	15.5	16.5	17.1	17.4	17.3	17.3	17.3	16.3	14.6	15.0	14.7	[GO]	[GO]	15.3	13.0	15.8	17.4		
9	12.6	12.3	12.0	11.7	11.0	11.0	10.4	11.0	12.8	14.0	15.3	16.3	16.4	16.7	16.8	16.6	16.8	17.1	17.1	16.2	15.4	14.9	14.5	13.8	14.3	17.1		
10	12.8	12.4	12.4	12.0	12.2	11.8	12.0	12.4	13.7	15.7	16.9	17.9	18.4	18.1	17.7	17.2	17.0	16.8	16.8	17.0	16.7	16.4	16.1	15.8	15.3	18.4		
11	15.7	15.9	15.8	15.0	13.4	13.7	13.6	13.8	14.6	15.6	16.7	17.1	17.1	17.2	17.6	17.0	16.7	16.2	16.3	16.3	16.5	16.3	15.7	15.4	15.8	17.6		
12	14.6	14.1	13.8	13.3	13.2	12.9	12.7	13.3	14.5	16.3	17.1	17.9	18.0	17.4	17.4	18.2	18.7	18.8	18.1	18.0	17.8	17.8	17.5	16.9	16.2	18.8		
13	16.5	15.8	14.9	14.1	13.4	13.3	13.3	13.6	15.0	16.5	17.6	18.3	18.1	18.1	17.8	17.5	17.2	16.8	16.7	16.8	16.8	16.6	16.4	16.9	16.1	18.3		
14	16.4	16.3	16.1	15.8	15.7	15.7	15.7	14.9	[GO]	14.5	14.3	14.1	14.6	15.3	18.2	17.2	17.0	17.0	16.9	16.7	16.4	16.1	15.6	15.1	15.9	18.2		
15	14.9	13.7	12.6	12.4	12.7	12.7	14.3	12.9	13.4	14.6	15.3	15.8	15.9	16.9	16.7	17.0	17.9	17.5	16.4	15.8	15.4	15.3	15.3	14.7	15.0	17.9		
16	14.2	13.8	12.9	11.3	10.4	10.4	10.2	10.6	12.3	14.5	16.1	16.7	17.2	16.7	16.5	16.0	15.0	15.3	14.6	13.5	13.2	13.1	12.1	12.3	13.7	17.2		
17	12.6	12.2	12.4	12.5	12.0	11.1	10.9	11.6	12.4	13.7	14.8	15.4	15.9	17.0	17.6	17.6	17.6	17.2	17.1	16.4	16.0	15.8	15.6	15.7	14.6	17.6		
18	15.7	15.7	14.7	14.5	13.6	12.3	11.3	11.6	13.5	15.4	17.1	18.2	18.8	18.1	17.5	17.2	17.0	16.5	16.9	16.8	16.5	16.2	15.7	14.5	15.6	18.8		
19	13.9	13.4	13.2	12.7	12.9	12.9	13.0	13.5	14.3	15.3	15.8	15.9	16.1	16.1	14.9	14.2	13.8	14.6	12.2	13.7	13.3	12.6	12.2	12.5	13.9	16.1		
20	12.5	12.5	12.1	11.2	11.2	11.0	11.0	11.7	13.2	14.2	15.2	15.7	15.8	16.5	16.7	17.0	17.4	17.2	15.9	15.3	15.2	15.0	14.9	14.0	14.3	17.4		
21	13.0	12.4	12.3	11.6	11.2	11.0	11.0	11.7	12.9	14.6	16.0	16.8	17.1	17.2	17.2	16.4	16.0	15.7	15.8	15.0	15.3	14.7	14.0	13.6	14.3	17.2		
22	[GO]	[GO]	[GO]	[GO]	[GO]	[GO]	[GO]	[GO]	[GO]	[GO]	[GO]	[GO]	[GO]	[GO]	16.9	17.4	17.3	17.7	17.5	17.2	16.8	16.7	16.6	16.7	16.5	16.2	16.9	17.7
23	16.1	19.3	[GO]	17.7	17.0	17.0	17.2	16.7	17.3	18.0	18.3	17.9	17.8	16.6	16.1	15.8	14.8	14.6	14.3	14.8	14.7	14.4	13.1	13.6	13.2	19.3		
24	13.5	11.9	11.4	11.0	10.5	10.3	10.7	11.3	12.3	13.6	14.4	14.9	16.1	17.0	16.7	16.8	16.5	16.4	16.4	15.8	15.5	15.6	15.3	15.3	14.1	17.0		
25	15.1	15.3	15.1	14.6	14.2	14.3	14.4	14.7	15.7	16.8	18.0	17.9	16.9	16.8	17.3	17.4	17.2	17.7	17.4	16.7	16.4	16.4	16.0	15.4	16.2	18.0		
26	15.2	14.9	14.2	14.4	13.9	11.8	11.4	12.0	13.5	15.1	16.9	17.1	17.0	17.1	17.3	17.4	17.4	17.4	17.7	17.4	16.9	16.6	16.3	16.1	15.6	17.7		
27	15.4	15.6	15.5	14.9	14.8	14.7	15.1	15.4	16.7	17.3	18.1	18.6	17.8	17.7	17.7	17.7	17.8	18.0	17.4	17.3	17.7	17.2	16.5	15.8	16.7	18.6		
28	15.2	14.5	14.0	13.7	13.9	13.4	13.3	14.3	16.7	18.4	20.1	21.1	20.3	19.1	18.5	18.3	17.9	17.6	17.0	17.1	17.3	17.1	16.5	15.9	16.7	21.1		
AV	14.6	14.3	13.8	13.4	13.1	12.8	12.9	13.1	14.0	15.2	16.3	16.9	17.1	17.0	17.1	16.9	16.9	16.5	16.3	16.0	16.0	15.7	15.3	15.0	15.3			
SD	2.3	1.7	1.5	1.7	1.7	1.7	1.9	1.6	1.4	1.3	1.4	1.5	1.3	1.2	1.2	1.0	1.1	1.2	1.4	1.2	1.3	1.3	1.3	1.3	1.6			
PK	16.5	19.3	16.4	17.7	17.0	17.0	17.2	16.7	17.3	18.4	20.1	21.1	20.3	19.1	18.6	18.3	18.7	18.8	18.1	18.0	17.8	17.8	17.5	19.4	21.1			

CU000 [Program: NIMS_MONTHSUM]

Version: LC:15-OCT-93)

SOLAR RADIATION [63301]

WATTS PER SQUARE METER

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

FEB, 1998

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 23/APR/98 *
*

CLOCK HOUR [LOCAL STANDARD TIME]

DT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	[]	0	0	0	0	0	2	59	162	362	369	385	210	363	375	140	74	2	0	0	0	0	0	0	109	385
2	0	0	0	0	0	0	0	6	43	83	92	114	137	88	101	107	[]	[]	[]	[]	[]	[]	[]	[]	48	137
3	[]	[]	[]	[]	[]	[]	0	1	7	18	43	85	83	18	93	73	8	0	0	0	0	0	0	0	24	93
4	0	0	0	0	0	0	0	76	255	417	549	628	636	569	502	364	144	6	0	0	0	0	0	0	173	536
5	0	0	0	0	0	0	0	75	237	419	520	353	303	284	216	130	31	3	0	0	0	0	0	0	107	520
6	0	0	0	0	0	0	0	10	14	17	17	44	211	251	268	131	119	0	0	0	0	0	0	0	46	268
7	0	0	0	0	0	0	1	73	223	334	360	349	303	293	136	59	15	0	0	0	0	0	0	0	89	360
8	0	0	0	0	0	0	0	59	111	301	385	304	319	290	253	175	18	2	0	0	0	0	0	0	92	385
9	0	0	0	0	0	0	1	81	242	449	576	614	657	620	509	345	154	14	0	0	0	0	0	0	178	657
10	0	0	0	0	0	0	1	50	234	456	490	604	629	592	397	207	95	8	0	0	0	0	0	0	157	629
11	0	0	0	0	0	0	1	38	128	348	360	281	497	542	492	298	130	12	0	0	0	0	0	0	130	542
12	0	0	0	0	0	0	0	96	273	431	232	426	296	325	134	103	43	9	0	0	0	0	0	0	99	431
13	0	0	0	0	0	0	1	95	273	439	584	639	654	599	466	271	95	11	0	0	0	0	0	0	172	654
14	0	0	0	0	0	0	0	20	36	45	35	60	36	23	50	29	34	21	0	0	0	0	0	0	16	60
15	0	0	0	0	0	0	4	59	235	446	594	596	704	648	527	355	166	17	0	0	0	0	0	0	181	704
16	0	0	0	0	0	0	2	85	272	469	603	425	411	288	307	125	17	0	0	0	0	0	0	0	125	603
17	0	0	0	0	0	0	2	51	149	444	627	711	719	661	530	407	239	31	0	0	0	0	0	0	186	719
18	0	0	0	0	0	0	3	119	313	485	618	692	679	616	510	352	174	23	0	0	0	0	0	0	191	692
19	0	0	0	0	0	0	5	46	126	202	139	102	151	152	34	61	18	1	0	0	0	0	0	0	43	202
20	0	0	0	0	0	0	6	134	333	509	650	702	729	680	559	391	183	19								

STGMA WS [70012]
DEGREES, COMPASS

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

FEB, 1998

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 23/APR/98 *
*

CLOCK HOUR [LOCAL STANDARD TIME]

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG WEEK		
1	[]	11	11	20	16	37	22	13	16	15	25	22	27	32	18	21	19	14	20	30	21	21	17	13	20	37	
2	9	10	10	11	12	10	11	9	11	11	12	17	13	11	10	11	[]	[]	[]	[]	[]	[]	[]	[]	[]	17	
3	[]	[]	[]	[]	[]	[]	[]	33	49	12	11	11	12	13	17	11	13	34	10	35	29	18	20	15	23	49	
4	19	17	20	46	55	69	32	16	26	45	27	15	13	9	9	9	8	9	10	21	20	28	16	31	24	69	
5	24	23	29	23	17	19	11	11	13	23	23	39	22	20	20	19	20	24	29	32	26	9	12	12	21	39	
6	9	11	10	12	10	10	10	10	10	10	17	37	43	20	14	14	10	24	9	17	11	44	20	16	17	44	
7	20	35	13	13	30	22	18	16	14	18	19	27	20	17	13	11	12	13	15	11	15	23	60	8	19	60	
8	11	12	17	40	57	39	38	24	16	13	33	50	12	11	15	21	17	24	29	36	24	24	39	33	26	57	
9	34	27	18	23	44	71	16	15	18	21	30	79	14	12	11	10	10	14	39	16	16	15	12	19	24	79	
10	13	28	23	18	12	38	16	23	46	24	53	46	24	12	12	10	10	9	9	22	58	30	51	21	25	58	
11	25	27	16	48	31	24	13	16	21	19	61	30	13	11	17	15	11	11	14	14	19	27	28	71	24	71	
12	27	17	15	36	14	28	31	14	17	27	63	63	16	12	14	27	37	30	16	21	17	12	12	11	24	63	
13	15	26	39	10	21	38	30	18	22	22	31	47	20	20	11	12	11	11	13	34	26	44	23	25	24	47	
14	16	12	10	9	11	9	11	11	21	15	14	12	22	48	14	10	11	10	10	10	9	12	18	18	14	48	
15	15	26	24	13	26	31	17	37	76	58	42	26	11	11	9	11	30	16	15	13	30	14	14	23	24	76	
16	23	34	40	28	18	13	14	15	13	16	19	23	35	18	16	18	46	67	23	50	30	11	12	10	25	67	
17	9	10	10	12	22	18	16	27	31	41	18	19	11	14	10	10	10	11	25	25	16	17	19	16	17	41	
18	17	16	32	39	39	36	37	25	21	25	31	34	47	10	10	13	9	10	22	46	15	19	27	14	25	47	
19	18	23	18	14	19	14	18	24	18	19	27	15	15	16	16	23	17	17	11	16	18	36	27	35	20	36	
20	17	12	17	16	17	16	18	25	22	21	21	25	16	16	11	11	12	18	23	29	20	28	24	29	19	29	
21	16	17	23	13	10	11	13	10	17	20	22	28	53	26	19	11	9	12	10	23	41	15	25	15	10	53	
22	16	10	30	41	12	13	20	27	19	17	27	35	25	14	14	12	12	8	10	8	48	17	15	18	20	48	
23	19	11	21	13	11	12	16	14	13	12	12	11	14	15	13	16	21	18	30	17	23	50	21	20	16	50	
24	38	18	13	13	24	34	43	27	40	32	16	14	16	10	8	7	8	10	29	14	17	21	35	18	21	43	
25	15	47	27	18	31	18	16	20	16	13	17	31	9	13	15	11	11	22	16	22	16	15	16	16	19	47	
26	16	25	15	20	40	17	12	20	29	39	63	13	11	12	11	10	11	12	12	16	19	13	15	21	20	63	
27	61	32	38	39	14	19	23	47	29	36	26	59	12	11	11	10	12	14	16	58	20	34	43	34	29	61	
28	31	35	38	34	12	27	36	22	19	21	34	28	32	11	10	10	9	15	12	20	60	39	17	16	24	60	
AV	21	21	21	23	23	26	21	21	22	23	28	31	21	16	13	13	16	17	19	24	25	24	23	22	21		
SD	11	10	10	12	14	16	10	10	13	11	15	17	12	8	3	5	10	11	9	13	13	11	12	12			
EK	61	47	40	46	57	71	43	49	76	58	63	79	53	48	20	27	46	67	39	58	60	50	60	71	16	24	79

00000 [Program: EDMS MONTHSUM]

Version: LC:15-OCT-93]

DELTA T STABILITY CLASS [88825]
DEGREES, COMPASS

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

FEB, 1998

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 23/APR/98 *
*

CLOCK HOUR [LOCAL STANDARD TIME]

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	[]	5	5	5	5	5	5	5	3	2	2	2	3	2	2	3	3	4	5	5	5	5	5	5
2	5	5	5	5	5	5	5	4	5	5	3	3	3	3	4	3	5	4	5	5	5	5	5	5
3	[]	[]	[]	[]	[]	[]	[]	5	3	2	1	2	3	4	4	4	4	4	4	4	5	5	5	5
4	4	4	4	4	5	5	5	5	3	2	2	2	2	3	3	3	4	5	5	5	5	5	5	5
5	5	5	5	5	5	5	5	5	3	2	2	2	2	3	3	4	4	4	4	4	5	5	5	5
6	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
7	5	5	5	5	5	5	5	5	2	3	3	2	3	3	4	4	4	4	4	4	4	4	4	4
8	4	4	5	5	5	5	5	5	2	3	2	2	2	3	3	3	4	4	4	4	4	4	4	4
9	6	6	6	6	6	6	6	6	2	2	2	2	2	3	3	3	4	4	4	5	6	0	0	5
10	5	5	5	5	5	5	5	5	2	2	2	1	1	2	3	3	4	4	4	5	5	5	5	5
11	5	5	5	5	5	5	5	5	3	3	1	2	2	2	2	4	4	4	4	5	5	5	5	5
12	6	6	6	6	6	6	6	6	2	3	1	2	1	3	4	3	3	3	4	4	5	5	6	5
13	6	5	6	6	6	6	6	6	2	2	2	2	2	2	2	3	3	5	5	4	6	4	4	5
14	6	6	6	6	6	6	6	6	0	0	0	0	0	0	0	0	0	0	0	4	4	4	4	4
15	4	4	5	5	5	5	4	5	3	2	1	2	2	3	4	4	4	4	4	4	4	4	4	4
16	4	5	5	5	5	5	5	5	3	3	2	2	2	2	2	3	5	5	5	6	6	5	5	5
17	4	4	4	5	5	5	5	5	2	1	2	2	3	4	4	4	4	4	4	4	4	4	4	4
18	4	4	5	5	5	5	5	5	2	3	2	1	2	1	3	2	3	4	5	5	5	5	5	5
19	5	5	5	5	5	5	5	5	3	3	2	3	3	3	5	4	5	5	5	5	5	5	5	5
20	6	6	6	6	6	6	6	6	3	2	2	3	3	4	4	4	4	4	4	5	6	6	5	6
21	5	5	5	5	5	5	5	5	2	2	2	2	2	2	2	4	4	4	4	5	5	5	5	5
22	0	0	0	0	0	0	0	0	3	3	1	2	2	2	2	2	4	4	4	4	4	5	0	0
23	0	0	0	0	0	0	0	0	3	4	4	4	4	0	0	2	3	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	2	2	2	3	3	4	4	4	4	4	4	4	4	4	4	4
25	4	5	5	5	5	4	4	3	3	3	3	2	3	4	4	4	4	4	4	4	5	5	5	4
26	5	5	5	5	5	5	5	5	2	1	1	2	3	4	4	4	4	4	4	4	4	4	4	4
27	5	5	5	5	5	5	5	5	2	3	2	2	3	3	3	3	3	3	3	4	5	5	5	5
28	5	5	5	5	5	5	5	2	1	2	2	1	2	2	3	3	3	4	4	5	5	5	5	5

00001 [Program: EDMS MONTHSUM]

Version: LC:15-OCT-93]

BATTERY VOLTAGE [99034]

VOLTS

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

FEB, 1998

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 23/APR/98 *
*

CLOCK HOUR [LOCAL STANDARD TIME]

DT	DO	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	[]	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
2	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
3	[]	[]	[]	[]	[]	[]	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
4	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
5	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
6	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
7	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
8	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
9	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
10	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
11	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
12	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
13	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
15	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
16	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
17	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
18	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
19	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
20	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
21	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
22	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
23	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
24	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
25	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
26	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
27	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
28	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
AV	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
SD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PK	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14

00000 [Program: EDMS_MONTHSUM]

Version: LC:15-OCT-93]

SIGMA TUNZA (CALCULATE) [99090]

DEGREES, COMPASS

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

FEB, 1998

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 23/APR/98 *
*

CLOCK HOUR [LOCAL STANDARD TIME]

DT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	[	11	11	38	17	40	26	13	18	14	25	27	32	35	21	23	21	14	22	34	23	20	18	18	23	40
2	10	11	11	11	13	10	12	9	11	11	13	19	13	11	10	11	[	[	[	[	[	[	[	[	12	19
3	[	[	[	[	[	[	[	[	46	56	12	12	11	12	13	19	11	13	34	19	36	33	19	20	15	25
4	25	19	20	54	57	51	36	17	32	51	32	16	14	9	9	9	8	8	11	24	34	30	18	42	20	91
5	30	27	31	30	17	20	11	11	13	22	24	43	23	21	24	21	22	29	33	34	25	10	11	11	23	43
6	9	11	10	12	10	10	11	20	11	10	18	37	53	22	14	15	11	27	9	18	11	51	22	17	19	53
7	20	52	14	14	43	36	19	16	14	19	19	30	21	20	14	11	12	13	16	11	16	24	71	9	22	71
8	11	12	21	51	66	49	62	25	16	14	34	59	13	11	15	21	18	27	30	40	26	27	46	39	30	66
9	42	26	28	33	51	41	17	17	22	22	35	87	14	12	11	10	10	13	41	17	18	17	12	20	27	87
10	13	33	24	20	13	53	19	27	72	23	67	54	58	12	12	10	10	8	9	38	83	37	58	21	31	93
11	23	28	17	56	33	25	16	17	20	20	75	45	14	11	18	15	10	10	13	15	20	26	36	95	27	95
12	27	18	17	46	18	30	46	14	20	30	84	71	30	12	21	33	42	33	16	19	19	13	12	11	28	84
13	15	32	50	10	23	41	40	17	22	22	40	62	20	21	11	12	11	10	12	39	30	46	20	29	27	62
14	17	13	11	9	11	10	11	11	21	15	15	12	31	58	25	10	12	10	10	10	9	12	22	21	16	58
15	17	24	22	13	28	32	17	38	72	60	50	33	12	11	10	11	10	17	16	14	37	15	15	28	26	72
16	23	46	56	30	22	14	13	15	13	17	20	25	48	19	17	19	54	74	32	63	30	11	12	10	28	74
17	9	10	11	13	29	18	19	28	32	49	18	21	11	14	10	10	10	11	26	16	16	19	20	16	18	49
18	17	16	34	43	44	52	37	34	22	29	34	41	61	11	11	13	9	10	23	48	15	24	25	14	28	61
19	20	37	22	15	20	14	22	27	19	20	32	16	15	16	17	26	21	17	11	17	13	19	24	38	23	35
20	18	13	17	17	17	18	32	22	23	22	27	17	17	17	17	17	11	12	13	19	24	38	23	35	26	33
21	17	17	25	13	11	13	15	18	20	22	30	60	28	21	11	9	12	11	23	44	16	30	15	21	31	60
22	18	11	39	49	12	13	27	29	19	18	29	43	30	14	15	13	12	8	10	8	55	18	15	19	22	55
23	19	11	22	13	11	12	16	15	14	13	13	12	15	16	10	8	9	11	27	14	18	27	43	19	23	52
24	52	19	14	13	24	34	43	36	43	34	16	14	16	10	8	9	8	11	27	14	18	27	43	19	23	52
25	16	72	34	21	43	20	10	21	17	16	17	34	10	13	15	11	11	23	16	22	16	16	17	16	21	72
26	16	29	16	20	40	18	12	20	31	51	63	14	11	12	12	11	12	13	12	16	21	14	15	22	22	83
27	39	33	44	40	16	19	27	53	34	38	29	92	12	12	11	11	11	13	17	62	23	38	54	34	33	91
28	30	48	43	42	13	46	49	24	19	23	38	31	49	11	10	10	9	13	11	18	71	33	18	16	28	71
AV	23	25	25	27	26	30	25	23	24	25	33	36	25	17	14	14	17	18								
SD	15	15	13	16	16	21	14	12	15	13	21	22	16	10	5	5	11	13	10	15	17	13	16	17		
PK	79	72	56	56	66	91	62	56	72	60	84	92	61	58	25	33	54	74	41	63	83	60	71	95		95

TEMPERATURE 2M HEIGHT [99144]

LAX AIR QUALITY MONITORING PROGRAM, #706211

DEGREES CENTIGRADE

SITE 1 LAX

FEB, 1998

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

* * *

* FINAL DATA *

* AS OF 13/APR/98 *

* * *

CLOCK HOUR [LOCAL STANDARD TIME]

DT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK	
1	[]	12.1	12.1	11.2	11.2	10.3	10.4	11.7	12.9	14.8	16.4	17.5	17.7	18.5	18.7	18.0	17.3	16.7	16.8	17.1	17.0	16.9	16.0	14.9	15.1	18.7	
2	14.9	14.9	14.7	14.4	14.5	14.2	14.0	13.9	14.2	14.5	14.9	15.8	16.3	16.2	16.2	17.1	[]	[]	[]	[]	[]	[]	[]	[]	15.0	17.1	
3	[]	[]	[]	[]	[]	[]	[]	15.1	13.3	13.2	13.6	14.0	13.8	13.8	13.2	13.1	13.9	14.4	13.4	13.2	13.1	13.2	13.5	14.0	13.9	15.1	
4	13.8	14.1	13.9	12.2	12.1	11.9	11.3	11.5	13.3	15.2	16.3	17.4	18.0	17.8	17.9	17.6	16.7	16.1	16.1	16.0	15.7	15.2	14.9	14.0	15.0	18.0	
5	13.1	12.5	12.6	12.5	12.1	12.1	11.8	12.1	14.0	15.9	17.3	17.5	17.5	17.6	17.5	17.3	17.0	16.6	16.3	16.2	16.1	15.6	15.4	15.1	15.1	17.6	
6	14.9	14.9	15.1	15.1	15.3	15.2	15.2	15.3	13.8	13.3	14.1	15.0	16.3	17.7	18.2	16.0	17.1	15.4	15.0	14.6	14.8	14.6	13.7	13.2	13.2	18.2	
7	12.7	12.4	12.2	11.9	11.8	11.0	11.2	12.2	13.8	15.4	16.8	17.1	17.8	18.1	17.7	17.2	17.0	15.9	15.3	15.4	16.2	16.0	15.7	16.2	14.9	18.1	
8	16.0	16.0	15.9	15.6	14.5	13.6	13.1	13.9	[QD]	[QD]	17.8	17.3	17.7	17.5	17.4	17.3	16.1	15.5	15.4	15.5	[QD]	15.8	15.3	15.7	15.8	17.7	
9	14.6	14.6	14.2	14.3	14.4	12.6	[QD]	[QD]	13.3	14.4	15.7	16.9	17.2	17.5	17.5	17.0	16.5	16.5	16.5	15.8	15.0	14.4	13.9	13.2	15.3	17.5	
10	12.4	11.6	11.7	11.7	11.9	10.9	11.6	12.3	13.9	16.2	17.4	18.3	18.0	18.9	18.1	17.3	16.7	16.2	16.4	16.7	16.1	15.3	15.4	15.7	15.1	19.0	
11	15.4	15.6	15.3	14.5	13.4	13.8	13.9	14.1	14.9	16.1	17.1	17.3	17.9	18.0	18.3	17.4	16.7	16.1	15.9	15.9	16.2	16.4	15.8	15.3	15.9	18.3	
12	14.7	14.8	14.6	14.5	15.5	14.5	14.4	14.0	14.9	16.7	17.3	18.2	18.2	17.8	17.6	18.5	18.7	18.5	18.1	18.0	17.7	17.6	17.1	16.9	16.6	18.7	
13	15.6	15.8	15.0	14.8	15.8	16.6	15.1	14.3	15.7	17.3	18.2	18.9	19.1	19.1	18.7	17.9	17.3	16.8	16.9	16.8	16.9	17.1	17.2	17.3	16.9	19.1	
14	17.4	17.9	18.2	18.0	17.8	17.3	17.0	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	
15	14.4	13.3	12.2	12.1	12.3	11.7	13.9	12.8	13.5	15.1	15.9	16.5	17.0	17.3	17.5	17.4	17.9	17.2	16.1	15.5	14.8	15.0	14.9	14.2	14.9	17.9	
16	13.8	13.2	11.4	9.6	9.7	9.7	9.6	10.3	12.4	14.9	16.6	17.0	17.3	16.7	16.5	15.7	14.9	14.8	14.6	14.1	13.9	13.6	13.7	14.2	13.7	17.3	
17	13.1	13.2	13.8	14.3	14.1	12.7	12.5	12.6	13.0	14.1	15.2	16.3	16.9	17.9	18.4	18.2	17.8	17.0	16.7	16.1	15.7	15.4	15.2	15.3	15.2	18.4	
18	15.3	15.4	14.1	13.7	12.5	11.0	10.3	11.4	13.6	15.8	17.5	18.6	19.2	18.8	18.1	17.5	16.6	15.1	15.7	16.1	15.3	15.3	14.7	13.6	15.2	19.2	
19	13.1	12.1	12.1	12.0	12.3	11.4	10.7	11.7	13.2	14.2	15.4	15.9	15.7	16.0	16.0	14.9	13.9	14.2	14.8	14.3	14.5	14.4	14.6	15.2	13.6	14.1	16.0
20	12.9	12.7	12.4	11.7	11.1	10.7	10.7	11.7	13.5	14.6	15.8	16.4	16.7	17.4	17.5	17.5	17.2	16.8	15.4	14.8	14.7	14.4	14.4	13.4	13.4	17.5	
21	12.2	11.7	11.3	10.6	10.4	10.3	10.4	11.3	12.9	14.9	16.5	17.2	17.3	17.8	17.8	16.7	15.7	15.0	15.1	15.0	14.6	[QD]	[QD]	[QD]	[QD]	17.8	
22	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	
23	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	
24	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	
25	14.7	14.8	14.5	14.2	13.4	13.6	14.0	14.3	15.8	17.1	18.5	18.7	18.0	17.8	18.0	17.6	18.7	17.2	17.0	16.3	16.1	16.0	15.7	15.1	16.1	18.9	
26	14.7	14.3	12.4	13.1	13.0	11.0	10.5	11.8	13.9	15.6	17.5	18.0	18.1	18.2	18.2	18.0	17.5	17.1	17.2	17.0	16.5	16.3	15.9	15.6	15.5	18.2	
27	14.2	14.2	14.6	14.0	14.2	14.2	14.6	15.3	17.0	17.8	18.7	19.5	19.0	18.9	18.5	18.2	17.6	16.6	16.1	17.3	17.3	16.5	15.6	14.8	16.4	19.5	
28	14.2	13.5	12.8	13.0	13.3	12.2	12.2	14.2	16.9	18.8	20.7	21.6	21.2	20.1	19.4	18.7	17.8	16.7	16.1	16.0	16.5	16.3	15.9	15.5	16.4	21.6	
AV	14.3	14.0	13.6	13.3	13.2	12.7	12.7	12.9	14.1	15.5	16.8	17.4	17.7	17.7	17.6	17.2	16.8	16.2	16.0	15.8	15.7	15.5	15.2	14.8	15.5		
SD	1.3	1.6	1.7	1.8	1.9	2.0	2.0	1.4	1.2	1.3	1.6	1.5	1.5	1.3	1.3	1.2	1.1	1.1	1.0	1.1	1.1	1.0	0.9	1.1			
PK	17.4	17.8	18.2	18.0	17.8	17.3	17.0	15.3	17.0	18.8	20.7	21.6	21.2	20.1	19.4	18.7	18.7	18.5	18.1	18.0	17.7	17.6	17.2	17.3		21.6	

00000 [Program: RMS_MONTESUM]

Version: LC:15-OCT-93]

STATION TEMPERATURE [99231]

LAX AIR QUALITY MONITORING PROGRAM, #706211

DEGREES CENTIGRADE

SITE 1 LAX

FEB, 1998

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

* * *

* FINAL DATA *

* AS OF 23/APR/98 *

* * *

CLOCK HOUR [LOCAL STANDARD TIME]

DT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	[]	23.4	23.4	23.1	22.8	22.5	22.2	22.2	22.8	23.9	25.4	26.7	27.7	28.0	28.9	29.3	28.7	27.9	27.2	26.8	26.6	26.4	26.1	25.7	25.6	29.3
2	25.2	24.8	24.6	24.2	24.0	23.9	23.8	23.7	23.6	23.6	23.9	24.2	24.7	25.0	25.1	25.2	[]	[]	[]	[]	[]	[]	[]	[]	24.3	25.2
3	[]	[]	[]	[]	[]	[]	[]	[]	24.8	24.5	24.0	23.6	23.3	23.2	23.2	23.0	23.0	23.4	23.6	23.6	23.3	23.2	23.3	23.1	23.5	24.8
4	22.9	22.7	22.8	22.8	22.0	21.1	23.2	23.2	23.8	25.4	26.8	27.5	27.5	26.1	26.0	26.8	27.0	26.4	25.3	24.7	24.3	24.1	24.0	23.9	24.7	27.5
5	23.4	23.0	22.8	22.6	22.3	22.0	21.8	22.7	22.4	24.0	25.6	26.9	27.3	27.4	27.5	27.3	26.8	26.1	25.5	25.1	24.7	24.4	24.1	23.8	24.5	27.5
6	23.7	23.7	23.7	23.5	23.4	23.4	23.3	23.2	23.0	22.6	22.5	22.7	23.2	24.2	25.2	25.6	25.6	25.4	24.6	24.2	23.6	23.4	23.3	23.3	23.6	27.5
7	23.3	23.3	23.3	23.1	23.0	22.8	22.7	22.7	23.4	24.5	25.7	26.3	26.8	27.2	27.3	26.8	26.2	25.6	25.0	24.7	24.5	24.6	24.5	24.6	24.7	27.3
8	24.5	24.5	24.6	24.4	24.3	24.0	23.6	23.4	24.1	25.3	26.6	27.8	28.4	28.6	28.6	28.5	28.2	27.0	25.9	25.5	25.2	24.7	24.5	24.1	25.7	28.6
9	23.6	23.2	23.0	22.5	22.1	21.7	21.3	21.3	22.7	24.8	26.4	27.8	28.6	28.8	29.1	29.3	28.9	28.2	27.1	26.2	25.4	24.8	24.5	24.1	25.2	29.3
10	23.8	23.6	23.6	23.2	22.9	22.8	22.6	22.6	23.5	25.5	27.6	28.8	30.1	30.5	30.4	29.7	28.5	27.1	25.9	25.1	24.7	24.4	24.1	24.0	25.6	30.5
11	24.0	24.1	24.2	23.9	23.7	23.7	23.8	23.8	23.9	24.5	25.9	27.4	28.1	28.9	30.0	31.0	30.6	29.2	27.3	26.0	25.1	24.6	24.3	24.0	25.9	31.0
12	23.5	23.1	22.9	22.5	22.2	22.0	21.8	22.0	23.8	27.0	29.1	29.7	28.9	27.4	27.8	28.6	29.1	29.2	28.7	28.7	28.3	27.6	27.8	27.4	26.2	29.7
13	27.4	27.3	27.2	26.8	26.5	26.1	25.8	25.9	27.1	29.0	29.9	28.0	27.2	27.0	26.8	26.6	26.5	27.1	27.2	27.3	27.4	27.4	27.3	27.4	27.2	29.9
14	27.7	27.9	28.1	27.8	27.6	27.5	27.4	27.3	29.0	28.9	26.7	26.5	26.4	26.3	25.8	25.4	25.6	26.0	26.0	25.9	25.5	25.4	25.8	25.9	26.6	28.1
15	26.1	26.1	26.4	26.2	26.1	25.9	25.7	26.1	26.5	27.7	29.6	31.2	30.4	30.0	29.6	29.7	30.2	30.7	29.7	28.6	27.8	27.2	26.9	26.7	28.0	31.2
16	26.4	26.0	25.8	25.2																						

Delta Temp [59238]
DEGREES CENTIGRADE

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

FEB, 1998

ARROVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 23/APR/98 *
*

CLOCK HOUR [LOCAL STANDARD TIME]

DT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK		
1	[1	-0.8	-0.4	-0.5	-0.5	-1.0	-0.8	-0.1	0.0	0.2	0.3	0.3	0.0	0.2	0.2	-0.2	-0.3	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	0.7	-4.5	-0.4	0.7
2	0.1	0.0	0.0	0.2	0.3	0.1	0.1	-0.9	0.0	0.4	0.1	-0.8	-2.6	-1.1	0.1	0.6	0.3	[[[[[[[[[-0.2	0.6
3	[1	[[[[[[-0.2	-0.4	0.3	0.2	0.1	-0.2	0.0	0.1	0.5	-0.1	[[[[[[[[-0.2	0.6
4	-0.5	-0.4	-0.4	-0.5	-0.4	-0.6	-0.5	-0.1	0.2	0.4	0.5	0.7	0.8	0.7	0.7	0.4	-0.2	-0.6	-0.6	-0.5	-0.2	-0.5	-0.6	-1.0	-0.1	0.8	0.6	
5	-0.8	-0.7	-0.6	-0.3	-0.3	-0.5	-0.6	-0.3	0.1	0.4	0.6	0.2	0.1	0.0	-0.1	-0.3	-0.4	-0.5	-0.3	-0.6	-0.5	-0.4	-0.4	-0.5	-0.3	0.6	0.6	
6	-0.5	-0.4	-0.3	-0.3	-0.2	-0.2	-0.2	-0.3	-0.5	0.1	-1.0	-0.7	0.0	0.2	0.2	0.0	-0.3	-0.8	-0.8	-0.5	-0.9	-0.3	-0.2	-0.3	-0.3	0.2	0.2	
7	-0.5	-0.7	-0.2	0.0	-0.1	-0.6	-0.5	-0.1	0.2	0.3	0.2	0.1	-0.1	-0.2	-0.3	-0.3	0.0	-0.3	-0.5	-0.4	-0.4	-0.4	-0.3	-0.4	-0.2	0.3	0.3	
8	-0.4	-0.5	-0.5	-0.3	-0.7	-1.1	-1.4	-0.8	[QD]	[QD]	1.0	0.2	0.3	0.2	0.2	0.0	-0.2	0.9	0.4	0.8	[QD]	[QD]	0.0	2.7	0.0	2.7	0.2	
9	2.0	2.2	2.2	2.6	3.4	1.6	[QD]	[QD]	0.5	0.4	0.4	0.5	0.8	0.8	0.7	0.4	-0.3	-0.6	-0.6	-0.4	-0.4	-0.5	-0.6	-0.6	0.7	3.4	0.2	
10	-0.6	-0.8	-0.7	-0.4	-0.3	-0.8	-0.5	-0.1	0.2	0.4	0.5	0.5	0.6	0.8	0.4	0.1	-0.3	-0.6	-0.4	-0.3	-0.6	-1.1	-0.8	-0.1	-0.2	0.8	0.8	
11	-0.3	-0.3	-0.5	-0.5	-0.1	0.2	0.3	0.3	0.3	0.5	0.4	0.2	0.7	0.8	0.7	0.4	0.0	-0.1	-0.4	-0.4	-0.3	0.1	0.2	-0.1	0.1	0.8	0.8	
12	0.1	0.7	0.8	1.2	2.4	1.6	1.7	0.8	0.5	0.4	0.2	0.4	0.1	0.4	0.2	0.4	0.0	-0.4	-0.1	0.0	-0.1	-0.1	-0.4	0.0	0.4	2.4	0.4	
13	0.1	0.0	0.3	0.7	2.4	3.3	1.8	0.7	0.7	0.8	0.6	0.5	1.0	0.9	0.8	0.5	0.1	0.0	0.1	0.0	0.1	0.5	0.8	0.9	0.7	3.3	0.4	
14	1.0	1.5	2.1	2.2	2.2	1.6	1.2	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	0.0	-0.4	-0.4	-0.5	-0.4	0.8	2.2	
15	-0.5	-0.4	-0.4	-0.3	-0.4	-1.0	-0.4	-0.1	0.1	0.5	0.6	0.6	1.1	1.0	0.8	0.5	-0.1	-0.3	-0.3	-0.3	-0.6	-0.3	-0.4	-0.5	0.0	1.1	0.4	
16	-0.4	-0.6	-1.4	-1.4	-0.7	-0.7	-0.6	-0.3	0.1	0.5	0.6	0.3	0.2	0.0	0.0	-0.3	-0.2	-0.5	0.1	0.6	0.7	0.5	1.6	1.9	0.0	1.9	0.4	
17	0.6	1.0	1.4	1.8	2.1	1.7	1.5	1.1	0.6	0.5	0.4	0.8	1.0	0.9	0.7	0.6	0.2	-0.2	-0.4	-0.3	-0.4	-0.4	-0.4	-0.4	0.6	2.1	0.4	
18	-0.4	-0.4	-0.6	-0.8	-1.1	-1.3	-1.0	-0.3	0.2	0.4	0.5	0.5	0.4	0.7	0.5	0.2	-0.4	-1.4	-1.2	-0.7	-1.2	-1.0	-0.9	-0.9	-0.4	0.7	0.4	
19	-0.8	-1.3	-1.1	-0.7	-0.6	-0.5	-0.3	-0.3	-0.1	0.1	0.0	-0.2	-0.1	0.0	0.0	-0.3	0.4	0.2	2.1	0.8	1.1	2.0	3.2	1.1	0.2	3.2	0.4	
20	0.4	0.2	0.3	0.4	-0.1	-0.3	-0.3	0.0	0.3	0.4	0.6	0.7	0.9	0.9	0.8	0.5	-0.1	-0.4	-0.5	-0.5	-0.5	-0.5	-0.6	-0.6	0.1	0.9	0.4	
21	-0.8	-0.8	-1.0	-1.0	-0.9	-0.7	-0.6	-0.4	0.0	0.3	0.5	0.4	0.3	0.6	0.6	0.3	-0.3	-0.6	-0.7	-0.1	-0.7	[QD]	[QD]	[QD]	[QD]	-0.3	0.6	
22	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	1.6	1.3	1.2	1.0	0.9	0.7	[QD]	[QD]	[QD]	[QD]	1.1	1.6	0.6
23	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	1.3	0.9	0.5	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	0.9	1.3
24	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	0.5	0.7	1.0	1.2	1.0	0.9	0.8	0.6	0.2	-0.3	-0.3	-0.4	1.2
25	-0.3	-0.5	-0.6	-0.4	-0.8	-0.4	-0.4	-0.4	0.1	0.3	0.5	0.8	1.1	0.9	0.7	0.2	-0.5	-0.5	-0.4	-0.3	-0.3	-0.3	-0.3	-0.4	-0.1	1.1	1.1	
26	-0.5	-0.6	-1.8	-1.3	-1.0	-0.8	-0.5	-0.2	0.3	0.5	0.6	0.9	1.1	1.1	0.9	0.6	0.1	-0.3	-0.4	-0.5	-0.5	-0.3	-0.4	-0.4	-0.2	1.1	1.1	
27	-1.2	-1.5	-0.9	-1.0	-0.6	-0.5	-0.5	-0.1	0.2	0.5	0.6	0.8	1.1	1.1	0.9	0.5	-0.2	-1.3	-1.3	0.0	-0.5	-0.7	-0.9	-0.9	-0.3	1.1	0.4	
28	-1.0	-0.9	-1.3	-0.8	-0.6	-1.2	-1.1	-0.1	0.2	0.4	0.5	0.6	0.9	1.0	0.9	0.4	-0.1	-0.9	-1.0	-1.2	-0.8	-0.7	-0.6	-0.5	-0.3	1.0	0.4	
AV	-0.2	-0.3	-0.2	-0.1	0.1	-0.1	-0.2	-0.1	0.2	0.4	0.4	0.4	0.5	0.6	0.5	0.2	-0.1	-0.4	-0.3	-0.2	-0.4	-0.3	-0.1	-0.3	0.1	0.1	0.1	
SD	0.7	0.9	1.0	1.1	1.3	1.2	0.9	0.4	0.3	0.2	0.3	0.7	0.6	0.4	0.4	0.3	0.3	0.5	0.6	0.5	0.5	0.6	0.9	1.3	0.4	0.4	0.4	
PK	2.0	2.2	2.2	2.6	3.4	3.3	1.8	1.1	0.7	0.8	1.3	1.6	1.2	1.2	1.0	0.9	0.7	0.9	2.1	0.8	1.1	2.0	3.2	2.7	3.4	3.4	3.4	

CU000 [Program: EDMS MONTHSUM]

Version: LC:15-OCT-93]

CARBON MONOXIDE [42101]
PARTS PER MILLION

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

MAR, 1998

ARROVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 23/APR/98 *
*

CLOCK HOUR [LOCAL STANDARD TIME]

DT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	6	[28]	[88]	4	5	4	4	5	4	4	4	3	3	3	3	2	2	2	2	2	2	3	3	3	3	6
2	3	[25]	[26]	4	3	3	3	2	3	3	3	3	2	2	2	2	2	2	2	2	2	2	3	4	3	4
3	4	[28]	[29]	3	3	3	3	4	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2	3	3	4
4	4	[25]	[25]	4	4	4	6	[SC]	[SC]	[CA]	[CA]	3	2	2	2	2	2	2	2	2	2	2	2	3	3	4
5	3	[26]	[25]	2	2	3	3	4	3	3	3	3	2	2	2	2	2	2	2	2	2	3	3	3	3	4
6	2	[25]	[29]	2	2	2	[PA]	[PA]	[PA]	[PA]	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3
7	2	[26]	[26]	2	2	2	2	2	2	3	3	3	3	3	2	2	2	2	2	2	2	2	3	3	4	2
8	4	[26]	[26]	3	3	3	4	3	3	3	3	3	3	3	3	3	3	2	2	2	2	2	2	3	5	5
9	4	[28]	[29]	4	4	3	4	5	4	4	3	3	3	3	2	2	2	2	2	2	2	3	4	5	6	3
10	6	[26]	[26]	5	4	4	5	5	5	4	3	3	3	3	2	2	2	2	2	2	4	5	7	8	9	4
11	8	[29]	[29]	4	4	4	6	6	5	4	3	3	3	3	3	3	2	2	2	2	3	5	5	5	4	8
12	4	[29]	[29]	4	4	5	7	6	5	4	3	3	3	3	3	[SC]	[SC]	2	2	2	2	2	2	3	7	7
13	2	[29]	[29]	2	2	3	3	4	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	4
14	2	[29]	[29]	2	2	2	2	2	3	3	3	3	3	3	2	2	2	2	2	2	3	3	5	5	3	5
15	4	[29]	[29]	3	3	3	3	3	3	3	3	3	3	3	2	2	2	2	2	2	3	3	2	2	3	4
16	2	[29]	[29]	2	2	2	3	[SC]	[SC]	[SC]	2	2	2	2	2	2	2	2	2	2	2	3	2	2	3	3
17	2	[29]	[29]	3	4	5	5	4	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	5
18	2	[29]	[29]	2	2	3	3	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	3
19	3	[29]	[29]	2	2	2	3	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	3
20	2	[29]	[29]	2	2	2	3	[SC]	[SC]	[SC]	2	2	2	2	2	2	2	2	2	2	3	3	3	2	2	3
21	[	[	[	[	[	[	[	[	[	[	[	[	[	[	[	[	[	[	[	[	[	[	[	[	[	3
22	[	[	[	[	[	[	[	[	[	[	[	[	[	[	[	[	[	[	[	[	[	[	[	[	[	1
23	[	[	[	[	[	[	[	[	[	[	[	[	[	[	[	[	[	[	[	[	[	[	[	[	[	1
24	[	[	[	[	[	[	[	[	[	[	[	[	[	[	[	[	[	[	[	[	[	[	[	[	[	1
25	2	[26]	[25]	2	2	3	3	3	3	3	3	3	3	3	2	2	2	2	2	2	3	3	3	2	2	3
26	3	[26]	[25]	4	4	4	6	5	4	3	3	3	3	3	3	4	3	3	3	3	3	3	3	3	3	4
27	2	[23]	[28]	3	3	3	3	3	2	2	2	2	2	2	2	3	2	2	2	2	2	3	3	2	3	6
28	3	[26]	[28]	2	2	2	3	[SC]	[SC]	[SC]	2	2	2	2	2	2	2	2	2	2	2	3	3	3	2	3
29	2	[23]	[28]	2	3	3	3	3	3	3	3	3	3	3	2	2	2	2	2	2	3	3	3	3	3	3
30	3	[28]	[28]	3	3	3	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	3
31	5	[28]	[28]	3	3	3	4	4	4	4	3	3	2	3	3	3	3	3	2	2	2	2	2	2	3	5
AV	3	[	[	[	3	3	3	4	4	3	3	3	3	2	2	2	2	2	2	2	3	3	3	3	3	3
ED	2	[	[	[	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	3
PK	8	[	[	[	5	5	5	7	6	5	4	4	3	3	3	3	3	3	3	3	4	5	7	8	8	8

SULFUR DIOXIDE (42401)

LAX AIR QUALITY MONITORING PROGRAM, #706211

PARTS PER BILLION

SITE 1 LAX

MAR, 1998

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

 *
 * FINAL DATA *
 * AS OF 23/APR/98 *
 *

CLOCK HOUR [LOCAL STANDARD TIME]

DX	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	3	[S]	[S]	3	3	2	2	3	2	2	2	3	5	5	4	4	3	2	1	0	0	1	1	1	2	5
2	1	[S]	[S]	2	1	1	1	2	5	6	6	6	5	3	5	4	2	3	1	1	3	3	2	2	3	6
3	2	[S]	[S]	2	1	1	0	1	1	2	2	1	1	1	3	6	4	6	3	2	2	1	1	2	6	
4	1	[S]	[S]	2	1	1	2	[SC]	[SC]	[CA]	[CA]	4	2	2	1	2	2	1	1	2	0	1	1	1	4	
5	0	[S]	[S]	0	0	0	1	2	1	1	2	3	1	1	1	1	1	1	1	1	2	0	1	1	4	
6	1	[S]	[S]	2	1	1	[PA]	[PA]	[PA]	[PA]	3	3	3	5	5	4	2	1	1	1	1	2	2	1	3	
7	1	[S]	[S]	1	1	1	1	1	1	0	0	1	2	1	1	1	1	1	1	1	3	2	2	1	3	
8	2	[S]	[S]	3	3	2	3	2	3	5	3	3	5	5	5	3	2	1	1	2	2	4	4	2	5	
9	2	[S]	[S]	3	3	2	3	2	3	2	2	1	1	4	6	5	5	4	3	4	6	3	2	3	6	
10	4	[S]	[S]	4	3	3	3	3	2	1	1	0	2	3	2	5	1	3	4	7	2	3	4	5	7	
11	6	[S]	[S]	2	2	2	3	3	2	2	1	1	4	7	5	6	3	2	3	5	9	4	3	2	9	
12	3	[S]	[S]	3	5	5	5	5	6	12	12	11	8	3	[SC]	[SC]	4	4	2	2	1	0	0	5	12	
13	1	[S]	[S]	1	1	1	2	2	1	1	2	2	1	1	1	2	1	1	0	0	0	1	1	0	1	2
14	0	[S]	[S]	1	1	1	1	3	1	0	0	0	0	0	0	2	3	2	2	3	1	0	2	5	1	
15	4	[S]	[S]	1	1	1	2	2	3	6	5	5	4	5	3	1	1	1	1	2	4	3	0	1	3	6
16	1	[S]	[S]	0	1	0	0	[SC]	[SC]	1	2	1	2	2	2	1	2	2	1	0	0	0	1	1	2	
17	0	[S]	[S]	1	1	1	1	1	1	1	1	2	3	2	1	2	1	1	1	0	2	1	1	1	3	
18	0	[S]	[S]	0	0	0	0	1	2	1	1	3	4	2	3	5	3	2	2	2	1	0	0	2	6	
19	0	[S]	[S]	1	0	0	0	0	0	0	1	3	2	2	3	2	1	2	1	2	2	2	2	1	3	
20	1	[S]	[S]	1	1	0	1	[SC]	[SC]	2	1	1	2	1	1	1	1	1	1	1	1	1	1	1	2	
21	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
22	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
23	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
24	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
25	0	[S]	[S]	0	0	0	0	0	0	0	3	1	0	0	0	0	0	1	0	0	0	0	0	0	1	5
26	0	[S]	[S]	1	1	1	2	1	0	1	2	2	3	5	3	6	0	2	1	2	2	2	1	1	1	3
27	0	[S]	[S]	0	0	1	0	1	1	2	1	1	1	1	1	0	0	2	2	4	2	0	0	0	2	6
28	0	[S]	[S]	1	0	0	2	[SC]	[SC]	7	7	3	3	4	2	2	2	3	1	1	1	2	1	2	7	4
29	0	[S]	[S]	1	1	1	1	1	0	0	2	1	2	2	4	4	4	2	0	0	0	0	1	1	4	
30	1	[S]	[S]	2	2	1	2	1	1	0	2	2	1	2	1	1	2	2	1	2	2	1	1	1	2	
31	2	[S]	[S]	7	6	2	2	1	1	1	1	0	0	0	0	0	0	0	1	0	0	0	1	0	1	7
AV	1	[]	[]	2	1	1	2	2	2	2	2	3	3	3	2	3	2	2	2	2	2	1	1	1	2	
SD	1	[]	[]	1	1	1	1	1	2	3	2	2	2	2	2	2	1	1	2	2	2	1	1	1	1	
PK	6	[]	[]	7	6	5	5	5	6	12	12	11	11	8	5	6	6	4	6	7	9	4	4	5		12

00000 [Program: XMS_MONITOR]

Version: LC:15-OCT-93]

OXIDES OF NITROGEN (42603)

LAX AIR QUALITY MONITORING PROGRAM, #706211

PARTS PER BILLION

SITE 1 LAX

MAR, 1998

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

 *
 * FINAL DATA *
 * AS OF 23/APR/98 *
 *

CLOCK HOUR [LOCAL STANDARD TIME]

PX	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK	
1	265	[S]	[S]	190	284	190	203	211	112	85	69	73	96	97	81	71	34	21	15	17	15	23	29	46	101	204	
2	93	[S]	[S]	158	111	67	93	51	68	67	71	97	37	27	28	36	18	32	23	23	41	38	92	112	41	158	
3	160	[S]	[S]	89	67	63	91	109	82	66	59	47	42	32	23	31	19	17	25	32	47	26	40	75	56	160	
4	129	[S]	[S]	188	175	130	292	[SC]	[SC]	[CA]	[CA]	53	19	17	13	39	42	19	29	38	30	62	75	78	80	292	
5	81	[S]	[S]	29	31	63	111	107	62	46	33	29	24	18	12	14	13	15	18	17	18	30	28	21	37	111	
6	29	[S]	[S]	42	48	62	[PA]	[PA]	[PA]	[PA]	20	20	33	88	66	52	31	22	34	41	36	26	16	15	38	88	
7	14	[S]	[S]	13	22	20	24	45	23	26	46	39	25	34	8	17	11	20	16	54	61	92	125	158	40	158	
8	171	[S]	[S]	104	106	114	119	95	79	59	44	29	50	57	26	40	16	11	12	33	25	54	118	170	70	171	
9	139	[S]	[S]	172	193	166	159	203	139	102	60	45	69	95	63	71	52	34	51	71	84	171	227	264	119	264	
10	300	[S]	[S]	306	258	216	316	282	235	131	74	51	32	67	46	96	31	48	70	178	242	356	427	495	193	495	
11	513	[S]	[S]	198	218	246	327	282	234	119	90	86	102	160	125	93	59	40	34	49	135	202	215	223	171	513	
12	190	[S]	[S]	165	204	327	426	306	225	143	126	106	94	79	30	[SC]	[SC]	25	29	20	34	44	28	22	131	426	
13	31	[S]	[S]	39	44	71	107	98	81	52	27	16	14	10	11	38	26	26	29	20	34	49	46	41	41	107	
14	46	[S]	[S]	61	75	59	59	57	42	53	53	50	28	10	11	25	47	32	42	52	39	63	144	170	55	170	
15	166	[S]	[S]	52	48	47	86	66	44	41	31	20	21	15	23	21	12	15	19	27	28	25	20	21	39	166	
16	16	[S]	[S]	17	10	17	38	[SC]	[SC]	19	29	13	21	29	33	20	31	25	33	22	18	15	34	45	24	45	
17	35	[S]	[S]	116	162	205	224	136	84	27	19	16	38	42	24	23	16	17	19	34	33	23	24	60	224		
18	13	[S]	[S]	17	27	72	102	57	48	49	40	40	54	38	33	55	61	27	30	42	22	17	17	15	40	102	
19	20	[S]	[S]	18	15	19	23	29	40	61	53	37	39	66	29	43	26	21	31	36	54	59	44	52	37	66	
20	40	[S]	[S]	27	31	20	47	[SC]	[SC]	26	24	31	23	22	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	29	47
21	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
22	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
23	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
24	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
25	14	[S]	[S]	10	14	27	37	34	27	23	53	25	34	37	56	61	50	37	28	35	33	44	39	34	35	63	
26	88	[S]	[S]	130	181	205	266	169	101	71	40	26	48	87	37	72	52	31	37	66	35	23	19	12	82	266	
27	12	[S]	[S]	54	56	110	84	55	19	27	14	21	32	35	9	8	32	36	58	52	57	66	71	41	110		
28	12	[S]	[S]	33	17	11	24	[SC]	[SC]	101	24	44	55	89	42	54	33	27	46	15	13	18	21	53	37	101	
29	40	[S]	[S]	54	54	57	67	40	32	21	27	21	24	34	55	47	26	21	14	17	17	28	52	49	36	67	
30	53	[S]	[S]	64	64	94	128	113	65	36	36	25	14	29	17	8	19	16	18	21	32	71	124	135	54	135	
31	175	[S]	[S]	124	91	87	116	104	105	87	69	12	27	24	13	27	33	24	37	32	43	50	60	55	63	175	
AV	105	[]	[]	[]	91	97	103	137	120	87	61	48	39	40	48	35	42	30	24	29	39	46	53	80	92	64	
RD	115	[]	[]	[]	75	82	82	109	86	66	36	26	22	24	36	26	25	16	9	13	32	46	73	90	105		
PK	515	[]	[]	[]	306	284	327	426	306	235	143	126	106	102	160	125	96	61	48	70	178	242	356	427	495	515	

NITRIC OXIDE [42601]

LAX AIR QUALITY MONITORING PROGRAM, #706211

PARTS PER BILLION

SITE 1 LAX

MAR, 1998

AEROENVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 23/APR/98 *

CLOCK HOUR [LOCAL STANDARD TIME]

DT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	212	[28]	[28]	138	238	152	159	163	67	35	20	23	36	39	36	32	8	5	0	0	0	0	0	12	62	238
2	53	[28]	[28]	117	70	28	52	16	28	24	25	18	11	5	6	11	2	7	2	0	0	0	29	49	25	117
3	101	[28]	[28]	45	26	23	38	50	35	22	17	8	8	3	3	10	2	0	2	2	10	2	1	20	20	101
4	74	[28]	[28]	135	127	85	239	[SC]	[SC]	[CA]	[CA]	17	2	3	2	17	17	1	1	1	0	11	24	28	44	239
5	31	[28]	[28]	0	1	22	65	59	23	12	7	3	1	0	0	0	0	0	0	0	0	12	8	0	11	65
6	1	[28]	[28]	7	12	23	[PA]	[PA]	[PA]	[PA]	9	7	15	58	39	27	11	1	3	3	4	3	0	0	12	58
7	2	[28]	[28]	0	3	3	5	17	6	7	14	10	6	1	0	4	0	6	0	21	16	36	70	102	15	102
8	116	[28]	[28]	56	60	68	72	54	37	20	12	7	19	27	3	15	3	0	0	4	1	10	59	115	34	116
9	83	[28]	[28]	119	141	117	112	154	85	45	15	8	15	36	18	27	8	2	10	23	24	110	158	188	68	188
10	216	[28]	[28]	244	201	160	262	226	173	74	27	15	8	36	18	53	8	11	15	103	176	209	358	424	141	424
11	445	[28]	[28]	147	169	197	273	226	168	60	35	29	38	86	51	42	22	9	1	6	65	140	153	164	115	445
12	130	[28]	[28]	108	143	263	360	240	150	70	52	33	25	29	3	[SC]	[SC]	1	0	0	0	2	1	0	80	360
13	1	[28]	[28]	3	6	26	59	50	33	17	4	1	3	1	2	18	6	8	3	0	5	11	11	6	12	59
14	10	[28]	[28]	21	33	24	22	21	13	19	19	15	6	0	1	6	18	5	2	5	6	20	91	110	21	110
15	110	[28]	[28]	12	13	11	46	31	15	12	7	6	5	2	9	8	2	0	0	0	0	0	0	0	13	110
16	0	[28]	[28]	0	0	0	5	[SC]	[SC]	1	7	0	5	8	10	3	5	0	9	2	0	0	2	3	3	10
17	0	[28]	[28]	73	118	163	182	93	26	4	3	3	19	22	9	9	3	0	0	0	3	1	0	0	33	182
18	0	[28]	[28]	0	0	29	52	23	17	15	10	8	20	15	11	32	28	5	8	17	1	0	0	0	13	52
19	0	[28]	[28]	1	0	1	0	3	9	18	16	6	12	31	7	15	4	3	3	2	11	13	4	11	6	31
20	6	[28]	[28]	10	11	1	8	[SC]	[SC]	7	7	12	7	11	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	8	12
21	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
22	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
23	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
24	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
25	0	[28]	[28]	0	0	6	10	10	5	4	31	4	6	8	17	20	13	2	0	1	5	14	5	2	7	31
26	43	[28]	[28]	89	141	166	221	125	55	29	13	9	24	58	17	42	28	10	6	35	10	0	0	0	1	221
27	0	[28]	[28]	15	16	68	42	18	4	10	4	7	16	20	1	1	1	2	13	27	21	30	29	38	17	68
28	0	[28]	[28]	20	4	0	7	[SC]	[SC]	67	11	24	36	58	23	33	16	11	23	0	0	0	0	21	18	67
29	7	[28]	[28]	21	18	21	35	18	10	5	8	9	10	19	34	25	10	6	0	0	0	0	12	7	13	35
30	10	[28]	[28]	26	28	56	90	73	31	10	10	7	2	11	5	0	6	2	0	0	0	14	61	74	23	90
31	113	[28]	[28]	74	44	42	69	58	57	39	28	0	5	4	0	3	4	0	5	1	6	9	12	10	26	113
AV	65	[]	[]	55	60	65	96	79	48	25	16	11	13	21	13	17	9	4	4	10	14	27	41	52	32	
SD	100	[]	[]	63	71	73	100	76	52	22	11	11	12	14	15	6	4	6	21	35	62	77	91			
PK	445	[]	[]	244	238	263	360	240	173	74	52	33	38	86	51	53	28	11	23	103	176	289	358	424		445

00000 [Program: EDMS_MONITOR]

Version: LC:15-OCT-93]

NITROGEN DIOXIDE [42602]

LAX AIR QUALITY MONITORING PROGRAM, #706211

PARTS PER BILLION

SITE 1 LAX

MAR, 1998

AEROENVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 23/APR/98 *

CLOCK HOUR [LOCAL STANDARD TIME]

DT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK	
1	52	[28]	[28]	52	47	46	43	48	45	50	50	50	60	59	45	39	26	17	15	17	15	22	29	34	39	60	
2	46	[28]	[28]	42	41	39	42	35	40	42	46	40	26	22	23	25	15	25	21	23	41	38	64	53	36	64	
3	59	[28]	[28]	44	41	40	43	47	47	44	42	39	34	29	20	21	17	17	23	30	37	24	39	48	36	59	
4	54	[28]	[28]	52	49	45	54	[SC]	[SC]	[CA]	[CA]	47	17	14	11	23	25	18	27	37	30	50	51	50	36	54	
5	50	[28]	[28]	29	30	41	46	48	39	34	27	26	22	18	12	14	13	15	18	17	18	18	20	21	26	50	
6	27	[28]	[28]	35	37	39	[PA]	[PA]	[PA]	[PA]	11	12	18	30	27	25	20	21	30	38	32	23	16	15	25	39	
7	12	[28]	[28]	13	19	17	19	28	16	19	32	29	21	13	8	13	11	14	16	33	45	56	55	56	25	56	
8	55	[28]	[28]	47	46	46	46	41	42	38	33	22	31	30	23	25	13	11	12	29	24	45	59	56	35	59	
9	54	[28]	[28]	53	52	49	47	49	54	57	45	38	54	59	45	44	43	32	41	48	61	60	68	76	51	76	
10	84	[28]	[28]	62	57	58	54	56	63	57	46	36	24	32	28	43	23	38	55	75	66	67	69	71	53	84	
11	70	[28]	[28]	51	49	49	54	57	66	60	56	57	64	74	75	50	37	35	33	41	70	62	62	89	56	75	
12	60	[28]	[28]	58	63	64	65	66	75	74	75	73	69	50	27	[SC]	[SC]	24	29	20	34	42	27	22	51	75	
13	30	[28]	[28]	37	38	45	38	36	29	35	34	35	22	10	11	15	29	27	39	47	34	43	53	60	34	60	
14	37	[28]	[28]	41	42	35	38	36	29	35	34	35	22	10	11	15	29	27	39	47	34	43	53	60	34	60	
15	56	[28]	[28]	40	35	36	40	35	30	29	24	22	17	13	14	13	9	14	19	27	28	25	20	21	26	56	
16	16	[28]	[28]	17	10	17	33	[SC]	[SC]	18	21	13	17	21	22	18	26	25	24	20	18	15	32	42	21	42	
17	35	[28]	[28]	43	44	42	42	43	38	23	15	13	20	14	13	16	17	19	30	32	23	24	26	44			
18	13	[28]	[28]	17	27	43	50	33	31	34	30	32	34	24	22	32	33	22	23	25	21	17	17	15	27	50	
19	20	[28]	[28]	17	15	18	23	26	32	43	36	31	27	36	23	28	22	19	28	34	42	46	41	41	29	46	
20	34	[28]	[28]	18	20	19	39	[SC]	[SC]	20	17	19	16	12	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	21	39
21	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
22	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
23	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
24	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
25	14	[28]	[28]	10	14	21	27	24	21	20	32	21	28	29	40	41	37	35	36	34	28	25	25	32	27	41	
26	45	[28]	[28]	41	40	58	45	44	46	42	27	17	25	28	20	30	25	21	31	31	25	23	19	12	31	46	
27	12	[28]	[28]	39	39	42	43	36	14	17	11	14	16	15	8	7	7	11	21	31	32	27	23	18	34	43	
28	12	[28]	[28]	13	13	11	17	[SC]	[SC]	34	12	20	19	31	20	22	17	16	23	15	13	19	21	32	24	43	
29	34	[28]	[28]	33	37	35	32	22	21	16	20	12	13	15	20	22	16	16	14	17	17	28	40	42	24	42	
30	43	[28]	[28]	39	38	39	38	40	34	26	26	18	12	18	12	8	13	15	10	21	32	57	63	62	30	63	
31	62	[28]	[28]	61	48	45	47	46	48	47	41	12	22	20	13	24	29	24	31	31	37	41	48	45	37	62	
AV	40	[]	[]	37	36	38	41	41	40	36	32	28	27	27	23	24	21	21	25	29	32	36	39	40	32		
SD	20	[]	[]	15	14	13	11	11	16	15	15	15	16	16	15	12	10	8	9	13	15	15	17	18			
PK	84	[]	[]	62	63	64	65	66	75	74	75	73	69	74	75	50	43	38	55	75	70	67	69	76		84	

RESULTANT WIND [61103]

LAX AIR QUALITY MONITORING PROGRAM, #706211

*
* FINAL DATA *
* AS OF 23/APR/98 *
*

METERS/SECOND

SITE 1 LAX

MAR, 1998

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

CLOCK HOUR [LOCAL STANDARD TIME]

DX	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	1.4	1.0	0.7	0.2	0.4	0.7	0.8	0.8	2.3	1.5	0.5	2.0	3.8	4.5	5.5	6.3	5.8	5.4	4.4	3.9	3.8	2.7	1.3	1.0	2.5	6.3
2	1.5	1.1	0.7	1.4	1.2	1.0	1.4	1.0	1.4	1.2	1.3	2.7	3.9	4.0	4.5	5.2	4.8	4.4	3.4	2.4	1.1	0.7	1.3	1.3	2.2	5.2
3	1.5	1.3	1.3	1.5	1.5	1.5	2.3	2.2	2.7	2.6	1.8	1.7	2.4	2.7	2.2	4.2	3.9	3.4	3.2	2.3	2.4	2.5	0.6	0.4	2.2	4.2
4	0.9	0.7	0.3	0.2	0.6	0.6	1.4	1.2	1.8	1.2	0.9	2.3	3.9	5.0	4.6	4.2	3.7	3.5	3.1	1.6	0.3	1.3	0.7	1.2	1.9	5.0
5	1.4	1.4	2.3	2.1	1.9	2.1	2.2	3.0	3.0	2.7	3.1	2.8	2.3	2.1	3.6	3.9	4.4	4.8	3.7	2.9	3.8	5.6	3.4	1.6	2.9	5.6
6	2.5	2.5	2.2	1.3	1.3	1.1	1.1	2.7	6.0	6.9	[PA]	3.6	5.3	8.2	9.5	9.2	8.4	6.2	4.6	3.0	3.8	4.0	5.2	5.3	4.6	9.5
7	5.9	6.5	2.7	3.7	2.3	2.4	2.6	2.1	2.7	1.4	1.2	1.5	3.6	4.9	4.8	4.7	5.9	5.3	4.5	5.1	1.8	1.1	1.5	1.6	3.3	6.5
8	1.5	1.8	1.8	1.1	1.1	1.1	1.8	2.2	2.3	0.7	0.8	3.0	4.2	5.3	5.3	5.2	4.2	3.2	3.0	2.6	1.9	0.4	0.9	1.1	2.4	5.3
9	1.1	1.0	0.9	1.2	0.9	0.5	1.4	1.5	2.1	1.4	0.8	1.4	3.5	5.4	5.4	5.7	5.1	5.2	5.0	4.8	1.6	1.5	1.4	1.1	2.5	5.7
10	0.6	0.5	0.5	0.3	0.3	0.3	0.5	0.4	0.5	0.2	0.7	2.5	4.8	4.8	5.0	5.4	4.6	3.6	2.0	0.8	0.7	0.8	0.6	0.4	1.7	5.4
11	0.7	1.6	0.9	0.6	0.6	1.1	0.8	1.6	2.1	1.7	0.4	1.4	4.6	5.4	5.8	5.7	5.1	4.3	4.2	3.0	0.6	0.9	0.8	1.1	2.3	5.8
12	1.7	2.2	1.7	0.9	1.6	0.9	0.9	1.8	1.5	1.2	1.1	3.1	2.5	4.2	3.0	4.6	4.3	3.2	3.1	1.8	0.9	2.7	4.8	1.8	2.3	4.8
13	1.1	1.4	1.4	2.1	1.8	0.8	1.6	2.3	2.9	3.7	3.1	3.3	3.7	5.2	5.0	5.2	4.2	3.6	2.0	0.8	1.5	1.6	1.9	1.9	2.6	5.2
14	2.0	1.7	1.6	2.3	2.3	1.1	1.1	1.8	1.2	0.3	1.5	0.9	2.4	4.3	4.1	3.9	5.0	4.7	3.9	3.7	2.3	1.5	1.2	1.7	2.4	5.0
15	1.3	1.8	2.1	1.6	1.3	1.3	1.7	1.8	2.4	2.9	1.9	1.7	4.3	4.5	3.7	4.7	4.7	3.6	1.7	1.2	2.5	3.0	3.4	1.7	2.5	4.7
16	2.5	1.9	1.2	0.1	0.4	1.1	1.7	0.6	0.5	1.4	2.1	2.0	2.6	3.5	4.2	3.2	3.1	2.7	3.3	3.1	2.9	3.1	1.3	1.4	2.1	4.2
17	1.5	1.7	0.2	0.3	0.4	1.1	0.7	0.2	1.8	2.6	2.8	4.2	4.6	4.5	4.7	4.6	4.4	3.9	3.2	2.9	3.2	1.0	2.0	2.0	2.5	4.7
18	1.7	2.6	1.5	1.0	0.7	0.8	0.1	0.9	2.0	1.3	0.2	3.1	4.7	5.0	5.9	6.5	7.0	5.9	4.9	3.9	4.0	4.0	2.9	1.3	3.0	7.0
19	1.1	2.3	2.0	1.6	1.5	1.3	1.4	0.9	0.1	1.6	3.7	4.1	5.2	5.7	5.7	6.4	6.0	5.2	4.0	2.5	2.2	2.6	3.1	3.5	3.1	6.4
20	3.2	2.7	2.0	3.0	3.4	3.3	2.2	3.2	3.2	3.8	4.9	5.4	5.7	6.7	()	()	()	()	()	()	()	()	()	()	()	6.7
21	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	3.8
22	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	1
23	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	1
24	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	1
25	5.9	4.4	3.5	4.3	4.8	5.1	5.0	5.8	6.2	4.5	6.6	6.7	2.5	1.3	2.6	0.7	1.5	2.6	2.7	2.8	3.1	3.2	1.3	0.3	2.6	6.7
26	1.2	0.4	0.8	0.1	0.9	0.4	0.4	1.4	0.7	0.5	2.9	3.9	6.2	8.0	8.2	8.1	7.7	7.0	4.8	5.3	4.9	1.6	3.1	3.5	3.4	8.3
27	3.0	2.2	1.1	0.8	1.1	1.2	1.3	0.6	2.8	2.3	3.8	4.6	6.3	7.6	7.2	5.6	6.2	8.1	6.4	6.4	6.1	6.5	6.1	5.0	4.3	8.1
28	4.6	6.7	6.2	7.1	5.4	6.4	8.1	4.2	8.8	9.3	10.0	10.8	11.3	11.8	10.9	11.2	11.0	10.7	9.6	6.9	7.4	4.4	4.7	2.5	7.9	11.8
29	2.1	1.2	1.3	1.7	1.6	1.6	1.2	1.8	1.2	0.4	2.1	4.9	4.9	5.7	7.6	7.7	7.5	6.6	3.2	3.4	3.8	2.7	2.3	2.4	3.7	7.7
30	2.2	1.6	1.7	1.7	1.6	2.0	2.4	2.6	1.7	0.9	1.5	4.1	4.7	5.1	5.4	5.1	4.7	3.7	3.0	0.2	1.3	1.4	2.1	2.7	5.7	7.7
31	1.4	1.8	1.5	1.9	2.3	1.5	2.7	3.0	3.0	2.0	1.4	2.8	4.6	4.7	5.1	3.4	3.9	3.2	4.0	2.5	2.0	2.2	2.5	1.3	2.7	5.1
AV	2.0	2.0	1.6	1.6	1.6	1.6	1.8	1.9	2.5	2.2	2.4	3.3	4.3	5.1	5.4	5.5	5.3	4.8	3.9	3.2	2.7	2.5	2.4	2.0	3.0	
SD	1.4	1.5	1.2	1.5	1.2	1.4	1.6	1.2	1.9	2.0	2.1	2.0	1.8	2.1	2.0	2.0	1.9	1.8	1.5	1.5	1.7	1.5	1.6	1.4		
WK	5.9	6.7	6.2	7.1	5.4	6.4	8.1	5.8	8.8	9.3	10.0	10.8	11.3	11.8	10.9	11.2	11.0	10.7	9.6	6.9	7.4	6.5	6.1	5.6		11.8

00000 [Program: EDMS MONTHSUM]

Version: LC:15-OCT-93)

WIND SPEED [61101]

LAX AIR QUALITY MONITORING PROGRAM, #706211

*
* FINAL DATA *
* AS OF 23/APR/98 *
*

METERS/SECOND

SITE 1 LAX

MAR, 1998

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

CLOCK HOUR [LOCAL STANDARD TIME]

DX	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG PEAK	
1	1.5	1.0	0.8	0.5	0.5	0.8	0.8	0.9	2.4	1.8	1.1	2.3	3.9	4.6	5.6	6.3	5.9	5.6	4.5	3.9	3.9	2.8	1.5	1.2	2.7	6.3
2	1.6	1.2	0.8	1.4	1.3	1.0	1.5	1.2	1.9	1.5	1.6	2.9	4.0	4.1	4.6	5.3	4.9	4.5	3.5	2.5	1.3	0.9	1.6	1.3	2.3	5.3
3	1.5	1.3	1.3	1.5	1.5	1.5	2.4	2.3	2.8	2.7	2.0	1.9	2.5	2.8	3.5	4.3	3.9	3.5	3.2	2.5	2.6	2.6	0.8	0.7	2.3	4.3
4	0.9	0.6	0.5	0.7	0.7	0.8	1.4	1.3	1.9	1.5	1.4	2.9	4.0	5.2	4.7	4.3	3.8	3.6	3.2	1.8	0.8	1.4	0.8	1.2	2.1	5.2
5	1.4	1.4	2.3	2.1	1.9	2.2	2.3	3.0	3.2	3.0	3.5	3.0	2.6	3.0	3.8	4.1	4.6	5.0	3.8	3.1	4.1	5.8	3.4	2.0	3.1	5.8
6	2.6	2.7	2.3	1.4	1.5	1.3	1.3	3.8	6.9	7.1	(PA)	3.9	5.5	8.4	9.6	9.3	8.6	6.3	4.9	3.1	3.9	4.9	5.4	5.5	4.6	9.6
7	5.8	6.8	3.3	4.0	2.9	3.4	2.8	2.2	2.9	1.8	2.0	1.9	3.9	5.1	4.9	4.9	4.0	5.4	4.5	5.1	2.1	1.2	1.5	1.7	3.6	6.6
8	1.6	1.8	1.9	1.2	1.1	1.1	1.9	2.2	2.3	1.3	1.4	3.4	4.4	5.4	5.4	5.3	4.3	3.3	3.1	2.7	2.1	0.7	1.1	1.1	2.5	5.4
9	1.2	1.1	1.0	1.3	1.0	0.6	1.5	1.5	2.2	1.8	1.4	1.8	3.7	5.5	5.4	5.8	5.2	5.3	5.1	4.8	2.0	1.6	1.5	1.1	2.6	5.8
10	0.7	0.6	0.7	0.4	0.6	0.6	0.8	0.7	0.8	0.7	1.2	2.6	4.9	4.9	5.1	5.4	4.6	3.7	2.0	1.0	0.9	1.0	0.8	0.6	1.9	5.4
11	0.9	1.7	1.8	0.8	0.8	1.2	1.0	1.7	2.2	1.9	1.1	1.9	4.7	5.5	5.9	5.8	5.2	4.4	4.2	3.1	1.0	1.1	1.0	1.3	2.5	5.9
12	1.8	2.3	1.7	1.0	1.7	0.9	1.0	2.0	1.7	1.5	2.3	3.3	2.6	4.4	3.4	4.7	4.4	3.9	3.2	2.1	1.2	2.0	4.9	2.1	2.5	4.9
13	1.8	1.6	1.5	2.1	1.8	1.0	1.6	2.4	3.1	1.3	3.3	3.9	4.0	5.5	5.1	5.4	4.3	3.8	2.2	1.1	1.9	1.9	2.1	2.3	2.8	5.5
14	2.0	1.9	2.0	2.4	2.4	2.0	1.6	1.9	1.5	1.0	1.8	1.6	2.9	4.6	4.4	5.1	5.2	4.8	4.0	3.8	3.2	1.9	1.3	1.9	2.7	5.2
15	1.5	2.0	2.2	1.6	1.3	1.4	1.8	1.8	2.6	3.2	2.3	2.3	4.6	4.7	3.9	4.8	4.8	3.8	1.8	1.5	2.7	3.2	3.7	1.9	2.7	4.8
16	2.6	2.0	1.3	0.6	0.5	1.2	1.7	0.9	1.1	1.7	2.2	2.2	2.9	3.6	4.3	3.3	3.1	2.9	3.4	3.2	3.0	3.1	1.6	1.6	2.3	4.3
17	1.5	1.8	0.6	0.7	0.6	1.2	0.8	0.6	1.9	2.7	2.9	4.3	4.7	4.6	4.8	4.8	4.5	3.9	3.2	3.0	3.3	2.0	2.2	2.2	2.6	4.8
18	1.8	1.7	1.6	1.1	0.8	0.8	0.3	1.1	2.1	1.6	1.0	3.5	4.8	5.1	6.0	6.7	7.1	6.0	4.9	3.9	4.1	4.0	3.0	1.4	3.1	7.1
19	1.4	2.3	2.1	1.7	1.6	1.4	1.5	1.1	1.9	2.3	3.9	4.3	5.3	5.9	5.8	6.5	6.1	5.3	4.1	2.7	2.4	2.6	3.2	3.6	3.3	6.5
20	3.2	2.7	2.0	3.1	3.4	3.3	2.3	3.3	3.4	4.0	5.1	5.5	5.8	6.8	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
21	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
22	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
23	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
24	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
25	6.0	4.7	3.6	4.4	5.0	5.2	5.1	6.1	6.3	5.3	6.7	6.9	2.6	1.6	3.1	1.8	2.0	4.4	4.6	3.3	2.8	3.6	4.5	5.6	4.3	6.7
26	3.3	0.5	0.9	0.6	1.1	0.6	0.7	1.6	1.2	1.2	3.4	4.1	6.4	8.1	8.4	8.5	7.8	7.1	4.9	5.6	5.0	2.3	3.3	3.8	1.7	6.9
27	3.1	2.3	1.3	2.1	1.2	1.3	1.4	1.1	3.0	2.6	4.1	4.8	6.4	7.7	7.4	5.8	6.3	8.1	6.6	6.2	6.5	6.2	5.1	4.4	8.1	8.1
28	4.7	7.2	6.6	7.3	5.6	6.6	6.3	4.5	8.9	9.5	10.2	10.9	11.4	11.9	11.1	11.4	11.2	10.9	9.7	7.6	7.6	4.5	2.9	2.9	8.1	13.9
29	2.1	1.3	1.4	1.8	1.7	1.7	1.4	2.0	1.6	1.6	2.5	5.1	5.1	5.8	7.8	7.8	7.6	6.8	3.4	3.6	2.9	2.3	2.5	3.5	7.8	
30	2.3	1.7	1.7	1.8	1.7	2.0	2.4	2.7	2.0	1.7	2.9	4.3	4.4	4.8	5.2	5.5	5.2	4.8	3.8	3.1	1.5	1.5	1.5	2.2	2.9	5.5
31	1.4	1.8	1.5	2.0	2.3	1.7	2.7	3.1	3.0	2.2	2.1	3.3	4.8	5.0	5.3	3.7	4.0	5.3	4.1	2.8	2.1	2.4	2.6	1.5	2.9	5.3
AV	2.2	2.2	1.8	1.8	1.7	1.7	1.9	2.1	2.7	2.6	2.8	3.6	4.5	5.3	5.6	5.7	5.4	5.0	4.0	3.3	3.0	2.7	2.5	2.2	3.2	
SD	1.4	1.6	1.2	1.5	1.3	1.4	1.6	1.3	1.9	2.0	2.0	1.9	1.8	2.0	1.9	1.9	1.8	1.5	1.5	1.6	1.6	1.6	1.6	1.4		
WK	6.0	7.2	6.6	7.3	5.6	6.6	8.3	8.1	8.9	9.5	10.2	10.9	11.4	11.9	11.1	11.4	11.2	10.9	9.7	7.1	7.6	6.6	6.2	5.6		11.1

WIND DIRECTION AVERAGE [61102]

LAX AIR QUALITY MONITORING PROGRAM, #706211

DEGREES, COMPASS

SITE 1 LAX

MAR, 1998

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 23/APR/98 *
*

CLOCK HOUR [LOCAL STANDARD TIME]

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	PREV	
1	E	ESE	N	N	NE	NE	E	E	E	E	ESE	WSW	W	W	W	W	W	W	WSW	WSW	WSW	WSW	SSW	SSE	[VA]	
2	E	ESE	ESE	ESE	NE	E	E	E	ESE	ESE	WSW	WSW	W	W	W	W	W	W	WSW	W	SW	SSE	SSE	E	[VA]	
3	E	ESE	ESE	E	E	E	E	E	ESE	ESE	WSW	WSW	W	W	W	W	W	W	WSW	W	SW	SSE	SSE	E	[VA]	
4	ESE	ESE	ESE	N	NE	NE	NE	NE	ESE	E	S	SW	SW	WSW	WSW	W	W	W	W	W	NE	SE	E	E	[VA]	
5	ESE	ESE	ESE	E	E	E	E	ESE	E	ESE	E	SE	SE	SE	SSW	SW	SW	SW	WSW	WSW	SSW	SW	WSW	WSW	S	[VA]
6	ESE	ESE	ESE	E	E	E	E	ESE	E	ESE	E	SE	SE	SE	SSW	SW	SW	SW	WSW	WSW	SSW	SW	WSW	WSW	N	[VA]
7	N	N	NW	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	[VA]
8	N	N	NW	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	[VA]
9	N	N	NW	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	[VA]
10	N	N	NW	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	[VA]
11	N	N	NW	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	[VA]
12	N	N	NW	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	[VA]
13	N	N	NW	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	[VA]
14	N	N	NW	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	[VA]
15	N	N	NW	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	[VA]
16	N	N	NW	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	[VA]
17	N	N	NW	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	[VA]
18	N	N	NW	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	[VA]
19	N	N	NW	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	[VA]
20	N	N	NW	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	[VA]
21	N	N	NW	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	[VA]
22	N	N	NW	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	[VA]
23	N	N	NW	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	[VA]
24	N	N	NW	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	[VA]
25	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	WSW	[VA]
26	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	WSW	[VA]
27	S	SSW	SE	E	ESE	E	ESE	E	ESE	E	SE	SW	W	W	W	W	W	W	W	W	W	W	W	W	W	[VA]
28	SW	WSW	WSW	W	WSW	W	WSW	W	WSW	W	WSW	W	W	W	W	W	W	W	W	W	W	W	W	W	W	[VA]
29	N	NW	NW	N	NW	N	NW	N	NW	N	NW	N	N	N	N	N	N	N	N	N	N	N	N	N	N	[VA]
30	NE	NE	NW	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	[VA]
31	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	[VA]
PV	NE	ESE	[VA]	[VA]	[VA]	[VA]	[VA]	ESE	E	[VA]	WSW	WSW	W	W	W	W	W	W	W	WSW	W	WSW	[VA]	E	[VA]	

00004 [Program: EDMS_MONITOR]

Version: LC:15-OCT-93]

WIND DIRECTION AVERAGE [61102]

LAX AIR QUALITY MONITORING PROGRAM, #706211

DEGREES, COMPASS

SITE 1 LAX

MAR, 1998

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 23/APR/98 *
*

CLOCK HOUR [LOCAL STANDARD TIME]

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	PREV	
1	87	64	5	5	47	52	86	95	84	80	65	244	264	260	265	264	266	265	256	249	245	245	198	148	[VA]	
2	85	77	21	59	52	80	79	56	126	160	192	251	260	260	262	263	261	263	258	259	229	166	123	96	[VA]	
3	87	71	78	80	80	92	92	101	113	134	137	140	143	146	232	259	259	259	258	273	281	274	321	104	[VA]	
4	87	63	74	30	41	17	49	46	73	94	173	233	218	239	258	266	271	262	260	274	51	136	83	87	[VA]	
5	78	87	104	58	89	89	89	94	106	100	132	133	135	197	217	223	226	245	242	212	223	257	251	171	[VA]	
6	112	63	69	86	83	93	141	310	280	278	[PA]	280	264	268	271	271	274	278	293	360	355	345	356	359	[VA]	
7	350	349	346	279	328	38	356	257	8	72	130	235	223	246	250	248	256	255	245	259	302	359	14	25	[VA]	
8	45	50	67	54	67	54	58	67	76	110	232	235	261	258	255	257	258	256	255	266	256	238	104	67	[VA]	
9	42	64	65	43	75	30	31	69	62	56	295	278	250	260	263	262	265	262	262	264	309	75	62	54	[VA]	
10	51	49	39	55	60	349	93	44	21	221	258	257	255	261	263	266	265	260	251	330	14	74	10	70	[VA]	
11	40	49	41	57	73	64	53	90	80	77	20	272	260	261	266	267	264	262	258	259	160	113	123	106	[VA]	
12	49	81	81	59	62	106	105	70	88	198	197	255	258	255	237	260	258	265	259	251	173	109	100	130	[VA]	
13	51	93	108	94	99	78	73	82	96	116	153	182	231	238	254	269	277	278	299	307	2	18	347	42	[VA]	
14	73	54	13	360	340	15	306	298	354	332	71	37	352	347	344	312	279	283	289	288	352	64	50	61	[VA]	
15	116	89	90	84	80	57	52	61	89	112	118	143	240	228	249	264	261	247	203	171	131	118	138	126	5	[VA]
16	117	99	74	264	214	160	129	166	216	214	241	226	248	255	259	258	261	269	261	261	255	252	286	280	13	[VA]
17	287	280	150	43	107	84	43	22	242	253	249	253	262	260	257	261	263	262	257	260	269	299	271	267	13	[VA]
18	316	317	358	9	36	40	48	51	107	105	51	250	257	257	265	267	266	263	261	255	251	247	253	242	[VA]	
19	195	253	283	281	327	320	339	11	264	309	281	287	259	264	268	265	265	265	278	290	273	255	255	258	13	[VA]
20	255	261	282	272	270	267	292	278	289	267	265	258	255	258	()	()	()	()	()	()	()	()	()	()	13	[VA]
21	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	[VA]
22	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	[VA]
23	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	[VA]
24	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	[VA]
25	123	161	141	119	113	104	102	133	159	164	264	277	289	360	101	55	254	212	219	239	241	263	294	15	[VA]	
26	62	349	348	158	53	91	29	63	80	147	252	255	266	267	272	272	268	267	271	264	261	208	179	162	[VA]	
27	190	200	137	97	71	101	111	134	248	263	253	266	264	259	258	248	249	256	264	274	272	270	274	253	13	[VA]
28	235	239	254	270	290	275	274	294	271	271	263	266	261	267	265	268	267	270	273	287	285	289	284	326	13	[VA]
29	352	344	331	349	28	10	28	37	70	234	257	260	260	267	267	274	280	306	306	346	6	38	37	[VA]		
30	39	39	19	61	51	58	48	50	58	102	250	261	253	261	260	261	258	256	257	266	220	89	87	100	[VA]	
31	95	87	84	86	94	86	88	101	94	71	100	208	149	151	187	176	157	212	294	348	32	70	92	79	[VA]	
PV	3	4	[VA]	[VA]	[VA]	[VA]	[VA]	4	5	[VA]	12	12	13	13	13	13	13	13	12	13	12	[VA]	5	[VA]		

00001 [Program: EDMS_MONITOR]

Version: LC:15-OCT-93]

RESULTANT DIRECTION [61104]

LAX AIR QUALITY MONITORING PROGRAM, #706211

DEGREES, COMPASS

SITE 1 LAX

MAR, 1998

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 23/APR/98 *

CLOCK HOUR [LOCAL STANDARD TIME]

DX	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	PREV	
1	E	ENE	N	N	NE	NE	E	E	E	E	ENE	WSW	W	W	W	W	W	W	WSW	WSW	WSW	WSW	SSW	SEE	[VA]	
2	E	ENE	NE	ENE	NE	ENE	E	E	E	NE	SE	SE	SE	SE	SE	SW	W	W	W	WSW	W	WSW	SSW	SEE	E	[VA]
3	E	ENE	S	E	E	E	E	E	E	SE	SE	SE	SE	SE	SW	N	W	W	W	WSW	W	W	WSW	SSW	E	[VA]
4	ENE	ENE	N	ENE	NE	ENE	NE	NE	ENE	E	SE	WSW	SW	WSW	WSW	W	W	W	W	W	W	WSW	SSW	E	E	[VA]
5	ENE	E	ENE	E	E	E	E	E	E	SE	SE	SE	SE	SE	SW	SW	SW	SW	WSW	WSW	WSW	WSW	SSW	SEE	E	[VA]
6	ENE	ENE	ENE	E	E	E	E	E	E	SE	SE	SE	SE	SE	SW	SW	SW	SW	WSW	WSW	WSW	WSW	SSW	SEE	E	[VA]
7	N	N	WSW	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	N	[VA]
8	NE	NE	ENE	NE	ENE	NE	ENE	NE	ENE	NE	ENE	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	[VA]	
9	NE	ENE	ENE	NE	ENE	NE	ENE	NE	ENE	NE	ENE	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	[VA]	
10	NE	ENE	NE	ENE	E	E	E	E	E	SE	SE	SE	SE	SE	SW	SW	SW	SW	WSW	WSW	WSW	WSW	SSW	SEE	N	[VA]
11	NE	NE	NE	ENE	E	ENE	ENE	E	E	E	E	WSW	WSW	WSW	W	W	W	W	W	W	W	W	W	W	[VA]	
12	NE	E	E	ENE	E	ENE	ENE	E	E	E	E	WSW	WSW	WSW	W	W	W	W	W	W	W	W	W	W	[VA]	
13	ENE	E	ENE	E	E	E	E	E	E	E	E	WSW	WSW	WSW	W	WSW	W	WSW	W	WSW	W	S	SEE	E	SEE	[VA]
14	ENE	NE	N	N	WSW	WSW	WSW	W	W	W	W	S	WSW	WSW	W	W	WSW	WSW	W	WSW	W	N	ENE	NE	E	[VA]
15	ENE	E	E	E	E	E	E	E	E	E	E	WSW	WSW	WSW	W	W	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	[VA]	
16	ENE	ENE	ENE	W	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	[VA]	
17	WSW	W	WSW	N	N	NE	NE	NE	NE	NE	NE	WSW	WSW	WSW	W	W	W	W	W	W	W	W	W	W	W	[VA]
18	WSW	WSW	N	N	NE	NE	NE	NE	NE	NE	NE	WSW	WSW	WSW	W	W	W	W	W	W	W	W	W	W	W	[VA]
19	WSW	WSW	N	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	[VA]
20	WSW	N	WSW	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	[VA]
21	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
22	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
23	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
24	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
25	ENE	ENE	SE	ENE	ENE	ENE	ENE	SE	ENE	ENE	W	W	WSW	WSW	W	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	[VA]
26	ENE	N	N	ENE	NE	ENE	NE	E	NE	ENE	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	[VA]	
27	S	WSW	SE	E	ENE	E	ENE	SE	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	[VA]	
28	SW	WSW	WSW	W	WSW	W	WSW	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	[VA]
29	N	WSW	WSW	N	WSW	N	WSW	NE	ENE	WSW	WSW	W	W	W	W	W	W	W	W	W	W	W	W	W	W	[VA]
30	NE	NE	ENE	ENE	NE	ENE	NE	NE	ENE	WSW	WSW	W	W	W	W	W	W	W	W	W	W	W	W	W	W	[VA]
31	E	E	E	E	E	E	E	E	E	E	E	SSW	SSW	SSW	S	S	S	S	S	S	S	S	S	S	S	[VA]
PV	NE	ENE	[VA]	E	[VA]	E	[VA]	ENE	ENE	[VA]	WSW	WSW	W	W	W	W	W	W	W	W	W	W	W	W	W	[VA]

00004 [Program: EDMS_MONITOR]

Version: LC:15-OCT-93

RESULTANT DIRECTION [61104]

LAX AIR QUALITY MONITORING PROGRAM, #706211

DEGREES, COMPASS

SITE 1 LAX

MAR, 1998

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 23/APR/98 *

CLOCK HOUR [LOCAL STANDARD TIME]

DX	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	PREV	
1	87	64	8	3	45	55	79	92	82	79	66	247	264	261	264	264	266	267	256	249	245	246	200	152	[VA]	
2	86	77	39	59	52	78	79	56	137	158	185	251	260	260	262	263	261	264	258	259	237	167	123	98	[VA]	
3	88	71	79	81	80	89	92	101	114	136	137	141	142	147	236	259	259	259	258	272	277	274	314	101	[VA]	
4	67	60	100	27	43	27	49	48	74	96	168	238	218	239	258	266	271	263	260	272	24	136	83	86	[VA]	
5	78	88	104	98	89	90	89	94	106	100	135	134	135	200	217	223	225	247	245	213	226	257	252	172	[VA]	
6	113	64	71	85	83	89	142	282	279	277	[PA]	279	263	268	271	271	273	277	287	0	355	345	357	358	[VA]	
7	358	349	341	277	322	21	353	356	8	72	129	231	221	247	250	249	257	256	245	258	292	1	15	26	[VA]	
8	48	51	66	55	68	55	61	67	76	108	223	236	261	258	255	257	257	256	255	267	257	240	104	67	[VA]	
9	44	64	63	46	72	30	29	67	62	61	293	282	252	260	263	262	265	263	262	264	295	77	64	53	[VA]	
10	47	60	93	67	94	354	85	63	18	211	268	258	256	262	263	266	265	263	261	329	7	78	11	61	[VA]	
11	40	49	46	69	61	68	62	91	80	77	20	264	260	261	266	267	264	263	258	297	158	112	122	102	[VA]	
12	49	81	82	63	61	104	96	70	90	142	222	256	260	256	239	262	258	265	259	262	171	109	100	133	[VA]	
13	60	98	106	94	98	70	73	84	97	116	154	185	232	239	254	268	276	272	291	302	2	15	347	42	[VA]	
14	73	53	10	359	338	18	301	297	350	327	75	31	350	347	345	304	279	283	288	287	339	55	50	63	[VA]	
15	111	87	89	87	79	57	53	61	92	112	115	144	240	228	250	264	261	251	202	166	131	119	137	127	[VA]	
16	120	103	78	272	200	162	129	152	210	210	245	229	263	256	260	259	261	270	262	261	256	252	282	279	[VA]	
17	254	273	139	43	106	85	46	22	249	253	250	254	263	260	257	262	263	262	256	260	269	298	265	263	[VA]	
18	317	316	354	9	39	40	65	59	109	102	44	255	258	257	265	267	266	269	261	255	250	247	253	248	[VA]	
19	205	253	281	286	328	320	340	5	271	285	261	257	258	264	268	265	265	265	277	288	273	256	255	258	[VA]	
20	255	261	289	273	270	267	281	276	268	268	265	258	255	258	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
21	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
22	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
23	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
24	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
25	123	160	141	120	113	104	102	137	159	167	264	276	259	253	245	263	252	251	256	248	208	175	133	115	122	[VA]
26	63	352	355	123	52	100	43	63	85	148	254	256	255	265	267	272	271	268	266	270	264	261	216	179	182	[VA]
27	191	202	143	90	72	101	112	140	250	262	256	264	263	259	258	248	250	256	262	274	272	270	274	264	[VA]	
28	239	240	257	270	288	274	274	287	271	270	263	263	263	261	267	266	268	267	270	272	284	284	288	282	315	[VA]
29	351	343	334	349	28	8	28	37	75	244	258	259	260	260	267	267	274	277	306	304	348	5	38	38	[VA]	
30	39	40	19	59	54	58	46	53	57	116	257	262	263	261	260	251	258	257	257	266	248	85	87	101	[VA]	
31	96	87	84	89	95	84	87	101	95	70	98	204	132	151	187	174	160	221	293	347	32	72	93	82	[VA]	
PV	3	4	[VA]	5	[VA]	5	[VA]	4	4	[VA]	12	12	13	13	13	13	13	13	13	12	13	13	13	5	[VA]	

SIGMA WIND STABILITY [61191]

LAX AIR QUALITY MONITORING PROGRAM, #706211

DEGREES, COMPASS

SITE 1 LAX

MAR, 1998

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 23/APR/98 *
*

CLOCK HOUR [LOCAL STANDARD TIME]

DT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	4	5	6	6	6	6	6	1	2	1	1	1	4	4	4	4	4	4	4	4	4	4	6	6
2	4	5	6	4	4	6	5	6	1	1	1	1	4	3	4	4	4	4	4	4	6	6	6	5
3	4	6	4	4	4	6	4	5	9	2	1	1	2	2	3	4	4	4	4	4	6	6	6	6
4	4	6	6	6	6	6	5	1	3	1	1	1	3	3	4	3	4	4	4	4	6	6	6	5
5	4	5	4	4	4	4	4	3	2	2	2	1	1	2	3	3	3	3	4	4	5	4	4	4
6	4	5	5	6	4	6	6	4	4	3	6	2	3	4	4	4	4	4	4	4	4	4	4	4
7	4	4	5	4	5	5	6	2	2	1	1	1	2	3	4	3	4	4	4	4	4	6	6	6
8	6	5	5	5	5	5	5	4	2	1	1	2	3	4	3	3	3	4	4	4	6	6	6	4
9	6	4	4	6	5	6	6	3	2	1	1	1	3	4	4	4	4	4	4	4	6	5	5	5
10	6	6	6	6	6	6	6	1	1	1	1	2	4	3	4	4	4	4	4	4	6	6	6	6
11	6	5	6	6	6	6	6	2	3	1	1	1	4	4	4	4	4	4	4	4	6	6	6	6
12	5	6	4	6	5	5	6	2	1	1	1	2	2	3	3	3	3	4	4	4	6	6	4	4
13	6	6	6	4	5	6	5	3	2	3	2	2	2	3	4	3	3	4	6	6	6	6	6	6
14	5	6	6	5	6	6	6	6	1	1	1	1	3	3	3	3	4	4	4	4	5	6	6	6
15	6	6	5	5	6	5	5	5	1	2	1	1	3	3	2	4	4	2	6	6	6	4	4	5
16	4	6	6	6	6	5	5	6	1	1	1	1	3	4	3	4	4	4	4	4	4	4	6	6
17	6	6	6	6	6	6	6	1	1	4	3	4	3	3	4	3	4	4	4	4	4	4	6	6
18	6	6	5	5	6	6	6	1	1	1	1	2	4	3	3	4	4	4	4	4	4	4	4	6
19	6	4	6	6	6	6	5	1	1	1	1	3	3	4	3	4	4	4	4	5	6	4	5	4
20	5	5	6	4	4	5	2	2	2	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4
21	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
22	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
23	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
24	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
25	4	4	4	4	4	4	4	4	4	3	4	3	2	1	2	1	1	5	5	6	4	4	6	6
26	6	6	6	6	6	6	6	1	1	1	2	3	3	4	4	4	4	4	4	4	4	6	4	4
27	4	5	6	4	5	6	5	1	2	1	3	3	3	4	3	3	3	4	4	4	4	4	4	4
28	4	4	4	4	4	4	4	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5
29	5	6	6	6	6	5	1	2	1	1	1	3	3	3	4	4	4	4	4	4	4	5	5	5
30	5	5	6	6	6	5	3	2	1	1	1	3	3	3	4	3	3	4	4	6	6	6	6	6
31	4	4	5	5	5	6	4	3	3	2	1	2	3	3	3	4	4	4	4	6	5	6	4	6

00001 [Program: EDMS_MONTESUM]

Version: LC:15-OCT-93]

TEMPERATURE [62101]

LAX AIR QUALITY MONITORING PROGRAM, #706211

DEGREES CENTIGRADE
LEVEL HEIGHT : 9 METERS

SITE 1 LAX

MAR, 1998

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 23/APR/98 *
*

CLOCK HOUR [LOCAL STANDARD TIME]

DT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG PEAK		
1	15.3	15.1	14.8	14.5	13.7	13.6	13.1	13.7	16.2	17.8	19.8	20.7	20.4	20.2	19.6	18.8	18.1	17.2	16.0	16.9	17.0	16.5	16.4	16.1	16.8	20.7	
2	13.0	14.5	14.6	13.9	14.3	14.2	14.5	15.2	15.7	16.5	17.4	18.3	18.2	18.4	18.1	17.7	17.5	17.1	16.9	17.0	17.1	17.3	17.1	16.9	16.4	18.4	
3	16.2	16.0	16.0	16.0	16.1	16.2	16.2	16.3	16.6	17.0	17.6	17.9	18.0	18.0	18.0	17.8	17.3	17.1	17.1	17.2	17.4	17.4	17.4	17.1	17.0	18.0	
4	16.5	16.1	15.4	15.1	14.9	14.9	15.3	15.8	16.5	17.2	17.9	18.0	18.2	18.0	17.7	17.5	17.3	16.7	16.5	16.7	16.8	16.7	16.7	16.7	16.6	18.2	
5	16.6	16.4	16.1	15.4	15.0	14.6	14.2	14.9	16.0	16.5	17.2	17.3	17.7	17.7	17.8	17.5	17.0	16.8	16.4	16.3	15.5	13.5	13.5	13.1	16.0	17.8	
6	14.4	17.0	13.2	12.0	12.8	12.9	12.7	13.4	15.0	15.0	[PA]	15.7	16.5	17.4	17.5	16.8	16.9	16.3	16.1	15.6	15.0	14.7	14.5	14.2	14.9	17.5	
7	14.0	13.9	13.5	13.0	12.9	13.2	12.9	13.2	14.5	15.4	16.3	17.2	17.6	17.2	16.9	17.0	16.7	16.0	15.6	15.9	16.3	16.0	15.6	15.3	15.3	17.6	
8	14.7	14.5	14.4	14.2	13.9	13.6	13.2	13.9	15.1	16.4	17.6	18.3	18.4	18.1	17.5	17.0	16.6	16.3	16.0	16.2	16.8	16.2	16.0	15.3	15.8	18.4	
9	15.0	14.3	13.9	13.7	13.1	13.1	13.4	14.6	16.5	18.6	20.4	21.9	22.2	21.2	20.1	19.4	19.1	18.5	18.3	18.5	19.5	18.2	17.5	17.8	17.4	22.2	
10	17.6	16.6	15.9	15.3	15.3	15.2	15.6	15.8	20.3	22.7	24.7	25.7	25.2	24.0	24.2	23.6	22.6	21.5	21.4	22.3	22.1	21.5	20.5	20.6	20.5	25.7	
11	19.3	18.9	18.2	17.2	16.7	17.0	16.8	17.6	20.8	23.9	25.8	27.2	26.6	25.3	24.2	23.2	22.9	22.4	21.5	20.7	21.0	20.0	19.5	18.7	21.1	27.2	
12	18.6	17.3	16.2	16.0	16.3	16.6	15.3	17.0	19.2	20.7	22.0	21.9	23.1	22.5	22.9	18.9	18.4	17.0	17.6	17.5	17.7	17.9	17.5	17.5	18.6	23.1	
13	17.5	17.4	17.1	16.5	16.3	16.3	16.4	16.8	17.4	18.3	18.5	18.9	19.7	18.5	17.3	16.9	16.7	16.1	13.4	14.0	14.1	13.5	13.4	12.3	16.3	18.9	
14	13.1	12.8	12.9	12.1	12.9	13.6	13.8	14.9	16.0	16.8	18.0	19.5	21.7	22.9	23.9	22.4	20.5	19.5	19.3	19.5	19.9	20.0	18.8	18.1	17.6	23.9	
15	17.2	16.2	15.6	15.3	15.3	15.9	15.8	16.5	17.5	18.5	19.7	20.8	20.4	19.6	19.7	19.0	18.3	17.7	17.5	17.9	18.0	17.7	17.3	17.5	17.7	20.8	
16	17.4	17.0	16.8	16.8	16.9	17.1	17.0	17.1	17.4	17.6	17.7	18.0	18.4	18.3	17.9	18.0	17.8	17.7	17.4	17.2	17.1	17.0	17.0	16.8	17.4	18.4	
17	16.7	16.7	16.5	15.8	15.6	15.2	15.7	16.7	17.4	17.7	18.3	18.8	19.1	19.0	18.7	18.5	17.8	17.2	16.9	17.0	17.2	17.2	17.0	17.1	17.2	19.1	
18	17.3	17.4	17.3	17.1	17.0	17.0	17.2	17.7	18.1	18.6	19.7	19.9	19.8	19.8	19.5	19.0	18.6	18.2	17.6	17.7	17.7	17.7	17.6	17.6	18.1	19.9	
19	17.5	17.3	17.4	17.5	17.6	17.6	17.7	18.0	18.6	19.5	19.4	19.7	19.2	19.7	19.6	19.4	18.6	17.9	17.9	18.0	17.8	17.6	17.4	17.3	18.3	19.7	
20	17.2	17.2	17.2	16.8	16.8	16.7	17.0	17.4	17.8	18.3	18.4	18.1	18.7	18.7	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	19.7	
21	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	18.7	
22	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	18.7	
23	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	18.7	
24	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	18.7	
25	18.8	17.5	21.4	16.3	16.8	15.5	17.0	17.4	19.6	15.5	15.6	14.1	13.4	13.2	13.8	15.2	16.0	15.7	15.3	15.3	15.0	14.8	15.1	14.8	15.0	19.7	21.4
26	14.2	13.8	13.5	12.9	12.6	12.6	12.9	13.8	15.4	16.6	17.7	18.2	19.0	19.5	19.5	19.3	18.5	17.4	17.2	16.9	16.2	16.4	16.1	15.8	16.1	19.5	
27	15.7	15.6	15.5	15.1	15.0	15.1	15.7	16.3	16.5	17.2	17.8	17.6	17.5	17.8	17.8	17.4	17.0	16.4	16.1	15.9	16.0	15.8	15.8	15.4	16.3	17.8	
28	15.2	15.4	14.1	13.4	12.6	12.8	12.8	12.3	13.4	13.9	13.6	14.3	14.4	14.9	14.5	14.2	1	1	1	1	1	1	1	1	1	1	
29	10.6	10.4	10.2	9.8	9.2	8.8	8.9	10.2	11.6	12.6	13.6	13.9	14.2	14.5	14.9	15.1	15.1	15.1	15.0	14.3	14.0	13.5	13.3	12.4	12.6	15.4	
30	11.9	11.5	11.1	10.4	10.1	10.1	10.3	11.8	13.3	14.7	15.7	16.3	16.6	16.8	16.6	16.4	15.9	15.4	15.0	15.1	15.3	15.1	14.4	14.0	13.9	16.6	
31	12.3	12.5	12.5	12.4	12.4	12.4	12.5	13.0	16.3	14.7	15.4	15.8	15.3	16.1	14.8	13.9	13.3	12.0	12.9	11.1	10.5	9.3	9.7	11.1	13.1	16.5	
AV	15.8	15.5	15.2	14.6	14.5	14.4	14.6	15.3	16.5	17.3	18.3	18.7	18.9	18.9	18.6	18.1	17.7	17.2	16.8	16.7	15.8	16.4	16.2	15.9	16.7		
SD	2.1	2.0	2.3	2.1	2.2	2.2	2.2	2.1	2.0	2.5	2.8	3.0	3.0	2.7	2.8	2.4	2.1	2.3	2.2	2.3	2.5	2.6	2.4	2.4			
FK	13.3	13.9	21.4	17.5	17.6	17.7	18.0	20.8	23.9	25.8	27.2	26.8	25.3	24.2	23.6	22.9	22.4	21.5	22.3	22.1	21.5	20.5	20.6			27.2	

SOLAR RADIATION [63301]

WATTS PER SQUARE METER

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

MAR, 1998

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 23/APR/98 *

CLOCK HOUR [LOCAL STANDARD TIME]

DT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK	
1	0	0	0	0	0	0	15	159	368	552	693	775	800	739	625	438	221	49	0	0	0	0	0	0	226	800	
2	0	0	0	0	0	0	5	67	190	526	656	702	781	732	602	430	216	40	0	0	0	0	0	0	206	781	
3	0	0	0	0	0	0	5	55	138	194	310	205	280	198	113	232	126	26	0	0	0	0	0	0	79	310	
4	0	0	0	0	0	0	12	147	316	372	394	260	682	689	467	257	128	35	0	0	0	0	0	0	157	689	
5	0	0	0	0	0	0	18	218	319	323	457	218	328	230	[MT]	209	160	10	0	0	0	0	0	0	106	457	
6	0	0	0	0	0	0	5	72	355	562	[RA]	844	862	805	644	308	265	59	0	0	0	0	0	0	208	862	
7	0	0	0	0	0	0	28	213	439	628	760	844	864	787	674	508	268	53	0	0	0	0	0	0	253	864	
8	0	0	0	0	0	0	27	197	432	600	740	835	843	747	615	363	209	56	0	0	0	0	0	0	235	843	
9	0	0	0	0	0	0	25	193	387	562	721	814	809	754	620	324	192	57	0	0	0	0	0	0	227	814	
10	0	0	0	0	0	0	34	216	432	622	766	857	883	816	679	486	263	65	0	0	0	0	0	0	255	883	
11	0	0	0	0	0	0	36	225	444	632	771	850	877	812	674	481	258	65	0	0	0	0	0	0	255	877	
12	0	0	0	0	0	0	36	221	460	575	703	668	519	762	486	222	139	26	0	0	0	0	0	0	201	762	
13	0	0	0	0	0	0	16	161	191	351	307	538	658	646	285	151	136	12	0	0	0	0	0	0	144	658	
14	0	0	0	0	0	0	7	55	89	100	147	162	163	171	299	320	458	170	0	0	0	0	0	0	89	458	
15	0	0	0	0	0	0	14	72	108	122	160	174	173	198	331	445	445	160	0	0	0	0	0	0	100	445	
16	0	0	0	0	0	0	12	36	80	191	220	238	256	231	223	186	70	32	0	0	0	0	0	0	82	356	
17	0	0	0	0	0	0	37	194	184	303	563	682	790	742	637	472	265	58	0	0	0	0	0	0	205	790	
18	0	0	0	0	0	0	28	190	315	352	509	692	840	789	660	474	263	69	0	0	0	0	0	0	216	840	
19	0	0	0	0	0	0	30	202	425	517	794	779	649	819	675	475	253	54	0	0	0	0	0	0	239	819	
20	0	0	0	0	0	0	95	320	468	820	745	629	800	720	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	335	900	
21	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
22	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
23	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
24	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
25	0	0	0	0	0	0	5	35	68	90	192	221	84	165	121	340	303	45	0	0	0	0	0	0	0	333	915
26	0	0	0	0	0	0	51	220	420	593	802	910	908	852	718	523	293	92	0	0	0	0	0	0	69	910	
27	0	0	0	0	0	0	31	214	244	348	745	941	930	866	763	511	269	59	0	0	0	0	0	0	255	941	
28	0	0	0	0	0	0	30	218	365	563	594	772	956	832	643	474	277	73	1	0	0	0	0	0	242	956	
29	0	0	0	0	0	0	92	310	529	640	770	956	962	891	745	536	234	51	0	0	0	0	0	0	280	962	
30	0	0	0	0	0	0	75	309	523	714	649	897	955	892	751	547	332	107	0	0	0	0	0	0	281	955	
31	0	0	0	0	0	0	30	90	90	115	207	203	268	232	95	67	54	5	0	0	0	0	0	0	61	268	
AV	0	0	0	0	0	0	29	171	310	453	561	628	680	645	533	377	226	57	0	0	0	0	0	0	200		
SD	0	0	0	0	0	0	23	84	148	210	231	285	283	259	216	134	102	39	0	0	0	0	0	0	9		
PK	0	0	0	0	0	0	92	320	529	820	802	958	962	892	763	547	458	170	1	0	0	0	0	0	962		

00000 [Program: EDMS_MONTESUM]

Version: LC:15-OCT-93]

SIGMA WS (70012)

DEGREES, CORDASS

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

MAR, 1998

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 23/APR/98 *

CLOCK HOUR [LOCAL STANDARD TIME]

DT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK
1	11	19	28	58	35	34	20	26	17	31	59	31	12	12	9	8	9	13	9	9	9	13	27	34	22	59
2	10	17	20	10	12	16	15	26	41	35	37	22	12	13	12	12	11	12	11	15	35	42	29	17	20	42
3	10	17	12	10	11	14	12	16	21	23	26	19	20	50	12	11	13	9	20	26	15	44	50	20	50	
4	12	20	59	68	29	36	14	23	17	33	51	36	15	19	11	13	12	9	8	28	63	16	26	17	26	68
5	11	12	11	10	10	12	10	14	20	25	27	22	29	45	17	15	16	15	16	22	23	18	11	36	19	45
6	15	22	13	20	12	26	33	43	12	13	[PA]	22	16	11	9	9	10	10	19	15	15	14	16	17	17	43
7	16	17	36	22	37	44	21	18	18	39	51	40	20	15	11	18	10	10	11	9	30	25	18	23	23	51
8	18	15	15	16	13	15	20	12	16	52	55	25	13	11	13	12	16	9	15	17	25	53	37	11	21	55
9	17	12	10	15	17	28	20	15	17	37	54	37	16	9	10	8	10	10	6	8	37	20	14	16	18	54
10	25	39	41	39	63	53	45	50	45	67	51	17	10	13	11	9	8	15	14	41	34	36	36	53	34	67
11	38	12	56	40	40	23	36	21	16	23	65	43	10	9	8	9	10	13	10	15	54	28	33	35	27	65
12	13	18	8	15	13	16	29	19	25	35	59	17	20	16	25	12	13	14	16	30	43	17	12	31	21	59
13	51	26	20	11	13	33	13	15	18	17	18	31	21	19	11	14	14	14	25	39	35	32	26	23	51	
14	14	21	24	18	19	53	46	18	37	68	33	55	33	22	23	39	14	12	10	43	37	24	22	29	68	
15	33	24	13	13	16	16	15	13	21	24	36	40	20	13	19	9	30	22	16	36	23	15	22	25	21	40
16	14	18	15	75	35	16	17	47	57	35	24	26	24	14	11	12	12	17	15	15	14	8	35	27	24	75
17	18	18	70	61	38	23	22	62	20	12	14	12	14	15	12	16	10	11	12	17	19	25	23	23	70	
18	17	18	13	15	29	19	63	32	22	37	70	26	12	13	13	12	9	10	0	9	10	10	20	21	70	
19	39	0	18	26	21	22	17	32	78	44	15	15	10	13	11	11	10	19	14	20	25	15	7	12	21	78
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22	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
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24	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
25	10	19	15	11	14	14	11	19	13	32	11	13	19	36	32	63	40	21	18	24	19	15	42	68	24	68
26	17	43	29	73	36	44	49	26	53	62	30	18	14	10	10	11	10	10	10	11	11	44	19	24	28	73
27	17	13	31	36	13	18	15	54	20	62	20	15	13	11	14	14	12	8	13	10	11	12	10	13	18	54
28	16	21	19	13	14	12	11	23	10	10	22	10	8	9	10	10	10	9	10	15	12	13	14	30	13	30
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30	15	15	16	20	19	14	17	17	29	57	41	15	14	13	13	12	13	15	10	13	76	34	19	16	22	76
31	10	9	14	16	14	29	13	13	23	19	46	33	18	17	14	23	17	52	12	26	17	24	19	21	22	52
AVG	18	19	24	27	22	24	23	25	26	35	36	25	17	16	15	15	12	14	13	18	28	23	22	26	22	
SD	10	8	16	21	13	13	14	14	16	18	18	11	6	8	9	11	6	8	4	9	17	12	10	14		
PK	52	43	70	75	63	53	63	62	78	69	70	55	33	45	50	63	40	52	25	41	76	53	44	68		78

DELTA T STABILITY CLASS [88825]
DEGREES, COMPASS

LAX AIR QUALITY MONITORING PROGRAM, #706211
SITE 1 LAX
MAR, 1998

*
* FINAL DATA *
* AS OF 23/APR/98 *
*

AEROENVIRONMENT ENVIRONMENTAL SERVICES INC.

CLOCK HOUR [LOCAL STANDARD TIME]

BY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	5	5	5	5	5	5	5	2	3	1	1	1	2	2	3	4	4	4	4	4	5	5	6	5
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3	5	5	4	5	5	5	6	5	3	2	2	3	3	3	3	3	5	5	5	5	6	6	6	6
4	4	4	4	4	4	5	5	2	2	1	1	3	2	3	2	3	3	5	5	5	5	5	5	5
5	6	6	6	6	6	6	6	3	3	3	2	3	3	3	4	3	3	5	5	5	5	4	2	3
6	4	4	4	4	4	4	4	5	4	4	5	2	3	3	3	4	4	4	4	4	4	4	4	4
7	4	4	4	4	4	5	5	3	2	1	1	2	3	2	2	2	4	4	4	4	4	5	5	5
8	5	5	5	5	5	5	5	3	2	1	1	2	2	3	3	4	3	4	4	4	4	5	5	5
9	5	6	6	6	6	6	6	5	2	2	1	2	2	3	3	4	3	4	4	4	5	5	5	5
10	5	5	5	5	5	5	5	2	1	1	1	2	2	3	3	4	4	4	4	4	5	5	5	5
11	5	5	5	5	5	5	5	2	2	1	1	2	2	2	3	3	4	4	4	4	5	5	5	5
12	5	5	5	5	5	5	5	2	1	1	2	2	2	2	3	3	4	4	4	4	5	5	5	5
13	5	5	5	5	5	5	5	3	3	3	3	2	2	3	3	4	3	4	4	5	5	5	5	5
14	5	5	6	6	6	6	6	6	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5
15	5	5	5	5	5	5	5	6	3	3	3	3	3	3	3	2	2	3	3	5	5	5	5	5
16	5	5	5	5	5	5	5	6	2	2	3	3	3	3	3	3	4	4	4	4	5	5	5	5
17	5	5	5	5	5	6	4	2	2	3	2	2	2	2	2	2	3	4	4	4	5	5	5	5
18	6	5	5	5	5	5	5	2	3	2	1	2	2	2	3	4	4	4	4	4	3	3	3	5
19	4	5	6	6	6	6	6	2	1	2	2	2	2	3	3	3	4	4	4	5	6	6	4	4
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26	0	0	0	0	0	0	0	2	1	1	2	2	3	3	4	4	4	4	4	4	4	5	4	4
27	4	5	5	6	6	6	6	2	3	2	2	2	3	3	3	3	4	4	4	4	4	4	4	4
28	4	4	5	4	4	4	4	3	4	4	4	3	3	3	4	4	4	4	4	4	4	4	4	5
29	5	5	5	5	5	5	2	1	1	1	3	3	3	3	3	4	4	4	4	4	4	5	5	5
30	5	5	5	5	5	5	3	3	1	1	1	2	2	2	3	3	4	3	4	4	4	5	5	5
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QU001 [Program: EDMS MONTHSUM]

Version: LC:15-OCT-93]

BATTERY VOLTAGE [59034]
VOLTS

LAX AIR QUALITY MONITORING PROGRAM, #706211
SITE 1 LAX
MAR, 1998

*
* FINAL DATA *
* AS OF 23/APR/98 *
*

AEROENVIRONMENT ENVIRONMENTAL SERVICES INC.

CLOCK HOUR [LOCAL STANDARD TIME]

BY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG PEAK
1	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
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7	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
8	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
9	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
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19	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
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23	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
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26	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
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30	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
31	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
AV	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
SD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PK	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14

QU000 [Program: EDMS MONTHSUM]

Version: LC:15-OCT-93]


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*
*      FINAL DATA
* AS OF 23/APR/98
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*****
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MAR, 1998

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

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1	12	20	50	66	38	39	31	27	19	35	79	43	12	12	10	8	9	13	9	9	9	13	29	38	26	79	
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3	10	18	13	10	12	30	12	13	17	22	26	29	21	22	58	13	11	12	9	22	28	15	51	52	52	52	
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6	15	22	14	26	12	29	37	74	12	13	29	18	12	9	9	10	10	24	16	15	14	17	17	19	74	74	
7	17	17	50	23	46	49	28	19	19	42	61	46	28	15	11	19	10	10	11	9	33	25	18	24	26	61	
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12	14	18	9	20	13	16	33	18	26	48	63	18	22	18	24	13	13	14	16	35	47	17	12	34	23	63	
13	58	29	22	11	13	58	16	16	18	17	22	34	22	20	12	14	14	14	29	45	37	34	23	37	26	58	
14	14	21	25	16	20	90	72	18	43	87	30	72	43	23	24	44	14	12	12	10	47	39	28	22	34	87	
15	38	27	15	16	21	17	15	15	23	24	38	49	22	13	21	10	10	24	18	40	25	16	24	25	23	49	
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17	20	33	94	81	42	23	24	74	34	11	14	13	14	15	12	16	10	11	12	12	16	20	27	27	94	94	
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19	63	9	19	38	22	22	17	44	95	57	16	16	10	13	12	12	11	10	15	21	25	14	7	10	24	95	
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Version: LC:15-OCT-93]

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*
*      FINAL DATA
*      AS OF 28/AFR/98
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MAR, 1998

AEROVIRONMENT ENVIRONMENTAL SERVICES INC.

24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543
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Version: LC;15-OCT-931

STATION TEMPERATURE [99231]

DEGREES CENTIGRADE

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

MAR, 1998

AEROENVIRONMENT ENVIRONMENTAL SERVICES INC.

*
* FINAL DATA *
* AS OF 23/APR/98 *

CLOCK HOUR [LOCAL STANDARD TIME]

BY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK	
1	26.9	28.5	26.2	25.8	25.5	25.1	24.9	25.2	26.9	29.0	29.0	27.6	26.9	26.9	27.1	27.4	27.2	26.8	26.8	26.6	26.4	26.3	26.6	26.6	26.7	29.0	
2	26.4	26.4	26.5	26.3	26.1	26.3	26.7	26.9	27.3	28.3	29.6	27.9	27.3	27.1	27.3	27.5	27.4	27.2	27.4	27.4	27.3	27.3	27.2	27.1	27.2	29.6	
3	27.2	27.2	27.5	27.4	27.5	27.6	27.7	27.8	28.1	28.5	29.2	30.1	30.5	31.0	30.7	29.7	29.7	29.3	28.6	28.1	27.8	27.6	27.8	27.8	28.5	31.0	
4	27.7	27.3	27.0	26.5	26.2	26.2	26.2	26.0	26.8	27.8	28.2	27.4	26.6	26.5	26.4	26.4	26.4	26.3	26.9	27.1	27.3	27.3	27.5	27.5	26.9	28.2	
5	27.6	27.7	27.8	27.5	27.3	27.0	26.7	26.7	27.9	28.9	29.2	27.7	27.1	26.8	26.4	26.3	26.1	25.8	25.2	25.0	24.3	23.3	22.8	23.1	26.4	29.2	
6	23.2	23.0	23.1	22.6	22.3	22.3	22.3	21.5	20.9	21.2	[PA]	22.7	23.4	24.7	24.6	24.7	25.4	25.8	25.3	24.7	24.0	23.5	23.1	22.7	23.3	25.8	
7	22.4	22.1	22.0	21.8	21.4	21.2	21.1	22.0	23.9	25.7	26.3	26.3	26.1	25.7	25.7	25.5	25.5	25.3	25.3	25.3	25.0	24.6	24.4	24.2	24.1	24.8	26.2
8	23.9	23.9	24.2	24.0	23.9	23.8	23.5	23.9	25.4	26.2	26.1	25.7	25.7	25.6	25.5	25.6	25.3	25.3	25.3	25.0	24.6	24.4	24.2	24.1	24.8	26.2	
9	24.0	24.1	24.0	23.6	23.3	22.9	22.5	23.1	25.2	26.1	25.9	26.2	27.0	27.1	26.9	26.4	25.8	25.4	25.4	25.7	26.0	26.2	26.1	25.8	25.2	27.1	
10	25.3	24.6	24.3	23.7	23.2	22.6	22.3	23.4	25.6	26.4	27.2	28.1	28.6	28.3	28.4	28.4	28.1	27.2	26.3	25.9	26.0	26.2	26.1	25.8	25.9	28.6	
11	25.8	25.5	25.5	25.1	24.6	24.2	23.9	24.9	25.9	26.0	27.4	29.2	29.9	30.0	29.8	29.1	28.3	27.3	26.1	25.7	25.8	26.2	26.3	26.1	26.6	30.0	
12	25.6	25.3	25.1	24.6	24.2	24.0	24.0	24.6	25.9	25.7	26.5	26.8	27.1	27.2	27.4	26.5	25.8	25.3	25.7	25.9	25.9	25.9	26.0	25.9	25.7	27.4	
13	25.7	25.4	25.4	24.9	24.7	24.5	24.4	24.7	25.7	26.1	25.8	25.8	25.5	25.2	24.8	24.5	25.1	25.5	26.0	24.5	24.1	23.8	23.6	23.5	24.9	26.1	
14	23.5	23.5	23.5	23.2	23.2	23.2	23.4	23.7	24.8	26.3	26.5	26.1	26.4	26.6	26.6	26.8	26.3	26.0	25.7	26.0	26.3	26.3	26.2	26.0	25.3	26.8	
15	25.8	25.4	25.5	25.1	24.9	25.0	25.3	25.9	26.4	26.1	26.5	27.3	27.3	26.9	26.9	26.7	26.2	25.9	26.1	26.4	26.8	26.9	26.9	26.7	26.2	27.3	
16	26.5	26.1	25.9	25.6	25.7	25.8	25.8	25.9	26.8	28.0	28.7	27.4	26.3	25.8	25.5	25.4	25.3	26.0	27.1	27.4	27.5	27.5	27.6	27.5	26.5	28.7	
17	27.4	27.0	27.0	26.8	26.6	26.3	26.1	26.6	27.9	27.0	26.3	25.4	25.2	25.3	25.5	25.7	25.8	25.5	25.8	26.4	26.4	26.8	27.0	27.0	26.4	27.7	
18	27.5	27.9	28.0	28.3	28.4	28.4	28.4	28.4	28.9	28.3	28.7	27.0	26.4	26.0	25.6	25.7	25.9	26.1	26.0	25.7	25.9	26.4	26.6	26.6	26.9	27.0	28.7
19	27.9	28.1	28.4	28.5	28.6	28.6	28.9	29.2	28.6	27.4	26.3	26.1	25.8	25.8	26.0	26.2	26.2	26.0	26.2	27.2	27.6	27.6	27.4	27.1	27.3	29.2	
20	27.0	26.9	27.0	26.8	26.5	26.4	26.5	26.7	26.3	25.0	25.1	24.7	24.5	24.7	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	26.0	27.0
21	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
22	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
23	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
24	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
25	27.7	27.5	27.3	26.7	26.4	26.1	25.8	25.8	26.0	26.3	25.9	25.7	25.7	26.0	26.2	26.6	26.2	25.1	24.6	25.3	26.5	27.2	27.4	27.5	27.6	26.2	27.6
26	26.0	26.1	26.0	25.7	25.5	25.3	25.2	25.8	27.4	26.6	25.5	24.9	24.7	24.7	24.8	25.0	25.0	24.9	25.2	25.9	26.0	26.4	26.7	26.7	25.7	27.4	
27	26.8	26.9	27.1	27.1	27.2	27.3	27.5	27.6	27.4	25.6	25.1	25.0	24.8	24.7	24.9	25.1	25.1	24.8	24.6	25.5	26.0	26.2	26.3	26.3	26.0	27.8	
28	26.1	25.6	25.1	24.8	24.6	24.4	23.8	21.7	21.6	23.3	24.3	24.7	24.9	25.3	25.5	25.7	25.3	25.1	24.4	23.9	23.8	23.8	23.6	23.6	24.4	26.1	
29	23.5	23.2	23.1	22.7	22.5	22.3	22.3	23.4	25.3	27.2	25.8	24.3	23.9	23.9	24.1	24.1	24.2	24.9	25.2	25.1	25.0	24.8	24.5	24.2	24.1	27.2	
30	23.9	23.9	23.9	23.7	23.4	23.2	23.2	24.0	25.9	26.9	25.3	24.4	24.3	24.5	24.9	25.0	25.0	24.8	24.7	25.0	25.0	25.1	25.1	25.0	24.6	26.9	
31	24.9	24.9	25.0	25.0	25.0	25.1	25.1	25.3	25.5	25.7	26.2	26.7	27.2	27.5	27.4	26.6	26.0	25.5	24.8	24.5	24.3	24.3	24.1	24.0	25.4	27.5	
AV	25.8	25.6	25.6	25.3	25.1	25.0	24.9	25.2	26.1	26.5	26.7	26.3	26.2	26.3	26.4	26.3	26.1	25.8	25.8	25.8	25.8	25.8	25.8	25.7	25.8		
SD	1.6	1.7	1.7	1.8	1.9	1.9	2.0	2.0	1.6	1.6	1.4	1.6	1.6	1.6	1.5	1.3	1.2	1.0	1.0	1.1	1.2	1.4	1.3	1.6			
PK	27.9	28.1	28.4	28.5	28.7	28.8	28.9	29.2	28.7	29.0	29.6	30.1	30.5	31.0	30.7	29.7	29.7	29.3	28.6	28.1	27.8	27.6	27.8	27.8		31.0	

00000 [Program: KIMS_MONITORUM]

Version: LC:15-OCT-93]

Delta Temp [99236]

DEGREES CENTIGRADE

LAX AIR QUALITY MONITORING PROGRAM, #706211

SITE 1 LAX

MAR, 1998

AEROENVIRONMENT ENVIRONMENTAL SERVICES INC.

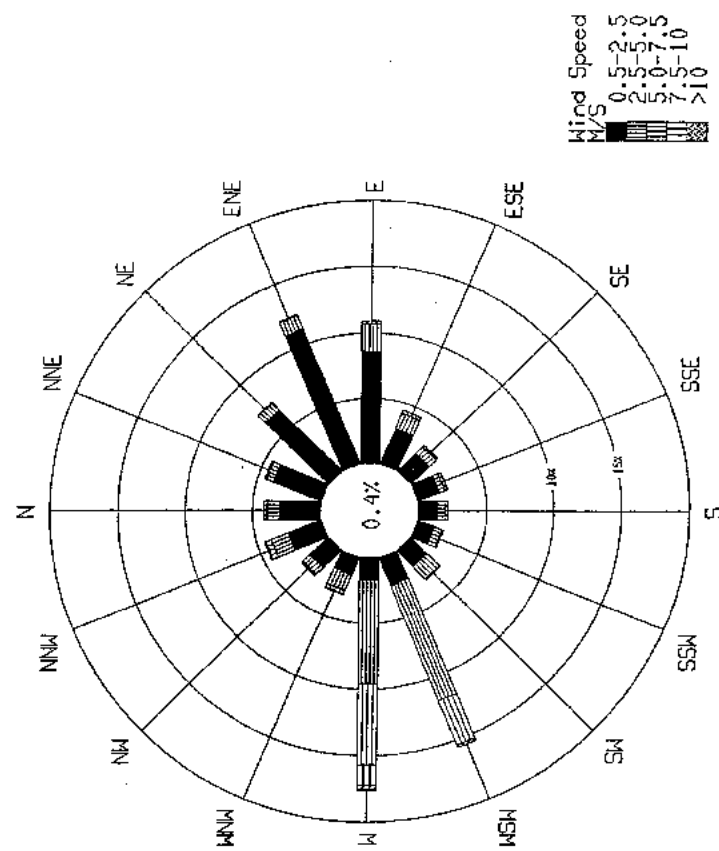
*
* FINAL DATA *
* AS OF 28/APR/98 *

CLOCK HOUR [LOCAL STANDARD TIME]

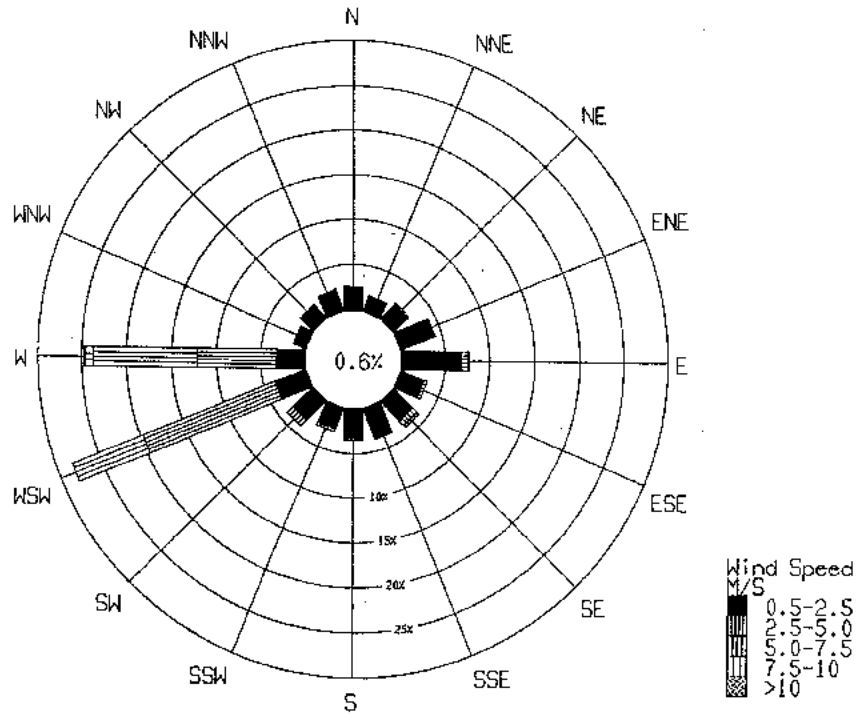
BY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	PEAK	
1	-0.7	-1.0	-1.5	-2.3	-1.7	-2.3	-1.5	-0.3	0.0	0.4	0.5	0.7	0.9	0.9	0.9	0.6	0.0	-0.5	-0.8	-0.5	0.4	1.5	1.1	[QD]	-0.2	1.5	
2	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	1.1	0.8	1.0	1.3	1.2	1.1	0.9	0.5	0.7	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	1.0	1.3	
3	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	1.6	1.2	0.6	0.3	0.9	0.4	0.2	0.2	0.6	0.7	0.4	0.2	0.0	0.0	0.2	0.5	0.9	1.6
4	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	1.3	1.0	0.7	0.6	1.0	1.3	1.3	1.0	0.7	0.8	1.7	1.8	1.4	1.7	1.9	1.6	1.2	1.9
5	1.5	1.0	1.6	1.3	1.3	1.6	1.6	0.9	0.9	0.8	0.7	0.3	0.5	0.4	0.4	0.1	0.4	0.8	0.7	0.8	[QD]	[QD]	[QD]	[QD]	0.9	1.8	
6	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	0.3	0.4	[NA]	1.0	1.0	0.5	0.2	-0.1	-0.2	-0.4	-0.4	-0.5	-0.4	-0.3	-0.3	-0.3	0.0	1.0
7	-0.3	-0.3	-0.5	-1.1	-0.5	-0.8	-0.3	0.1	0.5	0.6	0.7	0.8	0.8	0.8	0.7	0.5	-0.1	-0.8	-0.7	-0.7	-0.6	-0.5	-0.3	-0.3	-0.1	0.8	
8	-0.3	-0.2	-0.3	-0.4	-0.6	-0.5	-0.6	-0.1	0.4	0.6	0.7	1.0	1.0	0.9	0.7	0.3	0.1	-0.7	-1.1	-1.0	-1.2	-1.0	-0.9	-0.6	-0.2	1.0	
9	-0.2	0.8	0.9	0.2	0.9	0.5	0.0	0.1	0.3	0.4	0.4	0.6	0.7	0.7	0.6	-0.1	-0.2	-0.7	-1.0	-0.8	-0.8	-0.9	-0.9	-1.1	0.0	0.9	
10	-2.1	-2.0	-2.3	-3.1	-2.5	-2.6	-2.4	-0.5	0.2	0.3	0.4	0.5	0.5	0.5	0.2	-0.1	-0.4	-1.3	-2.2	-1.3	-1.7	-2.1	-2.3	-2.1	-1.2	0.5	
11	-2.9	-1.9	-2.1	-2.0	-2.7	-2.3	-2.2	-0.4	0.0	0.2	0.3	0.4	0.3	0.4	0.2	-0.1	-0.7	-1.4	-1.8	-1.6	-1.7	-1.2	-1.6	-1.6	-1.1	0.4	
12	-0.9	-1.3	-1.1	-1.4	-1.2	-1.3	-1.2	-0.3	0.3	0.4	0.6	0.5	0.3	0.7	0.2	0.1	-0.2	-0.3	-0.3	-0.2	-0.4	-0.4	-0.3	-0.4	-0.3	0.7	
13	-0.4	-0.5	-0.6	-0.5	-0.5	-0.4	-0.3	-0.1	0.1	0.3	0.3	0.6	0.8	0.8	0.8	0.7	0.5	0.2	0.1	-0.2	2.0	0.8	0.5	0.1	0.5	1.0	2.0
14	-0.1	-0.2	0.6	1.9	1.0	0.2	0.2	0.1	0.3	0.3	0.5	0.6	0.7	0.7	0.5	0.2	0.1	0.0	-0.3	-0.3	-0.4	-0.7	-0.8	-0.8	0.2	1.9	
15	-1.3	-0.8	-0.6	-0.4	-0.3	0.0	0.0	0.2	0.5	0.7	0.9	0.9	1.0	1.1	0.9	0.7	0.4	-0.2	-0.5	-0.2	-0.1	-0.2	-0.2	-0.3	0.1	1.1	
16	-1.0	-0.6	-0.5	-0.2	-0.3	-0.2	-0.2	0.1	0.2	0.3	0.3	0.3	0.5	0.5	0.3	0.3	0.0	-0.2	-0.4	-0.3	-0.4	-0.6	-0.6	-0.6	-0.1	0.5	
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
19	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	1.1	1.1
20	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	1.1	2.8
21	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
22	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
23	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
24	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	
25	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	1.1	1.1
26	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	[QD]	1.1	1.1
27	-0.2	-0.4	-0.2	0.0	0.2	0.1	0.1	0.4	0.4	0.7	1.1	1.3	1.2	1.0	1.0	0.8	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
28	-0.2	0.7	[QD]	0.9	0.8	-0.3	-0.2	0.1	0.0	0.2	0.3	0.4	0.5	0.4	0.3	0.1	-0.1	-0.2	-0.3	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	0.0	
29	-0.4	-0.4	-0.5	-0.4	-0.2	-0.1	0.1	0.4	0.7	0.7	0.9	1.3	1.3	1.2	0.8	0.5	0.0	-0.3	-0.2	-0.2	-0.2	-0.2	-0.4	-0.5	-0.4	0.2	
30	-0.3	-0.3	-0.3	-0.4	-0.4	-0.5	-0.2	0.3	0.7	0.9	0.7	1.2	1.4	1.3	1.1	0.8	0.3	-0.4	-1.4	-1.3	-0.9	-0.9	-1.1	-1.2	0.0	1.4	
31	-0.9	-0.8	-0.6	-0.4	-0.4	-0.1	0.0	0.3	-2.7	0.0	0.0	0.0	0.0	0.1	0.1	-0.1	0.7	2.0	2.4	0.0	2.6	1.5	2.3	2.4	2.8	2.8	
AV	-0.6	-0.4	-0.4	-0.4	-0.3	-0.3	-0.3	0.1	0.3	0.5	0.6	0.7	0.8	0.8	0.6	0.4	0.2	0.0	-0.3	-0.1	-0.2	-0.2	-0.2	-0.2	0.2	0.2	
SD	0.8	0.9	1.0	1.0	1.3	1.1	1.3	1.0	0.3	0.7	0.3	0.3	0.4	0.3	0.4	0.4	0.5	0.9	1.0	0.9	0.9	1.0	1.1	1.1	1.1	1.1	
PK	1.5	1.8	1.6	1.9	1.5	2.4	1.6	0.9	1.3	1.1	1.1	1.3	1.4	1.3	1.3	1.1	2.0	2.0	2.0	2.6	2.0	2.3	2.4	2.8	2.8	2.8	

Appendix D
WIND ROSES AND WIND FREQUENCIES

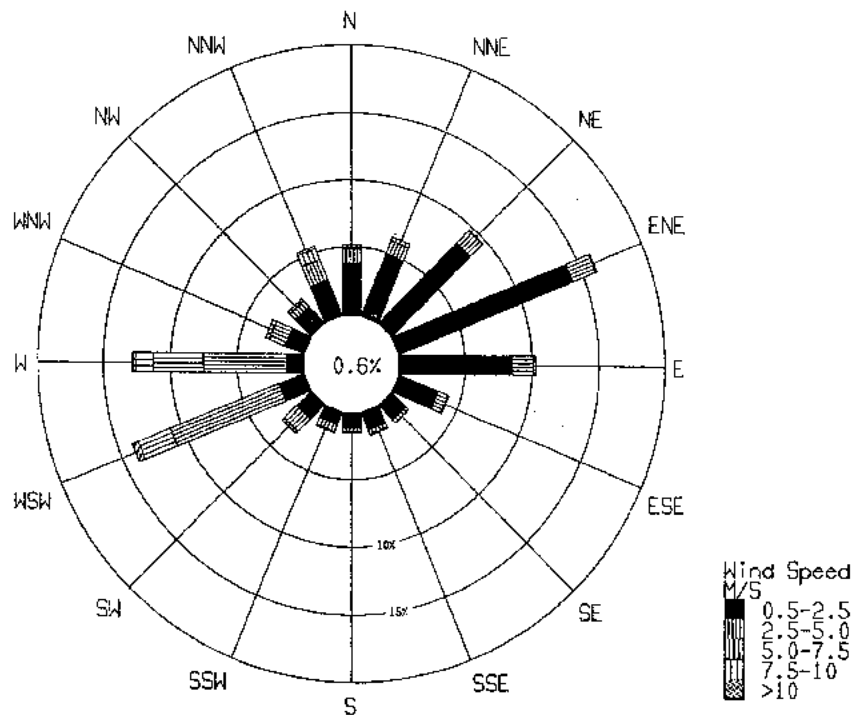
Wind Rose Plot
 LAX
 Entire Study Period (AUG 97 - MAR 98)



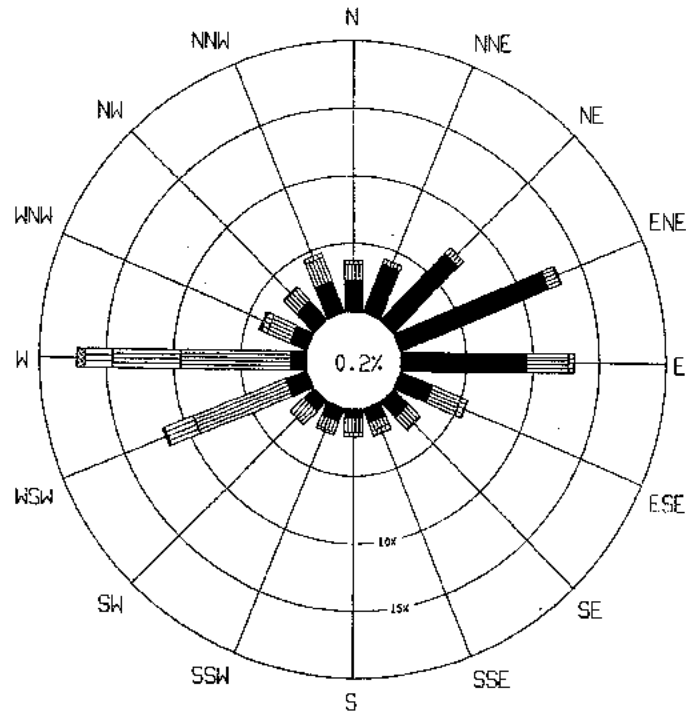
Wind Rose Plot
LAX
AUG 97 - SEP 97



Wind Rose Plot
LAX
OCT 97 - DEC 97



Wind Rose Plot
LAX
JAN 98 - MAR 98



Aerovironment Environmental Services, Inc.

* FINAL DATA *
* AS OF 5/MAY/98 *

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED VS WIND DIRECTION AVERAGE
LAX AIR QUALITY MONITORING PROGRAM (706211)
SITE (1) - LAX
01-AUG-97 to 31-MAR-98

[Number of Occurrences]

WIND DIRECTION AVERAGE [61102] (DEGREES, COMPASS)	WIND SPEED [61101] (METERS/SECOND)						TOTAL	AVG WS
	0-.5	0.5-2.5	2.5-5.0	5.0-7.5	7.5-10	>10		
N	2	163	47	12	0	0	224	1.9
NNE	3	203	30	6	0	0	242	1.6
NW	8	352	41	1	0	0	402	1.5
NNE	2	595	58	4	0	0	659	1.6
E	2	462	109	13	0	0	586	1.9
ESE	1	156	68	12	1	0	238	2.2
SE	2	102	38	8	0	0	150	2.2
SSE	0	93	22	10	1	0	126	2.3
S	0	79	29	9	0	0	117	2.4
SSW	0	72	32	5	1	0	110	2.3
SW	2	92	69	5	1	0	169	2.5
WSW	0	122	505	192	5	6	830	4.0
W	0	90	423	322	81	19	935	4.9
WNW	1	76	67	16	3	0	163	3.0
NNW	0	99	38	6	0	0	143	2.2
NNW	1	137	71	25	4	0	238	2.6
TOTAL	24	2893	1647	646	97	25	5332	2.8

[Program: WIND_FREQDIST]

Version: LC:08-JAN-90]

 *
 * FINAL DATA *
 * AS OF 5/MAY/98 *
 *

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED VS WIND DIRECTION AVERAGE
 LAX AIR QUALITY MONITORING PROGRAM (706211)
 SITE (1) - LAX
 01-AUG-97 to 31-MAR-98

[Percentage of Occurrences]

WIND DIRECTION AVERAGE [61102] (DEGREES, COMPASS)	WIND SPEED [61101] (METERS/SECOND)						TOTAL
	0-.5	0.5-2.5	2.5-5.0	5.0-7.5	7.5-10	>10	
N	0.0	3.1	0.9	0.2	0.0	0.0	4.2
NNE	0.1	3.8	0.6	0.1	0.0	0.0	4.5
NE	0.2	6.6	0.8	0.0	0.0	0.0	7.5
ENE	0.0	11.2	1.1	0.1	0.0	0.0	12.4
E	0.0	8.7	2.0	0.2	0.0	0.0	11.0
ESE	0.0	2.9	1.3	0.2	0.0	0.0	4.5
SE	0.0	1.9	0.7	0.2	0.0	0.0	2.8
SSE	0.0	1.7	0.4	0.2	0.0	0.0	2.4
S	0.0	1.5	0.5	0.2	0.0	0.0	2.2
SSW	0.0	1.4	0.6	0.1	0.0	0.0	2.1
SW	0.0	1.7	1.3	0.1	0.0	0.0	3.2
WSW	0.0	2.3	9.5	3.6	0.1	0.1	15.6
W	0.0	1.7	7.9	6.0	1.5	0.4	17.5
WNW	0.0	1.4	1.3	0.3	0.1	0.0	3.1
NW	0.0	1.9	0.7	0.1	0.0	0.0	2.7
NNW	0.0	2.6	1.3	0.5	0.1	0.0	4.5
TOTAL	0.5	54.3	30.9	12.1	1.8	0.5	100.0

[Program: EDMS_FREQDIST

Version: LC:08-JAN-90]

 *
 * FINAL DATA *
 * AS OF 5/MAY/98 *
 *

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED VS WIND DIRECTION AVERAGE
 LAX AIR QUALITY MONITORING PROGRAM (706211)
 SITE (1) - LAX
 01-AUG-97 to 30-SEP-97

[Number of Occurrences]

WIND DIRECTION AVERAGE [61102] (DEGREES, COMPASS)	WIND SPEED [61101] (METERS/SECOND)						TOTAL	AVG WS
	0-.5	0.5-2.5	2.5-5.0	5.0-7.5	7.5-10	>10		
N	0	29	1	0	0	0	30	1.1
NNE	2	21	0	0	0	0	23	0.9
NE	0	26	2	0	0	0	28	1.3
ENE	1	47	0	0	0	0	48	1.2
E	1	81	9	0	0	0	91	1.5
ESE	1	32	4	0	0	0	37	1.5
SE	0	35	8	3	0	0	46	2.0
SSE	0	39	1	2	0	0	42	1.8
S	0	38	2	0	0	0	40	1.6
SSW	0	28	4	0	0	0	32	1.8
SW	2	37	10	0	0	0	49	1.8
WSW	0	42	172	92	0	0	306	4.1
W	0	37	110	134	11	1	293	4.8
WNW	0	15	2	0	0	0	17	1.6
NW	0	23	0	0	0	0	23	1.3
NNW	0	29	0	0	0	0	29	1.0
TOTAL	7	559	325	231	11	1	1134	3.1

[Program: EDMS_FREQDIST

Version: LC:08-JAN-90]

 *
 * FINAL DATA *
 * AS OF 5/MAY/98 *
 *

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED VS WIND DIRECTION AVERAGE
 LAX AIR QUALITY MONITORING PROGRAM (706211)
 SITE (1) - LAX
 01-AUG-97 to 30-SEP-97

[Percentage of Occurrences]

WIND DIRECTION AVERAGE [61102] (DEGREES, COMPASS)	WIND SPEED [61101] (METERS/SECOND)						TOTAL
	0-.5	0.5-2.5	2.5-5.0	5.0-7.5	7.5-10	>10	
N	0.0	2.6	0.1	0.0	0.0	0.0	2.6
NNE	0.2	1.9	0.0	0.0	0.0	0.0	2.0
NE	0.0	2.3	0.2	0.0	0.0	0.0	2.5
NNE	0.1	4.1	0.0	0.0	0.0	0.0	4.2
E	0.1	7.1	0.8	0.0	0.0	0.0	8.0
ESE	0.1	2.4	0.4	0.0	0.0	0.0	3.2
SE	0.0	2.1	0.7	0.3	0.0	0.0	4.1
SSE	0.0	3.4	0.1	0.2	0.0	0.0	3.7
S	0.0	2.4	0.2	0.0	0.0	0.0	3.5
SSW	0.0	2.5	0.4	0.0	0.0	0.0	2.9
SW	0.2	3.3	0.9	0.0	0.0	0.0	4.3
WSW	0.0	3.7	15.2	8.1	0.0	0.0	27.0
W	0.0	3.3	9.7	11.8	1.0	0.1	25.8
WNW	0.0	1.2	0.2	0.0	0.0	0.0	1.5
NW	0.0	2.0	0.0	0.0	0.0	0.0	2.0
NNW	0.0	2.6	0.0	0.0	0.0	0.0	2.6
TOTAL	0.6	49.3	28.7	20.4	1.0	0.1	100.0

[Program: EDMS_FREQDIST

Version: LC:08-JAN-90]

 *
 * FINAL DATA *
 * AS OF 5/MAY/98 *
 *

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED VS WIND DIRECTION AVERAGE
 LAX AIR QUALITY MONITORING PROGRAM (706211)
 SITE (1) - LAX
 01-OCT-97 to 31-DEC-97

[Number of Occurrences]

WIND DIRECTION AVERAGE [61102] (DEGREES, COMPASS)	WIND SPEED [61101] (METERS/SECOND)						TOTAL	AVG WS
	0-.5	0.5-2.5	2.5-5.0	5.0-7.5	7.5-10	>10		
N	1	86	23	5	0	0	116	1.9
NNE	0	103	22	6	0	0	131	1.9
NE	7	183	28	1	0	0	219	1.6
NNE	1	300	39	2	0	0	342	1.6
E	1	186	35	4	0	0	226	1.7
ESE	0	69	16	2	0	0	87	1.8
SE	2	33	6	2	0	0	43	1.9
SSE	0	31	7	1	0	0	39	1.8
S	0	27	5	2	0	0	34	2.0
SSW	0	21	11	1	1	0	34	2.4
SW	0	33	29	5	1	0	68	2.7
WSW	0	44	179	53	3	5	284	3.9
W	0	20	144	84	28	6	290	4.8
WNW	1	32	27	6	0	0	66	2.6
NW	0	37	12	4	0	0	53	2.3
NNW	1	58	33	18	4	0	114	3.0
TOTAL	14	1271	616	197	37	11	2146	2.6

[Program: EDMS_FREQDIST

Version: LC:08-JAN-90]

 *
 * FINAL DATA *
 * AS OF 5/MAY/98 *
 *

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED VS WIND DIRECTION AVERAGE
 LAX AIR QUALITY MONITORING PROGRAM (706211)
 SITE (1) - LAX
 01-OCT-97 to 31-DEC-97

[Percentage of Occurrences]

WIND DIRECTION AVERAGE [61102] (DEGREES, COMPASS)	WIND SPEED [61101] (METERS/SECOND)						TOTAL
	0-.5	0.5-2.5	2.5-5.0	5.0-7.5	7.5-10	>10	
N	0.0	4.0	1.1	0.3	0.0	0.0	5.4
NNE	0.0	4.8	1.0	0.3	0.0	0.0	6.1
NE	0.3	8.5	1.3	0.0	0.0	0.0	10.2
NNE	0.0	14.0	1.8	0.1	0.0	0.0	15.9
E	0.0	8.7	1.6	0.2	0.0	0.0	10.5
ESE	0.0	3.2	0.7	0.1	0.0	0.0	4.1
SE	0.1	1.5	0.3	0.1	0.0	0.0	2.0
SSE	0.0	1.4	0.3	0.0	0.0	0.0	1.8
S	0.0	1.3	0.2	0.1	0.0	0.0	1.6
SSW	0.0	1.0	0.5	0.0	0.0	0.0	1.6
SW	0.0	1.5	1.4	0.2	0.0	0.0	3.2
WSW	0.0	2.1	8.3	2.5	0.1	0.2	13.2
W	0.0	1.3	6.7	3.9	1.3	0.3	13.5
WNW	0.0	1.5	1.3	0.3	0.0	0.0	3.1
NW	0.0	1.7	0.6	0.2	0.0	0.0	2.5
NNW	0.0	2.7	1.5	0.8	0.2	0.0	5.3
TOTAL	0.7	59.2	28.7	9.2	1.7	0.5	100.0

[Program: KMS_FREQDIST

Version: LC:08-JAN-98]

 *
 * FINAL DATA *
 * AS OF 5/MAY/98 *
 *

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED VS WIND DIRECTION AVERAGE
 LAX AIR QUALITY MONITORING PROGRAM (706211)
 SITE (1) - LAX
 01-JAN-98 to 31-MAR-98

[Number of Occurrences]

WIND DIRECTION AVERAGE [61102] (DEGREES, COMPASS)	WIND SPEED [61101] (METERS/SECOND)						TOTAL	AVG WS
	0-.5	0.5-2.5	2.5-5.0	5.0-7.5	7.5-10	>10		
N	1	48	23	6	0	0	78	2.3
NNE	1	79	8	0	0	0	88	1.5
NE	1	143	11	0	0	0	155	1.5
NNE	0	248	19	2	0	0	269	1.7
E	0	185	65	9	0	0	269	2.1
ESE	0	55	48	10	1	0	114	2.7
SE	0	34	14	3	0	0	51	2.5
SSE	0	23	14	7	1	0	45	3.1
S	0	14	22	7	0	0	43	3.3
SSW	0	23	17	4	0	0	44	2.7
SW	0	22	30	0	0	0	52	2.8
WSW	0	36	154	47	2	1	240	3.8
W	0	25	169	104	42	12	352	5.1
WNW	0	29	38	10	3	0	80	3.5
NW	0	39	26	2	0	0	67	2.4
NNW	0	50	38	7	0	0	95	2.7
TOTAL	3	1063	706	218	49	13	2052	2.9

[Program: KMS_FREQDIST

Version: LC:08-JAN-98]

 * FINAL DATA *
 * AS OF 5/MAY/98 *

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED VS WIND DIRECTION AVERAGE
 LAX AIR QUALITY MONITORING PROGRAM (706211)
 SITE (1) - LAX
 01-JAN-98 to 31-MAR-98

[Percentage of Occurrences]

WIND DIRECTION AVERAGE [61102] (DEGREES, COMPASS)	WIND SPEED [61101] (METERS/SECOND)						TOTAL
	0-1.5	1.5-2.5	2.5-5.0	5.0-7.5	7.5-10	>10	
N	0.0	2.3	1.1	0.3	0.0	0.0	3.8
NNE	0.0	3.8	0.4	0.0	0.0	0.0	4.3
NE	0.0	7.0	0.5	0.0	0.0	0.0	7.6
NNE	0.0	12.1	0.9	0.1	0.0	0.0	13.1
E	0.0	9.5	3.2	0.4	0.0	0.0	13.1
ESE	0.0	2.7	2.3	0.5	0.0	0.0	5.6
SE	0.0	1.7	1.2	0.1	0.0	0.0	3.0
SSE	0.0	1.1	0.7	0.3	0.0	0.0	2.2
S	0.0	0.7	1.1	0.3	0.0	0.0	2.1
SSW	0.0	1.1	0.8	0.2	0.0	0.0	2.3
SW	0.0	1.1	1.5	0.0	0.0	0.0	2.5
WSW	0.0	1.8	7.5	2.3	0.1	0.0	11.7
W	0.0	1.2	8.2	5.1	2.0	0.6	17.2
WNW	0.0	1.4	1.9	0.5	0.1	0.0	3.9
NW	0.0	1.9	1.3	0.1	0.0	0.0	3.3
NNW	0.0	2.4	1.9	0.3	0.0	0.0	4.6
TOTAL	0.1	51.8	34.4	10.6	2.4	0.6	100.0

[Program: ROMS PARQDISF

Version: LC:05-JAN-90]

Appendix E
 PM-10 DATA

PM-10 CONCENTRATION SUMMARY REPORT (mG/M³)

LAX			
Sample Date	Sampler #	Concentration	% Diff
08-15-97	2866	27.0	
08-15-97	2873	28.7	Collocated 6.15%
08-17-97	2865	14.6	
08-17-97	2872	16.7	Collocated 13.34%
08-19-97	2873	22.2	
08-19-97	2866	22.1	Collocated -0.37%
	2873	1.9*	
08-21-97	2865	18.9	
08-23-97	2872	32.6	
08-25-97	2865	36.8	
08-25-97	2866	29.2	
08-27-97	2866	31.0	
08-29-97	2865	31.7	
08-31-97	2873	2.3*	
09-02-97	2872	34.4	
09-10-97	2866	36.3	
09-12-97	2865	29.2	
09-12-97	2873	28.8	Collocated -1.62%
09-14-97	2872	35.9	
09-16-97	2866	35.2	
09-18-97	2872	2.8*	
09-18-97	2865	29.6	
09-20-97	2873	30.5	
09-22-97	2866	36.3	
09-22-97	2865	37.3	Collocated 2.88%
09-24-97	2872	48.6	
09-26-97	2873	31.8	
09-28-97	2866	42.6	
09-30-97	2872	45.7	
09-30-97	2865	1.4*	
10/02/97	2873	29.1	
10/04/97	2865	25.9	
10/04/97	2866	24.9	Collocated -3.75%
10/06/97	2872	41.3	
10/08/97	2873	38.4	
10/10/97	2866	0.6*	
10/10/97	2865	24.3	
10/12/97	2872	24.2	
10/14/97	2873	36.4	
10/16/97	2865	32.6	
10/16/97	2866	35.7	Collocated 9.10%
10/18/97	2872	44.4	
10/20/97	2873	24.5	
10/22/97	2865	48.1	

PM-10 CONCENTRATION SUMMARY REPORT (mG/M³)

LAX			
Sample Date	Sampler #	Concentration	% Diff
10/24/97	2866	1.4*	
10/24/97	2872	37.9	
10/26/97	2873	31.3	
10/28/97	2865	40.6	
10/28/97	2866	42.0	Collocated 3.51%
10/30/97	2872	63.4	
11/01/97	2873	61.8	
11/03/97	2865	36.1	
11/03/97	2866	4.4*	
11/05/97	2872	61.8	
11/07/97	2873	43.1	
11/09/97	2865	35.1	
11/09/97	2866	35.2	Collocated 0.36%
11/11/97	2872	29.0	
11/13/97	2873	26.3	
11/15/97	2872	2.7*	
11/15/97	2873	27.1	
11/17/97	2865	31.4	
11/19/97	2873	33.6	
11/21/97	2872	36.7	
11/21/97	2865	34.1	Collocated -7.34%
11/23/97	2873	36.4	
11/25/97	2872	73.8	
11/27/97	2873	24.5	
11/27/97	2872	0.7*	
11/29/97	2865	45.2	
12/03/97	2873	39.3	
12/03/97	2872	43.6	Collocated 10.37%
12/05/97	2865	27.7	
12-07-97	2873	10.3	
12-09-97	2872	12.0	
12-09-97	2865	1.1*	
12-11-97	2873	39.1	Fire to North
12-13-97	2872	32.3	Fire to North
12-15-97	2873	23.2	
12-15-97	2872	26.6	Collocated 13.68%
12-17-97	2865	44.9	
12-19-97	2873	33.3	
12-21-97	2872	31.2	
12-21-97	2865	2.4*	
12-23-97	2873	58.8	
12-25-97	2872	28.5	
12-27-97	2873	35.9	

PM-10 CONCENTRATION SUMMARY REPORT (mg/M³)

LAX				
Sample Date	Sampler #	Concentration		% Diff
12-27-97	2872	41.2	Collocated	13.84%
12-29-97	2865	55.6		
12-31-97	2873	64.6		
01-02-98	2872	25.7		
01-02-98	2865	0.9*		
01-04-98	2872	16.7		
01-06-98	2865	28.6		
01-08-98	2872	57.7		
01-08-98	2865	56.2	Collocated	-2.60%
01-10-98	2873	15.9		
01-12-98	2872	37.7		
01-14-98	2865	39.1		
01-14-98	2873	0.2*		
01-16-98	2872	48.9		
01-18-98	2865	54.7		
01-20-98	2872	28.6		
01-20-98	2865	27.0	Collocated	-5.77%
01-23-98	2872	54.7 ¹		
01-24-98	2865	56.1 ¹		
01-25-98	2872	72.5 ¹		
01-26-98	2873	0.6*		
01-26-98	2865	82.3 ¹		
01-27-98	2872	51.5 ^{1,2}		
01-29-98	2865	34.8		
02-01-98	2872	23.9		
02-01-98	2873	24.2	Collocated	1.21%
02-03-98	2865	14.9		
02-05-98	2872	28.6		
02-07-98	2873	20.9		
02-07-98	2865	0.9*		
02-09-98	2872	16.5		
02-11-98	2873	25.9		
02-13-98	2872	25.1		
02-13-98	2873	24.4	Collocated	-2.52%
02-15-98	2865	21.3		
02-17-98	2872	13.6		
02-19-98	2873	30.0		
02-19-98	2865	0.7*		
02-21-98	2872	23.0		
02-23-98	2873	7.2		
02-25-98	2872	11.8		
02-25-98	2873	11.0	Collocated	-7.28%
02-27-98	2865	16.9		

PM-10 CONCENTRATION SUMMARY REPORT (mg/M³)

LAX				
Sample Date	Sampler #	Concentration		% Diff
03-01-98	2872	38.6		
03-03-98	2873	37.1		
03-03-98	2865	0.6*		
03-05-98	2872	23.5		
03-05-98	2873	22.3	Collocated	-5.13%
03-07-98	2872	20.1		
03-09-98	2873	36.2		
03-11-98	2865	32.2		
03-13-98	2872	20.8		
03-15-98	2873	31.2		
03-15-98	2865	0.4*		
03-17-98	2872	25.8		
03-19-98	2873	33.8		
03-21-98	2872	19.8		
03-21-98	2873	21.2	Collocated	6.83%
03-23-98	2865	29.7		
03-25-98	2872	10.5		
03-25-98	2865	1.6*		
03-27-98	2873	22.6		
03-29-98	2872	14.4		
03-31-98	2873	21.2		
Minimum		7.2		
Maximum		82.3		
Average		33.1		
Median		31.2		
Precision	2.25%	±	9.80%	

* Dynamic Blank

1 - Noon to Noon

2 - Ran 48 hours

State and Federal Criteria:

State: 50 mg/m³ (24 hour)

Federal: 150 mg/m³ (24 hour), 50 mg/m³ (annual)

LAX Master Plan

TECHNICAL REPORT DEPOSITION MONITORING

March 1998

Prepared for:

Los Angeles World Airports

Prepared by:

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Draft Version #1

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Attachment A: Dry Deposition Monitoring at Los Angeles International Airport

Attachment B: Ambient Air Measurements for Respirable (PM-10 Fraction) Polynuclear Aromatic Hydrocarbons at Los Angeles International Airport

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Deposition Monitoring

1.0 INTRODUCTION

1.1 PURPOSE

Particulate deposition is of concern in the communities and school districts surrounding LAX, as represented by a significant number of deposition/"soot" comments received during the LAX Master Plan EIS/EIR Notice of Preparation comment period. This monitoring study was performed to determine dry deposition rates in the area immediately surrounding LAX, the chemical constituents of the deposited particulate, and to analyze the potential sources of the particle deposition found during this study.

1.2 SAMPLING METHODOLOGY

Passive monitoring was performed at several locations surrounding LAX in order to determine dry deposition rates and chemical constituents. Two passive filter samples were collected at each location twice daily. The sampling times were from twelve 12:00 noon to 8:00 p.m. ("daytime") and 8:00 p.m. to 12:00 noon ("nighttime") daily. The twice-daily sampling was performed in order to determine the deposition rates and composition during periods of onshore wind (daytime) versus during periods of offshore wind (nighttime). Historic January LAX meteorological data was used to determine the normal daily daytime and nighttime periods of onshore and offshore winds, respectively. The 8-hour daytime sample period was selected to maximize the frequency of onshore winds during daytime sampling; therefore, onshore winds in the late morning and early evening occur during the nighttime sampling period.

The deposition monitoring "stations" were comprised of two sample filters clipped on separate stainless steel frames placed in a container surrounded by a short wind fence. The deposition monitoring was performed by AeroVironment Environmental Services, Inc. (AeroVironment), under a contract with and oversight by PCR. Additional description of the monitoring station setup with station photographs is provided in the AeroVironment Environmental Services (AVES) Inc. report (AVES, 1998a), provided as **Attachment A**.

One filter from each sample period was weighed prior to and after sampling, and a deposition weight was determined for each of the twice daily deposition samples. The samples were combined into two sets of 12 composite samples by location and sampling period (i.e. daytime or nighttime) for analysis. The first set of 12 composite samples (plus one quality control field blank) were analyzed for the following nineteen polycyclic aromatic hydrocarbons (PAHs): acenaphene, acenaphylene, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(e)pyrene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, 2-methylnaphthalene, naphthalene, perylene, phenanthrene, and pyrene. The second set of 12 composite samples (plus one quality control field blank) were analyzed for the following 12 metals: arsenic, beryllium, cadmium, chromium, copper, lead, manganese, mercury, nickel, selenium, vanadium, and zinc. The analytical methods are more thoroughly described in **Attachment A**.

1.3 MONITORING STATION LOCATIONS

Deposition monitoring was performed at a total of six locations surrounding LAX. The name and general location of the six sampling locations are provided on Table 1-1 and are shown on Figure 1-1.

Table 1-1
Deposition Sampling Stations

Station Name	On-Airport/Off-Airport	General Location
Ambient Monitoring Site	On-Airport	East of Runway 25R
West-side Dunes	On-Airport	West of Runway 24L
Warren Lane School	Off-Airport	Three miles West of Airport
Felton Ave School	Off-Airport	East of Runway 25R & Across the I-405
Paseo Del Rey School	Off-Airport	Northwest of Runway 24R
Imperial Ave School	Off-Airport	South of Runway 25L

DEPOSITION MONITORING

The six monitoring stations are more thoroughly described as follows:

AMBIENT MONITORING SITE

This monitoring station was located at ground level approximately 2020 feet east Runway 25R/7L near the Ambient Monitoring Station. This site is located on access controlled airport owned property.

WEST-SIDE DUNES

This monitoring station was located at ground level in a clear area just south of the former Century Blvd on the top of the dunes at an elevation of 150 feet above sea level. This site, which is located just within the El Segundo Blue Butterfly Preserve, is 1,300 feet west southwest of the west end of Runway 24L/6R. This site is located on access restricted and controlled airport owned property.

WARREN LANE SCHOOL

This monitoring station was located on the first story roof of the audio/visual room at the Warren Lane School. The site is located approximately 3.25 miles east northeast of Runway 25R/7L in between the main east/west arrival flight paths for LAX. The Warren Lane School is a grade school in the City of Inglewood School District.

FELTON AVENUE SCHOOL

This monitoring station was located on the roof of the auditorium of the Felton Avenue School, which would be equivalent to a second story roof. The school's Principal selected this site as the most secure sampling location. The monitoring site is located 4,100 feet east of and directly in the arrival/departure flight path of Runway 25R/7L. The Felton Avenue School is a grade school in the City of Lennox School District.

PASEO DEL REY SCHOOL

This monitoring station was located on the roof of a recently constructed and unoccupied bungalow on the northeast side of the school campus. This site was identified as the most secure location that was located away from trees and other monitoring obstructions. The monitoring site is located 3,100 feet north northwest of the western end of Runway 24R/6L. The Paseo del Rey School is a natural science magnet grade school in the Los Angeles Unified School District.

IMPERIAL AVENUE SCHOOL

This monitoring station was located on the roof of the patio area south of the school's main office building. The monitoring site is located 1,600 feet south of Runway 25L/7R and 3,400 feet directly south of the southern tip of the Tom Bradley International Terminal. The Imperial Avenue School is a Los Angeles County operated school for the severely developmentally disabled, which is on a site leased from the City of El Segundo School District.

2.0 MONITORING RESULTS

The following sections present the deposition monitoring results, the site meteorological conditions observed during the monitoring period, and the characteristic airport operations that occurred during the sampling period.

2.1 DEPOSITION MONITORING SUMMARY

The dry deposition sampling was performed starting at 8:00 p.m. January 21st, 1998, and ending 8:00 p.m. January 30th, 1998. A total of 9 daytime samples and 8 nighttime samples were collected at each location, with the exception of the Felton Avenue School where daytime filters on January 22nd, 23rd, and 25th were lost or damaged due to high winds; requiring the wind fence height at the Felton Avenue School monitoring station to be raised to stop filter loss. Wet weather caused the loss of the nighttime sample ending on January 29th. It was determined that the daytime filters collected on January 30th would not be analyzed due to the disturbed post frontal conditions occurring during the last day of sampling. The average and maximum deposition rates for each of the six stations are shown on Table 2-1.

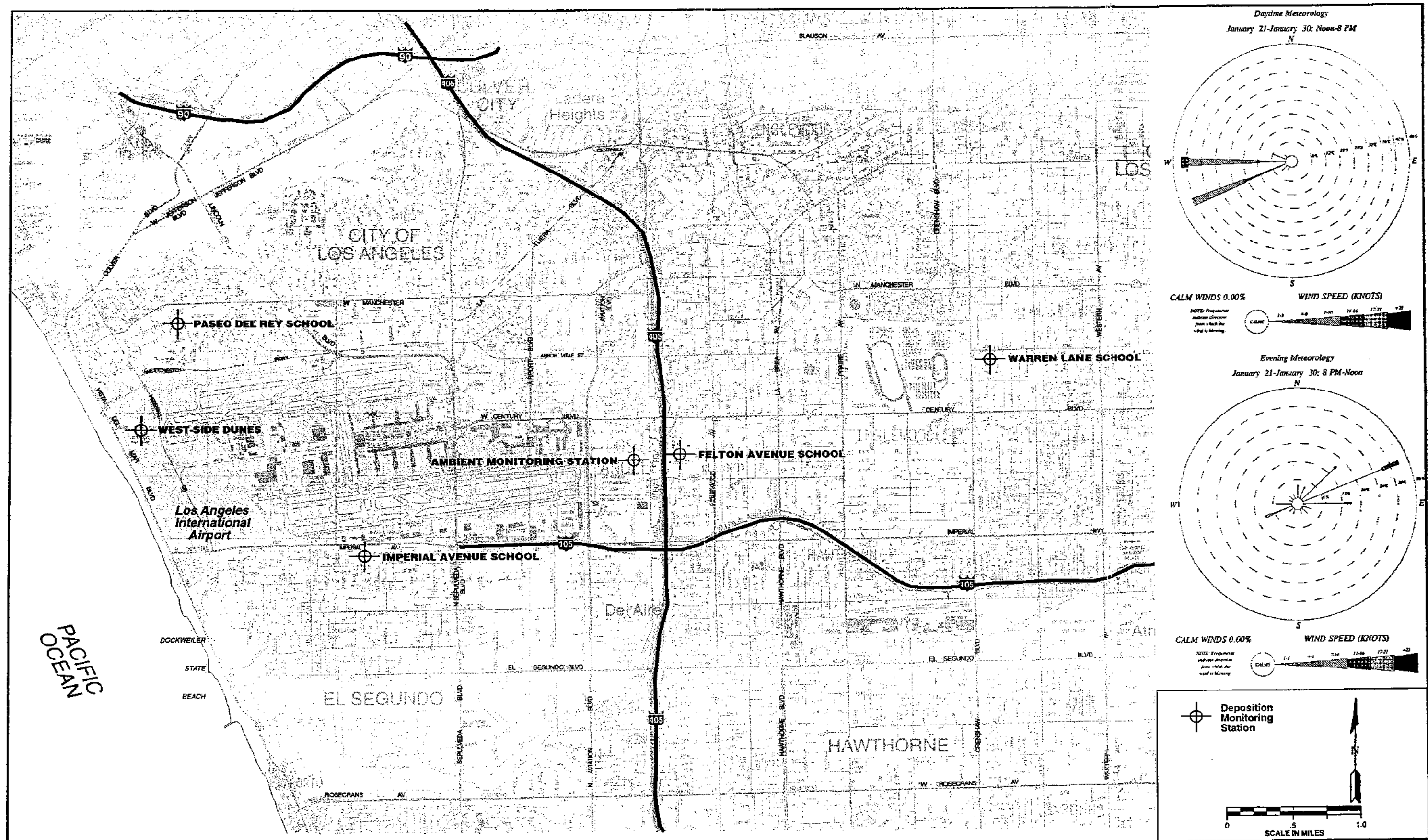


Table 2-1

Average and Maximum Sampled Deposition Rates ($\mu\text{g}/\text{m}^2/\text{s}$)

Monitoring Location	Average Deposition Rate			Maximum Daytime Deposition
	Daytime	Nighttime	24-Hour	
Ambient Monitoring Site	2.32	1.23	1.59	3.09
West-side Dunes	2.21	1.12	1.48	2.96
Warren Lane School	2.37	1.40	1.72	3.07
Felton Avenue School	3.51	1.35	2.07	6.30
Paseo Del Rey School	2.24	1.08	1.47	2.87
Imperial Avenue School	1.97	1.16	1.43	2.99

Source: AeroVironment Environmental Services, 1998 (Attachment A)

The Felton Avenue School was found to have the highest average deposition rate and the Imperial Avenue School was found to have the lowest average deposition rate. The Warren Lane School had the highest nighttime deposition rate and the second highest overall deposition rate. The PAH and metals deposition rates determined for each of the sampling locations are shown in Table 2-2. A summary of the gravimetric and chemical analysis data for each of the monitoring stations is as follows:

AMBIENT MONITORING SITE

The ambient monitoring site was found to exhibit average deposition rates, based on the six monitoring stations, for both daytime and nighttime monitoring periods. No abnormally high deposition rates were observed during the monitoring period; however, the January 29th daytime filter gravimetric results were negative indicating a loss of filter material. Chemical analyses of the daytime composite filter indicates the presence of copper and zinc and the potential presence of lead and nickel. The nighttime composite filter analysis indicates the presence of zinc and the potential presence of copper, lead and manganese. The daytime copper concentration was the highest found at any of the monitoring sites, and the nighttime sample was the only sample to find manganese above the analytical method detection limit. No PAH compounds were detected.

This monitoring station was located at ground level. Therefore, there is a higher potential for wind borne soil to impact the sampling results.

WEST-SIDE DUNES

The West-Side Dunes monitoring site was found to exhibit below average deposition rates, based on the six monitoring stations, for both daytime and nighttime monitoring periods. No abnormally high deposition rates were observed during the monitoring period; however, the January 29th daytime filter gravimetric results were negative indicating a loss of filter material. Chemical analyses of the daytime composite filter indicates the presence of zinc and the potential presence of nickel. The nighttime composite filter analysis indicates the potential presence of copper. The daytime zinc concentration that was found for this site was the highest found. This potential presence of fluorene was found in the nighttime samples. No PAH compounds were detected in the daytime samples.

This monitoring station was located at ground level. Therefore, there is a higher potential for wind borne soil to impact the sampling results.

WARREN LANE SCHOOL

The Warren Lane School monitoring site was found to exhibit the highest nighttime deposition rates and average daytime deposition rates, based on the average of the six monitoring stations. The highest single nighttime deposition rate was found at this site for the sample starting on January 21st. Chemical analyses of the daytime composite filter indicates the potential presence of copper and nickel. The nighttime composite filter analysis indicates the potential presence of copper and lead. No PAH compounds were detected.

Table 2-2

Chemical Specific Deposition Rates ($\mu\text{g}/\text{m}^2/\text{hr}$)

Chemical Constituent	Ambient Monitoring Site		West-side Dunes		Warren Lane School		Felton Avenue School		Paseo del Rey School		Imperial Ave. School	
	Daytime	Nighttime	Daytime	Nighttime	Daytime	Nighttime	Daytime	Nighttime	Daytime	Nighttime	Daytime	Nighttime
Metals												
Arsenic	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a
Beryllium	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a
Cadmium	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a
Chromium	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a
Copper	19.26	5.11 ^a	ND ^a	4.59 ^a	8.35 ^a	2.89 ^a	10.15 ^a	4.06 ^a	1.18 ^a	ND ^a	ND ^a	4.22 ^a
Lead	1.04 ^a	0.66 ^a	ND ^a	ND ^a	ND ^a	0.77 ^a	3.99 ^a	0.93 ^a	1.09 ^a	ND ^a	ND ^a	0.57 ^a
Manganese	ND ^a	1.14 ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a
Mercury	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a
Nickel	3.99 ^a	ND ^a	ND ^a	ND ^a	4.19 ^a	ND ^a	ND ^a	1.49 ^a	4.69 ^a	1.57 ^a	1.91 ^a	1.16 ^a
Selenium	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a
Vanadium	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a
Zinc	11.50	5.87	18.62	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a
PAHs												
Acenaphthene	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a
Acenaphthylene	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a
Anthracene	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a
Benzo(a)anthracene	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a
Benzo(a)pyrene	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a
Benzo(b)fluoranthene	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a
Benzo(e)pyrene	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a
Benzo(g,h,i)perylene	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a
Benzo(k)fluoranthene	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a
Chrysene	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a
Dibenz(a,h)anthracene	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a
Fluoranthene	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a
Fluorene	ND ^a	ND ^a	ND ^a	0.023 ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	0.017 ^a
Indeno(1,2,3-cd)pyrene	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a
2-Methylcarbazole	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a
Naphthalene	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a
Perylene	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a
Phenanthrene	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a
Pyrene	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a	ND ^a

^aND - Not Detected above the method detection limit. The detection limits for each test, in μg , are provided in Attachment A.

^bThis data is suspect because it is either: 1) less than twice the method detection limit or 2) less than three times the concentration found for the method blank.

^c - Invalidated data. This data has been invalidated because the concentration for this chemical was found to be below the concentration found for the method blank.

FELTON AVENUE SCHOOL

The Felton Avenue School monitoring site was found to exhibit the highest overall and daytime deposition rates, and the second highest nighttime deposition rate. The highest single deposition rate was found at this site for the daytime sample of January 24th. Three of the daytime filters were lost due to high winds. Chemical analyses of the daytime composite filter indicates the potential presence of copper and lead. The nighttime composite filter analysis indicates the potential presence of copper, lead and nickel. The daytime lead concentration found at this site was the highest observed at any of the monitoring sites, and the daytime copper concentration was the second highest observed. No PAH compounds were detected.

This monitoring station was located on top of the auditorium, which is at an approximate second story level. With respect to ground level, this is the highest of the six monitoring stations.

PASEO DEL REY SCHOOL

The Paseo del Rey School monitoring site was found to exhibit average daytime deposition rates, based on the six monitoring stations, and the lowest nighttime deposition rates. No abnormally high deposition rates were observed during the monitoring period. Chemical analyses of the daytime composite filter indicates the potential presence cadmium, lead, and nickel. The nighttime composite filter analysis indicates the potential presence of nickel. The daytime nickel concentration found at this site was the highest found, and this daytime sample was the only sample to find cadmium above the analytic method detection limit. The potential presence of fluorene was found in the nighttime samples. No PAH compounds were detected in the daytime samples.

IMPERIAL AVENUE SCHOOL

The Imperial Avenue School monitoring site was found to exhibit the lowest overall and daytime deposition rates, and below average nighttime deposition rates. No abnormally high deposition rates were observed during the monitoring period. Chemical analyses of the daytime composite filter indicates the presence of zinc and the potential presence of nickel and vanadium. The nighttime composite filter analysis indicates the potential presence of copper, lead and nickel. The daytime samples at this site were the only one to find vanadium above the analytical method detection limit. The potential presence of fluoranthene was found in the nighttime samples. No PAH were detected in the daytime samples.

2.2 METEOROLOGICAL CONDITIONS MONITORING

The average hourly wind directions and wind speeds observed at the ambient monitoring station during the dry deposition sampling, by sampling interval, are shown on Table 2-3. The daytime and nighttime wind condition wind roses are shown on Figure 1-1.

Table 2-3

Average Wind Direction and Speed During Deposition Sampling

Date Sample Started	Average Wind Direction (deg)		Average Wind Speed (m/s)	
	Daytime	Nighttime	Daytime	Nighttime
Wednesday, January 21 st , 1998	—	53.6	—	1.5
Thursday, January 22 nd , 1998	259.8	94.6	3.9	1.6
Friday, January 23 rd , 1998	258.8	56.8	4.5	1.4
Saturday, January 24 th , 1998	258.7	74.2	2.9	0.8
Sunday, January 25 th , 1998	261.2	35.8	3.9	1.3
Monday, January 26 th , 1998	261.6	79.8	2.9	1.2
Tuesday, January 27 th , 1998	256.6	90.7	3.6	1.6
Wednesday, January 28 th , 1998	246.0	Rain	3.0	Rain
Thursday, January 29 th , 1998	274.1	38.0	7.7	1.9
Friday, January 30 th , 1998	254.4	—	3.5	—

Source: Aerovironment Environmental Services, 1998 (AVES, 1998b)

The winds encountered during the sampling period showed the expected distinctive daytime onshore, and nighttime mixed offshore wind patterns. The daytime hourly wind direction was particularly stable with a low from 204.9 degrees a high from 297.2 degrees and an average wind direction from 259.0 degrees. Seventy-six percent of the daytime hourly wind direction data collected from the ambient monitoring station were within ± 10 degrees of the daytime average wind direction and only 6 hours of the total 72 hours of the daytime sampling period were greater than ± 30 degrees of the average wind direction. The daytime hourly wind speeds during the sampling period were a maximum of 9.9 m/s, a minimum of 0.9 m/s, and an average of 4.0 m/s. Seventy-nine percent of the daytime hourly wind speeds were within ± 2 m/s of the daytime average wind speed. The January 29th daytime wind speeds were observed to be considerably higher than average due to disturbed post-frontal conditions.

The nighttime wind direction was less stable than the daytime wind direction, with the hourly wind direction averaging from 65.4 degrees. Thirty-four percent of the nighttime hourly wind direction data collected from the ambient monitoring station were within ± 10 degrees of this nighttime average wind direction, fifty-four percent of the data were within ± 20 degrees of the nighttime average wind direction, and thirty-seven percent of the data were greater than ± 30 degrees of the nighttime average wind direction. These averages are greatly influenced by the first hour of the sample in the evening and the last hour of the sample in the morning, which displayed daytime wind characteristics. The nighttime hourly wind speeds during the sampling period showed a maximum of 3.7 m/s, a minimum of 0.4 m/s, and an average of 1.4 m/s. Ninety-five percent of the nighttime hourly wind speed data were within ± 1 m/s of the nighttime average wind speed.

2.3 AIRPORT OPERATIONS MONITORING

LAX normally operates with flights arriving from and departing toward the east to west due to the predominant west and west-southwest (onshore) wind direction, and due in particular to the strong daytime onshore winds. The airport operates in this east/west direction for approximately 94% of all daytime operations (i.e. arrivals and departures) and 90% of all nighttime operations (Landrum & Brown, 1997a). During the deposition monitoring period the airport operated continually in the east/west direction without a single turnaround (Landrum & Brown, 1998).

Using 1996 operations data (Landrum & Brown, 1997b), forty-six percent of the daily operations occur during the daytime sampling period which corresponds to an average rate of 129 operations per hour. Fifty-four percent of the daily operations, corresponding to an average rate of 75 operations per hour, occur during the nighttime sampling period. The bulk of these "nighttime" operations occur in the first four and last six hours of the 16-hour sampling period, as a total of ninety-eight percent of the total daily operations occur between 6:00 a.m. to midnight.

3.0 ANALYSIS OF RESULTS

The following provides a general analysis and a source attribution analysis of the deposition monitoring results.

3.1 GENERAL ANALYSIS

The deposition rate data is somewhat suspect due to the limited time available for the sampling program. Several of the net filter weights were found to be negative; therefore, these filters were assumed to be damaged and were not included in the average gravimetric result data.

The majority of the metals and PAH composition data are either non-detect values, invalidated or qualified. The analytic data was invalidated when the detected concentration of the sample was found to be below the detected concentration of the method blank. Data was qualified when the detected concentration of the sample was either less than three times the detected concentration of the method blank or less than twice the method detection limit. The only unqualified composition data is the daytime copper result for the Ambient Monitoring Station site and both the daytime and nighttime zinc results and daytime zinc results for the Ambient Monitoring Station and West-side Dunes site, respectively. All of the chromium results and selected copper and lead results were invalidated due to detected concentrations that were below that determined for the method blank. The single positive detection result for cadmium, manganese and vanadium; seven of the positive detection results for copper and lead; and all eight of the positive detection results for nickel are qualified. All three of the positive PAH results are qualified.

There were no significant patterns regarding the chemical composition found in the deposition samples, with

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the exception of three of the four non-qualified metals composition data being found at the ambient monitoring site. Metals can be attributed to anthropomorphic and non-anthropomorphic sources. PAH can only be attributed to anthropomorphic sources; however, the potential impact of some of these anthropomorphic sources, such as, wood burning and structure (building, car, etc.) fires cannot be ascertained.

The daytime wind pattern provides a mechanism for the transport of depositional materials from the airport to the east sampling locations (i.e. Ambient Monitoring Station, Felton Avenue School, and Warren Lane School monitoring locations). However, the higher daytime wind speeds would tend to discourage deposition of smaller particles that are generally associated with the anthropomorphic particulate emission sources from the airport, and are favorable for causing large particulate re-entrainment and deposition from roadways, non-vegetated open areas, etc.

The variable nighttime wind pattern provides a potential mechanism for the transport of depositional materials from the airport to locations west, south, and north (i.e. West-Side Dunes, Imperial Avenue School, and Paseo del Rey School monitoring locations) in that order of potential impact. While, the particulate emissions rates decrease significantly at night, the lower nighttime wind speeds are more favorable for the deposition of smaller particles.

The majority of the particulate emissions from the airport are from aircraft and associated ground service equipment operations which exhibit a distinctive 6:00 a.m. to midnight operating pattern. The predominant east to west flight paths, diurnal airport operations, and general wind patterns would suggest that the majority of particulate emissions from the aircraft would be transported to the east.

The most significant particulate emission sources from the airport are the aircraft engines and tire wear and road dust from aircraft arrival, taxi, and departure and on-airport vehicle traffic. Vehicle emissions and road dust are the primary non-airport particulate emission sources.

3.2 SOURCE ATTRIBUTION ANALYSIS

The gravimetric results, coupled with the observed meteorological conditions, do not indicate that the airport is the major source of particulate deposition in the area surrounding LAX. The daytime Ambient Monitoring Station site results are significantly lower than those of the Felton Avenue School site, which is across the I-405. The meteorological conditions would suggest that the Ambient Monitoring Station site should be more directly impacted by the airport during the daytime and that the West-side Dunes, Imperial Avenue School and Paseo del Rey School sites should be more severely impacted during nighttime conditions if the airport was the main cause of particulate deposition in the general area. Using the daytime West-Side Dunes location as background the incremental increase from west to east from this site to the Ambient Monitoring Site is only 0.11 $\mu\text{g}/\text{m}^2/\text{s}$, or a 5% increase. However, the incremental increase from the Ambient Monitoring Station to the Felton Avenue School is 1.19 $\mu\text{g}/\text{m}^2/\text{s}$, or a 51% increase. These results imply that the I-405 freeway is a more significant source of particulate deposition than the airport complex.

The metals and PAH analytical results did not provide a clear basis for analysis due to the overwhelming number of non-detect and qualified data. The limited chemical composition data, and the lack of soil chemical composition data, do not allow for a chemical mass balance analysis. A qualitative analysis of the monitoring station locations, deposition rates, compositions, and wind directions was used to determine probable sources of the observed particulate deposition. Additionally, available airport metal emission source profiles, as summarized in Table 3-1, and PAH emission factor data, summarized in Table 3-2, were used to determine the likely sources of the detected chemical compounds.

Copper detected at the Ambient Monitoring Site and Felton Avenue School may be a result of airport related emissions, namely aircraft brake wear. This is further supported by the higher detected daytime copper concentration at the Warren Lane School and the detected nighttime copper concentrations at the West-Side Dunes and Imperial Avenue School sites. Aircraft brake wear copper emissions would be generated on both north and south runway complexes and would be expected to be transported to the west during daytime wind conditions and generally to the south and east during nighttime wind conditions. This daytime/nighttime wind pattern is the same as the copper detection pattern at all of the monitoring stations, including the Paseo del Rey School site which had no valid copper detection results.

Zinc detected at the Ambient Monitoring Site and Ambient Monitoring Site is believed to be non-anthropomorphic in origin based on the high daytime zinc concentration detected at the West-Side Dunes site, which is treated as a background sample (i.e. not airport impacted) during high wind speed daytime

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onshore winds. Additionally, these two ground level on-airport monitoring sites were located in open areas that are poorly vegetated, causing the potential for soil particulate deposition which is a potential source of the detected zinc.

Table 3-1

Airport Metal Emission Source Profiles

Source	Copper	Lead	Manganese	Nickel	Zinc
Aircraft Engines	0.0084	0.0021	0.0017	0.0073	0.0028
Tire Wear	0.0000040	0	0.000003	0	0.010
Brake Wear	0.023	0	0	0	0
Airport (Logan)	0.052	0	0.00026	0.002	0.0095

Source: TRC Environmental Corporation (TRC, 1997)

Table 3-2

PAH Emission Factors

Source	Units	Fluorene	Fluoranthene
Composite Aircraft	g/LTO	not available	0.00351
Diesel Engines	g/1000 liter	0.078 to 1.46	0.034 to 0.16
Wood Combustion	g/tonne	12	10

Sources: CDM/PCR, 1996, Baseline Air Quality Data (Composite Aircraft)
CARB, 1996 (Diesel Engines)
USEPA, 1995 (Wood Combustion)

Analysis of the deposition data and emission factor data, shown in Table 3-2, supports a conclusion that the fluorene detected at the West-side Dunes and Paseo del Rey School sites are likely attributable emissions from residential fireplaces. Fluorene emissions factors from wood combustion are high in comparison with other potential fluorene emission sources and are emitted near ground level. Fluorene emissions from wood combustion can be associated with both small particles (i.e. aerosols) and extremely large ash/soot particles that deposit easily during calm nighttime wind conditions. Additionally, the winter sampling period, the normal nighttime use of fireplaces, and the location of the detected fluorene in relation to nighttime wind direction data further support this conclusion. The fluoranthene detected at the Imperial Avenue School is most likely attributable to either residential fireplaces or the road paving operations being performed by the City of El Segundo on and near Maple Street south of the school during the sampling period. Road paving emission factors were not available for fluorene or fluoranthene; however, asphalt batch plant emission factors indicate that these are two of the highest emitted PAH from asphalt operations.

The PAH deposition analytical results are in severe contrast with the PM_{10} PAH analysis performed between January 24th and January 29th, 1998, at the ambient monitoring station (AVES, 1998c) that is provided as Attachment B. The PM_{10} fraction particulate was found to contain measurable quantities of all PAH analyzed. The PM_{10} PAH concentrations, if expressed as fractions and contained in the same fractions in the deposited particulate, would have been above method detection limits (i.e. 100 ng/sample) for the deposition particulate analysis. However, there were only three PAH detections out of a potential 228 for the deposition samples; therefore, the results from these two analyses suggest that airport related PAH emissions are contained almost exclusively on particles under 10 microns in size.

4.0 CONCLUSIONS

The gravimetric data collected at the six monitoring stations tend to eliminate the airport as the major deposition source for the areas directly adjacent to the airport. The deposition rate data implicates freeway traffic for high daytime concentrations observed at the Felton Avenue School site. The nighttime concentration

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data, highest at the Warren Lane School and Felton Avenue School during off-airport wind conditions implicate non-airport related particulate emissions sources to the east of the airport.

The copper composition data indicates that a small fraction of the total deposition seen in the daytime is potentially from aircraft braking. The fluorene found deposited on nighttime samples collected north and west of the airport, appear to be the result of residential wood combustion. The fluoranthene found deposited on nighttime samples collected south of the airport appear to be the result of either residential wood combustion, or road paving that was being performed near the Imperial Avenue School during the monitoring period.

The limited monitoring duration and time of year, while required to meet project schedule requirements, were not optimal for dry deposition monitoring. The limited nature of this study did not allow for the determination of summertime maximum deposition rates or provide data necessary to perform a mass balance analysis. Therefore, to fully answer the questions raised by the public regarding deposition, it is recommended that larger filter size, and longer sampling period, deposition samples be collected during the summer. Additionally, it is recommended that these summertime samples be analyzed for PAH and selected metals, along with additional heavy hydrocarbons and selected inorganic compounds (i.e. sulfur, chlorine, etc.).

5.0 REFERENCES

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Attachment A

Dry Deposition Monitoring at Los Angeles International Airport

Prepared By:

AeroVironment Environmental Services, Inc.



AeroVironment Environmental Services Inc.

AVES

An AeroVironment Inc. Affiliate

**DRY DEPOSITION MONITORING
AT LOS ANGELES
INTERNATIONAL AIRPORT**

Measurement Period:

January 21 to 30, 1998

**AVES-R-50254-D001
AVES Project: 50254-D001**

FINAL REPORT

**DRY DEPOSITION MONITORING
AT LOS ANGELES
INTERNATIONAL AIRPORT**

Measurement Period:

January 21 to 30, 1998

Prepared for

**Planning Consultants Research
1 Venture, Suite 150
Irvine, CA 92618**

By

**AeroVironment Environmental Services Inc.
222 East Huntington Drive
Monrovia, CA 91016**

March 1998

EXECUTIVE SUMMARY

• Mass

The mass of the deposition samples varied from 700 to 8,100 μg on to the 8" x 10" collection surfaces for the 8- and 16-hour collection periods. The average nighttime deposition rate for all six sites was 35,287 $\mu\text{g}/\text{m}^2/\text{hr}$. The average deposition rate for the daytime samples for all six sites was 61,413 $\mu\text{g}/\text{m}^2/\text{hr}$.

• Polynuclear Aromatic Hydrocarbons

High resolution GC/MS analyses of the composites of the six daytime and six nighttime samples determined the presence of fluorene, and fluoranthene in three nighttime samples only. Fluorene was detected in two of the analyses which corresponded to Sites 2 and 5. The fluorene concentrations were 149 (Site 2) and 155 (Site 5) ng/sample which translated to deposition rates of 23.13 ng/ m^2/hr and 23.81 ng/ m^2/hr , respectively. Fluoranthene was detected in one of the analyses which corresponded to Site 6. The fluoranthene concentration was 110 ng/sample which translated to a deposition rate of 16.80 ng/ m^2/hr .

• Metals

The atomic absorption (AA) or inductively coupled ion spectroscopy (ICP) analyses of the composites of the eight daytime and eight nighttime samples determined the presence of concentrations of the chromium (Cr), copper (Cu), lead (Pb), manganese (Mn), nickel (Ni), vanadium (V), and zinc (Zn) to vary from 0.05 $\mu\text{g}/\text{m}^2/\text{hr}$ for Pb to 1.94 $\mu\text{g}/\text{m}^2/\text{hr}$ for Cu for the daytime samples, and 0.03 $\mu\text{g}/\text{m}^2/\text{hr}$ for Pb to 0.59 $\mu\text{g}/\text{m}^2/\text{hr}$ for Zn for the nighttime samples.

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Section 1

INTRODUCTION

Between January 21 and 30, 1998, AeroVironment Environmental Services Inc. (AVES) conducted dry deposition monitoring at six locations (Figure 1-1) surrounding the Los Angeles International Airport (LAX). The monitoring was conducted as part of the LAX Master Plan Phase III Environmental Impact Survey/Report (EIS/R) preparation. The scope of this program involved the collection of:

- Dry deposition samples at six sites. Two quartz fiber 8" x 10" sample filters (one tared and one untared), per sampling period, per site, were attached to 8" x 10" stainless steel plates and placed flat in a galvanized wash tub for periods of approximately eight (daytime samples) and 16 (nighttime samples) hours. The daytime samples were started at around 12:00 hours Pacific Standard Time (PST), and were removed at around 20:00 hours PST. The nighttime samples were started at around 20:00 hours PST and were removed around 12:00 hours PST on the following day. The daytime sample periods were planned to correspond to the period of sea breeze conditions, while the nighttime samples were planned to correspond to the period of land breeze conditions. The untared filters were analyzed for PAH. The tared filters were analyzed for total mass and 12 metals, which included arsenic, beryllium, cadmium, chromium, copper, lead, mercury, manganese, nickel, selenium, vanadium, and zinc.
- Continuous meteorological data at one site including wind speed, wind direction, ambient temperature, delta temperature, relative humidity, and total solar radiation.

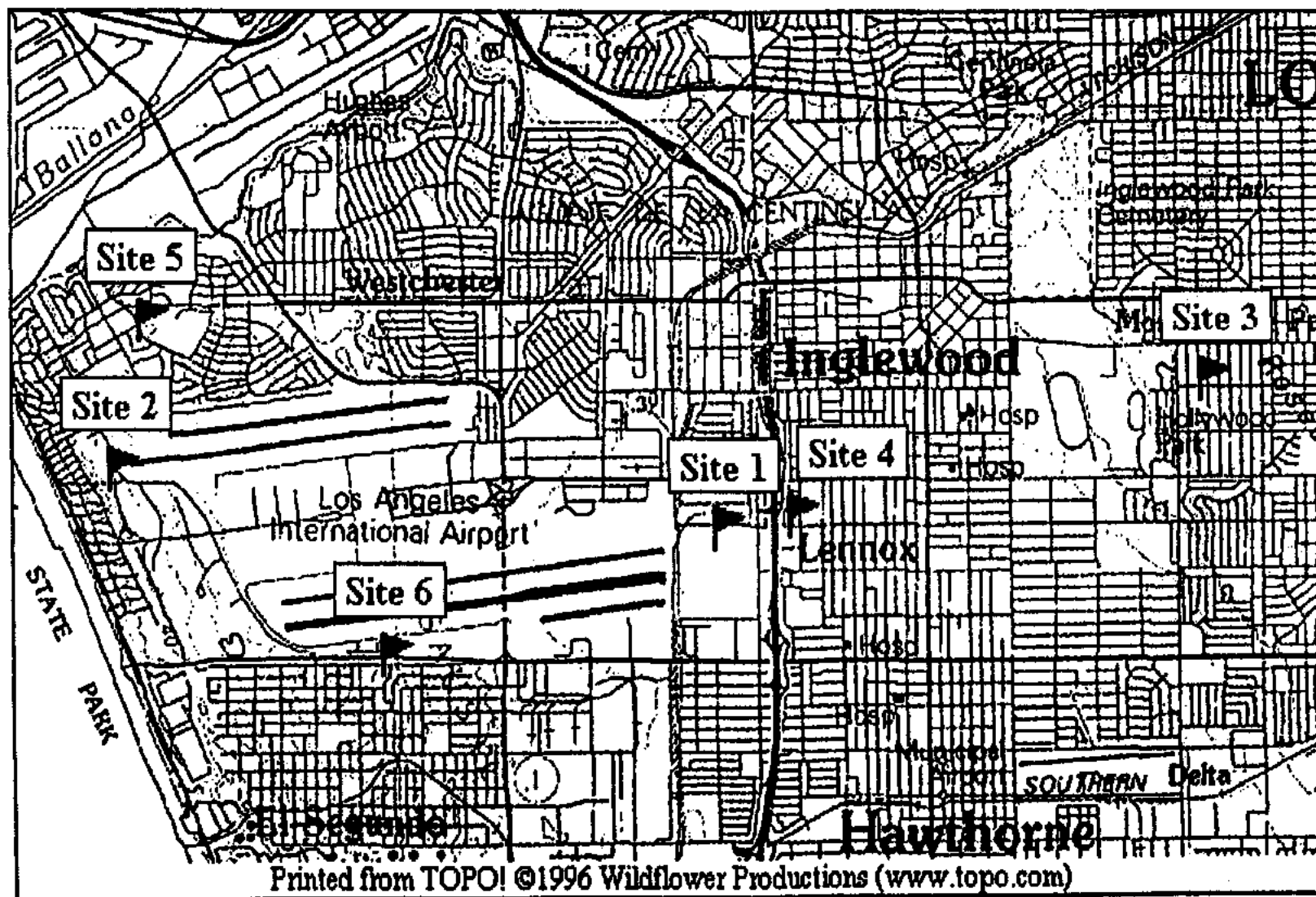


FIGURE 1-1. Map of Sampling Sites.

Section 2

DESCRIPTION OF SAMPLING EQUIPMENT

2.1 DRY DEPOSITION SAMPLER

The deposition samplers (Figures 2-1 and 2-2) consisted of three-foot diameter galvanized wash basins, in which two sample filters were placed at a time. The filters were first attached to stainless steel plates to prevent them from coming in contact with the galvanized steel wash basins. A wind fence was installed around the wash basin approximately four feet from the basin on all sides. The height of the wind fences was approximately two feet. The purpose of the wind fences was to minimize turbulence above the filters to ensure that the particles would land on the filters and to minimize sample loss from the same turbulence. Both filters were quartz fiber. One filter was analyzed for PAH; the other for total mass and selected metals.

2.2 METEOROLOGICAL MONITORING

Meteorological monitoring (see Figure 2-1) was conducted in accordance with the U.S. EPA monitoring guidelines for prevention of significant deterioration (PSD) (EPA, 1987). These monitoring guidelines cover all aspects of the data collection process including site selection, sensor and inlet exposure, instrument performance, data collection intervals, averaging periods, quality control checks, data processing and archiving, audits, and reporting. Instrument procedures were specified in the EPA guidance documentation for air quality and meteorological data collection (EPA, 1994a, 1994d).

- Wind Speed, Wind Direction, and Sigma Theta

The wind speed and direction measurements were made using an R.M. Young Model 05305 wind sensor. This wind system is comprised of a propeller anemometer mounted on a directional wind vane. The model 05305 was designed to meet the starting threshold and accuracy specifications recommended in the EPA PSD Guidelines (EPA, 1987). The wind sensors were mounted on top of a three-section, ten-meter tall, "crank-up" tower. The wind speed and direction signals were scanned once per second by the data logger and processed into 15- and 60-minute averages. The data logger processed the data into averages and calculated sigma thetas based on the Yamartino method (Campbell, 1996).



Figure 2-1. Site 1 Deposition Sampler & Meteorological Measurements.

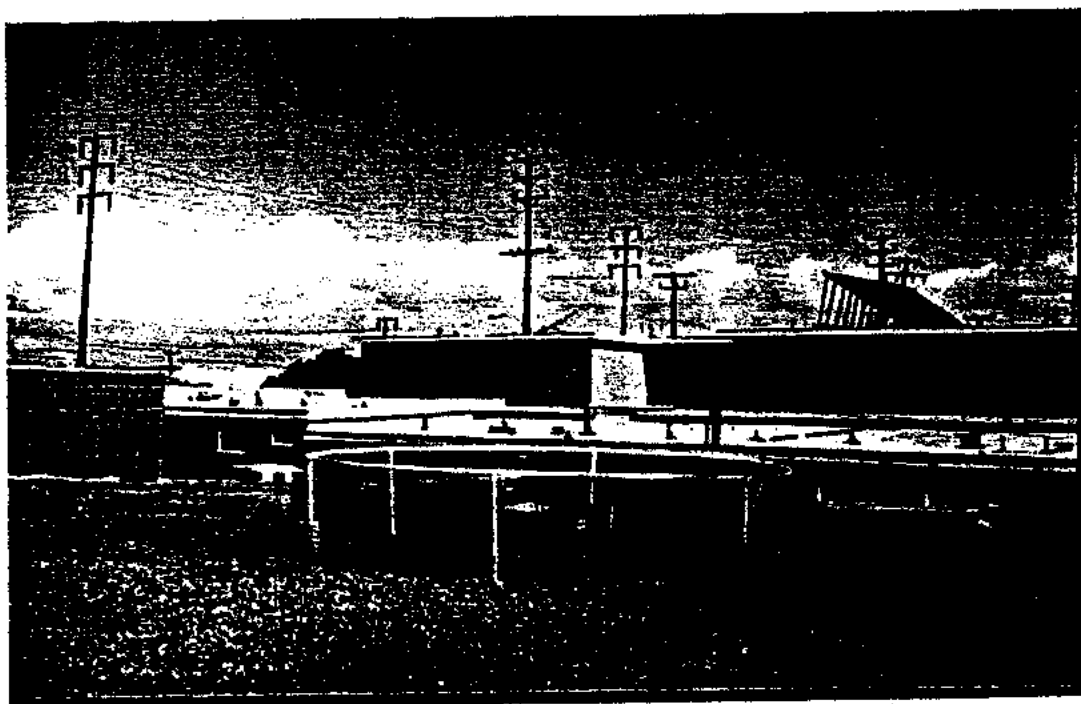


Figure 2-2. Deposition Sampler Rooftop Installation.

- **Ambient and Delta Temperature**

Ambient and delta temperature measurements were made using a Campbell Model ASPTC aspirated thermocouple system. The system consisted of two matched thermocouples mounted individually in fan aspirated sun shields. The temperature sensors were mounted on the meteorological sensor tower at two meters and nine meters above ground level. The signals were scanned once per second by the data logger and processed into 15- and 60-minute averages.

- **Solar Radiation**

Solar radiation was measured using an Eppley Model PSP pyranometer. The sensor was mounted and leveled on a four-foot-tall post approximately 10 meters south of the meteorological sensor tower. The sensor placement was such that shadows from the tower, tower guy wires, or other objects would not impact the measurements. The signals were scanned once per second by the data logger and processed into 15- and 60-minute averages.

- **Data Logger**

A Campbell Model 21X data logger was used to scan, process and record data from the sensors. The data logger scanned each parameter once per second and then digitally processed these data using running average algorithms into the appropriate 15- and 60-minute values (i.e., average or sigma theta). The data logger had sufficient internal memory capability to retain the processed data for a week or more. The data logger was connected via modem to a cellular telephone to allow access to the instantaneous data and for daily downloading of the data. A site computer allowed direct manual access to the instantaneous data to conduct data checks and calibrations. The computer was also used for downloading the recorded data.

Section 3

SAMPLING PROCEDURES

3.1 SET UP

The samplers for each of the six sampling locations consisted of a galvanized steel wash basin surrounded by a wind fence (see Figures 2-1 and 2-2). The galvanized steel wash basins were placed on flat horizontal surfaces. The wind fences were constructed of a PVC pipe frame over which was hung plastic snow fencing. The wind fences were placed approximately four feet away from the wash basins, and were approximately two feet tall. The 8" x 10" filters were secured to 8" x 10" stainless steel plates with four number 20 binder clips. The stainless steel plates with the filters were then placed flat on the bottom of the wash basins for sampling.

3.2 OPERATIONS

- **Sample Media Preparation**

A new Deposition Sampler Chain-of-Custody sheet (Figure 3-1) was initiated for each sample period. The untared filters arrived from the laboratory in a box. Prior to sending the filters, the laboratory analyzed one filter to ensure that the levels of PAH were below the lower detectable limit. Accompanying the filters were numbered manila folders placed individually in numbered zip-lock plastic bags. Before each sample period, six untared filters were taken from the box and placed into individually numbered manila folders and enclosed in the accompanying zip-lock plastic bag. Each of the six sample numbers were assigned to one of the six sites by writing the number of each filter on the line corresponding to a site.

The tared filters that were analyzed for metals were prenumbered and arrived from the laboratory individually packaged in a manila folder that was inside an 8.5" x 11" envelope. Each envelope had a label attached to it that contained the filter number. Each of the six sample numbers were assigned to one of the six sites by writing the number of each filter on the line corresponding to a site.

- **Sample Media Loading**

At each of the sites, the filters assigned to that site on the Deposition Sampler Chain-of-Custody sheet, were placed on 8" x 10" stainless steel plates and laid filter up in the bottom of the galvanized steel pans. The time was noted in the Time of Day Start Time column for each site.

CHAIN OF CUSTODY AEROVIRONMENT ENVIRONMENTAL SERVICES DEPOSITION SAMPLER

Analyses required:

Chester/Labnet: 1.Mass. 2. Selected metals from a) daytime composite and b) nighttime composite

Quanterra: PAH from a) daytime composite and b) nighttime composite. Note 1/2 of filter to be retained unanalyzed

SITE NUMBER	CHESTER/LABNET Filter ID	QUANTERRA FILTER ID	Sample Start Date	Time of Day Start Time	Time of Day Stop Time
1	ST-9	AERO-011595			
2	ST-9	AERO-011596			
3	ST-9	AERO-011597			
4	ST-9	AERO-011598			
5	ST-9	AERO-011599			
6	ST-9	AERO-011600			
BLANK	ST-9	AERO-011601			
BLANK	ST-9	AERO-011602			

Site 1 = YELLOW TRUCK
Site 2 = DUNES
Site 3 = LANE SCHOOL
Site 4 = FELTON SCHOOL
Site 5 = PASEO DEL REY SCHOOL
Site 6 = RESIDENCE

NOTE: SAMPLES ARE TO BE COOL STORED AND COOL SHIPPED TO LABORATORY
* AMBIENT/BLANK: WRITE IN COLUMN IF SAMPLE IS AMBIENT OR A FIELD BLANK

Field Measurement Team: _____ Date/Time: _____
Samples Requested by: _____
Laboratory: _____
Samples Received by: _____ Date/Time: _____
Circle one: Chester Labnet / Quanterra

Send Blank for PAH to:
Quanterra Environmental
Laboratory Sample Custodian
680 Riverside Parkway
West Sacramento, CA 95605
916-373-8800

Send filter for mass/metals to:
Chester Labnet
Paul Duda
12242 Garden Place SW
Tigard, OR 97223
503-624-2163

Send Results to:
AeroVironment Environmental Services
Alex Samal
222 E. Huntington Drive
Monrovia, CA 91016
626-357-9900/216
FAX 626-359-4628

Send chain of custody record with samples to each analyze laboratory.

• Sample Media Removal

At the end of each sample period, the filters and stainless steel plates were removed from the galvanized wash tubs. The untared filters were removed from the stainless steel plates, folded in half, and placed into the manila folders and sealed inside the zip-lock plastic bag. The tared filters were also removed from the stainless steel plates and returned to the manila folder and envelop in which they were brought to the site. The time that the filters were removed from the galvanized wash tubs were entered in the Time of Day Stop Time column for the corresponding site on the Deposition Sampler Chain-of-Custody sheet.

• Trip Blanks

One trip blank was taken at one of the sites. The trip blank consisted of loading a tared and untared filter into the deposition sampler using the above sample loading procedures and then immediately unloading the filters also using the above sample unloading procedures. The trip blank provides information on contamination that may occur during transit between the laboratory and the sampler and the sampler and back to the laboratory, and during sample media loading and unloading. The trip blanks will not be analyzed unless questions arise from the sample filter analysis results.

• Documentation

The Deposition Sample Chain-of-Custody sheet was the only documentation for the dry deposition sampling. The Deposition Sample Chain-of-Custody sheet contained all filter identification numbers sample dates, times, and sample transfer information.

Section 4

CHAIN OF CUSTODY PROCEDURES

4.1 SAMPLE SHIPMENT

• Laboratory to Field

The unexposed untared filters were shipped from Quanterra, Inc. of West Sacramento, California, in a cooler with blue ice via Federal Express overnight service. The filters arrived in the box they were packaged in by the manufacturer. Numbered manila folders and zip-lock plastic bags were included for packaging and shipping the filter back to the laboratory.

The unexposed tared filters were shipped from Chester Lab Net of Tigard, Oregon, via Federal Express overnight service. The numbered filters arrived individually packaged in a numbered manila folder that was enclosed in individual numbered envelopes.

• Field to Laboratory

The exposed untared filters (PAH analysis) were shipped to Quanterra, Inc. of West Sacramento, California, in a cooler with blue ice via Federal Express overnight service. The quartz fiber filters left AVES on February 2, 1998, and were received by Quanterra, Inc. on February 3, 1998.

The exposed tared filters (mass and metals analyses) were shipped to Chester LabNet of Tigard, Oregon, on February 2, 1998, via Federal Express overnight service. The quartz fiber filters did not require refrigeration, but were cold shipped to ensure that the samples did not deteriorate in any way during transit.

4.2 CHAIN OF CUSTODY

The Deposition Sample chain-of-custody sheets (see Figure 3-1) were filled out when the sample media were prepared for installation in the samplers and stayed with the samples through all steps of sampling process. Once sampling was complete, the chain-of-custody sheets were used as checklists to ensure that the all samples were accounted for and properly labeled. Since the dry deposition filters were to be sent to two separate laboratories, the original accompanied the set of samples going to one laboratory and a copy accompanied the samples sent to the second laboratory. A second copy was kept by AVES.

Section 5

LABORATORY ANALYSES

Laboratory analyses were conducted by Quanterra, Inc. of West Sacramento, California (PAH samples), and Chester Lab Net of Tigard, Oregon (mass, and metals analyses).

5.1 POLYNUCLEAR AROMATIC HYDROCARBONS

The PAHs were extracted using methylene chloride following EPA Method 8270 protocol (EPA, 1986), following extraction, the samples were analyzed by high resolution GC/MS using the CARB Method 429 protocol (CARB, 1989). The samples were analyzed for the presence of the nineteen PAH compounds on the Method 429 target list.

5.2 MASS

The mass of the metals filters were determined gravimetrically.

5.3 METALS

The metals were extracted from the filter media and analyzed following the EPA 7000 series methods (atomic absorption, AA) or 6000 series methods (inductively coupled ion spectroscopy, ICP) (EPA, 1986) as appropriate, for optimum sensitivity and analysis costs. Arsenic, lead and cadmium were extracted from the filters and analyzed by graphite furnace AA. Mercury was extracted and analyzed by cold vapor AA. The remaining seven metals were extracted from the filters and analyzed by ICP.

Section 6

RESULTS

6.1 POLYNUCLEAR AROMATIC HYDROCARBONS

The units of concentration are expressed in nanograms per sample (ng/sample). The deposition rate is expressed in nanograms per square meter per hour (ng/m²/hr). The laboratory reporting limit was 100 ng/sample.

The results of high resolution GC/MS analyses of the composites of the six daytime (Table 6-1) and six nighttime (Table 6-2) samples determined the presence of fluorene and fluoranthene in three nighttime samples only. Fluorene was detected in two of the analyses which corresponded to Sites 2 and 5. The fluorene concentrations were 149 (site 2) and 155 (site 5) ng/sample which translated to deposition rates of 23.13 ng/m²/hr and 23.81 ng/m²/hr, respectively. Fluoranthene was detected in one of the analyses which corresponded to site 6. The fluoranthene concentration was 110 ng/sample which translated to a deposition rate of 16.80 ng/m²/hr.

6.2 Mass

The mass data units are micrograms per filter. The deposition rate is expressed in micrograms per meter squared per hour (ug/m²/hr).

• Daytime (Sea Breeze Conditions) Samples

The daytime mass analyses were based on all filters exposed except for filters numbers 98-Q69 at site 1; 98-Q70 at site 2; 97-Q3475, 97-Q3487, and 98-Q24 at site 4. The site 1 and 2 filters were excluded because they showed negative weight gains. The three filters at site 4 were blown away by high winds. The results for the total deposition rates (Table 6-3) for the six sites varied from 56,365 ug/m²/hr to 68,469 ug/m²/hr. The average was 61,413 ug/m²/hr with a standard deviation of 4,892 ug/m²/hr.

• Nighttime (Land Breeze Conditions) Samples

The nighttime mass analyses were based on all filters exposed. The results of the total deposition rates (Table 6-4) for the six sites varied from 31,171 ug/m²/hr to 40,702 ug/m²/hr. The average was 35,287 ug/m²/hr with a standard deviation of 3,814 ug/m²/hr. The nighttime deposition rates were approximately half the daytime rates.

Lab ID:	97352-0017-SA	97352-0018-SA	97352-0019-SA	97352-0020-SA	97352-0021-SA	97352-0022-SA
Site #:	1	2	3	4	5	6
Deposit Area (m ²):	0.0516	0.0516	0.0516	0.0516	0.0516	0.0516
# of Filters:	8	8	8	6	8	8
Analyte	ng /m ² /hr	ng /m ² /hr	ng /m ² /hr	ng /m ² /hr	ng /m ² /hr	ng /m ² /hr
Naphthalene	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	ND	ND	ND	ND	ND	ND
Acenaphthylene	ND	ND	ND	ND	ND	ND
Acenaphthene	ND	ND	ND	ND	ND	ND
Fluorene	ND	ND	ND	ND	ND	ND
Phenanthrene	ND	ND	ND	ND	ND	ND
Anthracene	ND	ND	ND	ND	ND	ND
Fluoranthene	ND	ND	ND	ND	ND	ND
Pyrene	ND	ND	ND	ND	ND	ND
Benzo(a)anthracene	ND	ND	ND	ND	ND	ND
Chrysene	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	ND	ND	ND	ND	ND	ND
Benzo(e)pyrene	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	ND	ND	ND	ND	ND	ND
Perylene	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	ND	ND	ND	ND	ND	ND
Dibenz(a,h)anthracene	ND	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	ND	ND	ND	ND	ND	ND

TABLE 6-1. Polynuclear Aromatic Hydrocarbons Daytime Sample Results.

Lab ID:	97352-0011-SA	97352-0012-SA	97352-0013-SA	97352-0014-SA	97352-0015-SA	97352-0016-SA
Site #:	1	2	3	4	5	6
Deposit Area (m ²):	0.0516	0.0516	0.0516	0.0516	0.0516	0.0516
# of Filters:	8	8	8	8	8	8
Analyte	ng /m ² /hr	ng /m ² /hr	ng /m ² /hr	ng /m ² /hr	ng /m ² /hr	ng /m ² /hr
Naphthalene	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	ND	ND	ND	ND	ND	ND
Acenaphthylene	ND	ND	ND	ND	ND	ND
Acenaphthene	ND	ND	ND	ND	ND	ND
Fluorene	ND	149	ND	ND	155	23.81
Phenanthrene	ND	ND	ND	ND	ND	ND
Anthracene	ND	ND	ND	ND	ND	ND
Fluoranthene	ND	ND	ND	ND	ND	ND
Pyrene	ND	ND	ND	ND	ND	110
Benzo(a)anthracene	ND	ND	ND	ND	ND	ND
Chrysene	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	ND	ND	ND	ND	ND	ND
Benzo(e)pyrene	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	ND	ND	ND	ND	ND	ND
Perylene	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	ND	ND	ND	ND	ND	ND
Dibenz(a,h)anthracene	ND	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	ND	ND	ND	ND	ND	ND

TABLE 6-2. Polynuclear Aromatic Hydrocarbons Nighttime Sample Results.

60264-D001

6-3

AeroVironment Environmental Services Inc.

Sample ID	Client ID	Sample Date	Tare Wt.(g)	Gross Wt.(g)	Net Wt.(ug)	ug/m ² /hr	Total ug/m ² /hr	Comments
97-Q3472	Site 1 Day	1/22/98	4.1345	4.1380	1,500	3633.72		
97-Q3484	Site 1 Day	1/23/98	4.3002	4.3031	2,900	7483.54		
98-Q9	Site 1 Day	1/24/98	4.4206	4.4245	3,900	10077.52		
98-Q21	Site 1 Day	1/25/98	4.4427	4.4468	4,100	9932.17		
98-Q33	Site 1 Day	1/26/98	4.4442	4.4485	4,300	11111.11		
98-Q45	Site 1 Day	1/27/98	4.4078	4.4113	3,500	8859.08		
98-Q57	Site 1 Day	1/28/98	4.5856	4.5888	3,200	7751.94		
98-Q69	Site 1 Day	1/29/98	4.6252	4.6148	-10,600		58659.08	
97-Q3473	Site 2 Day	1/22/98	4.1408	4.1420	1,200	2883.36		
97-Q3485	Site 2 Day	1/23/98	4.3097	4.3125	2,800	8577.40		
98-Q10	Site 2 Day	1/24/98	4.4338	4.4380	4,200	10174.42		
98-Q22	Site 2 Day	1/25/98	4.4263	4.4291	3,800	8497.32		
98-Q34	Site 2 Day	1/26/98	4.4267	4.4311	4,400	10658.91		
98-Q48	Site 2 Day	1/27/98	4.3940	4.3983	4,300	10418.67		
98-Q58	Site 2 Day	1/28/98	4.5560	4.5591	3,100	7356.43		
98-Q70	Site 2 Day	1/29/98	4.6235	4.6124	-11,200		56364.51	
97-Q3474	Site 3 Day	1/22/98	4.1272	4.1292	2,000	4651.16		
97-Q3486	Site 3 Day	1/23/98	4.3060	4.3090	3,000	7751.84		
98-Q11	Site 3 Day	1/24/98	4.4266	4.4302	3,600	9200.10		
98-Q23	Site 3 Day	1/25/98	4.4085	4.4122	3,700	10005.41		
98-Q35	Site 3 Day	1/26/98	4.4380	4.4423	4,300	11037.53		
98-Q47	Site 3 Day	1/27/98	4.4146	4.4184	3,800	9819.12		
98-Q59	Site 3 Day	1/28/98	4.5600	4.5633	3,300	8252.08		
98-Q71	Site 3 Day	1/29/98	4.6228	4.6251	2,500	7751.94	68469.26	
97-Q3475	Site 4 Day	1/22/98	4.3185	4.3036	-14,900			Damaged by wind
97-Q3487	Site 4 Day	1/23/98	4.2887					Filter blew away
98-Q12	Site 4 Day	1/24/98	4.4156	4.4237	8,100	22695.43		
98-Q24	Site 4 Day	1/25/98	4.4059					No filter received
98-Q36	Site 4 Day	1/26/98	4.4182	4.4229	4,700	11752.84		
98-Q48	Site 4 Day	1/27/98	4.3945	4.3980	3,500	8944.54		
98-Q61	Site 4 Day	1/28/98	4.6067	4.6106	3,900	9968.78		
98-Q72	Site 4 Day	1/29/98	4.6025	4.6068	3,300	10232.56	63592.25	
97-Q3476	Site 5 Day	1/22/98	4.3109	4.3127	1,800	4453.24		
97-Q3488	Site 5 Day	1/23/98	4.2862	4.2884	2,200	5220.69		
98-Q13	Site 5 Day	1/24/98	4.4135	4.4171	3,600	8720.93		
98-Q25	Site 5 Day	1/25/98	4.4329	4.4366	3,700	8963.18		
98-Q37	Site 5 Day	1/26/98	4.4104	4.4138	3,200	7751.94		
98-Q49	Site 5 Day	1/27/98	4.3863	4.3903	4,000	10222.34		
98-Q60	Site 5 Day	1/28/98	4.5612	4.5656	4,400	10335.92		
98-Q73	Site 5 Day	1/29/98	4.6277	4.6309	3,200	8968.10	64834.33	
97-Q3477	Site 6 Day	1/22/98	4.3023	4.3040	1,700	4075.78		
98-Q2	Site 6 Day	1/23/98	4.4230	4.4255	2,500	5993.77		
98-Q14	Site 6 Day	1/24/98	4.4367	4.4404	3,700	8780.26		
98-Q26	Site 6 Day	1/25/98	4.4065	4.4098	3,300	7911.77		
98-Q38	Site 6 Day	1/26/98	4.4246	4.4284	3,800	9302.33		
98-Q50	Site 6 Day	1/27/98	4.3883	4.3918	3,300	7308.97		
98-Q62	Site 6 Day	1/28/98	4.6085	4.6121	2,600	6169.91		
98-Q74	Site 6 Day	1/29/98	4.6202	4.6229	2,700	7217.32	56760.08	
Average:							61413.25	
Std. Dev.:							4891.58	

TABLE 6-3. Mass Analysis Results (Daytime Samples)

60264-D001

6-3

AeroVironment Environmental Services Inc.

Sample ID	Client ID	Sample Date	Tare Wt.(g)	Gross Wt.(g)	Net Wt.(ug)	$\mu\text{g}/\text{m}^2/\text{hr}$	Total $\mu\text{g}/\text{m}^2/\text{hr}$	Comments
87-Q3466	Site 1 Night	1/21/98	4.1486	4.1509	2,300	2785.85		
97-Q3478	Site 1 Night	1/22/98	4.2982	4.3016	3,400	3933.82		
98-Q3	Site 1 Night	1/23/98	4.4506	4.4544	3,800	4463.24		
98-Q15	Site 1 Night	1/24/98	4.4163	4.4199	3,500	4239.34		
98-Q27	Site 1 Night	1/25/98	4.4112	4.4153	4,100	4815.60		
98-Q39	Site 1 Night	1/26/98	4.4130	4.4179	4,900	5804.33		
98-Q51	Site 1 Night	1/27/98	4.3817	4.3861	4,400	5301.84		
98-Q75	Site 1 Night	1/29/98	4.5985	4.6018	3,300	3955.89	35399.90	
97-Q3469	Site 2 Night	1/21/98	4.1344	4.1353	900	1150.01		
97-Q3479	Site 2 Night	1/22/98	4.3213	4.3234	2,100	2625.66		
98-Q4	Site 2 Night	1/23/98	4.4256	4.4292	3,600	4360.47		
98-Q16	Site 2 Night	1/24/98	4.4161	4.4199	3,800	4936.99		
98-Q28	Site 2 Night	1/25/98	4.3922	4.3960	3,800	4802.83		
98-Q40	Site 2 Night	1/26/98	4.4101	4.4141	4,000	4844.96		
98-Q52	Site 2 Night	1/27/98	4.3548	4.3588	4,000	4948.05		
98-Q76	Site 2 Night	1/29/98	4.6030	4.6067	3,700	4412.84	32081.60	
97-Q3471	Site 3 Night	1/21/98	4.1384	4.1447	6,300	8518.12		
97-Q3480	Site 3 Night	1/22/98	4.3273	4.3297	2,400	2790.70		
98-Q5	Site 3 Night	1/23/98	4.4243	4.4283	4,000	4651.16		
98-Q17	Site 3 Night	1/24/98	4.4378	4.4412	3,400	4034.17		
98-Q29	Site 3 Night	1/25/98	4.4191	4.4233	4,200	4811.55		
98-Q41	Site 3 Night	1/26/98	4.4091	4.4136	4,500	5301.48		
98-Q53	Site 3 Night	1/27/98	4.3797	4.3847	5,000	5993.77		
98-Q77	Site 3 Night	1/29/98	4.5983	4.6020	3,700	4601.42	40702.36	
97-Q3467	Site 4 Night	1/21/98	4.1346	4.1361	1,500	1779.78		
97-Q3481	Site 4 Night	1/22/98	4.3049	4.3088	3,900	4534.88		
98-Q6	Site 4 Night	1/23/98	4.4435	4.4473	3,800	4208.19		
98-Q18	Site 4 Night	1/24/98	4.4370	4.4428	5,800	6844.52		
98-Q30	Site 4 Night	1/25/98	4.4216	4.4263	4,700	5605.25		
98-Q42	Site 4 Night	1/26/98	4.4291	4.4337	4,600	5485.99		
98-Q54	Site 4 Night	1/27/98	4.3650	4.3702	5,200	6138.59		
98-Q78	Site 4 Night	1/29/98	4.6040	4.6078	3,800	4485.89	38883.10	
97-Q3470	Site 5 Night	1/21/98	4.1441	4.1448	700	894.45		
97-Q3482	Site 5 Night	1/22/98	4.2990	4.3011	2,100	2504.47		
98-Q7	Site 5 Night	1/23/98	4.4305	4.4348	4,300	5208.33		
98-Q19	Site 5 Night	1/24/98	4.4460	4.4497	3,700	4505.05		
98-Q31	Site 5 Night	1/25/98	4.4065	4.4126	4,100	5326.75		
98-Q43	Site 5 Night	1/26/98	4.4145	4.4175	3,000	3633.72		
98-Q55	Site 5 Night	1/27/98	4.3899	4.3940	4,100	4914.89		
98-Q79	Site 5 Night	1/29/98	4.6054	4.6088	3,400	4183.59	31171.26	
97-Q3468	Site 6 Night	1/21/98	4.1304	4.1320	1,600	2022.24		
97-Q3483	Site 6 Night	1/22/98	4.2955	4.2982	2,600	3149.22		
98-Q8	Site 6 Night	1/23/98	4.3936	4.3973	3,700	4481.59		
98-Q20	Site 6 Night	1/24/98	4.4349	4.4387	3,800	4626.81		
98-Q32	Site 6 Night	1/25/98	4.3950	4.3982	3,200	3916.77		
98-Q44	Site 6 Night	1/26/98	4.4267	4.4303	3,600	4337.87		
98-Q56	Site 6 Night	1/27/98	4.3773	4.3822	4,900	6295.77		
98-Q80	Site 6 Night	1/29/98	4.6336	4.6376	4,000	4651.16	33481.45	
Average:						35286.61		
Std. Dev.:						3814.31		

TABLE 6-4. Mass Analysis Results (Nighttime Samples)

6.3 METALS

The units for the metals analysis are expressed in micrograms per analysis for each analyzed metal. The deposition rate is expressed in micrograms per meter squared per hour ($\mu\text{g}/\text{m}^2/\text{hr}$). The lower detectable limit for each analyzed metal is as follows:

Analyte	Lower Detectable Limit (μg)
Beryllium	< 0.635
Manganese	< 3.81
Vanadium	< 0.890
Zinc	< 6.35
Mercury	< 8.26
Chromium	NA
Arsenic	< 6.35
Selenium	< 1.27
Cadmium	< 2.54
Lead	NA
Nickel	< 6.35
Copper	NA

• Daytime (Sea Breeze Conditions) Samples

The daytime sampling results (Table 6-5) showed concentrations of chromium, copper, lead, nickel, vanadium, and zinc above their lower detectable limits. The following table summarizes these results.

Analyte	Lowest Concentration ($\mu\text{g}/\text{m}^2/\text{hr}$)	Highest Concentration ($\mu\text{g}/\text{m}^2/\text{hr}$)	Number of Sites Reporting
Chromium	0.39	0.69	6
Copper	0.20	1.94	6
Lead	0.05	0.40	6
Nickel	0.19	0.47	5
Vanadium	0.31	0.31	1
Zinc	1.16	1.86	2

• Nighttime (Land Breeze Conditions) Samples

The nighttime sampling results (Table 6-6) showed concentrations of chromium, copper, lead, manganese, nickel, and zinc above their lower detectable limits. The following table summarizes these results.

Analyte	Lowest Concentration ($\mu\text{g}/\text{m}^2/\text{hr}$)	Highest Concentration ($\mu\text{g}/\text{m}^2/\text{hr}$)	Number of Sites Reporting
Chromium	0.18	0.20	6
Copper	0.15	0.51	6
Lead	0.03	0.09	8
Manganese	0.11	0.11	1
Nickel	0.12	0.16	3
Zinc	0.59	0.59	1

Lab ID:	98-Q526		98-Q527		98-Q529		98-Q531		98-Q533		98-Q535	
Site #:	1		2		3		4		5		6	
Deposit Area:	4130 cm ²		4130 cm ²		4130 cm ²		3100 cm ²		4130 cm ²		4130 cm ²	
Filters:	8		8		8		6		8		8	
Analyte	µg	µg /m2/hr	µg	µg /m2/hr	µg	µg /m2/hr	µg	µg /m2/hr	µg	µg /m2/hr	µg	µg /m2/hr
ICP												
Be	< 0.635		< 0.635		< 0.635		< 0.638		< 0.635		< 0.635	
Mn	< 3.81		< 5.08		< 3.81		< 3.83		< 3.81		< 3.81	
V	< 8.90		< 8.90		< 8.90		< 8.93		< 8.90		10.2	0.31
Zn	36.9	1.16	62.3	1.86	< 6.35		< 6.38		< 6.35		< 6.35	
CVAA												
Hg	< 0.826		< 0.826		< 0.826		< 0.620		< 0.826		< 0.826	
GFAA												
Cr	16.6	0.52	13	0.39	14.7	0.48	12.9	0.69	13.9	0.43	13.1	0.39
As	< 6.35		< 6.35		< 6.35		< 6.38		< 6.35		< 6.35	
Se	< 1.27		< 1.27		< 1.27		< 1.28		< 1.27		< 1.27	
Cd	< 2.54		< 2.54		< 2.54		< 2.55		3.81		< 2.54	
Pb	3.32	0.10	1.59	0.05	2.63	0.09	7.42	0.40	3.44	0.11	2.2	0.07
Ni	12.7	0.40	6.35	0.19	12.7	0.41	< 6.38		15.2	0.47	6.35	0.19
Cu	61.6	1.94	8.95	0.27	25.7	0.84	18.9	1.02	7.92	0.24	6.7	0.20

TABLE 6-5. Daytime Metals Results

50254-D001

6-7

AeroVironment Environmental Services Inc.

Lab ID:	98-Q526		98-Q528		98-Q530		98-Q532		98-Q534		98-Q536	
Site #:	1		2		3		4		5		6	
Deposit Area:	4130 cm ²		4130 cm ²		4130 cm ²		4130 cm ²		4130 cm ²		4130 cm ²	
Filters:	8		8		8		8		8		8	
Analyte	µg	µg /m2/hr	µg	µg /m2/hr	µg	µg /m2/hr	µg	µg /m2/hr	µg	µg /m2/hr	µg	µg /m2/hr
ICP												
Be	< 0.635		< 0.635		< 0.635		< 0.635		< 0.635		< 0.635	
Mn	7.62	0.11	< 3.81		< 3.81		< 3.81		< 3.81		< 3.81	
V	< 8.90		< 8.90		< 8.90		< 8.90		< 8.90		< 8.90	
Zn	39.4	0.59	< 6.35		< 6.35		< 6.35		< 6.35		< 6.35	
CVAA												
Hg	< 0.826		< 0.826		< 0.826		< 0.826		< 0.826		< 0.826	
GFAA												
Cr	11.9	0.18	12.7	0.20	12.8	0.19	13.1	0.19	11.3	0.17	11.5	0.18
As	< 6.35		< 6.35		< 6.35		< 6.35		< 6.35		< 6.35	
Se	< 1.27		< 1.27		< 1.27		< 1.27		< 1.27		< 1.27	
Cd	< 2.54		< 2.54		< 2.54		< 2.54		< 2.54		< 2.54	
Pb	4.43	0.07	1.92	0.03	4.69	0.07	8.39	0.09	2.27	0.03	3.74	0.06
Ni	< 6.35		< 6.35		< 6.35		10.2	0.15	10.2	0.16	7.62	0.12
Cu	34.3	0.51	30.2	0.47	18.8	0.28	27.8	0.41	9.77	0.15	26.3	0.43

TABLE 6-6. Nighttime Metals Results

50254-D001

6-8

AeroVironment Environmental Services Inc.

Section 7

REFERENCES

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Attachment B

Ambient Air Measurements for Respirable (PM-10 Fraction) Polynuclear Aromatic Hydrocarbons at Los Angeles International Airport

Prepared By:

AeroVironment Environmental Services, Inc.



AeroVironment Environmental Services Inc.

AVES

An AeroVironment Inc. Affiliate

AMBIENT AIR MEASUREMENTS FOR
RESPIRABLE (PM-10 FRACTION)
POLYNUCLEAR AROMATIC
HYDROCARBONS AT
LOS ANGELES INTERNATIONAL AIRPORT

AVES-R-50254-D002
AVES Project: 50254-D002

FINAL REPORT

AMBIENT AIR MEASUREMENTS FOR
RESPIRABLE (PM-10 FRACTION)
POLYNUCLEAR AROMATIC
HYDROCARBONS AT
LOS ANGELES INTERNATIONAL AIRPORT

Measurement Period:

January 24 to 29, 1998

Prepared for

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EXECUTIVE SUMMARY

• Polynuclear Aromatic Hydrocarbons (PAH)

High resolution GC/MS analyses of the composites of the five 24-hour filter and five 24-hour polyurethane foam (PUF) samples determined the presence of concentrations of all 19 compounds found on the CARB Method 429 target list. The compound concentrations of the combination of the filters and PUFs varied from below detection limits for many of the targeted compounds to and from 0.345 $\mu\text{g}/\text{m}^3$ for anthracene to 3.156 $\mu\text{g}/\text{m}^3$ for benzo(g,h,i)perylene for compounds that were present above the methods lower detection limits.

• Mass

The mass concentrations for the PM-10 filters that were run concurrently with the PAH sampling varied from 54.7 $\mu\text{g}/\text{m}^3$ on January 23 and 24, to 82.3 $\mu\text{g}/\text{m}^3$ on January 26 and 27.

• Meteorological Measurements

Continuous meteorological measurements of wind speed, wind direction, sigma theta, ambient temperature, delta temperature, and total solar radiation were collected during the period of the PAH sampling. These data were collected as part of another air quality and meteorological monitoring program also associated with the LAX Master Plan Phase III Environmental Impact Survey/Report (EIS/R) preparation. These meteorological data are presented in a separate report (AVES, 1998).

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Section 1

INTRODUCTION

Between January 21 and 30, 1998, AeroVironment Environmental Services Inc. (AVES) conducted air sampling for the PM-10 fraction of polynuclear aromatic hydrocarbons (PAH) at the Los Angeles International Airport (LAX) (Figure 1-1). The monitoring was conducted as part of the LAX Master Plan Phase III Environmental Impact Survey/Report (EIS/R) preparation. The scope of this program was to:

- Collect five 24-hour PM-10 fraction of PAH samples at one site using a modified PM-10 sampler.
- Collect corresponding gravimetrically analyzed PM-10 samples.

Meteorological measurement were also collected at this site. These measurements were made as part of an air quality and meteorological sampling program that was conducted over a six-month period at the PAH sampling site in conjunction with the LAX Master Plan Phase III Environmental Impact Survey/Report (EIS/R) preparation project. Descriptions of the meteorological measurement systems are detailed in the measurements report (AVES, 1998) submitted to Planning Consultants Research Inc.

Section 2

DESCRIPTION OF SAMPLING EQUIPMENT

2.1 PAH SAMPLER

A modified General Metal Works mass flow controlled PM-10 sampler (Figure 2-1) was used to collect the PM-10 fraction PAH samples. The modification consisted of a tap from the chamber behind the 8" x 10" quartz fiber filter that drew a portion of the sample filter through a polyurethane foam (PUF) sponge. This sample fraction accounts for the portion of the sample that was either in the vapor phase in the ambient air or that had volatilized off the filter. The PUF sample lines were one-half-inch PFA Teflon tubing. The PUF was enclosed in a stainless steel chamber. A vane pump was used to draw the sample through the PUF.

2.2 PM-10 SAMPLERS

Graseby-Anderson volumetric flow controlled PM-10 samplers were used to collect the collocated PM-10 samples (Figure 2-2). These samplers were part of an air quality and meteorological sampling program that was being conducted over six months at site 1 in conjunction with the LAX Master Plan Phase III Environmental Impact Survey/Report (EIS/R) preparation project. A description of the PM-10 samplers is detailed in the measurements report (AVES, 1998) submitted to Planning Consultants Research Inc.

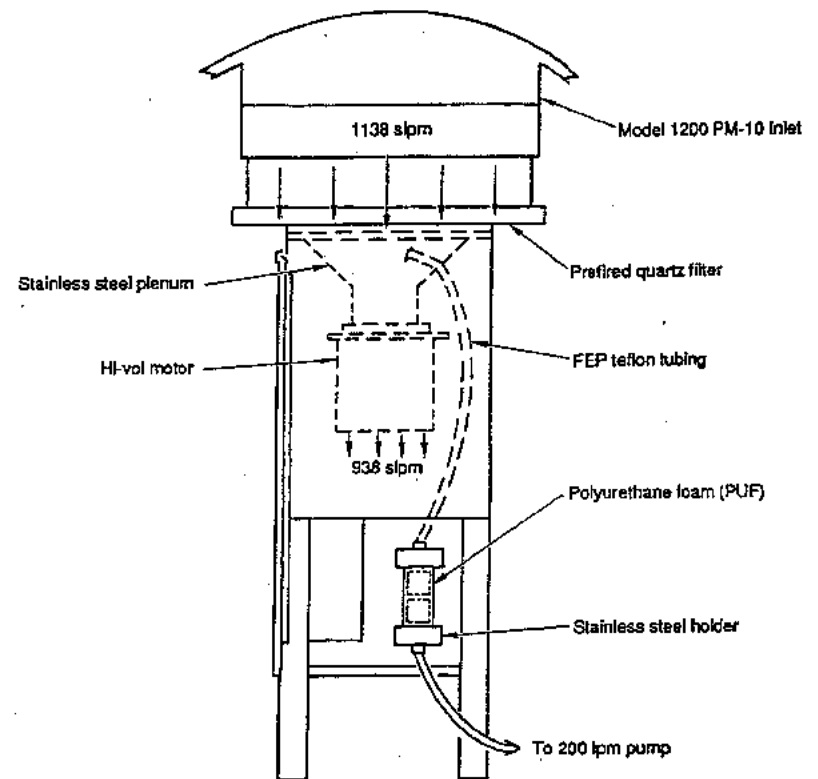


FIGURE 2-1. PM-10 PAH Sampler Schematic.

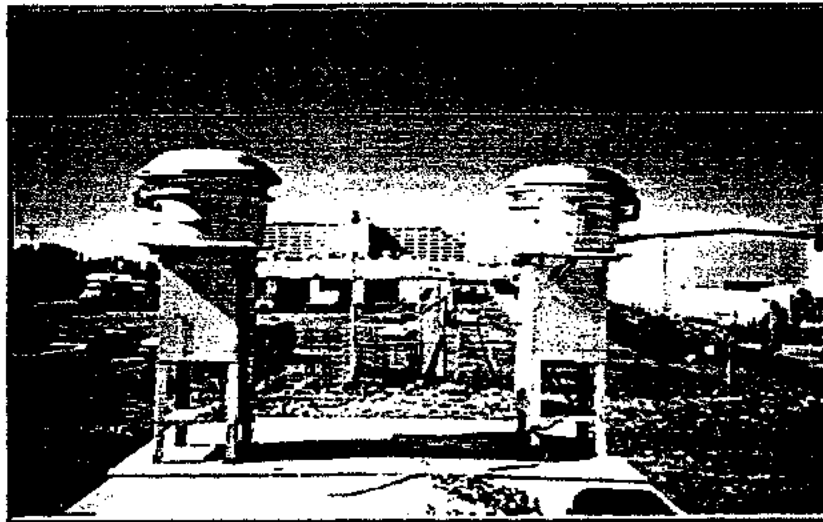


Figure 2-2. PM-10 Samplers

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The PUF was removed from the stainless steel PUF chamber and placed back into the jar it arrived in and sealed. The stop time was recorded on the label affixed to the jar. The sample filter and PUF were then placed into the on-site sample holding refrigerator.

- Flow Calibrations

Once the exposed filter and PUF were removed, a high-volume calibration head (with a clean quartz fiber filter) were installed in place of the sample filter, and a clean calibration PUF was installed in the stainless steel PUF chamber. The PM-10 sampler and PAH sample pumps were restarted and allowed to run for approximately five minutes. The readings of the high-volume calibration orifice manometer and the mass flowmeter, in line with the PUF sample train, were recorded on the PAH Sampler Chain-of-Custody sheet in the PM-10 Flow Rate ("PUF on") "Stop" and "PUF Flow Rate Stop" columns, respectively. The PUF sample pump was then turned off and the high-volume calibration orifice manometer reading was recorded in the "PM-10 Flow Rate Stop" ("PUF off") column.

Adjustments to the PM-10 and/or PUF sample flow rates were made if the high-volume calibration orifice manometer reading, with the PUF sample pump running, was outside of the range from 1.02 to 1.25 standard cubic meters per minute (m^3/min) and the PUF mass flowmeter reading was outside the range from 103 to 105 standard liters per minute (slpm). To adjust the PM-10 and/or PUF flow rates, both the PM-10 and PUF sample pumps had to be running. The high volume calibration orifice manometer was adjusted to 1.13 m^3/min by adjusting a pot on the PM-10 pump circuit board, and the PUF sample flow rate was adjusted to 104 slpm using the valve that was part of the in-line PUF manometer. The PM-10 sampler pump was turned off (both sample pumps were turned off if an adjustment was made) and the high-volume calibration orifice and calibration PUF were removed and stored in the monitoring trailer.

- Sample Media Loading

A new quartz fiber filter was removed from its protective plastic bag and manila folder and placed into a high-volume filter sampling frame. The filter sampling frame and filter were installed into the PM-10 sampler and the PM-10 sample head lowered into place and secured. A new PUF was removed from its jar and placed inside the stainless steel PUF chamber. The PUF chamber was closed and tightly secured. On the next line of the PAH Sampler Chain-of-Custody sheet, the filter and PUF serial numbers, the date, and the PM-10 sampler running time meter reading were recorded in the appropriate columns. The PM-10 and PUF sample pumps were turned on and the time recorded in the Time of Day Start Time column.

- Trip Blank

One trip blank consisting of a quartz fiber filter and PUF was exposed at the end of the sampling program. The trip blank procedure consisted of loading a clean sample media

into the sampler and then unloading them without running the sample pumps. The trip blank provides information on contamination that may occur during transit between the laboratory and the sampler and the sampler and back to the laboratory, and during sample media loading and unloading. The trip blank will not be analyzed unless questions arise from the sample filter analysis results.

- Documentation

The PAH Sampler Chain-of-Custody sheet (Figure 3-1) contained complete documentation for the PM-10 fraction of PAH monitoring. The PAH Sampler Chain-of-Custody sheet contained all filter identification numbers, sample dates, times, flow information and sample transfer information.

3.2 PM-10 MASS SAMPLING

The procedures for the PM-10 mass sampling (that was conducted in conjunction with PM-10 PAH sampling) are detailed in the measurements report (AVES, 1998) submitted to Planning Consultants Research Inc. for the six-month air quality and meteorological monitoring program that was being conducted at Site 1 (also part of the LAX Master Plan Phase III Environmental Impact Survey/Report [EIS/R] preparation project). The only modification to these procedures was that the PM-10 mass sampling was conducted concurrent with the PM-10 PAH sampling instead of every third day.

Section 4

CHAIN OF CUSTODY PROCEDURES

4.1 SAMPLE SHIPMENT

• Laboratory to Field

The unexposed quartz filters and cleaned PUFs were shipped from Quanterra, Inc. of West Sacramento, California, in a cooler with Blue Ice® via Federal Express overnight service. The filters arrived in the box they were packaged in by the manufacturer. Numbered manila folders and zip-lock plastic bags were included for packaging and shipping the filter back to the laboratory.

The PUFs were enclosed in labeled, sealed glass jars.

• Field to Laboratory

The exposed quartz filters and PUFs were shipped to Quanterra, Inc. of West Sacramento, California, in a cooler with blue ice via Federal Express overnight service. The PM-10 fraction PAH samples left AVES on February 2, 1998, and were received by Quanterra, Inc. on February 3, 1998.

4.2 CHAIN OF CUSTODY

The PAH Sampler chain-of-custody sheets (see Figures 3-1) were filled out when the sample media were prepared for installation in the samplers and stayed with the samples through all steps of the sampling process. Once sampling was complete, the chain-of-custody sheets were used as checklists to ensure that all samples were accounted for and properly labeled. The original PAH Sampler Chain-of-Custody Sheet was sent with the PAH samples to the laboratory. A copy of the chain-of-custody sheet was kept by AVES.

Section 5

LABORATORY ANALYSES

Laboratory analyses were conducted by Quanterra, Inc. of West Sacramento California. The PM-10 mass analyses were performed by Apex Environmental of San Diego, California.

5.1 PM-10 PAH ANALYSIS

The PAHs were extracted using methylene chloride following the Method 8270 protocol (EPA, 1986) and analyzed by high resolution GC/MS following the California Air Resources Board Method 429 (CARB, 1989) for the 19 PAH compounds on the Method 429 target list.

5.2 PM-10 MASS ANALYSIS

The mass of the metals filters were determined gravimetrically.

Section 6

RESULTS

6.1 PAH

The units of concentration for the PM-10 fraction of PAH are expressed in nanograms per cubic meter of air (ng/m³). PAH concentrations are summarized in Table 6-1, below.

TABLE 6-1. PAH Sample Results

Lab ID #:	97352-6		97352-1		
Filter Media	Filters	Filters	PUF	PUF	Total
Sample Volume (m ³)	8102.81		728.37		PAH
# of Sample Media:	5		5		Conc.
Analyte	ng	ng/m ³	ng	ng/m ³	ng/m ³
Naphthalene	725	0.089	10475	1.293	1.382
2-Methylnaphthalene	697	0.086	16974	2.095	2.181
Acenaphthylene	165	0.023	18579	2.283	2.316
Acenaphthene	ND		3316	0.409	0.409
Fluorene	264	0.033	18934	2.337	2.369
Phenanthrene	1049	0.129	24426	3.015	3.144
Anthracene	202	0.025	2592	0.320	0.345
Fluoranthene	1708	0.211	5012	0.619	0.829
Pyrene	2446	0.302	5787	0.714	1.015
Benzo(a)anthracene	3544	0.437	ND		0.437
Chrysene	6879	0.728	168	0.021	0.746
Benzo(b)fluoranthene	7782	0.960	ND		0.960
Benzo(k)fluoranthene	7648	0.944	ND		0.944
Benzo(e)pyrene	7843	0.968	ND		0.968
Benzo(a)pyrene	9051	1.117	ND		1.117
Perylene	1286	0.160	ND		0.160
Indeno(1,2,3-cd)pyrene	11162	1.378	ND		1.378
Dibenz(a,h)anthracene	757	0.093	ND		0.093
Benzo(g,h,i)perylene	25571	3.156	ND		3.156

ND = None Detected (< 100 ng/sample)

6.2 PM-10 MASS

Samples 1 through 4 (Table 6-2) all exceeded the California PM-10 24-hour standard of 50 µg/m³. This mirrors the conditions under which the samples were taken. The first four samples were collected on days that were meteorologically undisturbed. A front passed through the area with rain on January 27, and January 28 was typical of relatively clean post-frontal conditions.

TABLE 6-2. PM-10 Gravimetric Analysis Results

Filter Number	Start Date and Time	Stop Date and Time	Concentration (µg/m ³)
1	1/23/98 12:00 PST	1/24/98 12:00 PST	54.7
2	1/24/98 12:00 PST	1/25/98 12:00 PST	56.1
3	1/25/98 12:00 PST	1/26/98 12:00 PST	72.5
4	1/26/98 12:00 PST	1/27/98 12:00 PST	82.3
Dynamic Blank	1/26/98	1/26/98	0.6
5	1/27/98 12:00 PST	1/29/98 12:00 PST	51.5*

* Two-day sample.

Section 7

REFERENCES

AeroVironment Environmental Services Inc. (1998): Los Angeles International Airport Master Plan Phase III Environmental Impact Survey/Report (EIS/R) Preparation Air Quality and Meteorological Monitoring Program, Measurements Report.

California Air Resources Board (1989): Determination of Polycyclic Aromatic Hydrocarbons (PAH) Emissions from Stationary Sources.

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United States Environmental Protection Agency (1994a): Quality Assurance Handbook for Air Pollution Measurement Systems, Volume I, A Field Guide to Environmental Quality Assurance. EPA Document EPA/600/R-94/038a, Environmental Monitoring Systems Laboratory, Research Triangle Park, North Carolina.

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United States Environmental Protection Agency (1994d): Quality Assurance Handbook for Air Pollution Measurement Systems, Volume IV, Meteorological Measurements. EPA Document EPA/600/R-94/038d, Environmental Monitoring Systems Laboratory, Research Triangle Park, North Carolina.

United States Environmental Protection Agency (1987): Ambient Monitoring Guidelines for Prevention of Significant Deterioration (PSD). EPA Document EPA-450/4-87-007, Environmental Monitoring Systems Laboratory, Research Triangle Park, North Carolina.

United States Environmental Protection Agency (1986): Test Methods for Evaluating Solid Waste. Laboratory Manual Physical/Chemical Methods. EPA Document SW-846. Office of Solid Waste and Emergency Response. Third Edition. November.

Attachment Z

Supplemental Air Dispersion Modeling of Aircraft

1.0 INTRODUCTION

As mentioned in the Air Quality Modeling Protocol for Criteria Pollutants (Attachment A to *Technical Report 4*), the ISCST3 model may also be used to compare concentrations associated with various alternatives with the California Ambient Air Quality Standard for NO₂. The California NO₂ standard is the only NO₂ standard in the United States using a one-hour averaging period. Modeling one-hour NO₂ concentrations can be difficult since the modeled results are highly sensitive to atmospheric stability and wind speed. Therefore, ISCST3 may be used to supplement the EDMS one-hour NO₂ analysis. After comparing the ambient monitoring data (Attachment X to *Technical Report 4*) with simplified EDMS model runs and discussing the results with FAA, it was determined that supplemental one-hour NO₂ analysis was warranted. The input and results of the supplemental analysis, using ISCST3¹, are discussed below.

2.0 SUPPLEMENTAL MODELING OF AIRCRAFT

For the supplemental one-hour NO₂ analysis, aircraft were modeled in ISCST3 as multiple point sources, distributed in equal emission increments for each of four operational modes (taxi/idle, approach, takeoff, climbout) and for each of three aircraft sizes. These three aircraft sizes were defined as Small, Large, and Heavy. In the site layout drawings for each alternative, travel segments were determined for each mode of operation. The travel segments were created for the travel scenarios originating and ending at each terminal gate area and areas used for maintenance and cargo aircraft. Point sources for aircraft were distributed along each travel segment representing aircraft acceleration and/or constant velocity. The number of sources used for each operational mode and each aircraft size is given in Table 1, Number of Sources for Aircraft Operation Modes.

The source height for all on-ground aircraft emissions was assumed to be two meters. The source heights for the in-air portion of the approach, takeoff, and climbout emissions were determined using the beginning and end heights for each mode, the velocity for each mode, and the FAA specified/calculated TIM.

Table 1
Number of Sources for Aircraft Operation Modes

Idle				
Taxi	Queue	Approach	Climbout	Takeoff
80	1 to 20	5	5	15

Source: Camp Dresser & McKee Inc., 2000.

The aircraft size cutoff points for Small, Large, and Heavy aircraft were based on both airframe and engine size as shown in Table 2, Assigned Aircraft Size for Supplemental Modeling, and are consistent with similar aircraft size cutoff points established in EDMS 3.2. The grouping of aircraft by size in the ISCST3 dispersion model is a more accurate modeling methodology than grouping all aircraft located around the airport. Each aircraft size group has different emission properties (grams of emissions per kilogram of fuel) which are modeled more accurately in the different size groups than by averaging over all aircraft. In addition, buoyant plume rise is proportional to the heat released in the exhaust. Since the amount of heat released varies by aircraft engine size, grouping aircraft by size allows a more accurate estimation of plume rise than using any average value for all aircraft.

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Table 2
Assigned Aircraft Size for Supplemental Modeling

Size	Aircraft	Engine Model No.	No. of Engines	Takeoff	Heat Rate (MMBtu/hr) ¹		
					Taxi/Idle	Climbout	Approach
Small	ATR42	PW121	2	12.86	4.25	10.92	7.94
	ATR72-200	PW124-B	2	14.25	4.82	12.92	7.27
	BAC146-300	ALF502R-5	4	34.00	3.87	28.05	9.82
	BH-1000	PT6A-65B	2	7.40	2.06	6.67	3.87
	DH-1000 Cargo	PT6A-65B	2	7.40	2.06	6.67	3.87
	Canadair RJ50	CF34-3A1	2	38.64	4.71	31.74	11.30
	Canadair RJ70	CF34-3A1	2	38.64	4.71	31.74	11.30
	DASH-7	PT6A-50	4	7.84	2.09	6.92	3.92
	EMB110KQ1	PT6A-27	2	5.03	1.38	4.78	2.57
	EMB-120	PW118	2	11.29	4.01	10.02	6.06
	FOKKER 50	PW125-B	2	14.54	4.74	12.83	7.67
	GenAvJet	JT15D-1	2	14.35	2.18	11.77	4.84
	GenAvProp	PT6A-67B	1	8.34	2.41	7.50	4.24
	GenAvProp Cargo	PT6A-67B	1	8.34	2.41	7.50	4.24
	Jetstream 31	TPE331-3	2	5.49	1.35	4.91	3.00
	Saab 2000	AC2100A	2	21.64	5.47	19.05	10.35
	SF-340A	CT7-5	2	9.59	1.42	8.92	4.27
	SHORT 360	PT6A-65AR	2	8.41	2.17	7.52	4.20
	Swearingen Metro 2	TPE331-J	2	5.49	1.35	4.91	3.00
Large	A319	CFM56-5A1	2	99.78	9.60	81.84	27.63
	A320	CFM56-5B4	2	110.70	10.16	91.24	30.95
	D727 Cargo	JT8D-15	3	111.84	14.02	89.72	32.30
	B727-200	JT8D-15	3	111.84	14.02	89.72	32.30
	B737-200	JT8D-9A	2	98.74	12.53	80.32	28.20
	B737-200C Cargo	JT8D-17A	2	111.36	13.03	88.71	31.37
	B737-300	CFM56-3C	2	82.79	10.54	69.49	25.92
	B737-400	CFM56-3C	2	82.79	10.54	69.49	25.92
	B737-500	CFM56-3C	2	82.79	10.54	69.49	25.92
	B757-200	PW2037	2	146.02	13.39	120.19	37.68
	B757-200 Cargo	PW2037	2	146.02	13.39	120.19	37.68
	DC8 Cargo	JT8D-17	2	118.20	13.96	94.85	33.61
	DC8-60	JT8D-17	2	118.20	13.96	94.72	33.61
	F-28-4000	RR SPEY-MK555	2	69.78	9.11	56.20	20.98
	FOKKER 100-100	TAY 650-15	2	82.98	11.30	67.88	24.11
	FOKKER 70	TAY620-15	2	72.15	10.44	59.81	21.84
	MD-80	JT8D-217A	2	125.32	13.03	102.34	36.39
	MD-80-87	JT8D-217	2	125.32	13.03	102.34	36.39
	MD-90-10	V2525-D5	2	99.97	12.15	83.55	30.29
	MD-90-95	BH700-710A1-10	2	67.12	8.45	55.82	20.89
Heavy	A300B	CF6-50C	2	225.66	20.13	181.81	61.05
	A300-C4-200 Cargo	CF6-50C2	2	236.11	20.41	187.50	62.66
	A310-200	CF6-80C2A2	2	200.96	17.94	168.14	56.01
	A310-200 Cargo	CF6-80C2A2	2	200.96	17.94	168.14	56.01
	A330	CF6-80E1A1	2	256.52	21.46	208.77	67.79
	A340-200	CFM56-5C2	4	124.18	11.16	102.15	33.78
	B747 Combination	PW4056	4	222.35	19.75	183.23	62.47

¹ U.S. Environmental Protection Agency, *User's Guide for the Industrial Source Complex (ISC3) Dispersion Models, Volumes 1 and 2*, with Addenda (EPA-454/B-95-003a and b), 1995.

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Table 2

Assigned Aircraft Size for Supplemental Modeling

Size	Aircraft	Engine Model No.	No. of Engines	Heat Rate (MMBtu/hr)			
				Takeoff	Taxi/Idle	Climbout	Approach
	B747-200	JT9D-7R4G2	4	230.61	21.26	178.48	62.56
	B747-200 Cargo	JT9D-7R4G2	4	230.61	21.26	178.48	62.56
	B747-400	PW4056	4	222.35	19.75	183.23	62.47
	B747-400 Cargo	PW4056	4	222.35	19.75	183.23	62.47
	B747-X	PW4056	4	222.35	19.75	183.23	62.47
	B767-200	JT9D-7R4D	2	195.10	19.50	159.31	72.09
	B767-200 Cargo	JT9D-7R4D	2	195.10	19.50	159.31	72.09
	B767-300	JT9D-7R4D	2	195.10	19.50	159.31	72.09
	B777-200	PW4084	2	323.84	22.98	255.29	83.07
	DC10-30	CF6-50C2	3	236.11	20.41	187.50	62.66
	DC10-30 Cargo	CF6-50C2	3	236.11	20.41	187.50	62.66
	DC8 Cargo	CFM56-2C5	4	93.51	12.15	77.75	29.53
	DC8-70	CFM56-2C5	4	93.51	12.15	77.75	29.53
	IL-96	PS-90A	4	165.10	16.90	135.86	46.42
	L1011-500	RB211-524B4	3	209.81	22.79	184.09	65.79
	MD-11	PW4460	3	251.30	20.22	197.05	66.74
	MD-11 Cargo	PW4460	3	251.30	20.22	197.05	66.74

¹ Total Sensible Heat Exhaust Rate per engine, reduced by 35 percent to account for work (i.e., thrust) produced in the engines, is based on fuel flow at 100 percent of rated thrust for takeoff, 85 percent for climbout, 30 percent for approach, and 7 percent for taxi/Idle.

Source: Camp Dresser & McKee Inc., 2000.

When point sources were used to model aircraft, buoyant plume rise of turbofan and turboprop engine exhaust was taken into account. The plume rise for each aircraft size was calculated using the average heat released from single engines on those aircraft. Aircraft manufacturers indicate that aircraft engines convert approximately 30 percent of the fuel heat input to thrust.² For purposes of this analysis, it was assumed that an additional 5 percent of the fuel heat input is converted to radiant and conductive heat loss inside and from the surface of the engine nacelle, respectively. Based on the foregoing assumptions, the plume rise from aircraft engines was calculated by assuming that the remaining 65 percent of the fuel heat input is emitted in the exhaust. The heat exhaust rate for each type of aircraft located at LAX for each mode of operation is given in Table 2, Assigned Aircraft Size for Supplemental Modeling. In takeoff mode, the engines are assumed to be operating in full thrust.

Based on a review of a report prepared for the FAA,³ it was concluded that adjacent jet engines on an individual aircraft should not be combined for the determination of plume rise. Since aircraft engines have a horizontal exhaust orientation, the plume rise calculation was based on a heat balance to determine the heat flux and equivalent vertical exit velocity that would result.

In order to determine the equivalent vertical exit velocity, the diameters of the point sources used were based on an estimate of the wing span of the three aircraft sizes: 15 meters, 40 meters, and 60 meters for Small, Large, and Heavy aircraft, respectively. The temperature of the engine exhaust upon release was assumed to be 561 °K (550 °F) based on the average of exhaust temperatures observed by Music et al.⁴ The fuel use data were taken from the EDMS 3.2 model. Revising the diameter and temperature

² Sutkus, D., Personal communication, July 23, 1998.

³ Yamardino, R. J., D. G. Smith, S. A. Bremer, D. Heinrich, D. Lamich, and B. Taylor, Impact of Aircraft Emissions on Air Quality in the Vicinity of Airports. Volume I: Recent Airport Measurement Programs, Data and Sub-Model Development, 1980.

⁴ Music, P. D., J. S. Hunt and D. F. Naugle, Photographic Measurements of USAF Aircraft Plume Rise, 1977.

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assumptions has little effect on the modeled results as long as the heat input (i.e. thermal buoyancy flux) remains constant. The following equations were used to determine the heat-induced equivalent vertical exit velocity.

$$Q = (E \times H \times 0.65) / 1 \times 10^6$$

Where:

Q = exhaust heat rate (MMBtu/hr)

E = engine mode fuel consumption rate (lb/hr)

H = fuel heating value (Btu/lb; Jet A ~ 18,400 Btu/lb)

0.65 = heat input fraction in exhaust

and

$$F_b = 2.6 \times Q^{0.6}$$

Where:

F_b = thermal buoyancy flux (m⁴/s³)

Q = sensible heat emission rate (MMBtu/hr)

2.6 = unit conversion factor for Q (in MMBtu/hr) to F_b (m⁴/s³) for ambient air at 68°F

and

$$V = F_b / (g \times r^2 \times [(T_s - T_a) / T_a]^{40}) \text{ (also see ISCST3 User's Guide)}$$

Where:

V = equivalent vertical exit velocity (m/s)

F_b = thermal buoyancy flux (m⁴/s³)

g = gravitational constant, 9.807 m/s²

r = source radius (m)

T_s = source temperature, 561 °K

T_a = ambient temperature, 293 °K

The average equivalent vertical exit velocity was calculated for each aircraft size and each operational mode by determining the total buoyancy flux for all engines divided by the total number of engine operations for each aircraft size. Therefore, the number of engines on each aircraft, while not combined to determine a total plume rise, are used to determine the average engine plume rise for each aircraft size category. The exhaust heat rate, buoyancy flux, and equivalent vertical exit velocity for each aircraft size and operational mode are presented in Table 3, Plume Rise Parameters for Aircraft/Engine Size Categories Used in Supplemental Modeling. Since the aircraft fleet mix changes over time, the plume rise parameters are presented as ranges with the first value for year 2005 and the second value for year 2015. The data in Table 3, Plume Rise Parameters for Aircraft/Engine Size Categories Used in Supplemental Modeling, can be used to calculate plume rise using the standard plume rise formulas presented in the ISCST3 User's Guide.

⁵ Beychok, M. R., *Fundamentals of Stack Gas Dispersion*, 1994.

⁶ Briggs, G. A., *Plume Rise Predictions*, 1975.

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Table 3

Plume Rise Parameters for Aircraft/Engine Size Categories Used in Supplemental Modeling

Plume Rise Parameter ¹	Small	Large	Heavy
Exhaust Heat Rate (MMBtu/hr)			
Taxi/Idle	1.91 - 2.98	11.7 - 12.3	19.6 - 19.9
Approach	4.12 - 5.81	31.2 - 33.0	62.5 - 64.9
Climbout	8.00 - 11.3	88.1 - 98.7	173.1 - 183.4
Takeoff	9.64 - 13.0	107.3 - 119.6	213.5 - 227.2
Buoyant Flux Parameter (m ⁴ /s ³)			
Taxi/Idle	4.97 - 7.75	30.5 - 31.9	51.0 - 51.9
Approach	10.7 - 15.1	81.0 - 85.9	162.5 - 168.7
Climbout	20.8 - 29.3	229.0 - 258.7	450.1 - 475.8
Takeoff	23.5 - 33.7	278.9 - 311.0	555.1 - 590.8
Equivalent Vertical Exit Velocity (m/s)			
Taxi/Idle	0.019 - 0.029	0.016 - 0.017	0.012 - 0.012
Approach	0.041 - 0.057	0.043 - 0.046	0.039 - 0.040
Climbout	0.079 - 0.111	0.122 - 0.137	0.107 - 0.113
Takeoff	0.089 - 0.128	0.149 - 0.166	0.132 - 0.140
Exit Temperature (°K)	561	561	561
Stack Diameter (m)	15	40	60

¹ The plume rise parameters range in value for alternative and year being analyzed

Source: Camp Dresser & McKee Inc., 2000.

For the purposes of the dispersion analysis, the location of each plume rise point source during takeoff and climbout was shifted by 30 meters downstream, opposite to the flight direction, to account for the horizontal displacement of the plume caused by the momentum of the exit gases. This distance was derived from a study by Brendmoen and Netzer⁷ that indicated that plume rise does not begin until the plume is at least 30 jet diameters downstream of the exhaust and the assumption that the diameter of a typical aircraft engine is approximately 1 meter.

The NO₂ emissions used for each aircraft point source were based on the annual emissions calculated by the EDMS 3.2 emissions module for each alternative and horizon year. The annual emissions are sorted by aircraft size category (i.e., Small, Large, and Heavy) and by operational mode, divided by the number of point sources used for each operational mode. The units are converted from tons/year into emissions in grams/second. Temporal factors, calculated from the SIMMOD data for each alternative, were used to convert the annual average emissions to maximum hourly emissions.

The temporal factors used in ISCST3 modeling for taxi/idle, approach, takeoff, and climbout are based on the actual hourly data for departures and arrivals as appropriate for each aircraft type. The hourly temporal factors are used for aircraft operation modes in the ISCST3 modeling since ISCST3 allows only one set of scaling factors per run.

The hourly temporal factors for departure were used for operation in climbout and queue mode. The queue temporal factors were calculated, for each queue position, using the hourly number of each aircraft type passing through each queue point, and the average hourly depth of queue. The depth of queue was determined through analysis of the SIMMOD model results developed for the LAX Master Plan. Data showing the arrival, departure, and queue aircraft assignments by alternative and horizon year are presented in Attachment U in *Technical Report 4*. The depth of the queue for each runway is based on the number of aircraft in each queue during hourly intervals. Fractions in the queue depth represent aircraft moving through the queue in a shorter time interval.

The taxi temporal factors were determined for each taxi point based upon the location of the taxi segment in the site layout drawings for each alternative and horizon year. Taxi points in arrival and departure segments were assigned arrival or departure temporal factors, respectively. For taxi points in segments

⁷ Brendmoen, J. V. and D. W. Netzer. *Atmospheric Dispersion of High Velocity Jets*. 1979.

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with cross traffic, a combination of the departure and the arrival temporal factors for each aircraft size was assigned. The combined (mixed) arrival and departure temporal factors used for taxi sources is given in Attachment D to *Technical Report 4*.

3.0 SUPPLEMENTAL MODELING RESULTS

Table 4, Unmitigated Peak One-Hour NO₂ Concentrations for On-Airport Sources, presents supplemental modeling results of the concentrations associated with each alternative in 2005 and 2015. The environmental baseline one-hour NO₂ concentrations are also included in this table. See Section 4.6, *Air Quality*, of the Draft EIS/EIR (Figures 4.6-2, through 4.6-7) for the location of maximum impact for the three build alternatives in 2005 and 2015. In this supplemental analysis, aircraft were modeled as described above and all other sources are modeled as described in Appendix G, *Air Quality Impact Analysis*.

Table 4

Unmitigated Peak One-Hour NO₂ Concentrations for On-Airport Sources (Including Background)

Year	CAAQS	Concentration (Including Background) ^{1,2}				
		Environmental Baseline	Alternative			
			NA/NP	A	B	C
2005	0.25 ppm (470 µg/m ³)	0.15 ppm (282 µg/m ³)	0.32 ppm (604 µg/m ³)	0.27 ppm (515 µg/m ³)	0.27 ppm (515 µg/m ³)	0.27 ppm (515 µg/m ³)
2015	0.25 ppm (470 µg/m ³)	0.15 ppm (282 µg/m ³)	0.33 ppm (617 µg/m ³)	0.14 ppm (269 µg/m ³)	0.17 ppm (312 µg/m ³)	0.17 ppm (325 µg/m ³)

ppm = parts per million by volume.

µg/m³ = micrograms per cubic meter.

CAAQS = California Ambient Air Quality Standard.

¹ Aircraft modeled as point sources in ISCST3, as indicated in Attachment A to *Technical Report 4*.

² Background (non-airport) one-hour NO₂ concentration estimated to be 0.0998 ppm (188 µg/m³) in 2005 and 0.0765 ppm (144 µg/m³) in 2015.

Source: Camp Dresser & McKee Inc., 2000.

Table 5, Mitigated Peak One-Hour NO₂ Concentrations for On-Airport Sources, presents supplemental modeling results of the concentrations after mitigation associated with each build alternative in 2005 and 2015.

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Table 5

Mitigated Peak One-Hour NO₂ Concentrations for On-Airport Sources (Including Background)

Year	CAAQS	Concentration (Including Background) ^{1,2}				
		Environmental	Alternative			
		Baseline	NA/NP	A	B	C
2005	0.25 ppm (470 µg/m ³)	0.15 ppm (282 µg/m ³)	0.32 ppm (604 µg/m ³)	0.23 ppm (433 µg/m ³)	0.23 ppm (433 µg/m ³)	0.23 ppm (433 µg/m ³)
2015	0.25 ppm (470 µg/m ³)	0.15 ppm (282 µg/m ³)	0.33 ppm (617 µg/m ³)	0.13 ppm (245 µg/m ³)	0.14 ppm (263 µg/m ³)	0.14 ppm (265 µg/m ³)

ppm = parts per million by volume.

µg/m³ = micrograms per cubic meter.

CAAQS = California Ambient Air Quality Standard.

¹ Aircraft modeled as point sources in ISCST3, as indicated in Attachment A to Technical Report 4.

² Background (non-airport) one-hour NO₂ concentration estimated to be 0.0568 ppm (188 µg/m³) in 2005 and 0.0765 ppm (144 µg/m³) in 2015.

Source: Camp Dresser & McKee Inc., 2000.