Appendix J1
LAX SPECIFIC PLAN AMENDMENT STUDY

Aircraft Noise

July 2012

Prepared for:

Los Angeles World Airports
One World Way
Los Angeles, California 90045

Prepared by:

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1. INTRODUCTION

This appendix provides explanations of key technical concepts associated with evaluating aircraft noise, a description of the computer noise model - the Federal Aviation Administration (FAA) Integrated Noise Model (INM), and descriptions of the technical assumptions used in the aircraft noise analysis for the SPAS alternatives.

2. INTEGRATED NOISE MODEL (INM)

Aircraft noise is analyzed using one or more computer models. To ensure a consistent approach to aircraft noise analyses, the FAA developed the INM, which is regularly updated for both aircraft noise characteristics and computational algorithms. The State of California recognizes the use of the FAA's INM as the most widely used aircraft noise model in the nation. Section 2.1 provides an overview of the INM, which is a planning tool designed to compare the relative effect of one set of conditions against those of another. Although differences between measured and modeled noise levels can occur, the relative variances between the two are expected to remain consistent over a series of modeled scenarios (i.e., the difference between measured baseline noise and measured future noise conditions [assuming this was feasible], would be the same as the difference between modeled baseline noise and modeled future noise conditions). Additional information regarding the comparison of modeled and measured noise levels is provided in Section 2.2 below. Therefore, the FAA requires noise exposure based on modeled via INM rather than measured data for its evaluations of changes in aircraft operating conditions or operating scenarios at an airport.[1] While modeled and measured do not always match precisely, it is the most comprehensive and reliable approach given the limitations described above and the geographic scope of the analysis.

Modeled aircraft Community Noise Equivalent Level (CNEL) noise exposure maps are used as planning tools to allow the comparison of different scenarios of operations over a broad geographical area. For the purposes of this CEQA analysis, the principal use for the aircraft noise modeling was to develop the baseline (2009) conditions and the future (2025) conditions at buildout of the SPAS alternatives.

2.1 INM Model Overview

The INM is the accepted, state-of-the-art tool for determining the total effect of aircraft noise exposure at and around airports. The following describes the model, its limitations, and the inputs required for analyzing aircraft noise. The INM has been the FAA's standard tool for determining the predicted noise impact in the vicinity of airports since 1978, and recognized by the State of California. Statutory requirements for INM use are defined in FAA Order 1050.1E, Policies and Procedures for Considering Environmental Impacts, and FAR Part 150, Airport Noise Compatibility Planning.

The INM uses runway and flight track information, operation levels distributed by time of day, aircraft fleet mix, and aircraft profiles as inputs. The INM calculates noise exposure levels at a series of "noise grids," and produces noise exposure contours based on the grid results, including CNEL, Day-Night Average Sound Level (DNL), Maximum Noise Level (L_{max}), Equivalent Noise Level (L_{eq}), Sound Exposure Level (SEL), and Time Above (TA).[2] In addition, the INM can compute noise at specific points on the ground (e.g., residences, schools, places of worship, and other non-residential noise-sensitive facilities).

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1 FAA Order 1050.1E Appendix A Section 14 Paragraph 14.2b.

2 INM computes noise exposure contours on a rectangular grid of irregularly spaced points. The degree to which the grid is subdivided is dependent on two parameters called Refinement and Tolerance. Refinement refers to the number of levels the grid is subdivided into and has an allowable range between 4 and 18. The greater the refinement level, the greater the number of subdivisions (i.e., the smaller the size of the subdivisions). Tolerance determines whether further subdivision is needed between two grids. Tolerance is the test value used to subdivide a grid measured in decibels or minutes (for the Time Above metric) and has an allowable range between 0.01 and 10. If the difference between noise levels for two grids exceeds the tolerance level setting, INM will add another grid between the two. Greater values of refinement and smaller values of tolerance generate more resolute, higher fidelity grids and longer run times.

The INM was used to model noise exposure levels of flight operations arriving and departing from the airport. Within the INM program, there are three elements which process the input data in the following order:

1. Flight Module: Definition of three-dimensional (3D) flight trajectories with associated aircraft performance characteristics. (application of user defined routes and the INM-provided aircraft performance flight profile database, which defines the 3D trajectory of an aircraft based on the distance, altitude, speed, and thrust settings defined at many locations along a profile)
2. Noise-Power-Distance (NPD) Database: NPD values and curves based on FAR Part 36 measured certification flights and based on Society of Automotive Engineers (SAE) methodology standards. The curves indicate the level of single event noise based on the level of thrust used and how far the aircraft is along a given flight path from a receiver on the ground.
3. Acoustic Module: Sound propagation algorithms approved for use by the scientific community (e.g., SAE) to account for reduction in noise levels based the distance traveled, atmospheric conditions, and source-to-receiver geometry.

Aircraft are modeled on 3D flight trajectories that approximate how they fly in the real world, with the appropriate altitude, flight speed and thrust setting at defined points and the flight segments that connect those defined points along the flight route. This is important, because at the core of the INM is the NPD database, which contains the source sound levels for all aircraft as a function of aircraft thrust and distance along the flight path. As a result, modeling requires not only placing aircraft at the correct 3D location in the air, but also requires that the aircraft speed and thrust values be matched appropriately in order to extract the correct sound level value from the NPD database. Finally, once the appropriate aircraft sound level is selected from the NPD, the INM estimates the sound level at receiver points on the ground using the sound propagation algorithms in the acoustic module.

The most current version at the time the noise analysis was performed was INM Version 7.0b (released September 29, 2009).[3] The FAA has made available detailed information related to the updates to INM 7.0b via release notes located on its website:

http://www.faa.gov/about/office_org/headquarters_offices/apl/research/models/inm_model/

2.2 Noise Modeling Reliability

Analytical noise models have some limitations and the results should only be considered as an estimate of the long-term predicted cumulative noise levels for purposes of planning, and gaining scientifically-based insight on potential changes to aircraft noise caused by a proposed change at an airport or to a flight procedure. The FAA recognizes the strengths and weaknesses of noise modeling and the resulting noise contours, starting with the following statements made two decades ago:

> Noise contours provide the important guidance necessary to make sensible zoning and planning decisions, avoiding incompatible land use in areas of high noise. Noise contours especially at lower levels, can be visualized as somewhat fuzzy bands which become more and more discrete and sharp as the exposure increase. For example, a DNL 55 contour would be rather fuzzy, while a DNL 75 line would be sharply in focus. In effect, the confidence one has in a noise contour and its interpretation increases as the exposure increases. It is therefore worthwhile to review the strengths and potential weaknesses of noise contours in representing noise impact. It is worth noting that these

[3] While a new version was released after the modeling was performed (INM 7.0c), this version contains "no new functionality" and would not substantively change the modeled conditions, the analysis, or conclusions.

> qualifications simply identify possible misinterpretations and do not detract from the important general planning strengths.[4]

The FAA position on the limitations and application of the INM is:

> INM is an average-value model. INM is designed to estimate long-term average effects using average annual input conditions. Because INM is not a detailed acoustics model, differences between predicted and measured values can and do sometimes occur because important local acoustical variables are not averaged, or because complicated physical phenomena are not explicitly modeled.[5]

The core calculation module in INM is based on the standards established by the SAE A-21 Aircraft Noise Committee. SAE A-21 comprises internationally recognized experts from the Federal agencies, research institutions, aircraft and engine manufacturers, engineering firms, and consulting organizations. The core modules in INM are based primarily on the standard documents produced by SAE A-21. SAE A-21 meets on a routine basis to peer-review proposed changes to data and the core calculation modules in the INM, and to propose new research aimed at improving the precision of the model and the accuracy of the results. In the most recent document produced by SAE A-21, the committee noted:

> Analytical models often have a 95% confidence interval of ±3 dB to ±5 dB. Therefore a difference of 3 dB between an estimate from measurements and one from an analytical model may not be significant. Neither estimate can be presumed to be the absolute: each has errors in the estimate it represents.[6]

The SAE A-21 statement on the confidence intervals for airport noise models is based on a comparison of model output to long-term cumulative noise levels from permanent noise monitoring systems.

The European Civil Aviation Conference (ECAC) provides an important perspective on the strengths and weaknesses of airport noise modeling and accuracy requirements in the following excerpts from their latest guidance document on airport noise modeling:

> What is an acceptable approach is dictated not only by the accuracy required but also by the resources available, and inevitably some compromise is necessary - involving some streamlining of the modeling process. The major practical simplifications are (1) to make best use of readily accessible data (for example to rely on flight path data from airport radar monitoring rather than flight data recorded on the aircraft), (2) to assume uniform average atmospheric conditions appropriate to the specific airport and time period (seasons), and (3) to group aircraft operations into classes, each of which can be represented by an average or typical operation. Other economies can be achieved by (4) focusing on factors that are most significant with respect to noise. Thus for example, whilst an airport might be used by a large number of different aircraft types/variants, most of the total sound energy is likely to come from just a handful of them - normally those of operators with bases at the airport. It is thus most efficient to concentrate effort on those types and cover the remainder in a less precise manner.[7]

And:

> The end product is generally one or more sets of aircraft noise contours that depict the extent of noise impact upon the community. The required quality of the product has to be

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4 U.S. Department of Transportation, Federal Aviation Administration, Report No. FAA-EE-85-2, Section 13, "Aviation Noise Effects", March 1985, 2nd printing.

5 U.S. Department of Transportation, Federal Aviation Administration, Integrated Noise Model (INM) 7.0 User's Guide, Section 2.1.2, 2007.

6 Society of Automotive Engineers, SAE ARP4721 - Part 1, Monitoring Aircraft Noise and Operations in the Vicinity Of Airports: System Description, Acquisition, and Operation, Section 7.7.1, Issued 2006-08.

7 ECAC.CEAC Doc 29 - 3rd Edition, Report on Standard Method of Computing Noise Contours around Civil Airports, Volume 1: Applications Guide, Section 5, December 2005.

> measured against performance criteria that need to be agreed before the modeling can begin; these in turn depend on the end-user's needs…Although perfect accuracy might seem to be the ultimate goal, it is clear that this is presently elusive or at least in most cases unaffordable. Quality assurance processes need to cope with imperfections of the real world and provide a reasonable guarantee that products meet customer needs. They rely upon predefined quality criteria which are judged relevant by the customer and apply to specific parts/characteristics of the product or of the production process.[8]

As described further below, the best available data were used to develop baseline (2009) conditions INM input data for the SPAS aircraft noise analysis. The baseline (2009) conditions INM input served as a starting point to assess future (2025) aircraft noise levels for each of the SPAS alternatives. The adjustments are described in the following sections.

The aircraft noise analysis completed for the SPAS EIR is intended and designed to delineate how the baseline (2009) noise conditions would change under each SPAS alternative. The analysis of each SPAS alternative includes an anticipated increase in future passenger activity at LAX, which is forecast to increase from approximately 56.5 million annual passengers (MAP) in 2009 to 78.9 MAP by 2025. Future (2025) CNEL noise exposure contour mapping for SPAS alternatives was developed as a tool to assist in the assessment of aircraft noise impacts around the airport as compared to baseline (2009) conditions. CNEL calculations provide valid comparisons between different future conditions as long as consistent assumptions and basic data are used for all calculations. CNEL comparisons show anticipated changes in aircraft noise exposure over time and identify the potential effects of various alternatives on anticipated aircraft noise exposure. However, a line drawn on a map does not imply that a particular noise condition exists on one side of the line and not on the other. For the purposes of this analysis, CNEL calculations are best viewed as a means for comparing noise effects, not for precisely defining them relative to specific parcels of land or mitigation boundaries.

2.3 INM Input Data and Assumptions

In order for the INM to generate CNEL aircraft noise exposure contours, the following inputs to the model are required:

1. A basic description of the airfield, including elevation, average annual temperature, and runway layout.
2. Aircraft activity input, including the average annual day (AAD) number of aircraft operations by time of day and aircraft type.
3. Flight pattern input, including use of the runways, location and use of flight tracks, departure and arrival profiles, and existing noise abatement procedures.

The last two categories of data are discussed in more detail below.

2.3.1 Aircraft Activity Input

The INM requires the following input data regarding the character and timing of operations at an airport:

- The average annual number of flights each day by aircraft type, such as Boeing 757 (757PW), Gulfstream IV corporate jet (GIV), or Cessna 172 single-engine propeller aircraft (CNA172);
- Time of day the flights occurred; and
- Distance the aircraft is traveling ("stage length" to determine aircraft weight).

Each of these input factors is discussed below, along with the concept of AAD.

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[8] ECAC.CEAC Doc 29 - 3rd Edition, Report on Standard Method of Computing Noise Contours around Civil Airports, Volume 1: Applications Guide, Section 9.3, December 2005.

2.3.2 Average Annual Day Activity Levels

For CNEL aircraft noise exposure calculations, aircraft operations associated with the AAD are used in the INM. The number of annual operations by each INM aircraft type is divided by 365 to arrive at the AAD level. This representation of airport activity does not reflect any particular day, but gives an accurate picture of the character of operations throughout the year. Use of AAD is required by the FAA for aircraft noise modeling.

2.3.3 Operations by Aircraft Type

Different aircraft types vary dramatically in the amount of noise they generate. The noise level estimates are documented in FAA Advisory Circular 36-3H, Estimated Airplane Noise Levels in A-Weighted Decibels (November 2001 as amended), and are based on certificated aircraft noise levels measured at three points: 21,326 feet (6,500 meters) from the start of the takeoff roll (departure); 6,562 feet (2,000 meters) from the threshold on an extended centerline of the runway (arrival); and a point on a line parallel to and 1,476 feet (450 meters) from the extended centerline of the runway. Aircraft noise characteristics can be classified according to Federal noise level standards specified in FAR Part 36, Noise Standards, Aircraft Type and Airworthiness Certification, as meeting Stage 1 (noisiest), Stage 2 (quiet), Stage 3 (quieter) or Stage 4 (quietest) standards. FAR Part 91, General Operating and Flight Rules, specifies that after December 31, 1999, no person may operate a Stage 2 aircraft over 75,000 pounds in the contiguous United States. As a result of this ruling, all aircraft over 75,000 pounds that operated at an airport must meet FAR Part 36 Stage 3 standards. However, FAR Part 36 Stage 2 general aviation jet aircraft that weigh less than 75,000 pounds are exempt from this requirement. This includes a number of small jets operated by businesses and individuals.

The INM aircraft database includes information for most, but not all, aircraft types. Therefore, substitutions are often necessary as a means to identify equivalent aircraft for those aircraft that are not included in the database. The FAA has developed a list of pre-approved aircraft substitutions for use in the INM.

2.3.4 Time of Day of Flight Activity

As noted above, the CNEL metric applies different weighting penalties to aircraft operations during the evening or nighttime hours. Therefore, the average annual daily numbers of operations by aircraft type during the evening and nighttime periods are required inputs to the INM. Due to the CNEL weighting scheme, evening and nighttime operations have a greater potential effect on the shape and size of the noise exposure area than their number might suggest. In the calculation of CNEL, one operation during the evening hours is equivalent to three operations and one operation during the nighttime hours is equivalent to 10 daytime operations.

2.3.5 Stage Length and Gross Aircraft Weight

Stage length (unrelated to "stage" classifications of aircraft for noise characteristics) refers to the non-stop distance an aircraft travels after departing from an airport. The stage length determines the gross takeoff weight assigned to each aircraft type. The aircraft weight serves as the basis for determining the appropriate departure altitude and thrust profiles used for INM modeling purposes. Aircraft noise characteristics vary depending on altitude and thrust. For example, a fully-loaded aircraft departing on a long flight would probably weigh more than the same aircraft departing on a shorter flight due to a higher fuel load. The heavier aircraft gains altitude at a slower rate than the lighter aircraft. The heavier aircraft may also require use of higher takeoff thrust levels for a longer period of time. Thrust levels and distances from the ground are two important factors related to noise levels heard by residents. The more power applied to the engines, the louder the noise is from the source. The closer the aircraft is to the ground, the shorter distance there is for attenuation. INM provides multiple stage lengths for larger aircraft departures. Most small aircraft only have one departure stage length profile included in the INM. All arrivals, regardless of aircraft type, have one single approach stage length, because of similarities expected in the final approach profile (e.g., all should be following a three-degree glide slope).

2.3.6 Flight Pattern Input

The baseline (2009) and predicted future (2025) use of the runways and flight tracks to and from an airport directly influence where aircraft noise is experienced on the ground. The following sections describe how both variables are accounted for in INM.

2.3.7 Runway Use

In the INM, runways are defined by runway end in terms of latitude and longitude coordinates. A runway may include a displaced take-off or landing threshold. This portion of the runway is defined to be unavailable for that type of operation for safety or noise reasons (e.g., obstruction clearance). Displaced thresholds are identified in the INM, which uses the input to determine actual start-of-take-off or touchdown points along the runway.

Runway use for departures or arrivals is typically a function of prevailing wind and weather; lengths and widths of the runways; runway instrumentation; operational demand, and effects of other airports or air traffic facilities in the area. Runway use may also be influenced by the direction of flight of an arriving or departing aircraft; the aircraft parking position; and/or periodic closures of runways and taxiways. Finally, noise abatement procedures may also influence runway use at an airport.

2.3.8 Aircraft Flight Tracks and Flight Track Use

Once aircraft leave a runway on departure or while approaching a runway on arrival, their location and altitude over surrounding communities becomes a determining factor in how much noise is experienced on the ground. For this reason, flight track information is an important input to the INM. Most pilots fly their aircraft in predictable patterns as they follow instructions from FAA Airport Traffic Control handling their movements into or away from an airport.

Flight tracks are defined to represent the typical paths of the large majority of aircraft located throughout the study area. When using INM, these flight tracks are specified to capture the complexity of the actual flight patterns by representing the center of a specific flow of traffic, and dispersed tracks linked to the center track to account for the width. Flight tracks are defined in INM before aircraft operations can be entered. The number of operations is entered for each aircraft type, runway, and flight track for an AAD condition.

2.3.9 Flight Climb and Descent Profiles

A flight profile describes the change in altitude that an aircraft undergoes as it departs or approaches a runway. The INM specifies standard departure profiles for each aircraft type in the database, and for various gross weights of the larger aircraft. For arrivals, a three-degree descent that is typical for most flights is assumed in the INM. Where flight procedures at an airport differ substantially from the profiles available in the INM, the analyst has the option of defining a customized profile to reflect nonstandard flight procedures. Any customized profiles constructed require FAA approval before use in a federally-reviewed noise analysis.

For this analysis, standard profiles provided in the INM were used to calculate aircraft noise exposure, but were extended to account for higher altitudes. This is appropriate when the alternatives would not affect air traffic procedures and meet the need to assess aircraft noise farther from an airport, which is the case for the baseline (2009) conditions and the other alternatives.

3. SPAS AIRCRAFT NOISE MODELING DATA AND ASSUMPTIONS

3.1 Baseline (2009) Conditions

3.1.1 Data Sources and Assumptions

LAWA has an automated noise and operations monitoring system that captures information for aircraft flight activity at LAX. The LAX system accesses the FAA's Automated Radar Terminal System (ARTS) records and obtains information about the locations (in 3D) and identification of aircraft arriving to and departing from the airport. LAWA maintains records of all activity and produces monthly reports, which are released to the public through its website[9] http://www.lawa.org/lax/ (follow the News and Facts link, then the Statistics link, and then the Volume of Air Traffic link). For this EIR, LAWA provided the entire calendar year (CY) 2009 flight data, which was the primary data source for the baseline (2009) conditions aircraft noise analysis. The elements of this analysis are described below.

3.1.1.1 Runway Definitions and Utilization

The airfield has four runways: 6L/24R, 6R/24L, 7L/25R, and 7R/25L. Runways 6L/24R and 6R/24L are defined as the north airfield complex and Runways 7L/25R and 7R/25L are defined as the south airfield complex. The LAX taxiway system is characterized by dual parallel taxiways that border the main terminal area, which is located between the north and south airfields. The north airfield has one full parallel taxiway, Taxiway E, located south of Runway 6R/24L, and Taxilane D, that parallels the eastern half of the north airfield. The south airfield has two parallel runways. Taxiways B and Taxilane C parallel the north side of Runway 7L/25R and extend beyond the runway to the west. Taxiway H is located between the two runways in the south airfield. Taxiway A is south of and parallel to Runway 7R/25L. Both the north and south airfields are served by multiple connector taxiways that connect the runways with the parallel taxiways and the parallel taxiways with the aircraft parking areas.

Runway end utilization refers to the percent of operations carried by a particular runway end for departures or arrivals. The percentage usage of the existing runways during CY 2009 was based on information provided by LAWA's flight data through analysis of records of flight operations appearing on radar managed by the FAA Airport Traffic Control Tower staff at LAX. Each arrival and departure operation during the day (7:00 a.m. to 6:59 p.m.), evening (7:00 p.m. to 9:59 p.m.), and night (10:00 p.m. to 6:59 a.m.) was determined by the processing software and allocated to the appropriate runway end. The overall runway end utilization percentages recorded for CY 2009 are provided in **Table 1**. The table indicates that approximately 99 percent of all departures during 2009 were made to the west, while 95 percent of all arrivals were made from the east. The data further indicates that during the hours between 10:00 p.m. and 7:00 a.m., nearly 27 percent of all arrivals were made from the west over the ocean. Between midnight and 6:30 a.m., Over-Ocean procedures are used. These procedures result in most arrivals during those hours being made from the west while nearly all departures are made to the west. It should be noted that a large number of arrivals occur between 10:00 p.m. and midnight, before Over-Ocean approach procedures come into effect. During Over-Ocean procedures, a majority of the arrivals are made to the inboard runway in the north airfield (Runway 6R) and departures are made from the inboard runway in the south airfield (Runway 25R), although arrivals can land on Runway 6L and departures can takeoff from Runway 24L.

[9] City of Los Angeles, Los Angeles World Airports, LAX Statistics - Volume of Air Traffic, Available: www.lawa.org/LAXStatistics.aspx.

Table 1

Year 2009 Conditions Runway Utilization Percentages

	Landings				Takeoffs			
Runway	**Day**	**Eve**	**Night**	**Total**	**Day**	**Eve**	**Night**	**Total**
6L	0.55%	0.30%	2.62%	0.78%	0.03%	0.01%	0.01%	0.02%
6R	0.01%	0.00%	12.50%	1.67%	0.44%	0.26%	0.18%	0.37%
7L	0.01%	0.00%	10.52%	1.40%	0.70%	0.36%	0.88%	0.69%
7R	0.61%	0.30%	1.80%	0.71%	0.04%	0.03%	0.11%	0.05%
24L	1.03%	1.39%	0.45%	1.02%	46.10%	50.00%	22.07%	42.00%
24R	47.26%	46.99%	24.94%	44.24%	1.66%	0.91%	1.12%	1.47%
25L	49.23%	48.80%	46.09%	48.73%	2.92%	5.39%	3.55%	3.31%
25R	1.30%	2.22%	1.07%	1.45%	48.12%	43.03%	72.08%	52.08%
Total	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**

Notes:

Day: 7:00 a.m. to 6:59 p.m., Eve: 7:00 p.m. to 9:59 p.m., Night: 10:00 p.m. to 6:59 a.m.
Totals may not add to 100 percent due to rounding.

Source: Ricondo & Associates, Inc., 2012, based on LAWA 2009 flight data.

3.1.1.2 Flight Tracks

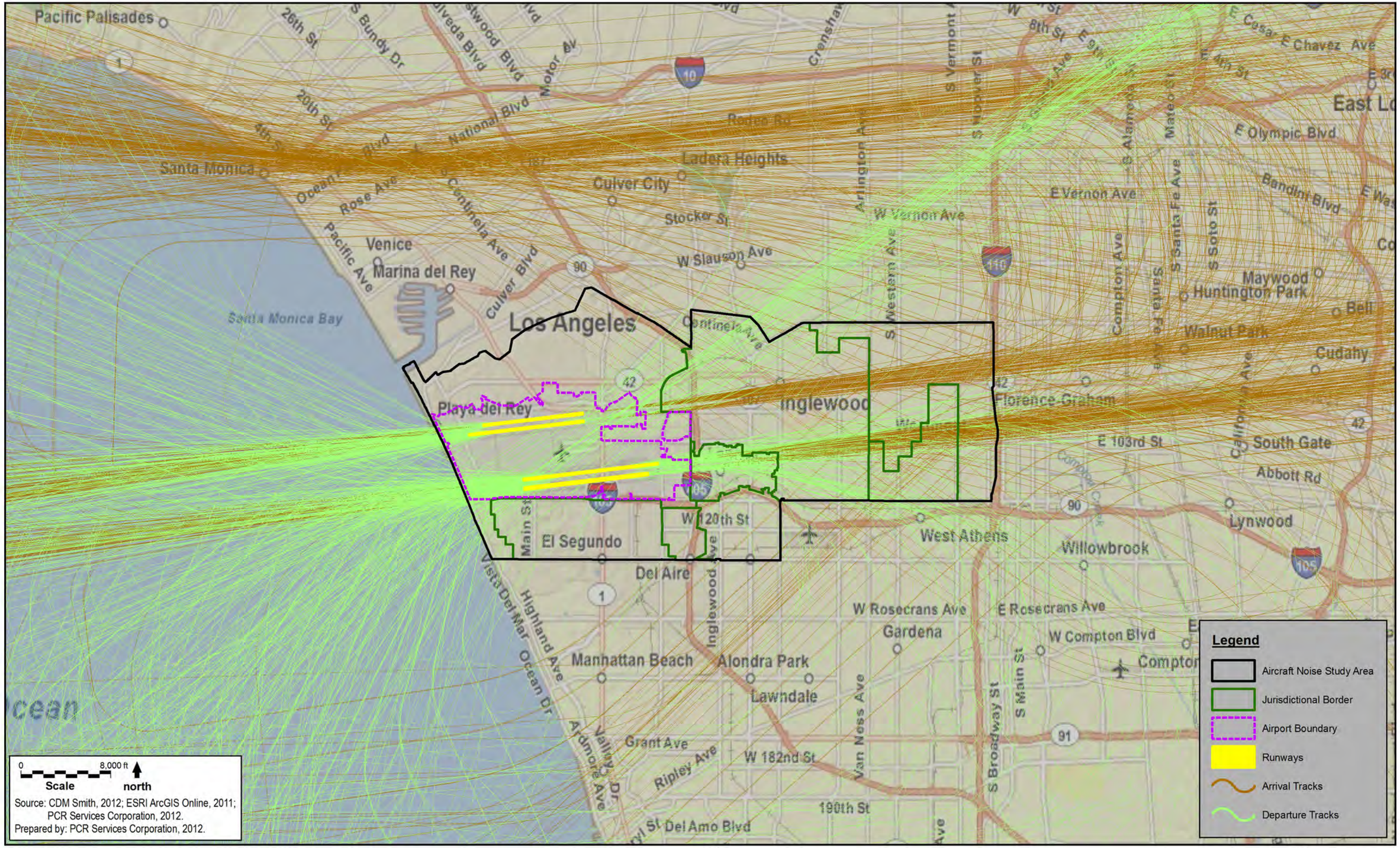
Flight tracks are the paths aircraft follow over the ground on approach to and departure from an airport. LAWA provided a series of nominal representative INM tracks developed for the purposes of the ongoing FAR 161 Study,[10] which were based on the entire CY 2008 radar track data. Because flight patterns to/from the airport did not change, use of the INM flight track location and utilization by aircraft category from the 2008 INM study is reasonable. INM tracks were developed based on the following aircraft categories:

- NJT = Non-Jet Aircraft
- SJT = Small Jet Aircraft
- SNB = Small Narrow-Body Aircraft
- LNB = Large Narrow-Body Aircraft
- SWB = Small Wide-Body Aircraft
- LWB = Large Wide-Body Aircraft
- NLA = New Large Aircraft

For the purposes of this analysis, heavy aircraft are aircraft over 300,000 pounds maximum takeoff weight (does not include the Boeing 757) and are incorporated in the SWB, LWB, and NLA categories.

Nominal tracks are meant to represent a number of similar flight paths or a "flight corridor," and the utilization present the frequency in which the "flight corridor" is used to/from each runway. The assigned flight operations to the flight track are then stored with the record of each operation based on the runway use for each aircraft. The flight tracks used in modeling noise exposure patterns for baseline (2009) conditions are presented in **Figure 1**.

[10] City of Los Angeles, Los Angeles World Airports, LAX Part 161 Noise Study, Available: http://www.laxpart161.com/en/.



LAX Specific Plan Amendment Study Draft EIR	Baseline (2009) Conditions Flight Tracks	Figure 1

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Proprietary software was used to automatically assign traffic for each runway to all the consolidated flight tracks for all INM aircraft types based on the track utilization. **Table 2** provides the percentage of total arrival or departure utilization of each flight track for the year 2009 condition.

3.1.1.3 Aircraft Performance

The INM provides a database of aircraft landing and takeoff performance characteristics for each aircraft type. These are based on standard conditions (sea level and 59 degrees Fahrenheit). For departing aircraft, the takeoff roll requirements and rate of climb are determined by aircraft weight, elevation, and temperature. The INM uses the distance an aircraft flies to its initial destination as a surrogate for the weight of the aircraft. The model adjusts the takeoff database information to reflect average airport temperature, humidity, and airport elevation conditions. For these evaluations, the elevation (125 feet above sea level), the average annual temperature (63 degrees Fahrenheit), and the average annual humidity (72 percent) applicable at LAX for 2009 were used.

A common 3-degree approach procedure is provided within the database of the model that may be assigned to all aircraft. Where the final instrument approach slope is 3 degrees, this standard is used. Three degree descent profiles provided by the model were used for all runways, as verified by examination of the published instrument landing procedures presented in the Jeppesen Airway Manuals. Jeppesen Airway Manuals are a resource used by pilots to provide aeronautical information in a graphic format.

Table 2

Flight Track Utilization Percentages - Baseline (2009) Conditions

Arrivals (East and West Flow)						Departures (East and West Flow)					
Rwy	**Track**	**Day**	**Eve**	**Night**	**Total**	**Rwy**	**Track**	**Day**	**Eve**	**Night**	**Total**
6L	LN_CIV1	0.01%	0.01%	0.19%	0.03%	6L	NJ_FIM	0.00%	0.00%	0.00%	0.00%
6L	LN_CIV2	0.01%	0.01%	0.17%	0.03%	6L	NJ_GMN	0.01%	0.00%	0.00%	0.00%
6L	LN_CIV3	0.00%	0.00%	0.04%	0.01%	6L	SN_LUP	0.02%	0.01%	0.01%	0.02%
6L	LN_STR	0.01%	0.01%	0.23%	0.04%	6R	LN_GMN	0.02%	0.00%	0.02%	0.02%
6L	LW_CIV1	0.07%	0.02%	0.62%	0.13%	6R	LN_GMN2	0.02%	0.00%	0.02%	0.02%
6L	LW_FIM	0.01%	0.00%	0.09%	0.02%	6R	LW_LUP	0.01%	0.01%	0.00%	0.01%
6L	NJ_CAS	0.03%	0.01%	0.04%	0.03%	6R	LW_LUP1	0.00%	0.01%	0.00%	0.00%
6L	NJ_WAK	0.03%	0.01%	0.04%	0.03%	6R	NJ_FIM	0.04%	0.04%	0.01%	0.03%
6L	SJ_CIV	0.01%	0.01%	0.03%	0.01%	6R	NJ_GMN	0.02%	0.02%	0.01%	0.02%
6L	SJ_FIM	0.09%	0.05%	0.18%	0.10%	6R	SJ_GMN	0.07%	0.04%	0.01%	0.06%
6L	SN_CIV1	0.14%	0.07%	0.34%	0.15%	6R	SJ_LUP	0.03%	0.02%	0.01%	0.02%
6L	SN_CIV2	0.01%	0.00%	0.01%	0.01%	6R	SN_GMN	0.08%	0.05%	0.02%	0.07%
6L	SN_FIM	0.12%	0.06%	0.29%	0.13%	6R	SN_LUP	0.13%	0.08%	0.04%	0.11%
6L	SN_OCN	0.01%	0.00%	0.02%	0.01%	6R	SW_N1	0.01%	0.00%	0.01%	0.01%
6L	SW_CIV	0.00%	0.01%	0.20%	0.03%	7L	LN_BLH1	0.02%	0.00%	0.01%	0.01%
6L	SW_N1	0.00%	0.01%	0.13%	0.02%	7L	LN_BLH2	0.04%	0.01%	0.02%	0.03%
6R	LN_CIV1	0.00%	0.00%	0.48%	0.06%	7L	LN_LUP	0.01%	0.00%	0.00%	0.00%
6R	LN_CIV2	0.00%	0.00%	0.18%	0.02%	7L	LN_VTU	0.06%	0.01%	0.04%	0.05%
6R	LN_FIM	0.00%	0.00%	0.13%	0.02%	7L	LW_GMN	0.00%	0.00%	0.00%	0.00%
6R	LN_STR	0.00%	0.00%	2.56%	0.34%	7L	LW_LUP	0.00%	0.00%	0.00%	0.00%
6R	LW_CIV	0.00%	0.00%	0.49%	0.07%	7L	LW_SXC	0.01%	0.01%	0.02%	0.01%
6R	LW_CIV1	0.00%	0.00%	0.28%	0.04%	7L	LW_SXC1	0.00%	0.00%	0.01%	0.00%
6R	LW_FIM1	0.00%	0.00%	1.89%	0.25%	7L	LW_VTU	0.04%	0.05%	0.14%	0.06%
6R	LW_FIM2	0.00%	0.00%	0.56%	0.07%	7L	NJ_BLH1	0.02%	0.02%	0.01%	0.02%
6R	LW_STR	0.00%	0.00%	0.14%	0.02%	7L	NJ_BLH2	0.02%	0.02%	0.01%	0.02%
6R	NJ_CAS	0.00%	0.00%	0.03%	0.00%	7L	SJ_BLH	0.07%	0.05%	0.03%	0.06%
6R	NJ_SAU	0.00%	0.00%	0.28%	0.04%	7L	SJ_LUP	0.03%	0.02%	0.01%	0.03%
6R	NJ_WAK1	0.00%	0.00%	0.03%	0.00%	7L	SJ_VTU	0.04%	0.03%	0.02%	0.04%
6R	NJ_WAK2	0.00%	0.00%	0.11%	0.02%	7L	SN_BLH	0.16%	0.07%	0.12%	0.14%
6R	SJ_CIV	0.00%	0.00%	0.43%	0.06%	7L	SN_N1	0.02%	0.01%	0.02%	0.02%
6R	SJ_FIM	0.00%	0.00%	0.33%	0.04%	7L	SN_VTU	0.10%	0.05%	0.07%	0.09%
6R	SN_CIV1	0.00%	0.00%	2.07%	0.28%	7L	SW_BLH	0.02%	0.00%	0.02%	0.02%
6R	SN_FIM	0.00%	0.00%	0.47%	0.06%	7L	SW_N1	0.01%	0.00%	0.01%	0.01%
6R	SW_CIV	0.00%	0.00%	0.93%	0.12%	7L	SW_VTU	0.02%	0.00%	0.02%	0.02%
6R	SW_FIM	0.00%	0.00%	0.13%	0.02%	7R	LN_BLH1	0.00%	0.00%	0.00%	0.00%
6R	SW_N1	0.00%	0.00%	0.99%	0.13%	7R	LW_BLH	0.00%	0.00%	0.00%	0.00%
7L	LN_CIV2	0.00%	0.00%	0.78%	0.10%	7R	LW_LUP	0.00%	0.00%	0.00%	0.00%
7L	LN_STR	0.00%	0.00%	3.53%	0.47%	7R	LW_VTU	0.00%	0.00%	0.02%	0.01%
7L	LW_CIV1	0.00%	0.00%	0.23%	0.03%	7R	NJ_BLH1	0.00%	0.01%	0.00%	0.00%

Table 2

Flight Track Utilization Percentages - Baseline (2009) Conditions

Arrivals (East and West Flow)						Departures (East and West Flow)					
Rwy	**Track**	**Day**	**Eve**	**Night**	**Total**	**Rwy**	**Track**	**Day**	**Eve**	**Night**	**Total**
7L	LW_CIV2	0.00%	0.00%	0.90%	0.12%	7R	NJ_BLH2	0.01%	0.01%	0.00%	0.01%
7L	LW_FIM	0.00%	0.00%	1.35%	0.18%	7R	SJ_H20	0.01%	0.01%	0.01%	0.01%
7L	LW_STR	0.00%	0.00%	0.45%	0.06%	7R	SN_BLH	0.00%	0.00%	0.01%	0.00%
7L	NJ_SAU	0.00%	0.00%	0.31%	0.04%	7R	SW_N1	0.00%	0.00%	0.00%	0.00%
7L	SJ_CIV1	0.00%	0.00%	0.15%	0.02%	7R	SW_N2	0.00%	0.00%	0.01%	0.00%
7L	SJ_CIV2	0.00%	0.00%	0.09%	0.01%	24L	LN_GMN	0.06%	0.01%	0.07%	0.06%
7L	SJ_FIM	0.00%	0.00%	0.03%	0.00%	24L	LN_GMNX	0.00%	0.00%	0.00%	0.00%
7L	SN_CIV2	0.00%	0.00%	0.10%	0.01%	24L	LN_LUP	1.00%	0.12%	1.08%	0.92%
7L	SN_FIM	0.00%	0.00%	0.20%	0.03%	24L	LN_LUPX	0.00%	0.00%	0.00%	0.00%
7L	SN_OCN	0.00%	0.00%	0.10%	0.01%	24L	LN_MZB1	1.08%	0.13%	1.17%	1.00%
7L	SW_CIV1	0.00%	0.00%	1.27%	0.17%	24L	LN_MZB1X	0.00%	0.00%	0.00%	0.00%
7L	SW_N1	0.00%	0.00%	1.02%	0.14%	24L	LN_MZB2	0.29%	0.03%	0.32%	0.27%
7R	LN_CIV1	0.03%	0.02%	0.12%	0.04%	24L	LN_MZB2X	0.00%	0.00%	0.00%	0.00%
7R	LN_STR	0.07%	0.05%	0.31%	0.10%	24L	LN_STR	0.78%	0.09%	0.85%	0.72%
7R	LW_CIV1	0.01%	0.00%	0.08%	0.01%	24L	LN_STRX	0.00%	0.00%	0.00%	0.00%
7R	LW_CIV2	0.01%	0.00%	0.08%	0.01%	24L	LW_GMN	0.09%	0.16%	0.12%	0.10%
7R	LW_CIV3	0.00%	0.00%	0.04%	0.01%	24L	LW_LUP	0.26%	0.47%	0.34%	0.30%
7R	LW_CIV4	0.01%	0.01%	0.16%	0.03%	24L	LW_MZB1	0.15%	0.27%	0.19%	0.17%
7R	LW_FIM	0.01%	0.01%	0.23%	0.04%	24L	LW_MZB2	0.36%	0.65%	0.47%	0.41%
7R	LW_STR	0.01%	0.00%	0.08%	0.01%	24L	LW_STR	0.86%	1.57%	1.13%	0.99%
7R	NJ_OCN	0.04%	0.02%	0.05%	0.04%	24L	LW_SXC	0.01%	0.02%	0.01%	0.01%
7R	NJ_WAK1	0.01%	0.01%	0.01%	0.01%	24L	NJ_GMN	2.17%	3.15%	1.21%	2.09%
7R	SJ_CIV1	0.04%	0.01%	0.03%	0.03%	24L	NJ_GMNX	0.00%	0.00%	0.00%	0.00%
7R	SJ_CIV2	0.04%	0.01%	0.03%	0.03%	24L	NJ_MPD	0.19%	0.27%	0.10%	0.18%
7R	SJ_FIM	0.01%	0.00%	0.01%	0.01%	24L	NJ_MPDX	0.00%	0.00%	0.00%	0.00%
7R	SJ_OCN	0.07%	0.02%	0.05%	0.06%	24L	NJ_PMD	0.33%	0.47%	0.18%	0.31%
7R	SN_CIV1	0.14%	0.07%	0.10%	0.12%	24L	NJ_PMDX	0.00%	0.00%	0.00%	0.00%
7R	SN_OCN	0.09%	0.04%	0.06%	0.07%	24L	NJ_VTU	2.51%	3.66%	1.40%	2.43%
7R	SW_CIV1	0.01%	0.01%	0.12%	0.03%	24L	NJ_VTUX	0.00%	0.00%	0.00%	0.00%
7R	SW_CIV2	0.01%	0.01%	0.12%	0.03%	24L	SJ_GMN	2.87%	2.53%	0.74%	2.44%
7R	SW_FIM	0.00%	0.00%	0.04%	0.01%	24L	SJ_GMNX	0.00%	0.00%	0.00%	0.00%
7R	SW_N1	0.01%	0.00%	0.07%	0.02%	24L	SJ_LUP	0.56%	0.49%	0.14%	0.47%
7R	SW_OCN	0.00%	0.00%	0.01%	0.00%	24L	SJ_LUPX	0.00%	0.00%	0.00%	0.00%
24L	LN_FIM	0.01%	0.02%	0.01%	0.01%	24L	SJ_MZB	0.29%	0.25%	0.07%	0.24%
24L	LN_STR	0.03%	0.08%	0.03%	0.04%	24L	SJ_MZBX	0.00%	0.00%	0.00%	0.00%
24L	LN_STR2	0.00%	0.01%	0.00%	0.01%	24L	SJ_STR	0.87%	0.77%	0.22%	0.74%
24L	LN_WAK	0.01%	0.02%	0.01%	0.01%	24L	SJ_STRX	0.00%	0.00%	0.00%	0.00%
24L	LW_FIM1	0.21%	0.31%	0.04%	0.21%	24L	SJ_TRN	2.19%	1.93%	0.56%	1.85%
24L	LW_FIM2	0.01%	0.02%	0.00%	0.01%	24L	SJ_TRNX	0.00%	0.00%	0.00%	0.00%
24L	LW_STR	0.04%	0.06%	0.01%	0.04%	24L	SJ_VNY	0.06%	0.05%	0.01%	0.05%

Table 2

Flight Track Utilization Percentages - Baseline (2009) Conditions

Arrivals (East and West Flow)						Departures (East and West Flow)					
Rwy	**Track**	**Day**	**Eve**	**Night**	**Total**	**Rwy**	**Track**	**Day**	**Eve**	**Night**	**Total**
24L	NJ_SAU	0.07%	0.07%	0.02%	0.06%	24L	SJ_VNYX	0.00%	0.00%	0.00%	0.00%
24L	NJ_WAK	0.08%	0.08%	0.03%	0.07%	24L	SN_GMN	5.54%	6.32%	2.27%	5.02%
24L	SJ_FIM	0.14%	0.15%	0.03%	0.13%	24L	SN_GMNX	0.00%	0.00%	0.00%	0.00%
24L	SJ_STR	0.03%	0.04%	0.01%	0.03%	24L	SN_LUP	6.52%	7.43%	2.67%	5.90%
24L	SN_FIM	0.17%	0.20%	0.11%	0.17%	24L	SN_LUPX	0.00%	0.00%	0.00%	0.00%
24L	SN_N1	0.20%	0.24%	0.14%	0.20%	24L	SN_MZB1	9.90%	11.28%	4.05%	8.95%
24L	SN_VIS	0.01%	0.01%	0.01%	0.01%	24L	SN_MZB1X	0.00%	0.00%	0.00%	0.00%
24L	SW_FIM	0.01%	0.02%	0.00%	0.01%	24L	SN_MZB2	0.88%	1.01%	0.36%	0.80%
24L	SW_N1	0.01%	0.02%	0.00%	0.01%	24L	SN_MZB2X	0.00%	0.00%	0.00%	0.00%
24L	SW_WAK	0.01%	0.04%	0.01%	0.02%	24L	SN_N1	5.54%	6.32%	2.27%	5.01%
24R	LN_FIM	0.36%	0.61%	0.32%	0.40%	24L	SN_N1X	0.00%	0.00%	0.00%	0.00%
24R	LN_STR	1.95%	3.30%	1.72%	2.17%	24L	SW_LUP	0.12%	0.09%	0.02%	0.10%
24R	LN_VIS	0.06%	0.10%	0.05%	0.07%	24L	SW_MZB	0.21%	0.16%	0.04%	0.17%
24R	LN_WAK	0.44%	0.74%	0.39%	0.49%	24L	SW_N1	0.42%	0.31%	0.08%	0.35%
24R	LW_FIM1	3.63%	3.57%	0.95%	3.27%	24R	LN_LUP	0.00%	0.00%	0.01%	0.01%
24R	LW_FIM2	0.50%	0.49%	0.13%	0.45%	24R	LN_MZB1	0.02%	0.00%	0.04%	0.02%
24R	LW_STR	0.81%	0.79%	0.21%	0.72%	24R	LN_MZB2	0.00%	0.00%	0.01%	0.00%
24R	LW_VIS	0.10%	0.09%	0.03%	0.09%	24R	LN_STR	0.00%	0.00%	0.00%	0.00%
24R	NJ_SAU	2.93%	2.27%	0.65%	2.50%	24R	NJ_GMN	0.24%	0.16%	0.13%	0.21%
24R	NJ_STR	0.04%	0.03%	0.01%	0.03%	24R	NJ_PMD	0.07%	0.05%	0.04%	0.06%
24R	NJ_VIS	0.07%	0.05%	0.02%	0.06%	24R	NJ_VTU	0.34%	0.22%	0.18%	0.30%
24R	NJ_WAK	2.68%	2.08%	0.60%	2.29%	24R	SJ_GMN	0.11%	0.05%	0.04%	0.09%
24R	SJ_FIM	6.39%	6.06%	1.92%	5.73%	24R	SJ_LUP	0.03%	0.01%	0.01%	0.02%
24R	SJ_STR	0.84%	0.79%	0.25%	0.75%	24R	SJ_STR	0.03%	0.01%	0.01%	0.02%
24R	SJ_TR1	0.44%	0.41%	0.13%	0.39%	24R	SJ_TR2	0.03%	0.01%	0.01%	0.02%
24R	SJ_VIS	0.09%	0.08%	0.03%	0.08%	24R	SJ_TRN	0.07%	0.03%	0.02%	0.06%
24R	SJ_VNY	0.12%	0.11%	0.04%	0.11%	24R	SN_GMN	0.14%	0.08%	0.13%	0.13%
24R	SN_FIM	13.12%	12.33%	8.76%	12.39%	24R	SN_LUP	0.12%	0.06%	0.10%	0.11%
24R	SN_N1	11.49%	10.79%	7.67%	10.85%	24R	SN_MZB1	0.22%	0.12%	0.20%	0.21%
24R	SN_VIS	0.47%	0.44%	0.31%	0.44%	24R	SN_MZB2	0.04%	0.02%	0.04%	0.04%
24R	SW_FIM	0.12%	0.29%	0.12%	0.15%	24R	SN_N1	0.18%	0.09%	0.16%	0.17%
24R	SW_N1	0.29%	0.70%	0.29%	0.37%	24R	SW_N1	0.01%	0.00%	0.00%	0.00%
24R	SW_VIS	0.01%	0.03%	0.01%	0.02%	25L	LN_GMN	0.01%	0.04%	0.02%	0.02%
24R	SW_WAK	0.34%	0.81%	0.34%	0.43%	25L	LN_LUP	0.03%	0.12%	0.06%	0.05%
25L	LN_FIM1	0.10%	0.14%	0.12%	0.11%	25L	LN_MZB1	0.12%	0.42%	0.20%	0.17%
25L	LN_FIM2	0.02%	0.03%	0.02%	0.02%	25L	LN_MZB2	0.03%	0.10%	0.05%	0.04%
25L	LN_STR	7.14%	10.12%	8.80%	7.92%	25L	LN_STR	0.01%	0.05%	0.02%	0.02%
25L	LN_VIS	0.52%	0.73%	0.64%	0.57%	25L	LW_GMN	0.03%	0.12%	0.07%	0.04%
25L	LN_WAK1	0.40%	0.57%	0.50%	0.45%	25L	LW_LUP	0.01%	0.04%	0.02%	0.01%

Table 2

Flight Track Utilization Percentages - Baseline (2009) Conditions

Arrivals (East and West Flow)						Departures (East and West Flow)					
Rwy	**Track**	**Day**	**Eve**	**Night**	**Total**	**Rwy**	**Track**	**Day**	**Eve**	**Night**	**Total**
25L	LN_WAK2	0.03%	0.04%	0.04%	0.03%	25L	LW_MZB1	0.14%	0.65%	0.36%	0.24%
25L	LW_FIM1	0.88%	0.62%	1.01%	0.85%	25L	LW_MZB2	0.02%	0.11%	0.06%	0.04%
25L	LW_FIM2	0.03%	0.02%	0.03%	0.03%	25L	LW_STR	0.12%	0.58%	0.32%	0.21%
25L	LW_STR	1.99%	1.40%	2.29%	1.92%	25L	LW_STR1	0.02%	0.08%	0.05%	0.03%
25L	LW_VIS	1.42%	0.99%	1.63%	1.36%	25L	LW_STR2	0.09%	0.44%	0.24%	0.16%
25L	NJ_MPD	0.92%	0.64%	0.51%	0.82%	25L	LW_STR3	0.08%	0.37%	0.20%	0.13%
25L	NJ_SAU	0.47%	0.33%	0.26%	0.42%	25L	NJ_GMN	0.02%	0.01%	0.02%	0.02%
25L	NJ_VIS	3.92%	2.73%	2.17%	3.46%	25L	NJ_MZB1	0.26%	0.14%	0.19%	0.23%
25L	NJ_WAK1	0.52%	0.36%	0.29%	0.46%	25L	NJ_MZB2	0.12%	0.07%	0.09%	0.11%
25L	SJ_FIM1	1.52%	1.08%	0.81%	1.34%	25L	NJ_PMD	0.01%	0.01%	0.01%	0.01%
25L	SJ_FIM2	0.07%	0.05%	0.04%	0.06%	25L	SJ_GMN	0.11%	0.10%	0.04%	0.10%
25L	SJ_STR	6.95%	4.97%	3.73%	6.15%	25L	SJ_LUP	0.28%	0.27%	0.10%	0.24%
25L	SJ_VIS	2.09%	1.49%	1.12%	1.85%	25L	SJ_MZB1	0.55%	0.52%	0.20%	0.48%
25L	SJ_VNY	0.08%	0.06%	0.04%	0.07%	25L	SJ_MZB2	0.11%	0.10%	0.04%	0.09%
25L	SN_FIM1	0.54%	0.57%	0.52%	0.54%	25L	SJ_ST2	0.09%	0.09%	0.03%	0.08%
25L	SN_N1	13.64%	14.37%	13.22%	13.72%	25L	SJ_STR	0.06%	0.05%	0.02%	0.05%
25L	SN_VIS	2.52%	2.65%	2.44%	2.53%	25L	SJ_TRN	0.03%	0.03%	0.01%	0.02%
25L	SW_FIM	0.07%	0.09%	0.11%	0.08%	25L	SJ_VNY	0.10%	0.10%	0.04%	0.09%
25L	SW_N1	2.67%	3.73%	4.51%	3.11%	25L	SN_LUP	0.04%	0.02%	0.08%	0.04%
25L	SW_VIS	0.54%	0.76%	0.92%	0.63%	25L	SN_MZB1	0.17%	0.08%	0.39%	0.20%
25L	SW_WAK1	0.18%	0.26%	0.31%	0.21%	25L	SN_MZB2	0.04%	0.02%	0.09%	0.05%
25R	LN_FIM1	0.00%	0.01%	0.01%	0.01%	25L	SN_N1	0.01%	0.01%	0.03%	0.01%
25R	LN_STR	0.14%	0.34%	0.22%	0.19%	25L	SW_GMN	0.01%	0.04%	0.03%	0.02%
25R	LN_VIS	0.03%	0.08%	0.05%	0.04%	25L	SW_LUP	0.02%	0.07%	0.05%	0.03%
25R	LN_WAK1	0.02%	0.04%	0.03%	0.02%	25L	SW_MZB1	0.15%	0.49%	0.39%	0.24%
25R	LN_WAK2	0.01%	0.02%	0.01%	0.01%	25L	SW_MZB2	0.01%	0.03%	0.02%	0.01%
25R	LW_FIM1	0.02%	0.02%	0.04%	0.02%	25L	SW_N1	0.02%	0.05%	0.04%	0.03%
25R	LW_FIM2	0.01%	0.01%	0.01%	0.01%	25R	LN_GMN	0.07%	0.02%	0.09%	0.07%
25R	LW_STR	0.03%	0.03%	0.07%	0.04%	25R	LN_LUP	2.02%	0.61%	2.60%	1.97%
25R	LW_VIS	0.03%	0.03%	0.06%	0.03%	25R	LN_MZB1	5.00%	1.52%	6.42%	4.88%
25R	NJ_MPD	0.02%	0.04%	0.01%	0.03%	25R	LN_MZB2	1.19%	0.36%	1.53%	1.16%
25R	NJ_SAU	0.02%	0.03%	0.01%	0.02%	25R	LN_STR1	1.97%	0.60%	2.53%	1.93%
25R	NJ_VIS	0.15%	0.24%	0.04%	0.15%	25R	LN_STR2	0.41%	0.12%	0.53%	0.40%
25R	NJ_WAK1	0.02%	0.03%	0.00%	0.02%	25R	LN_SXC	0.02%	0.01%	0.02%	0.02%
25R	SJ_FIM1	0.05%	0.07%	0.02%	0.05%	25R	LW_GMN	0.10%	0.21%	0.51%	0.19%
25R	SJ_STR	0.17%	0.25%	0.06%	0.17%	25R	LW_LUP	0.33%	0.66%	1.61%	0.61%
25R	SJ_VIS	0.06%	0.09%	0.02%	0.06%	25R	LW_MZB1	0.51%	1.02%	2.49%	0.94%
25R	SN_FIM1	0.02%	0.04%	0.02%	0.03%	25R	LW_MZB2	0.41%	0.81%	1.98%	0.75%
25R	SN_N1	0.32%	0.54%	0.21%	0.35%	25R	LW_STR1	1.90%	3.78%	9.29%	3.50%
25R	SN_VIS	0.08%	0.13%	0.05%	0.09%	25R	LW_STR2	0.61%	1.21%	2.98%	1.12%

Table 2

Flight Track Utilization Percentages - Baseline (2009) Conditions

Arrivals (East and West Flow)					
Rwy	**Track**	**Day**	**Eve**	**Night**	**Total**
25R	SW_N1	0.06%	0.14%	0.09%	0.08%
25R	SW_VIS	0.01%	0.03%	0.02%	0.02%
25R	SW_WAK1	0.02%	0.04%	0.03%	0.02%
Total		**100.00%**	**100.00%**	**100.00%**	**100.00%**

Departures (East and West Flow)					
Rwy	**Track**	**Day**	**Eve**	**Night**	**Total**
25R	LW_STR3	0.05%	0.11%	0.27%	0.10%
25R	LW_SXC	0.01%	0.01%	0.03%	0.01%
25R	NJ_GMN	0.07%	0.09%	0.04%	0.07%
25R	NJ_MZB1	2.93%	3.49%	1.70%	2.76%
25R	NJ_MZB2	1.37%	1.63%	0.79%	1.29%
25R	NJ_PMD	0.30%	0.36%	0.18%	0.29%
25R	NJ_TWA	0.15%	0.18%	0.09%	0.14%
25R	SJ_GMN	1.38%	1.94%	0.79%	1.33%
25R	SJ_LUP	1.41%	1.98%	0.80%	1.36%
25R	SJ_MZB1	5.39%	7.59%	3.09%	5.20%
25R	SJ_MZB2	0.25%	0.35%	0.14%	0.24%
25R	SJ_STR	0.49%	0.69%	0.28%	0.47%
25R	SJ_TR2	0.21%	0.30%	0.12%	0.20%
25R	SJ_TRN	1.01%	1.42%	0.58%	0.97%
25R	SJ_VNY	0.20%	0.28%	0.11%	0.19%
25R	SN_GMN	0.35%	0.22%	0.58%	0.38%
25R	SN_LUP	3.18%	2.00%	5.20%	3.43%
25R	SN_MZB1	7.54%	4.75%	12.34%	8.14%
25R	SN_MZB2	1.15%	0.73%	1.89%	1.24%
25R	SN_N1	1.50%	0.94%	2.45%	1.62%
25R	SN_N2	0.27%	0.17%	0.44%	0.29%
25R	SW_GMN	0.12%	0.08%	0.22%	0.14%
25R	SW_LUP	0.47%	0.30%	0.84%	0.52%
25R	SW_MZB1	2.58%	1.68%	4.63%	2.86%
25R	SW_MZB2	0.29%	0.19%	0.53%	0.33%
25R	SW_N1	0.70%	0.45%	1.25%	0.77%
25R	SW_N2	0.22%	0.14%	0.39%	0.24%
Total		**100.00%**	**100.00%**	**100.00%**	**100.00%**

Notes:

Day: 7:00 a.m. to 6:59 p.m., Evening: 7:00 p.m. to 9:59 p.m., Night: 10:00 p.m. to 6:59 a.m.
Totals may not add to 100 percent due to rounding.

Source: Ricondo & Associates, Inc., 2012, based on LAWA FAR Part 161 2008 INM track database.

3.1.1.4 2009 Fleet and Aircraft Operations

Arrival and departure information, including aircraft type and time of day, was available in the LAWA flight data for most flights that occurred in 2009. Historically, the LAX noise and operations monitoring system registered information for approximately 98 percent of all flights. The Airport Traffic Control Tower operations report for 2009 supplemented the automated data to provide a comprehensive picture of all aviation activity levels at the airport. The FAA Airport Traffic Control Tower counts report the number of operations (departures plus arrivals) on an annual basis for categories of aircraft, including commercial air carrier, air taxi, general aviation, and military operations. Where the LAWA system underreported the number of operations in a particular FAA category, a correction factor was applied to all aircraft types uniformly within the category to develop the full number of operations. The underlying assumptions used in modifying the fleet mix and operations data are:

- The number of landings and departures by individual aircraft types were equal on the AAD. Where radar data indicate an unequal distribution of arrivals and departures, the lower number was increased to equal the higher number. This presumes that average day flight cycles could be no less than the higher of the two numbers.
- The total distribution of commercial aircraft types are evaluated against the distribution of air carrier, air taxi, general aviation and military operations reported by the LAX Airport Traffic Control Tower. When there is a discrepancy between the reported numbers of operations and the collected flight data, the flight data detail is adjusted to reflect the number of operations reported by the Airport Traffic Control Tower.
- Military operations were performed principally by helicopters operated by the Coast Guard located on the airport, but are sanitized from the radar records for national defense purposes. While the FAA reports approximately 3,058 annual military operations, no detailed records of military operations are maintained by the airport. According to the LAX Master Plan Final EIR, LAWA reported that U.S. Coast Guard and other military helicopters, which operate almost exclusively over the airport or over the ocean, account for approximately 90 percent of the military activity, while the remaining operations are distributed among a wide variety of aircraft types. The noise energy contributed by each military aircraft type to the CNEL contours is not enough to impact the contours by civilian operations; this is due both to the number of operations and the flight path of the military operations. In addition, the SPAS alternatives are not expected to change how helicopters operate in and out of the airport. Therefore, specific military helicopter operations were not included in the model. Instead, the total military count of 3,058 operations was distributed among fixed-wing military aircraft. This approach provides for a conservative analysis as the fixed wing aircraft operations would contribute more sound energy off airport than the equivalent helicopter operations would.

The application of these assumptions for CY 2009 conditions results in the distribution of operations among separate INM aircraft types as indicated in **Table 3**. The time of day at which operations occur is important as input to the INM determination of CNEL due to the penalty assessed against evening (7:00 p.m. to 9:59 p.m.) and nighttime (10:00 p.m. to 6:59 a.m.) flights. An assessment of the operational records indicates that approximately 22 percent of all departures occur during the evening and nighttime hours; approximately 23 percent of arrivals occur during those hours. The mix of aircraft types replicates the aircraft used in the LAWA 2009 flight data.

Table 4 depicts the total operations and fleet mix category used in the analysis. The aircraft categories listed in **Table 4** are as follows:

- NJT = Non-Jet Aircraft
- SJT = Small Jet Aircraft
- SNB = Small Narrow-Body Aircraft
- LNB = Large Narrow-Body Aircraft
- SWB = Small Wide-Body Aircraft
- LWB = Large Wide-Body Aircraft
- NLA = New Large Aircraft

Table 3

Average Annual Day Operations and Fleet Mix - Baseline (2009) Conditions

INM Aircraft Type	Category	Part 36 Stage	Arrivals				Takeoffs				All Operations			
			Day	Eve	Night	Total	Day	Eve	Night	Total	Day	Eve	Night	Total
727EM2	LNB	3	0.4	0.2	0.1	0.7	0.5	0.0	0.2	0.7	0.8	0.2	0.3	1.3
757300	LNB	3	4.6	1.9	1.7	8.3	6.0	0.3	2.0	8.3	10.7	2.2	3.7	16.6
757PW	LNB	3	26.3	11.0	9.8	47.2	34.2	1.6	11.4	47.2	60.5	12.7	21.2	94.4
757RR	LNB	3	16.6	7.0	6.2	29.8	21.6	1.0	7.2	29.8	38.2	8.0	13.4	59.6
A321-232	LNB	3	9.2	3.8	3.4	16.4	11.9	0.6	4.0	16.4	21.1	4.4	7.4	32.9
DC870	LNB	3	0.5	0.2	0.2	0.9	0.7	0.0	0.2	0.9	1.2	0.2	0.4	1.9
747200	LWB	3	0.2	0.1	0.1	0.3	0.1	0.0	0.1	0.3	0.4	0.1	0.2	0.7
74720B	LWB	3	0.6	0.1	0.2	0.9	0.4	0.1	0.4	0.9	0.9	0.3	0.5	1.8
747400	LWB	3	22.7	5.6	6.5	34.8	15.1	5.1	14.7	34.9	37.8	10.6	21.2	69.7
777200	LWB	3	11.8	2.9	3.4	18.1	7.9	2.6	7.6	18.2	19.7	5.5	11.0	36.3
777300	LWB	3	2.2	0.5	0.6	3.3	1.5	0.5	1.4	3.4	3.6	1.0	2.0	6.7
A330-301	LWB	3	0.2	0.1	0.1	0.5	0.3	0.0	0.1	0.5	0.6	0.1	0.3	1.0
A330-343	LWB	3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A340-211	LWB	3	4.4	1.1	1.3	6.8	3.0	1.0	2.9	6.8	7.4	2.1	4.1	13.6
A340-642	LWB	3	1.0	0.2	0.3	1.5	0.6	0.2	0.6	1.5	1.6	0.4	0.9	2.9
C130E	LWB	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DC1010	LWB	3	3.3	0.8	0.9	5.0	2.2	0.7	2.1	5.0	5.4	1.5	3.0	10.0
DC1030	LWB	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MD11GE	LWB	3	2.5	0.6	0.7	3.8	1.7	0.6	1.6	3.9	4.2	1.2	2.3	7.7
MD11PW	LWB	3	0.3	0.1	0.1	0.4	0.2	0.1	0.2	0.4	0.5	0.1	0.3	0.9
1900D	NJT	N/A	2.0	0.4	0.2	2.6	1.9	0.4	0.3	2.6	4.0	0.8	0.5	5.2
BEC58P	NJT	N/A	0.4	0.1	0.0	0.5	0.4	0.1	0.1	0.5	0.7	0.1	0.1	1.0
CNA172	NJT	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1
CNA182	NJT	N/A	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.2
CNA206	NJT	N/A	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.2	0.0	0.0	0.2
CNA208	NJT	N/A	0.3	0.1	0.0	0.4	0.3	0.1	0.0	0.4	0.6	0.1	0.1	0.8
CNA441	NJT	N/A	0.4	0.1	0.0	0.5	0.3	0.1	0.1	0.5	0.7	0.1	0.1	0.9
DHC6	NJT	N/A	2.2	0.5	0.2	2.8	2.1	0.4	0.3	2.8	4.3	0.9	0.5	5.7
DHC830	NJT	3	9.8	2.1	0.9	12.8	9.5	1.9	1.4	12.8	19.3	3.9	2.3	25.6
EMB120	NJT	3	45.1	9.5	4.1	58.6	43.4	8.5	6.6	58.6	88.5	18.0	10.7	117.1
GASEPF	NJT	N/A	0.1	0.0	0.0	0.2	0.1	0.0	0.0	0.2	0.3	0.1	0.0	0.4
GASEPV	NJT	N/A	0.4	0.1	0.0	0.5	0.4	0.1	0.1	0.5	0.8	0.2	0.1	1.1
PA31	NJT	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SD330	NJT	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1
A380-841	NLA	3	0.7	0.0	0.0	0.7	0.0	0.0	0.7	0.7	0.7	0.0	0.7	1.4
747800	NLA	3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CIT3	SJT	3	0.2	0.0	0.0	0.3	0.2	0.0	0.0	0.3	0.4	0.1	0.0	0.5
CL600	SJT	3	2.6	0.6	0.3	3.5	2.7	0.5	0.3	3.5	5.3	1.1	0.6	7.0
CL601	SJT	3	16.9	3.9	1.6	22.4	17.2	3.1	2.0	22.4	34.1	7.0	3.7	44.7

Table 3

Average Annual Day Operations and Fleet Mix - Baseline (2009) Conditions

INM Aircraft Type	Category	Part 36 Stage	Arrivals				Takeoffs				All Operations			
			Day	Eve	Night	Total	Day	Eve	Night	Total	Day	Eve	Night	Total
CNA500	SJT	3	0.7	0.2	0.1	0.9	0.7	0.1	0.1	0.9	1.4	0.3	0.2	1.8
CNA55B	SJT	3	1.0	0.2	0.1	1.4	1.1	0.2	0.1	1.4	2.1	0.4	0.2	2.7
CNA750	SJT	3	1.7	0.4	0.2	2.2	1.7	0.3	0.2	2.2	3.4	0.7	0.4	4.5
CRJ9-ER	SJT	3	26.4	6.0	2.6	35.0	26.9	4.9	3.1	35.0	53.3	10.9	5.7	69.9
EMB145	SJT	3	29.0	6.7	2.8	38.5	29.7	5.4	3.5	38.5	58.7	12.0	6.3	77.0
EMB190	SJT	3	5.9	1.3	0.6	7.8	6.0	1.1	0.7	7.8	11.9	2.4	1.3	15.6
F10062	SJT	3	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.2
FAL20	SJT	2	0.1	0.0	0.0	0.2	0.1	0.0	0.0	0.2	0.2	0.0	0.0	0.3
FAL50	SJT	3	0.4	0.1	0.0	0.5	0.4	0.1	0.0	0.5	0.8	0.2	0.1	1.0
FAL900	SJT	3	0.9	0.2	0.1	1.2	0.9	0.2	0.1	1.2	1.8	0.4	0.2	2.4
GIIB	SJT	2	0.4	0.1	0.0	0.6	0.4	0.1	0.1	0.6	0.9	0.2	0.1	1.2
GIV	SJT	3	3.0	0.7	0.3	3.9	3.0	0.6	0.4	3.9	6.0	1.2	0.6	7.9
GV	SJT	3	2.6	0.6	0.3	3.4	2.6	0.5	0.3	3.4	5.2	1.1	0.6	6.9
IA1125	SJT	3	0.4	0.1	0.0	0.5	0.4	0.1	0.0	0.5	0.7	0.2	0.1	1.0
LEAR25	SJT	2	0.3	0.1	0.0	0.4	0.3	0.0	0.0	0.4	0.5	0.1	0.1	0.7
LEAR35	SJT	3	3.6	0.8	0.3	4.8	3.7	0.7	0.4	4.8	7.2	1.5	0.8	9.5
MU3001	SJT	3	1.5	0.3	0.1	2.0	1.5	0.3	0.2	2.0	3.1	0.6	0.3	4.0
717200	SNB	3	0.2	0.1	0.0	0.3	0.2	0.0	0.1	0.3	0.5	0.1	0.1	0.7
737300	SNB	3	26.1	7.2	4.4	37.7	27.5	4.1	6.0	37.6	53.5	11.3	10.5	75.3
737400	SNB	3	6.1	1.7	1.0	8.8	6.4	1.0	1.4	8.8	12.5	2.6	2.4	17.6
737500	SNB	3	2.8	0.8	0.5	4.1	3.0	0.4	0.7	4.1	5.8	1.2	1.1	8.1
737700	SNB	3	59.2	16.3	10.0	85.5	62.4	9.3	13.7	85.4	121.6	25.6	23.8	170.9
737800	SNB	3	37.1	10.2	6.3	53.7	39.1	5.8	8.6	53.6	76.3	16.1	14.9	107.3
737N17	SNB	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A319-131	SNB	3	30.1	8.3	5.1	43.5	31.7	4.7	7.0	43.5	61.9	13.0	12.1	87.0
A320-211	SNB	3	18.1	5.0	3.1	26.2	19.1	2.8	4.2	26.1	37.2	7.8	7.3	52.3
A320-232	SNB	3	19.3	5.3	3.3	28.0	20.4	3.0	4.5	27.9	39.7	8.4	7.8	55.9
BAC111	SNB	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DC93LW	SNB	3	0.9	0.2	0.1	1.3	0.9	0.1	0.2	1.3	1.8	0.4	0.3	2.5
DC950	SNB	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MD81	SNB	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MD82	SNB	3	8.6	2.4	1.5	12.4	9.0	1.3	2.0	12.3	17.6	3.7	3.4	24.7
MD83	SNB	3	9.4	2.6	1.6	13.6	9.9	1.5	2.2	13.6	19.3	4.1	3.8	27.2
767300	SWB	3	13.1	5.8	6.9	25.9	16.8	2.0	7.2	26.0	29.9	7.8	14.1	51.9
767400	SWB	3	0.2	0.1	0.1	0.4	0.2	0.0	0.1	0.4	0.4	0.1	0.2	0.7
767CF6	SWB	3	6.5	2.9	3.4	12.8	8.3	1.0	3.5	12.8	14.7	3.9	7.0	25.5
A300-622R	SWB	3	1.1	0.5	0.6	2.2	1.4	0.2	0.6	2.2	2.6	0.7	1.2	4.5
A300B4-203	SWB	3	0.6	0.3	0.3	1.2	0.7	0.1	0.3	1.2	1.3	0.3	0.6	2.3
A310-304	SWB	3	0.4	0.2	0.2	0.8	0.5	0.1	0.2	0.8	0.9	0.2	0.4	1.6

Table 3

Average Annual Day Operations and Fleet Mix - Baseline (2009) Conditions

INM Aircraft Type	Category	Part 36 Stage	Arrivals				Takeoffs				All Operations			
			Day	Eve	Night	Total	Day	Eve	Night	Total	Day	Eve	Night	Total
DC8QN	SWB	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total			**505.9**	**141.2**	**99.3**	**746.3**	**524.0**	**81.8**	**140.6**	**746.3**	**1,029.8**	**223.0**	**239.8**	**1,492.7**

Note:

Totals may not add due to rounding.

Source: Ricondo & Associates, Inc., 2012, based on LAWA CY 2009 flight data and FAA LAX Airport Traffic Control Air Traffic Activity System-2009 Airport Operations Report.

Table 4

Daily Aircraft Operations (2009)

Condition	Aircraft Operations by Category[1]								Percent of Annual Operations							
	NJT	SJT	SNB	LNB	SWB	LWB	NLA	Total	NJT	SJT	SNB	LNB	SWB	LWB	NLA	Total
Baseline (2009) Conditions	158	259	630	207	87	151	1	1,493	11%	17%	42%	14%	6%	10%	0%	100%

Notes:

NJT = Non-Jet Aircraft
SJT = Small Jet Aircraft
SNB = Small Narrow-Body Aircraft
LNB = Long Narrow-Body Aircraft
SWB = Small Wide-Body Aircraft
LWB = Large Wide-Body Aircraft
NLA = New Large Aircraft
Totals may not add to 100 percent due to rounding.

[1] Data represents an AAD of operation (annual traffic/365).

Source: Ricondo & Associates, Inc., 2012, based on LAWA CY 2009 flight data and FAA LAX Airport Traffic Control Air Traffic Activity System-2009 Airport Operations Report.

Table 5

Runway Utilization Proportions - Average Number of Daily Operations (Landings and Takeoffs) by Aircraft Groups

	NJT		SJT		SNB		LNB		SWB		LWB		NLA	
Alternative Condition	**South Airfield**	**North Airfield**	**South Airfield**	**North Airfield**	**South Airfield**	**North Airfield**	**South Airfield**	**North Airfield**	**South Airfield**	**North Airfield**	**South Airfield**	**North Airfield**	**South Airfield**	**North Airfield**
Baseline(2009) Conditions	77.86	80.48	200.19	58.64	247.57	382.09	177.38	29.28	72.22	14.36	97.29	53.95	0.23	1.16
Future (2025) Conditions														
Alternatives 1, 5, 6, 7[1]	82.24	65.91	187.80	155.70	326.64	414.15	151.25	112.04	149.96	68.03	123.75	70.65	16.52	12.74
Alternative 2	83.05	65.11	188.76	154.74	328.19	412.60	150.89	112.40	149.99	68.00	123.79	70.61	16.46	12.80
Alternative 3	84.36	63.80	222.50	121.00	316.28	424.51	139.79	123.50	134.90	83.09	109.18	85.21	16.47	12.78
Alternative 4	86.07	62.09	177.85	165.65	325.82	414.97	148.94	114.35	149.26	68.73	126.06	68.34	18.06	11.19

Notes:

NJT = Non-Jet Aircraft
SJT = Small Jet Aircraft
SNB = Small Narrow-Body Aircraft
LNB = Long Narrow-Body Aircraft
SWB = Small Wide-Body Aircraft
LWB = Large Wide-Body Aircraft
NLA = New Large Aircraft
The north airfield includes runways numbered 6/24 and the south airfield includes runways numbered 7/25.

[1] Individual SIMMOD analyses were not conducted for Alternatives 5 through 7; runway utilization for those alternatives assumed for modeling purposes to be generally comparable to that of Alternative 1.

Source: Ricondo & Associates, Inc., 2011 SIMMOD output files and 2011 INM output files.

For the purposes of this analysis, heavy aircraft are aircraft over 300,000 pounds maximum takeoff weight (does not include the Boeing 757) and are incorporated in the SWB, LWB, and NLA categories.

The INM flight tracks described above were derived based on the fleet mix categories, which was used to link the flights to the appropriate flight tracks.

3.2 Alternative 1 Future (2025) Conditions

3.2.1 Alternative 1 Runway Utilization

Forecast runway assignments for this alternative were developed utilizing SIMMOD airfield and airspace simulation model, and therefore are subject to constraints imposed on the modeling process by airfield capabilities and noise abatement measures. The function of the SIMMOD model is to assign individual flights to specific runways based largely on minimizing separation requirements between various aircraft types and assign aircraft to runways based on traffic demand to maintain operational efficiency and reduce delay. Refer to the North Runway Alternatives Simulation Analysis in Appendix F, Operational Analysis, of the SPAS Report for additional details. Runway usage by aircraft category is provided in **Table 5**. **Table 6** presents the results of the simulation assignment of aircraft to runways.

Table 6

2025 Runway Utilization Percentages - Alternative 1

	Landings				Takeoffs			
Runway	**Day**	**Eve**	**Night**	**Total**	**Day**	**Eve**	**Night**	**Total**
6L	1.0%	1.1%	0.7%	1.0%	0.1%	0.0%	0.0%	0.0%
6R	0.2%	0.1%	16.2%	2.3%	0.9%	1.2%	0.4%	0.9%
7L	0.0%	0.0%	14.6%	1.9%	1.0%	0.8%	0.9%	1.0%
7R	0.9%	1.0%	0.7%	0.9%	0.1%	0.2%	0.2%	0.1%
24L	3.7%	2.8%	0.2%	3.1%	48.1%	40.2%	35.4%	45.1%
24R	45.5%	44.4%	27.6%	43.0%	1.0%	0.0%	0.0%	0.7%
25L	41.7%	43.1%	37.6%	41.4%	5.6%	11.0%	5.0%	6.2%
25R	7.0%	7.4%	2.4%	6.5%	43.1%	46.6%	58.1%	46.0%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Notes:

Day: 7:00 a.m. to 6:59 p.m., Eve: 7:00 p.m. to 9:59 p.m., Night: 10:00 p.m. to 6:59 a.m.
Totals may not add to 100 percent due to rounding.

Source: Ricondo & Associates, Inc., 2012 (SIMMOD output); LAWA, 2009 (2009 Over-Ocean flight data and runway use).

The airport's predominant configuration utilizes Runways 24R and 25L for arrivals and Runways 24L and 25R for departures. The airport's present noise abatement measures, which express a preference for Over-Ocean procedures between midnight and 6:30 a.m., are reflected in the more frequent use of Runway 6R for arrival operations during the night hours. The dominant operating configuration during the period when Over-Ocean procedures are in effect consists of approaches to the north inboard runway (Runway 6R) or south inboard runway (Runway 7L), and departures from the south inboard runway (Runway 25R) and north inboard runway (Runway 24L). The use of Over-Ocean procedures was based on baseline (2009) conditions and applied to the forecasted operations. This included non-conforming easterly departures as well. Also reflected in the nighttime usage is the airport's policy that, to the extent practical, operations between 10:00 p.m. and 7:00 a.m. will be made to and from the inboard runways, but was based on low demand levels as modeled in SIMMOD.

3.2.2 Alternative 1 Flight Tracks

The flight tracks and their usage for Alternative 1 are not substantially different from the utilization patterns of the baseline (2009) conditions. Flight tracks for 2025 conditions are illustrated in **Figure 2**. The proportions of operations assigned to each flight track are indicated in **Table 7**. As is the case with all alternatives, the dominant flight paths that impact the noise exposure pattern at LAX are associated with the arrivals from the east.

Departure operations along tracks to the east have little impact upon the CNEL noise exposure contour locations, due to the infrequent use of east flow operations. Departure tracks to the west define the greatest area of the noise exposure pattern, but the least area of overflight impact because virtually all the area under the noise exposure contours to the west is over the ocean.

The dispersion of individual aircraft departure tracks around the flight paths is expected to decrease in the future as the industry moves toward the development of Global Positioning System/Flight Management System (GPS/FMS) flight procedures. Use of GPS procedures will result in the maintenance of more consistent flight paths than has been the case historically, because pilots (or on-board FMS) will use specific geographic coordinates to navigate to and from the airport. Further, additional dispersion adjustments of flight tracks in the dominant departure direction lends no refinement to the definition of impacts, because there are no noise-sensitive properties directly west of the runways under the departure paths.

3.2.3 Alternative 1 Fleet and Aircraft Operations

Table 8 displays the operations by aircraft type and operation (landing or takeoff). Landings and takeoffs are expected to increase from the baseline (2009) conditions level of 746 to 969 average daily landings. Some older aircraft, such as the Boeing 727 and DC-9 are phased out of the future schedule, while others, based on forecast assumptions, are introduced, such as the Boeing 747-800. Newer aircraft are generally quieter than older aircraft, including comparisons between larger new aircraft and smaller older aircraft. The phasing out of older, louder aircraft will result in SEL that are lower than the existing conditions.

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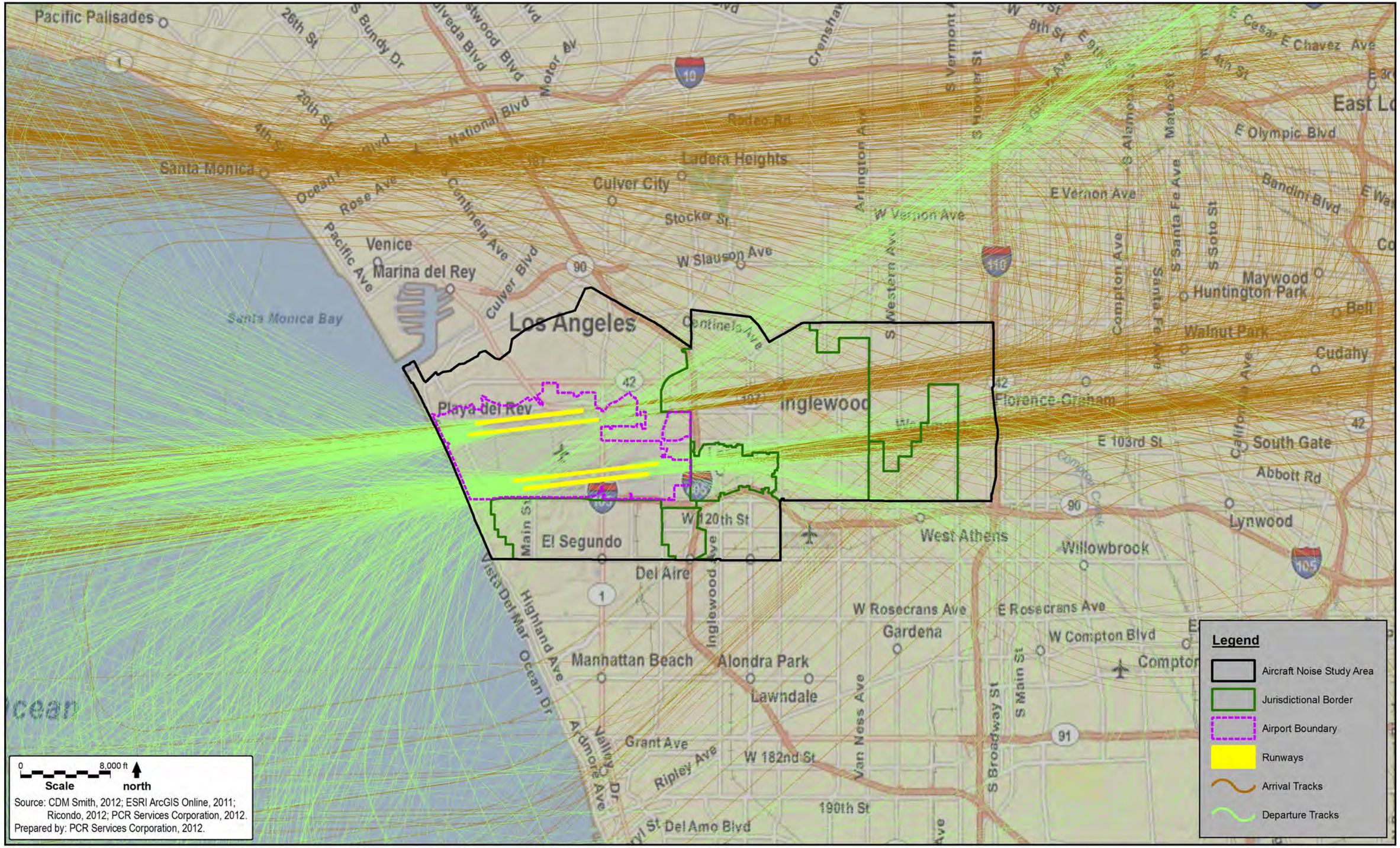

LAX Specific Plan Amendment Study Draft EIR	**2025 Alternative 1 Flight Tracks**	Figure 2

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Table 7

2025 Flight Track Utilization Percentages - Alternative 1

Arrivals						Departures					
Runway	Track	Day	Eve	Night	Total	Runway	Track	Day	Eve	Night	Total
6L	LN_CIV1	0.03%	0.05%	0.03%	0.04%	6L	NJ_FIM	0.01%	0.00%	0.00%	0.00%
6L	LN_CIV2	0.03%	0.04%	0.03%	0.03%	6L	NJ_GMN	0.01%	0.01%	0.00%	0.01%
6L	LN_CIV3	0.01%	0.01%	0.01%	0.01%	6L	SN_LUP	0.05%	0.02%	0.00%	0.04%
6L	LN_STR	0.04%	0.06%	0.04%	0.04%	6R	LN_GMN	0.04%	0.04%	0.04%	0.04%
6L	LW_CIV1	0.10%	0.15%	0.07%	0.10%	6R	LN_GMN2	0.04%	0.04%	0.04%	0.04%
6L	LW_FIM	0.01%	0.02%	0.01%	0.01%	6R	LW_LUP	0.04%	0.13%	0.00%	0.05%
6L	NJ_CAS	0.03%	0.02%	0.03%	0.03%	6R	LW_LUP1	0.02%	0.06%	0.00%	0.02%
6L	NJ_WAK	0.03%	0.02%	0.03%	0.03%	6R	NJ_FIM	0.03%	0.06%	0.04%	0.04%
6L	SJ_CIV	0.03%	0.03%	0.01%	0.02%	6R	NJ_GMN	0.02%	0.03%	0.02%	0.02%
6L	SJ_FIM	0.17%	0.19%	0.05%	0.16%	6R	SJ_GMN	0.13%	0.18%	0.04%	0.12%
6L	SN_CIV1	0.24%	0.21%	0.15%	0.22%	6R	SJ_LUP	0.05%	0.07%	0.01%	0.04%
6L	SN_CIV2	0.01%	0.01%	0.01%	0.01%	6R	SN_GMN	0.18%	0.18%	0.05%	0.16%
6L	SN_FIM	0.20%	0.18%	0.13%	0.19%	6R	SN_LUP	0.30%	0.30%	0.08%	0.26%
6L	SN_OCN	0.02%	0.01%	0.01%	0.01%	6R	SW_N1	0.06%	0.07%	0.05%	0.06%
6L	SW_CIV	0.05%	0.09%	0.05%	0.05%	7L	LN_BLH1	0.02%	0.02%	0.02%	0.02%
6L	SW_N1	0.03%	0.06%	0.03%	0.04%	7L	LN_BLH2	0.05%	0.05%	0.05%	0.05%
6R	LN_CIV1	0.00%	0.00%	0.43%	0.06%	7L	LN_LUP	0.01%	0.01%	0.01%	0.01%
6R	LN_CIV2	0.00%	0.00%	0.17%	0.02%	7L	LN_VTU	0.09%	0.07%	0.09%	0.08%
6R	LN_FIM	0.00%	0.00%	0.12%	0.02%	7L	LW_GMN	0.00%	0.00%	0.00%	0.00%
6R	LN_STR	0.01%	0.01%	2.32%	0.31%	7L	LW_LUP	0.00%	0.00%	0.00%	0.00%
6R	LW_CIV	0.00%	0.00%	0.77%	0.10%	7L	LW_SXC	0.01%	0.01%	0.01%	0.01%
6R	LW_CIV1	0.00%	0.00%	0.44%	0.06%	7L	LW_SXC1	0.00%	0.00%	0.01%	0.00%
6R	LW_FIM1	0.01%	0.01%	2.97%	0.40%	7L	LW_VTU	0.06%	0.06%	0.12%	0.07%
6R	LW_FIM2	0.00%	0.00%	0.88%	0.12%	7L	NJ_BLH1	0.03%	0.04%	0.01%	0.03%
6R	LW_STR	0.00%	0.00%	0.22%	0.03%	7L	NJ_BLH2	0.04%	0.05%	0.02%	0.04%
6R	NJ_CAS	0.00%	0.00%	0.05%	0.01%	7L	SJ_BLH	0.09%	0.07%	0.03%	0.08%
6R	NJ_SAU	0.01%	0.01%	0.47%	0.07%	7L	SJ_LUP	0.04%	0.03%	0.01%	0.03%
6R	NJ_WAK1	0.00%	0.00%	0.05%	0.01%	7L	SJ_VTU	0.05%	0.04%	0.02%	0.05%
6R	NJ_WAK2	0.01%	0.00%	0.19%	0.03%	7L	SN_BLH	0.20%	0.13%	0.07%	0.17%
6R	SJ_CIV	0.02%	0.01%	0.88%	0.14%	7L	SN_N1	0.03%	0.02%	0.01%	0.02%
6R	SJ_FIM	0.02%	0.01%	0.68%	0.10%	7L	SN_VTU	0.13%	0.08%	0.04%	0.11%
6R	SN_CIV1	0.06%	0.05%	1.47%	0.25%	7L	SW_BLH	0.06%	0.04%	0.02%	0.05%
6R	SN_FIM	0.01%	0.01%	0.34%	0.06%	7L	SW_N1	0.03%	0.02%	0.01%	0.02%
6R	SW_CIV	0.00%	0.01%	1.73%	0.23%	7L	SW_VTU	0.06%	0.05%	0.03%	0.06%
6R	SW_FIM	0.00%	0.00%	0.24%	0.03%	7R	LN_BLH1	0.00%	0.02%	0.00%	0.00%
6R	SW_N1	0.00%	0.01%	1.85%	0.25%	7R	LW_BLH	0.00%	0.00%	0.00%	0.00%
7L	LN_CIV2	0.00%	0.00%	0.41%	0.05%	7R	LW_LUP	0.00%	0.00%	0.00%	0.00%
7L	LN_STR	0.00%	0.00%	1.85%	0.25%	7R	LW_VTU	0.02%	0.06%	0.05%	0.03%

Table 7

2025 Flight Track Utilization Percentages - Alternative 1

Arrivals						Departures					
Runway	Track	Day	Eve	Night	Total	Runway	Track	Day	Eve	Night	Total
7L	LW_CIV1	0.00%	0.00%	0.34%	0.04%	7R	NJ_BLH1	0.01%	0.01%	0.01%	0.01%
7L	LW_CIV2	0.00%	0.00%	1.35%	0.18%	7R	NJ_BLH2	0.01%	0.02%	0.01%	0.01%
7L	LW_FIM	0.00%	0.00%	2.02%	0.27%	7R	SJ_H20	0.05%	0.04%	0.03%	0.05%
7L	LW_STR	0.00%	0.00%	0.67%	0.09%	7R	SN_BLH	0.00%	0.00%	0.00%	0.00%
7L	NJ_SAU	0.00%	0.00%	0.70%	0.09%	7R	SW_N1	0.00%	0.01%	0.00%	0.00%
7L	SJ_CIV1	0.00%	0.00%	0.32%	0.04%	7R	SW_N2	0.01%	0.01%	0.00%	0.01%
7L	SJ_CIV2	0.00%	0.00%	0.19%	0.03%	24L	LN_GMN	0.03%	0.00%	0.05%	0.03%
7L	SJ_FIM	0.00%	0.00%	0.06%	0.01%	24L	LN_GMNX	0.07%	0.08%	0.12%	0.08%
7L	SN_CIV2	0.00%	0.00%	0.74%	0.10%	24L	LN_LUP	0.47%	0.02%	0.84%	0.48%
7L	SN_FIM	0.00%	0.00%	1.48%	0.20%	24L	LN_LUPX	1.17%	1.23%	1.90%	1.29%
7L	SN_OCN	0.00%	0.00%	0.74%	0.10%	24L	LN_MZB1	0.51%	0.02%	0.91%	0.52%
7L	SW_CIV1	0.00%	0.00%	2.07%	0.27%	24L	LN_MZB1X	1.27%	1.33%	2.07%	1.41%
7L	SW_N1	0.00%	0.00%	1.66%	0.22%	24L	LN_MZB2	0.14%	0.01%	0.25%	0.14%
7R	LN_CIV1	0.04%	0.06%	0.02%	0.04%	24L	LN_MZB2X	0.34%	0.36%	0.56%	0.38%
7R	LN_STR	0.10%	0.15%	0.05%	0.10%	24L	LN_STR	0.37%	0.02%	0.66%	0.38%
7R	LW_CIV1	0.01%	0.02%	0.01%	0.01%	24L	LN_STRX	0.92%	0.96%	1.49%	1.02%
7R	LW_CIV2	0.01%	0.02%	0.01%	0.01%	24L	LW_GMN	0.17%	0.24%	0.24%	0.19%
7R	LW_CIV3	0.00%	0.01%	0.01%	0.01%	24L	LW_LUP	0.50%	0.70%	0.70%	0.56%
7R	LW_CIV4	0.02%	0.03%	0.02%	0.02%	24L	LW_MZB1	0.28%	0.40%	0.40%	0.32%
7R	LW_FIM	0.02%	0.05%	0.03%	0.03%	24L	LW_MZB2	0.69%	0.97%	0.97%	0.77%
7R	LW_STR	0.01%	0.02%	0.01%	0.01%	24L	LW_STR	1.65%	2.33%	2.33%	1.85%
7R	NJ_OCN	0.06%	0.05%	0.06%	0.06%	24L	LW_SXC	0.02%	0.02%	0.02%	0.02%
7R	NJ_WAK1	0.02%	0.01%	0.02%	0.02%	24L	NJ_GMN	0.00%	0.00%	0.00%	0.00%
7R	SJ_CIV1	0.04%	0.02%	0.02%	0.04%	24L	NJ_GMNX	1.01%	1.60%	1.47%	1.16%
7R	SJ_CIV2	0.04%	0.02%	0.02%	0.04%	24L	NJ_MPD	0.00%	0.00%	0.00%	0.00%
7R	SJ_FIM	0.01%	0.01%	0.00%	0.01%	24L	NJ_MPDX	0.09%	0.14%	0.13%	0.10%
7R	SJ_OCN	0.08%	0.05%	0.04%	0.07%	24L	NJ_PMD	0.00%	0.00%	0.00%	0.00%
7R	SN_CIV1	0.20%	0.13%	0.16%	0.18%	24L	NJ_PMDX	0.15%	0.24%	0.22%	0.17%
7R	SN_OCN	0.13%	0.08%	0.10%	0.12%	24L	NJ_VTU	0.00%	0.00%	0.00%	0.00%
7R	SW_CIV1	0.03%	0.08%	0.04%	0.04%	24L	NJ_VTUX	1.17%	1.86%	1.71%	1.34%
7R	SW_CIV2	0.03%	0.08%	0.04%	0.04%	24L	SJ_GMN	0.79%	1.18%	0.88%	0.85%
7R	SW_FIM	0.01%	0.03%	0.02%	0.01%	24L	SJ_GMNX	2.69%	3.16%	0.53%	2.39%
7R	SW_N1	0.02%	0.04%	0.02%	0.02%	24L	SJ_LUP	0.15%	0.23%	0.17%	0.17%
7R	SW_OCN	0.00%	0.01%	0.00%	0.00%	24L	SJ_LUPX	0.52%	0.62%	0.10%	0.47%
24L	LN_FIM	0.09%	0.12%	0.00%	0.08%	24L	SJ_MZB	0.08%	0.12%	0.09%	0.08%
24L	LN_STR	0.32%	0.41%	0.00%	0.30%	24L	SJ_MZBX	0.27%	0.31%	0.05%	0.24%
24L	LN_STR2	0.05%	0.06%	0.00%	0.04%	24L	SJ_STR	0.24%	0.36%	0.27%	0.26%
24L	LN_WAK	0.09%	0.12%	0.00%	0.08%	24L	SJ_STRX	0.82%	0.96%	0.16%	0.73%
24L	LW_FIM1	0.17%	0.30%	0.01%	0.17%	24L	SJ_TRN	0.60%	0.90%	0.67%	0.65%
24L	LW_FIM2	0.01%	0.01%	0.00%	0.01%	24L	SJ_TRNX	2.04%	2.41%	0.40%	1.82%

Table 7

2025 Flight Track Utilization Percentages - Alternative 1

Arrivals						Departures					
Runway	**Track**	**Day**	**Eve**	**Night**	**Total**	**Runway**	**Track**	**Day**	**Eve**	**Night**	**Total**
24L	LW_STR	0.03%	0.05%	0.00%	0.03%	24L	SJ_VNY	0.02%	0.02%	0.02%	0.02%
24L	NJ_SAU	0.18%	0.19%	0.01%	0.16%	24L	SJ_VNYX	0.05%	0.06%	0.01%	0.05%
24L	NJ_WAK	0.20%	0.21%	0.01%	0.18%	24L	SN_GMN	1.96%	1.51%	1.27%	1.79%
24L	SJ_FIM	0.83%	0.41%	0.01%	0.65%	24L	SN_GMNX	3.06%	1.72%	1.19%	2.59%
24L	SJ_STR	0.19%	0.10%	0.00%	0.15%	24L	SN_LUP	2.31%	1.77%	1.50%	2.11%
24L	SN_FIM	0.54%	0.30%	0.06%	0.44%	24L	SN_LUPX	3.60%	2.02%	1.39%	3.04%
24L	SN_N1	0.65%	0.36%	0.08%	0.52%	24L	SN_MZB1	3.50%	2.69%	2.27%	3.20%
24L	SN_VIS	0.03%	0.02%	0.00%	0.02%	24L	SN_MZB1X	5.46%	3.07%	2.12%	4.62%
24L	SW_FIM	0.07%	0.05%	0.00%	0.06%	24L	SN_MZB2	0.31%	0.24%	0.20%	0.29%
24L	SW_N1	0.07%	0.05%	0.00%	0.06%	24L	SN_MZB2X	0.49%	0.27%	0.19%	0.41%
24L	SW_WAK	0.14%	0.09%	0.00%	0.11%	24L	SN_N1	1.96%	1.51%	1.27%	1.79%
24R	LN_FIM	0.75%	1.06%	0.59%	0.78%	24L	SN_N1X	3.06%	1.72%	1.19%	2.59%
24R	LN_STR	4.06%	5.78%	3.20%	4.24%	24L	SW_LUP	0.51%	0.14%	0.41%	0.45%
24R	LN_VIS	0.12%	0.18%	0.10%	0.13%	24L	SW_MZB	0.89%	0.24%	0.72%	0.78%
24R	LN_WAK	0.91%	1.30%	0.72%	0.95%	24L	SW_N1	1.78%	0.48%	1.43%	1.56%
24R	LW_FIM1	2.71%	3.32%	2.21%	2.74%	24R	LN_LUP	0.00%	0.00%	0.00%	0.00%
24R	LW_FIM2	0.37%	0.46%	0.30%	0.38%	24R	LN_MZB1	0.00%	0.00%	0.00%	0.00%
24R	LW_STR	0.60%	0.74%	0.49%	0.61%	24R	LN_MZB2	0.00%	0.00%	0.00%	0.00%
24R	LW_VIS	0.07%	0.09%	0.06%	0.07%	24R	LN_STR	0.00%	0.00%	0.00%	0.00%
24R	NJ_SAU	1.73%	1.01%	1.30%	1.55%	24R	NJ_GMN	0.22%	0.00%	0.00%	0.16%
24R	NJ_STR	0.02%	0.01%	0.02%	0.02%	24R	NJ_PMD	0.06%	0.00%	0.00%	0.05%
24R	NJ_VIS	0.04%	0.02%	0.03%	0.04%	24R	NJ_VTU	0.31%	0.00%	0.00%	0.22%
24R	NJ_WAK	1.58%	0.93%	1.19%	1.42%	24R	SJ_GMN	0.10%	0.00%	0.00%	0.07%
24R	SJ_FIM	7.66%	8.00%	2.56%	7.04%	24R	SJ_LUP	0.03%	0.00%	0.00%	0.02%
24R	SJ_STR	1.00%	1.05%	0.33%	0.92%	24R	SJ_STR	0.03%	0.00%	0.00%	0.02%
24R	SJ_TR1	0.52%	0.54%	0.17%	0.48%	24R	SJ_TR2	0.03%	0.00%	0.00%	0.02%
24R	SJ_VIS	0.10%	0.11%	0.03%	0.10%	24R	SJ_TRN	0.07%	0.00%	0.00%	0.05%
24R	SJ_VNY	0.15%	0.15%	0.05%	0.13%	24R	SN_GMN	0.04%	0.00%	0.00%	0.03%
24R	SN_FIM	10.45%	7.37%	6.67%	9.44%	24R	SN_LUP	0.03%	0.00%	0.00%	0.02%
24R	SN_N1	9.15%	6.45%	5.84%	8.26%	24R	SN_MZB1	0.06%	0.01%	0.00%	0.04%
24R	SN_VIS	0.37%	0.26%	0.24%	0.33%	24R	SN_MZB2	0.01%	0.00%	0.00%	0.01%
24R	SW_FIM	0.51%	0.90%	0.25%	0.54%	24R	SN_N1	0.05%	0.00%	0.00%	0.04%
24R	SW_N1	1.19%	2.12%	0.59%	1.27%	24R	SW_N1	0.00%	0.00%	0.00%	0.00%
24R	SW_VIS	0.05%	0.09%	0.02%	0.05%	25L	LN_GMN	0.00%	0.05%	0.00%	0.01%
24R	SW_WAK	1.39%	2.47%	0.68%	1.48%	25L	LN_LUP	0.00%	0.13%	0.00%	0.02%
25L	LN_FIM1	0.06%	0.09%	0.04%	0.07%	25L	LN_MZB1	0.00%	0.46%	0.00%	0.06%
25L	LN_FIM2	0.01%	0.02%	0.01%	0.01%	25L	LN_MZB2	0.00%	0.11%	0.00%	0.01%
25L	LN_STR	4.53%	6.28%	3.08%	4.63%	25L	LN_STR	0.00%	0.05%	0.00%	0.01%
25L	LN_VIS	0.33%	0.46%	0.22%	0.34%	25L	LW_GMN	0.08%	0.32%	0.13%	0.12%
25L	LN_WAK1	0.26%	0.35%	0.17%	0.26%	25L	LW_LUP	0.03%	0.10%	0.04%	0.04%

Table 7

2025 Flight Track Utilization Percentages - Alternative 1

Arrivals						Departures					
Runway	Track	Day	Eve	Night	Total	Runway	Track	Day	Eve	Night	Total
25L	LN_WAK2	0.02%	0.03%	0.01%	0.02%	25L	LW_MZB1	0.44%	1.67%	0.71%	0.63%
25L	LW_FIM1	0.83%	1.53%	1.02%	0.97%	25L	LW_MZB2	0.07%	0.28%	0.12%	0.10%
25L	LW_FIM2	0.03%	0.05%	0.03%	0.03%	25L	LW_STR	0.39%	1.50%	0.64%	0.57%
25L	LW_STR	1.88%	3.46%	2.31%	2.20%	25L	LW_STR1	0.06%	0.22%	0.09%	0.08%
25L	LW_VIS	1.34%	2.46%	1.64%	1.57%	25L	LW_STR2	0.29%	1.12%	0.48%	0.43%
25L	NJ_MPD	0.56%	0.47%	0.56%	0.55%	25L	LW_STR3	0.25%	0.95%	0.40%	0.36%
25L	NJ_SAU	0.29%	0.24%	0.29%	0.28%	25L	NJ_GMN	0.05%	0.09%	0.05%	0.05%
25L	NJ_VIS	2.39%	2.01%	2.36%	2.32%	25L	NJ_MZB1	0.57%	1.06%	0.61%	0.64%
25L	NJ_WAK1	0.32%	0.27%	0.31%	0.31%	25L	NJ_MZB2	0.27%	0.50%	0.29%	0.30%
25L	SJ_FIM1	1.12%	0.51%	0.58%	0.95%	25L	NJ_PMD	0.03%	0.05%	0.03%	0.03%
25L	SJ_FIM2	0.05%	0.02%	0.03%	0.04%	25L	SJ_GMN	0.22%	0.14%	0.12%	0.19%
25L	SJ_STR	5.15%	2.33%	2.65%	4.35%	25L	SJ_LUP	0.55%	0.34%	0.29%	0.48%
25L	SJ_VIS	1.55%	0.70%	0.79%	1.31%	25L	SJ_MZB1	1.08%	0.68%	0.58%	0.95%
25L	SJ_VNY	0.06%	0.03%	0.03%	0.05%	25L	SJ_MZB2	0.21%	0.13%	0.11%	0.18%
25L	SN_FIM1	0.55%	0.35%	0.45%	0.50%	25L	SJ_ST2	0.18%	0.11%	0.10%	0.16%
25L	SN_N1	13.88%	8.88%	11.31%	12.70%	25L	SJ_STR	0.11%	0.07%	0.06%	0.10%
25L	SN_VIS	2.56%	1.64%	2.09%	2.34%	25L	SJ_TRN	0.05%	0.03%	0.03%	0.05%
25L	SW_FIM	0.08%	0.21%	0.15%	0.11%	25L	SJ_VNY	0.20%	0.12%	0.11%	0.17%
25L	SW_N1	3.06%	8.47%	5.85%	4.34%	25L	SN_LUP	0.02%	0.00%	0.00%	0.01%
25L	SW_VIS	0.62%	1.72%	1.19%	0.88%	25L	SN_MZB1	0.09%	0.00%	0.00%	0.06%
25L	SW_WAK1	0.21%	0.58%	0.40%	0.30%	25L	SN_MZB2	0.02%	0.00%	0.00%	0.01%
25R	LN_FIM1	0.02%	0.01%	0.00%	0.01%	25L	SN_N1	0.01%	0.00%	0.00%	0.00%
25R	LN_STR	0.59%	0.30%	0.11%	0.48%	25L	SW_GMN	0.02%	0.04%	0.00%	0.02%
25R	LN_VIS	0.13%	0.07%	0.03%	0.11%	25L	SW_LUP	0.04%	0.07%	0.01%	0.04%
25R	LN_WAK1	0.08%	0.04%	0.01%	0.06%	25L	SW_MZB1	0.28%	0.53%	0.05%	0.27%
25R	LN_WAK2	0.03%	0.02%	0.01%	0.03%	25L	SW_MZB2	0.02%	0.03%	0.00%	0.02%
25R	LW_FIM1	0.27%	0.40%	0.12%	0.27%	25L	SW_N1	0.03%	0.06%	0.01%	0.03%
25R	LW_FIM2	0.09%	0.13%	0.04%	0.09%	25R	LN_GMN	0.05%	0.05%	0.08%	0.05%
25R	LW_STR	0.46%	0.71%	0.21%	0.47%	25R	LN_LUP	1.27%	1.27%	2.20%	1.42%
25R	LW_VIS	0.42%	0.64%	0.19%	0.43%	25R	LN_MZB1	3.14%	3.15%	5.45%	3.52%
25R	NJ_MPD	0.06%	0.04%	0.05%	0.06%	25R	LN_MZB2	0.75%	0.75%	1.30%	0.84%
25R	NJ_SAU	0.05%	0.03%	0.04%	0.04%	25R	LN_STR1	1.24%	1.24%	2.15%	1.39%
25R	NJ_VIS	0.38%	0.22%	0.30%	0.34%	25R	LN_STR2	0.26%	0.26%	0.45%	0.29%
25R	NJ_WAK1	0.04%	0.03%	0.03%	0.04%	25R	LN_SXC	0.01%	0.01%	0.02%	0.01%
25R	SJ_FIM1	0.20%	0.14%	0.00%	0.16%	25R	LW_GMN	0.07%	0.10%	0.46%	0.14%
25R	SJ_STR	0.69%	0.47%	0.01%	0.56%	25R	LW_LUP	0.24%	0.32%	1.46%	0.45%
25R	SJ_VIS	0.24%	0.16%	0.00%	0.19%	25R	LW_MZB1	0.37%	0.49%	2.26%	0.69%
25R	SN_FIM1	0.14%	0.16%	0.02%	0.13%	25R	LW_MZB2	0.29%	0.39%	1.80%	0.55%
25R	SN_N1	1.88%	2.15%	0.34%	1.72%	25R	LW_STR1	1.37%	1.82%	8.43%	2.58%
25R	SN_VIS	0.46%	0.52%	0.08%	0.42%	25R	LW_STR2	0.44%	0.58%	2.70%	0.83%

Table 7

2025 Flight Track Utilization Percentages - Alternative 1

Arrivals						Departures					
Runway	**Track**	**Day**	**Eve**	**Night**	**Total**	**Runway**	**Track**	**Day**	**Eve**	**Night**	**Total**
25R	SW_N1	0.55%	0.77%	0.51%	0.58%	25R	LW_STR3	0.04%	0.05%	0.24%	0.07%
25R	SW_VIS	0.11%	0.15%	0.10%	0.11%	25R	LW_SXC	0.00%	0.01%	0.02%	0.01%
25R	SW_WAK1	0.15%	0.22%	0.14%	0.16%	25R	NJ_GMN	0.05%	0.07%	0.03%	0.05%
Total		**100.00%**	**100.00%**	**100.00%**	**100.00%**	25R	NJ_MZB1	2.04%	2.79%	1.17%	1.99%
						25R	NJ_MZB2	0.95%	1.30%	0.55%	0.93%
						25R	NJ_PMD	0.21%	0.29%	0.12%	0.21%
						25R	NJ_TWA	0.10%	0.14%	0.06%	0.10%
						25R	SJ_GMN	1.05%	1.12%	0.46%	0.96%
						25R	SJ_LUP	1.07%	1.15%	0.47%	0.98%
						25R	SJ_MZB1	4.10%	4.40%	1.81%	3.76%
						25R	SJ_MZB2	0.19%	0.20%	0.08%	0.17%
						25R	SJ_STR	0.37%	0.40%	0.16%	0.34%
						25R	SJ_TR2	0.16%	0.17%	0.07%	0.15%
						25R	SJ_TRN	0.77%	0.82%	0.34%	0.70%
						25R	SJ_VNY	0.15%	0.16%	0.07%	0.14%
						25R	SN_GMN	0.39%	0.40%	0.26%	0.37%
						25R	SN_LUP	3.55%	3.65%	2.33%	3.36%
						25R	SN_MZB1	8.43%	8.67%	5.54%	7.99%
						25R	SN_MZB2	1.29%	1.32%	0.85%	1.22%
						25R	SN_N1	1.68%	1.72%	1.10%	1.59%
						25R	SN_N2	0.30%	0.31%	0.20%	0.29%
						25R	SW_GMN	0.19%	0.20%	0.38%	0.22%
						25R	SW_LUP	0.72%	0.74%	1.45%	0.84%
						25R	SW_MZB1	3.96%	4.12%	8.01%	4.64%
						25R	SW_MZB2	0.45%	0.47%	0.92%	0.53%
						25R	SW_N1	1.07%	1.11%	2.17%	1.26%
						25R	SW_N2	0.34%	0.35%	0.68%	0.39%
						Total		**100.00%**	**100.00%**	**100.00%**	**100.00%**

Notes:

Day: 7:00 a.m. to 6:59 p.m., Eve: 7:00 p.m. to 9:59 p.m., Night: 10:00 p.m. to 6:59 a.m.
Totals may not add to 100 percent due to rounding.

Source: Ricondo & Associates, Inc., 2012 (2025 forecast); LAWA, 2008 (2009 flight track utilization).

Table 8

2025 Average Annual Day Operations and Fleet Mix

INM Aircraft Type	Aircraft Group	Part 36 Stage	Landings				Takeoffs				Total Operations			
			Day	Eve	Night	Total	Day	Eve	Night	Total	Day	Eve	Night	Total
727EM2	LNB	3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
757300	LNB	3	8.5	2.8	1.9	13.2	7.5	1.9	3.8	13.2	16.0	4.7	5.7	26.4
757PW	LNB	3	45.3	17.9	7.5	70.8	47.2	8.5	15.1	70.8	92.5	26.4	22.6	141.6
757RR	LNB	3	1.9	0.0	0.9	2.8	1.9	0.0	0.9	2.8	3.8	0.0	1.9	5.7
A321-232	LNB	3	30.6	7.0	6.4	43.9	28.1	2.6	13.1	43.9	58.7	9.6	19.5	87.8
DC870	LNB	3	0.0	0.0	0.9	0.9	0.0	0.9	0.0	0.9	0.0	0.9	0.9	1.9
747200	LWB	3	0.9	0.0	0.0	0.9	0.0	0.9	0.0	0.9	0.9	0.9	0.0	1.9
74720B	LWB	3	0.0	0.0	0.9	0.9	0.0	0.0	0.9	0.9	0.0	0.0	1.9	1.9
747400	LWB	3	16.2	6.7	9.7	32.6	13.7	2.8	16.0	32.6	29.8	9.6	25.7	65.1
777200	LWB	3	16.7	7.2	4.4	28.3	18.4	1.9	8.0	28.3	35.1	9.1	12.4	56.6
777300	LWB	3	5.2	2.8	2.8	10.9	5.2	1.9	3.8	10.9	10.4	4.7	6.6	21.7
A330-301	LWB	3	1.9	0.0	0.0	1.9	0.9	0.9	0.0	1.9	2.8	0.9	0.0	3.8
A330-343	LWB	3	0.9	0.0	0.0	0.9	0.9	0.0	0.0	0.9	1.9	0.0	0.0	1.9
A340-211	LWB	3	6.6	0.9	0.0	7.5	4.7	1.9	0.9	7.5	11.3	2.8	0.9	15.1
A340-642	LWB	3	2.8	0.0	0.0	2.8	1.9	0.9	0.0	2.8	4.7	0.9	0.0	5.7
C130E	LWB	N/A	0.9	0.0	0.0	0.9	0.0	0.9	0.0	0.9	0.9	0.9	0.0	1.9
DC1010	LWB	3	1.2	2.4	1.2	4.7	1.6	1.6	1.6	4.7	2.8	3.9	2.8	9.4
DC1030	LWB	3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MD11GE	LWB	3	0.0	0.0	3.8	3.8	0.9	0.0	2.8	3.8	0.9	0.0	6.6	7.5
MD11PW	LWB	3	0.0	0.0	0.9	0.9	0.0	0.0	0.9	0.9	0.0	0.0	1.9	1.9
1900D	NJT	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
BEC58P	NJT	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CNA172	NJT	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CNA182	NJT	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CNA206	NJT	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CNA208	NJT	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CNA441	NJT	N/A	0.0	0.9	0.0	0.9	0.0	0.9	0.0	0.9	0.0	1.9	0.0	1.9
DHC6	NJT	N/A	5.2	0.0	1.9	7.1	3.3	0.9	2.8	7.1	8.5	0.9	4.7	14.2
DHC830	NJT	3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
EMB120	NJT	3	47.2	8.5	8.5	64.2	46.2	10.4	7.5	64.2	93.4	18.9	16.0	128.3
GASEPF	NJT	N/A	1.9	0.0	0.0	1.9	1.9	0.0	0.0	1.9	3.8	0.0	0.0	3.8
GASEPV	NJT	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
PA31	NJT	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SD330	NJT	3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A380-841	NLA	3	9.0	3.8	0.0	12.7	5.4	2.8	4.5	12.7	14.4	6.6	4.5	25.5
747800	NLA	3	1.9	0.0	0.0	1.9	0.9	0.9	0.0	1.9	2.8	0.9	0.0	3.8
CIT3	SJT	3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table 8

2025 Average Annual Day Operations and Fleet Mix

INM Aircraft Type	Aircraft Group	Part 36 Stage	Landings				Takeoffs				Total Operations			
			Day	Eve	Night	Total	Day	Eve	Night	Total	Day	Eve	Night	Total
CL600	SJT	3	3.8	0.9	0.0	4.7	4.7	0.0	0.0	4.7	8.5	0.9	0.0	9.4
CL601	SJT	3	0.9	0.0	0.0	0.9	0.9	0.0	0.0	0.9	1.9	0.0	0.0	1.9
CNA500	SJT	3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CNA55B	SJT	3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CNA750	SJT	3	1.9	0.9	0.0	2.8	0.9	0.9	0.9	2.8	2.8	1.9	0.9	5.7
CRJ9-ER	SJT	3	76.1	14.1	7.5	97.7	75.9	15.2	6.6	97.7	152.0	29.3	14.1	195.3
EMB145	SJT	3	32.1	7.5	0.9	40.6	31.1	6.6	2.8	40.6	63.2	14.2	3.8	81.2
EMB190	SJT	3	7.5	0.9	0.9	9.4	8.5	0.9	0.0	9.4	16.0	1.9	0.9	18.9
F10062	SJT	3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FAL20	SJT	2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FAL50	SJT	3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FAL900	SJT	3	0.0	0.0	0.9	0.9	0.0	0.9	0.0	0.9	0.0	0.9	0.9	1.9
GIIB	SJT	2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
GIV	SJT	3	3.8	0.0	0.0	3.8	2.8	0.0	0.9	3.8	6.6	0.0	0.9	7.5
GV	SJT	3	1.9	0.0	0.0	1.9	1.9	0.0	0.0	1.9	3.8	0.0	0.0	3.8
IA1125	SJT	3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
LEAR25	SJT	2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
LEAR35	SJT	3	6.1	0.0	0.0	6.1	4.2	0.0	1.9	6.1	10.4	0.0	1.9	12.3
MU3001	SJT	3	0.9	0.0	1.9	2.8	2.8	0.0	0.0	2.8	3.8	0.0	1.9	5.7
717200	SNB	3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
737300	SNB	3	29.3	2.8	0.9	33.0	28.3	4.7	0.0	33.0	57.6	7.5	0.9	66.1
737400	SNB	3	0.0	0.9	0.0	0.9	0.0	0.9	0.0	0.9	0.0	1.9	0.0	1.9
737500	SNB	3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
737700	SNB	3	75.5	14.2	11.3	101.0	80.2	12.3	8.5	101.0	155.7	26.4	19.8	201.9
737800	SNB	3	108.6	15.3	19.1	143.0	112.1	12.1	18.8	143.0	220.7	27.4	37.8	285.9
737N17	SNB	3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A319-131	SNB	3	21.7	1.9	1.9	25.5	21.7	2.8	0.9	25.5	43.4	4.7	2.8	51.0
A320-211	SNB	3	18.9	6.6	3.8	29.3	21.7	5.7	1.9	29.3	40.6	12.3	5.7	58.5
A320-232	SNB	3	21.7	3.8	4.7	30.2	23.6	0.9	5.7	30.2	45.3	4.7	10.4	60.4
BAC111	SNB	3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
DC93LW	SNB	3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
DC950	SNB	3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MD81	SNB	3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MD82	SNB	3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MD83	SNB	3	5.7	1.9	0.0	7.5	6.6	0.0	0.9	7.5	12.3	1.9	0.9	15.1
767300	SWB	3	40.6	21.7	15.1	77.4	55.7	4.7	17.0	77.4	96.3	26.4	32.1	154.8
767400	SWB	3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
767CF6	SWB	3	7.5	1.9	2.8	12.3	10.4	0.9	0.9	12.3	17.9	2.8	3.8	24.5
A300-622R	SWB	3	0.9	0.0	0.9	1.9	0.0	0.9	0.9	1.9	0.9	0.9	1.9	3.8

Table 8

2025 Average Annual Day Operations and Fleet Mix

INM Aircraft Type	Aircraft Group	Part 36 Stage	Landings				Takeoffs				Total Operations			
			Day	Eve	Night	Total	Day	Eve	Night	Total	Day	Eve	Night	Total
A300B4-203	SWB	3	0.0	0.9	0.0	0.9	0.0	0.0	0.9	0.9	0.0	0.9	0.9	1.9
A310-304	SWB	3	7.5	5.2	3.8	16.5	6.6	3.8	6.1	16.5	14.2	9.0	9.9	33.0
DC8QN	SWB	3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total			**677.6**	**162.6**	**128.4**	**968.7**	**691.7**	**118.3**	**158.7**	**968.7**	**1369.3**	**280.9**	**287.1**	**1937.4**

Notes:

Day: 7:00 a.m. to 6:59 p.m., Eve: 7:00 p.m. to 9:59 p.m., Night: 10:00 p.m. to 6:59 a.m.
Totals may not add up to 100 percent due to rounding.

Source: Ricondo & Associates, 2012.

3.3 Alternative 2 Future (2025) Conditions

3.3.1 Alternative 2 Runway Utilization

Forecast runway assignments for this alternative were developed utilizing SIMMOD airfield and airspace simulation model, and therefore are subject to constraints imposed on the modeling process by airfield capabilities and noise abatement measures. The function of the SIMMOD model is to assign individual flights to specific runways based largely on minimizing separation requirements between various aircraft types and assign aircraft to runways based on traffic demand to maintain operational efficiency and reduce delay. Refer to the North Runway Alternatives Simulation Analysis in Appendix F, Operational Analysis, of the SPAS Report for additional details. Runway usage by aircraft category is provided in **Table 5**. **Table 9** presents the results of the simulation assignment of aircraft to runways.

Table 9

2025 Runway Utilization Percentages - Alternative 2

	Landings				Takeoffs			
Runway	**Day**	**Eve**	**Night**	**Total**	**Day**	**Eve**	**Night**	**Total**
6L	1.0%	1.1%	0.7%	1.0%	0.1%	0.0%	0.0%	0.0%
6R	0.2%	0.2%	16.1%	2.3%	0.9%	1.1%	0.4%	0.9%
7L	0.0%	0.0%	14.7%	1.9%	1.0%	0.8%	0.9%	1.0%
7R	0.9%	1.0%	0.7%	0.9%	0.1%	0.2%	0.2%	0.1%
24L	4.5%	3.7%	0.2%	3.8%	47.4%	40.8%	35.3%	44.6%
24R	44.7%	43.4%	27.7%	42.2%	1.3%	0.0%	0.0%	0.9%
25L	41.7%	43.3%	37.6%	41.4%	5.6%	10.9%	4.8%	6.1%
25R	7.1%	7.4%	2.3%	6.5%	43.6%	46.2%	58.4%	46.3%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Notes:

Day: 7:00 a.m. to 6:59 p.m., Eve: 7:00 p.m. to 9:59 p.m., Night: 10:00 p.m. to 6:59 a.m.
Totals may not add to 100 percent due to rounding.

Source: Ricondo & Associates, Inc., 2012 (SIMMOD output); LAWA, 2009 (2009 Over-Ocean flight data and runway use).

The airport's predominant configuration utilizes Runways 24R and 25L for arrivals and Runways 24L and 25R for departures. The airport's present noise abatement measures, which express a preference for Over-Ocean procedures between midnight and 6:30 a.m., are reflected in the more frequent use of Runway 6R for arrival operations during the night hours. The dominant operating configuration during the period when Over-Ocean procedures are in effect consists of approaches to the north inboard runway (Runway 6R) or south inboard runway (Runway 7L), and departures from the south inboard runway (Runway 25R) and north inboard runway (Runway 24L). The use of Over-Ocean procedures was based on baseline (2009) conditions and applied to the forecasted operations. This included non-conforming easterly departures as well. Also reflected in the nighttime usage is the airport's policy that, to the extent practical, operations between 10:00 p.m. and 7:00 a.m. will be made to and from the inboard runways, but was based on demand levels as modeled in SIMMOD.

3.3.2 Alternative 2 Flight Tracks

The flight tracks and their usage for Alternative 2 are not substantially different from the utilization patterns of the baseline (2009) conditions. The only difference is the start of takeoff roll location for Runway 24L. Flight tracks are illustrated in **Figure 3**. The proportions of operations assigned to each

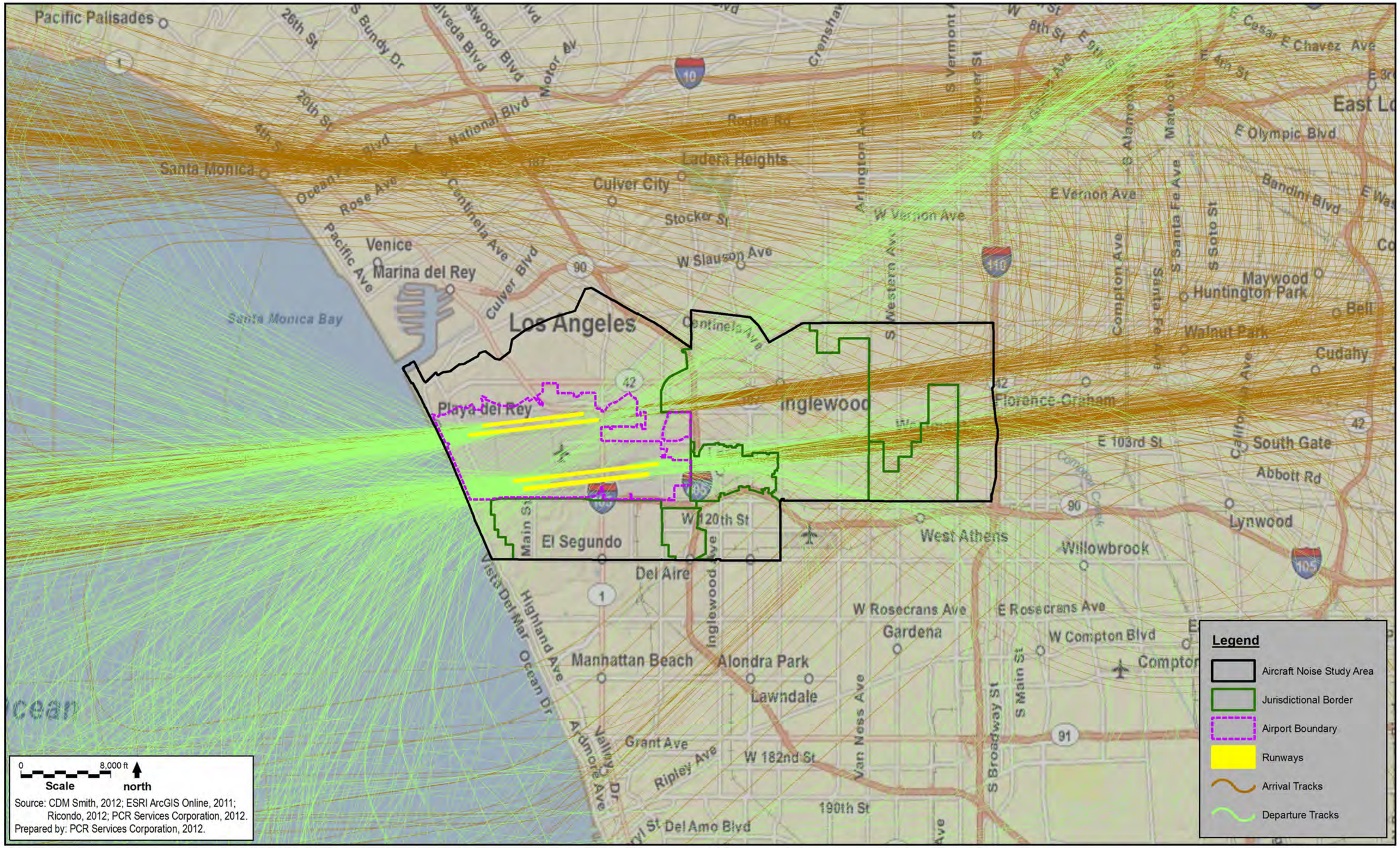
flight track are indicated in **Table 10**. As is the case with all alternatives, the dominant flight paths that impact the noise exposure pattern at LAX are associated with the arrivals from the east.

Departure operations along tracks to the east have little impact upon the CNEL noise exposure contour locations, due to the infrequent use of east flow operations. Departure tracks to the west define the greatest area of the noise exposure pattern, but the least area of overflight impact because virtually all the area under the noise exposure contours to the west is over the ocean.

The dispersion of individual aircraft departure tracks around the flight paths is expected to decrease in the future as the industry moves toward the development of GPS/FMS flight procedures. Use of GPS procedures will result in the maintenance of more consistent flight paths than has been the case historically, because pilots (or on-board FMS) will use specific geographic coordinates to navigate to and from the airport. Further, additional dispersion adjustments of flight tracks in the dominant departure direction lends no refinement to the definition of impacts, because there are no noise-sensitive properties directly west of the runways under the departure paths.

3.3.3 Alternative 2 Fleet and Aircraft Operations

The fleet and aircraft operations assumptions remain constant for all of the alternatives. Refer to Section 2.3.2 and **Table 8**.



LAX Specific Plan Amendment Study Draft EIR	**2025 Alternative 2 Flight Tracks**	Figure 3

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Table 10

2025 Flight Track Utilization Percentages - Alternative 2

Arrivals						Departures					
Runway	**Track**	**Day**	**Eve**	**Night**	**Total**	**Runway**	**Track**	**Day**	**Eve**	**Night**	**Total**
6L	LN_CIV1	0.04%	0.05%	0.04%	0.04%	6L	NJ_FIM	0.00%	0.00%	0.00%	0.00%
6L	LN_CIV2	0.03%	0.05%	0.03%	0.03%	6L	NJ_GMN	0.01%	0.01%	0.00%	0.01%
6L	LN_CIV3	0.01%	0.01%	0.01%	0.01%	6L	SN_LUP	0.05%	0.02%	0.00%	0.04%
6L	LN_STR	0.04%	0.06%	0.04%	0.05%	6R	LN_GMN	0.04%	0.04%	0.04%	0.04%
6L	LW_CIV1	0.10%	0.14%	0.07%	0.10%	6R	LN_GMN2	0.04%	0.04%	0.04%	0.04%
6L	LW_FIM	0.01%	0.02%	0.01%	0.01%	6R	LW_LUP	0.04%	0.12%	0.00%	0.05%
6L	NJ_CAS	0.03%	0.02%	0.03%	0.03%	6R	LW_LUP1	0.02%	0.06%	0.00%	0.02%
6L	NJ_WAK	0.03%	0.02%	0.03%	0.03%	6R	NJ_FIM	0.03%	0.06%	0.04%	0.04%
6L	SJ_CIV	0.03%	0.02%	0.01%	0.02%	6R	NJ_GMN	0.02%	0.03%	0.02%	0.02%
6L	SJ_FIM	0.17%	0.16%	0.05%	0.15%	6R	SJ_GMN	0.13%	0.17%	0.04%	0.12%
6L	SN_CIV1	0.24%	0.21%	0.15%	0.22%	6R	SJ_LUP	0.05%	0.07%	0.01%	0.04%
6L	SN_CIV2	0.01%	0.01%	0.01%	0.01%	6R	SN_GMN	0.18%	0.17%	0.05%	0.16%
6L	SN_FIM	0.20%	0.18%	0.13%	0.19%	6R	SN_LUP	0.30%	0.29%	0.08%	0.26%
6L	SN_OCN	0.02%	0.01%	0.01%	0.01%	6R	SW_N1	0.07%	0.06%	0.05%	0.06%
6L	SW_CIV	0.05%	0.09%	0.05%	0.05%	7L	LN_BLH1	0.02%	0.02%	0.02%	0.02%
6L	SW_N1	0.03%	0.06%	0.03%	0.03%	7L	LN_BLH2	0.06%	0.05%	0.06%	0.05%
6R	LN_CIV1	0.00%	0.00%	0.43%	0.06%	7L	LN_LUP	0.01%	0.01%	0.01%	0.01%
6R	LN_CIV2	0.00%	0.00%	0.17%	0.02%	7L	LN_VTU	0.09%	0.07%	0.09%	0.08%
6R	LN_FIM	0.00%	0.00%	0.12%	0.02%	7L	LW_GMN	0.00%	0.00%	0.00%	0.00%
6R	LN_STR	0.01%	0.01%	2.31%	0.31%	7L	LW_LUP	0.00%	0.00%	0.00%	0.00%
6R	LW_CIV	0.00%	0.00%	0.74%	0.10%	7L	LW_SXC	0.01%	0.01%	0.02%	0.01%
6R	LW_CIV1	0.00%	0.00%	0.42%	0.06%	7L	LW_SXC1	0.00%	0.00%	0.01%	0.00%
6R	LW_FIM1	0.01%	0.01%	2.85%	0.39%	7L	LW_VTU	0.06%	0.05%	0.12%	0.07%
6R	LW_FIM2	0.00%	0.00%	0.85%	0.11%	7L	NJ_BLH1	0.03%	0.04%	0.02%	0.03%
6R	LW_STR	0.00%	0.00%	0.21%	0.03%	7L	NJ_BLH2	0.04%	0.05%	0.02%	0.04%
6R	NJ_CAS	0.00%	0.00%	0.05%	0.01%	7L	SJ_BLH	0.09%	0.07%	0.03%	0.08%
6R	NJ_SAU	0.01%	0.01%	0.47%	0.07%	7L	SJ_LUP	0.04%	0.03%	0.01%	0.03%
6R	NJ_WAK1	0.00%	0.00%	0.05%	0.01%	7L	SJ_VTU	0.05%	0.04%	0.02%	0.05%
6R	NJ_WAK2	0.00%	0.00%	0.19%	0.03%	7L	SN_BLH	0.21%	0.12%	0.07%	0.17%
6R	SJ_CIV	0.02%	0.02%	0.88%	0.14%	7L	SN_N1	0.03%	0.02%	0.01%	0.02%
6R	SJ_FIM	0.02%	0.02%	0.68%	0.11%	7L	SN_VTU	0.13%	0.08%	0.05%	0.11%
6R	SN_CIV1	0.06%	0.04%	1.46%	0.24%	7L	SW_BLH	0.06%	0.04%	0.02%	0.05%
6R	SN_FIM	0.01%	0.01%	0.33%	0.05%	7L	SW_N1	0.03%	0.02%	0.01%	0.02%
6R	SW_CIV	0.00%	0.01%	1.75%	0.24%	7L	SW_VTU	0.06%	0.05%	0.02%	0.06%
6R	SW_FIM	0.00%	0.00%	0.24%	0.03%	7R	LN_BLH1	0.00%	0.02%	0.00%	0.00%
6R	SW_N1	0.00%	0.01%	1.87%	0.25%	7R	LW_BLH	0.00%	0.00%	0.00%	0.00%
7L	LN_CIV2	0.00%	0.00%	0.42%	0.06%	7R	LW_LUP	0.00%	0.00%	0.00%	0.00%
7L	LN_STR	0.00%	0.00%	1.87%	0.25%	7R	LW_VTU	0.02%	0.06%	0.05%	0.03%
7L	LW_CIV1	0.00%	0.00%	0.34%	0.05%	7R	NJ_BLH1	0.01%	0.01%	0.01%	0.01%

Table 10

2025 Flight Track Utilization Percentages - Alternative 2

Arrivals						Departures					
Runway	**Track**	**Day**	**Eve**	**Night**	**Total**	**Runway**	**Track**	**Day**	**Eve**	**Night**	**Total**
7L	LW_CIV2	0.00%	0.00%	1.38%	0.18%	7R	NJ_BLH2	0.01%	0.02%	0.01%	0.01%
7L	LW_FIM	0.00%	0.00%	2.07%	0.27%	7R	SJ_H20	0.05%	0.04%	0.03%	0.05%
7L	LW_STR	0.00%	0.00%	0.69%	0.09%	7R	SN_BLH	0.00%	0.00%	0.00%	0.00%
7L	NJ_SAU	0.00%	0.00%	0.72%	0.10%	7R	SW_N1	0.00%	0.01%	0.00%	0.00%
7L	SJ_CIV1	0.00%	0.00%	0.32%	0.04%	7R	SW_N2	0.01%	0.01%	0.00%	0.01%
7L	SJ_CIV2	0.00%	0.00%	0.19%	0.03%	24L	LN_GMN	0.03%	0.00%	0.05%	0.03%
7L	SJ_FIM	0.00%	0.00%	0.06%	0.01%	24L	LN_GMNX	0.07%	0.08%	0.12%	0.08%
7L	SN_CIV2	0.00%	0.00%	0.73%	0.10%	24L	LN_LUP	0.46%	0.02%	0.85%	0.47%
7L	SN_FIM	0.00%	0.00%	1.46%	0.19%	24L	LN_LUPX	1.18%	1.22%	1.88%	1.30%
7L	SN_OCN	0.00%	0.00%	0.73%	0.10%	24L	LN_MZB1	0.50%	0.02%	0.93%	0.51%
7L	SW_CIV1	0.00%	0.00%	2.04%	0.27%	24L	LN_MZB1X	1.28%	1.33%	2.05%	1.41%
7L	SW_N1	0.00%	0.00%	1.63%	0.22%	24L	LN_MZB2	0.14%	0.01%	0.25%	0.14%
7R	LN_CIV1	0.04%	0.06%	0.02%	0.04%	24L	LN_MZB2X	0.35%	0.36%	0.56%	0.38%
7R	LN_STR	0.10%	0.14%	0.05%	0.10%	24L	LN_STR	0.36%	0.02%	0.67%	0.37%
7R	LW_CIV1	0.01%	0.02%	0.01%	0.01%	24L	LN_STRX	0.93%	0.96%	1.48%	1.02%
7R	LW_CIV2	0.01%	0.02%	0.01%	0.01%	24L	LW_GMN	0.17%	0.26%	0.24%	0.19%
7R	LW_CIV3	0.00%	0.01%	0.01%	0.01%	24L	LW_LUP	0.50%	0.76%	0.71%	0.56%
7R	LW_CIV4	0.02%	0.03%	0.02%	0.02%	24L	LW_MZB1	0.28%	0.43%	0.40%	0.32%
7R	LW_FIM	0.02%	0.05%	0.03%	0.03%	24L	LW_MZB2	0.68%	1.04%	0.98%	0.77%
7R	LW_STR	0.01%	0.02%	0.01%	0.01%	24L	LW_STR	1.64%	2.50%	2.35%	1.86%
7R	NJ_OCN	0.06%	0.05%	0.06%	0.06%	24L	LW_SXC	0.02%	0.02%	0.02%	0.02%
7R	NJ_WAK1	0.02%	0.01%	0.02%	0.02%	24L	NJ_GMN	0.00%	0.00%	0.00%	0.00%
7R	SJ_CIV1	0.04%	0.03%	0.02%	0.04%	24L	NJ_GMNX	0.88%	1.63%	1.48%	1.07%
7R	SJ_CIV2	0.04%	0.03%	0.02%	0.04%	24L	NJ_MPD	0.00%	0.00%	0.00%	0.00%
7R	SJ_FIM	0.01%	0.01%	0.00%	0.01%	24L	NJ_MPDX	0.08%	0.14%	0.13%	0.09%
7R	SJ_OCN	0.08%	0.05%	0.04%	0.07%	24L	NJ_PMD	0.00%	0.00%	0.00%	0.00%
7R	SN_CIV1	0.20%	0.13%	0.16%	0.18%	24L	NJ_PMDX	0.13%	0.25%	0.22%	0.16%
7R	SN_OCN	0.12%	0.08%	0.10%	0.11%	24L	NJ_VTU	0.00%	0.00%	0.00%	0.00%
7R	SW_CIV1	0.03%	0.08%	0.04%	0.04%	24L	NJ_VTUX	1.02%	1.90%	1.72%	1.24%
7R	SW_CIV2	0.03%	0.08%	0.04%	0.04%	24L	SJ_GMN	0.78%	1.20%	0.88%	0.85%
7R	SW_FIM	0.01%	0.03%	0.02%	0.01%	24L	SJ_GMNX	2.65%	2.99%	0.52%	2.34%
7R	SW_N1	0.02%	0.04%	0.02%	0.02%	24L	SJ_LUP	0.15%	0.23%	0.17%	0.16%
7R	SW_OCN	0.00%	0.01%	0.00%	0.00%	24L	SJ_LUPX	0.52%	0.58%	0.10%	0.46%
24L	LN_FIM	0.13%	0.13%	0.00%	0.11%	24L	SJ_MZB	0.08%	0.12%	0.09%	0.08%
24L	LN_STR	0.46%	0.44%	0.00%	0.40%	24L	SJ_MZBX	0.26%	0.30%	0.05%	0.23%
24L	LN_STR2	0.07%	0.06%	0.00%	0.06%	24L	SJ_STR	0.24%	0.36%	0.27%	0.26%
24L	LN_WAK	0.13%	0.13%	0.00%	0.11%	24L	SJ_STRX	0.80%	0.91%	0.16%	0.71%
24L	LW_FIM1	0.23%	0.35%	0.00%	0.22%	24L	SJ_TRN	0.59%	0.91%	0.67%	0.64%
24L	LW_FIM2	0.01%	0.02%	0.00%	0.01%	24L	SJ_TRNX	2.02%	2.28%	0.40%	1.78%

Table 10

2025 Flight Track Utilization Percentages - Alternative 2

Arrivals						Departures					
Runway	Track	Day	Eve	Night	Total	Runway	Track	Day	Eve	Night	Total
24L	LW_STR	0.04%	0.06%	0.00%	0.04%	24L	SJ_VNY	0.02%	0.02%	0.02%	0.02%
24L	NJ_SAU	0.20%	0.15%	0.02%	0.17%	24L	SJ_VNYX	0.05%	0.06%	0.01%	0.05%
24L	NJ_WAK	0.23%	0.17%	0.02%	0.19%	24L	SN_GMN	1.95%	1.49%	1.27%	1.78%
24L	SJ_FIM	1.06%	0.73%	0.03%	0.87%	24L	SN_GMNX	3.01%	1.84%	1.16%	2.56%
24L	SJ_STR	0.25%	0.17%	0.01%	0.20%	24L	SN_LUP	2.29%	1.75%	1.49%	2.09%
24L	SN_FIM	0.62%	0.47%	0.05%	0.52%	24L	SN_LUPX	3.54%	2.16%	1.36%	3.01%
24L	SN_N1	0.74%	0.56%	0.06%	0.62%	24L	SN_MZB1	3.47%	2.66%	2.27%	3.18%
24L	SN_VIS	0.03%	0.03%	0.00%	0.03%	24L	SN_MZB1X	5.37%	3.28%	2.07%	4.58%
24L	SW_FIM	0.08%	0.06%	0.00%	0.06%	24L	SN_MZB2	0.31%	0.24%	0.20%	0.28%
24L	SW_N1	0.08%	0.06%	0.00%	0.06%	24L	SN_MZB2X	0.48%	0.29%	0.18%	0.41%
24L	SW_WAK	0.15%	0.12%	0.01%	0.13%	24L	SN_N1	1.94%	1.49%	1.27%	1.78%
24R	LN_FIM	0.72%	1.06%	0.59%	0.76%	24L	SN_N1X	3.01%	1.83%	1.16%	2.56%
24R	LN_STR	3.90%	5.75%	3.22%	4.12%	24L	SW_LUP	0.51%	0.14%	0.41%	0.45%
24R	LN_VIS	0.12%	0.18%	0.10%	0.13%	24L	SW_MZB	0.90%	0.25%	0.72%	0.79%
24R	LN_WAK	0.88%	1.29%	0.72%	0.93%	24L	SW_N1	1.80%	0.50%	1.45%	1.58%
24R	LW_FIM1	2.66%	3.30%	2.22%	2.71%	24R	LN_LUP	0.00%	0.00%	0.00%	0.00%
24R	LW_FIM2	0.36%	0.45%	0.30%	0.37%	24R	LN_MZB1	0.00%	0.00%	0.00%	0.00%
24R	LW_STR	0.59%	0.73%	0.49%	0.60%	24R	LN_MZB2	0.00%	0.00%	0.00%	0.00%
24R	LW_VIS	0.07%	0.09%	0.06%	0.07%	24R	LN_STR	0.00%	0.00%	0.00%	0.00%
24R	NJ_SAU	1.70%	1.05%	1.30%	1.54%	24R	NJ_GMN	0.29%	0.00%	0.00%	0.20%
24R	NJ_STR	0.02%	0.01%	0.02%	0.02%	24R	NJ_PMD	0.08%	0.00%	0.00%	0.06%
24R	NJ_VIS	0.04%	0.02%	0.03%	0.04%	24R	NJ_VTU	0.40%	0.00%	0.00%	0.28%
24R	NJ_WAK	1.56%	0.96%	1.19%	1.41%	24R	SJ_GMN	0.11%	0.00%	0.00%	0.08%
24R	SJ_FIM	7.43%	7.65%	2.60%	6.82%	24R	SJ_LUP	0.03%	0.00%	0.00%	0.02%
24R	SJ_STR	0.97%	1.00%	0.34%	0.89%	24R	SJ_STR	0.03%	0.00%	0.00%	0.02%
24R	SJ_TR1	0.51%	0.52%	0.18%	0.46%	24R	SJ_TR2	0.03%	0.00%	0.00%	0.02%
24R	SJ_VIS	0.10%	0.10%	0.04%	0.09%	24R	SJ_TRN	0.07%	0.00%	0.00%	0.05%
24R	SJ_VNY	0.14%	0.14%	0.05%	0.13%	24R	SN_GMN	0.06%	0.00%	0.00%	0.04%
24R	SN_FIM	10.36%	7.13%	6.68%	9.33%	24R	SN_LUP	0.05%	0.00%	0.00%	0.03%
24R	SN_N1	9.07%	6.24%	5.85%	8.17%	24R	SN_MZB1	0.09%	0.00%	0.00%	0.06%
24R	SN_VIS	0.37%	0.25%	0.24%	0.33%	24R	SN_MZB2	0.02%	0.00%	0.00%	0.01%
24R	SW_FIM	0.50%	0.87%	0.24%	0.53%	24R	SN_N1	0.07%	0.00%	0.00%	0.05%
24R	SW_N1	1.18%	2.06%	0.57%	1.24%	24R	SW_N1	0.00%	0.00%	0.00%	0.00%
24R	SW_VIS	0.05%	0.08%	0.02%	0.05%	25L	LN_GMN	0.00%	0.05%	0.00%	0.01%
24R	SW_WAK	1.37%	2.40%	0.67%	1.45%	25L	LN_LUP	0.00%	0.13%	0.00%	0.02%
25L	LN_FIM1	0.06%	0.09%	0.04%	0.07%	25L	LN_MZB1	0.00%	0.46%	0.00%	0.06%
25L	LN_FIM2	0.01%	0.02%	0.01%	0.01%	25L	LN_MZB2	0.00%	0.11%	0.00%	0.01%
25L	LN_STR	4.55%	6.23%	3.04%	4.63%	25L	LN_STR	0.00%	0.05%	0.00%	0.01%
25L	LN_VIS	0.33%	0.45%	0.22%	0.34%	25L	LW_GMN	0.08%	0.31%	0.13%	0.12%
25L	LN_WAK1	0.26%	0.35%	0.17%	0.26%	25L	LW_LUP	0.03%	0.10%	0.04%	0.04%

Table 10

2025 Flight Track Utilization Percentages - Alternative 2

Arrivals						Departures					
Runway	**Track**	**Day**	**Eve**	**Night**	**Total**	**Runway**	**Track**	**Day**	**Eve**	**Night**	**Total**
25L	LN_WAK2	0.02%	0.03%	0.01%	0.02%	25L	LW_MZB1	0.44%	1.65%	0.68%	0.63%
25L	LW_FIM1	0.83%	1.53%	1.09%	0.98%	25L	LW_MZB2	0.07%	0.27%	0.11%	0.10%
25L	LW_FIM2	0.03%	0.05%	0.03%	0.03%	25L	LW_STR	0.40%	1.48%	0.61%	0.56%
25L	LW_STR	1.87%	3.46%	2.47%	2.22%	25L	LW_STR1	0.06%	0.21%	0.09%	0.08%
25L	LW_VIS	1.33%	2.46%	1.75%	1.58%	25L	LW_STR2	0.30%	1.11%	0.46%	0.42%
25L	NJ_MPD	0.56%	0.48%	0.54%	0.55%	25L	LW_STR3	0.25%	0.93%	0.38%	0.36%
25L	NJ_SAU	0.29%	0.25%	0.28%	0.28%	25L	NJ_GMN	0.04%	0.08%	0.04%	0.05%
25L	NJ_VIS	2.38%	2.03%	2.30%	2.31%	25L	NJ_MZB1	0.54%	1.03%	0.53%	0.60%
25L	NJ_WAK1	0.32%	0.27%	0.31%	0.31%	25L	NJ_MZB2	0.25%	0.48%	0.25%	0.28%
25L	SJ_FIM1	1.13%	0.52%	0.56%	0.95%	25L	NJ_PMD	0.03%	0.05%	0.03%	0.03%
25L	SJ_FIM2	0.05%	0.02%	0.03%	0.04%	25L	SJ_GMN	0.22%	0.14%	0.12%	0.19%
25L	SJ_STR	5.16%	2.37%	2.56%	4.35%	25L	SJ_LUP	0.55%	0.34%	0.31%	0.49%
25L	SJ_VIS	1.55%	0.71%	0.77%	1.31%	25L	SJ_MZB1	1.09%	0.68%	0.60%	0.96%
25L	SJ_VNY	0.06%	0.03%	0.03%	0.05%	25L	SJ_MZB2	0.21%	0.13%	0.12%	0.18%
25L	SN_FIM1	0.55%	0.35%	0.45%	0.50%	25L	SJ_ST2	0.18%	0.11%	0.10%	0.16%
25L	SN_N1	13.85%	8.94%	11.33%	12.69%	25L	SJ_STR	0.11%	0.07%	0.06%	0.10%
25L	SN_VIS	2.55%	1.65%	2.09%	2.34%	25L	SJ_TRN	0.05%	0.03%	0.03%	0.05%
25L	SW_FIM	0.08%	0.21%	0.14%	0.11%	25L	SJ_VNY	0.20%	0.12%	0.11%	0.18%
25L	SW_N1	3.08%	8.53%	5.83%	4.36%	25L	SN_LUP	0.02%	0.00%	0.00%	0.01%
25L	SW_VIS	0.62%	1.73%	1.18%	0.88%	25L	SN_MZB1	0.09%	0.00%	0.00%	0.06%
25L	SW_WAK1	0.21%	0.59%	0.40%	0.30%	25L	SN_MZB2	0.02%	0.00%	0.00%	0.01%
25R	LN_FIM1	0.02%	0.01%	0.00%	0.01%	25L	SN_N1	0.01%	0.00%	0.00%	0.00%
25R	LN_STR	0.57%	0.33%	0.11%	0.47%	25L	SW_GMN	0.02%	0.04%	0.00%	0.02%
25R	LN_VIS	0.13%	0.07%	0.03%	0.11%	25L	SW_LUP	0.04%	0.07%	0.01%	0.04%
25R	LN_WAK1	0.07%	0.04%	0.01%	0.06%	25L	SW_MZB1	0.28%	0.53%	0.05%	0.27%
25R	LN_WAK2	0.03%	0.02%	0.01%	0.03%	25L	SW_MZB2	0.02%	0.03%	0.00%	0.02%
25R	LW_FIM1	0.27%	0.40%	0.08%	0.27%	25L	SW_N1	0.03%	0.06%	0.01%	0.03%
25R	LW_FIM2	0.09%	0.13%	0.03%	0.09%	25R	LN_GMN	0.05%	0.05%	0.08%	0.05%
25R	LW_STR	0.47%	0.70%	0.13%	0.47%	25R	LN_LUP	1.27%	1.28%	2.21%	1.42%
25R	LW_VIS	0.43%	0.63%	0.12%	0.42%	25R	LN_MZB1	3.14%	3.16%	5.46%	3.52%
25R	NJ_MPD	0.06%	0.03%	0.05%	0.06%	25R	LN_MZB2	0.75%	0.75%	1.30%	0.84%
25R	NJ_SAU	0.05%	0.03%	0.04%	0.04%	25R	LN_STR1	1.24%	1.25%	2.15%	1.39%
25R	NJ_VIS	0.38%	0.21%	0.33%	0.35%	25R	LN_STR2	0.26%	0.26%	0.45%	0.29%
25R	NJ_WAK1	0.04%	0.02%	0.04%	0.04%	25R	LN_SXC	0.01%	0.01%	0.02%	0.01%
25R	SJ_FIM1	0.20%	0.13%	0.01%	0.16%	25R	LW_GMN	0.08%	0.09%	0.46%	0.14%
25R	SJ_STR	0.68%	0.46%	0.03%	0.56%	25R	LW_LUP	0.24%	0.30%	1.47%	0.45%
25R	SJ_VIS	0.24%	0.16%	0.01%	0.19%	25R	LW_MZB1	0.37%	0.46%	2.27%	0.69%
25R	SN_FIM1	0.14%	0.16%	0.03%	0.13%	25R	LW_MZB2	0.29%	0.36%	1.81%	0.55%
25R	SN_N1	1.91%	2.17%	0.35%	1.75%	25R	LW_STR1	1.37%	1.71%	8.47%	2.57%

Table 10

2025 Flight Track Utilization Percentages - Alternative 2

Arrivals						Departures					
Runway	**Track**	**Day**	**Eve**	**Night**	**Total**	**Runway**	**Track**	**Day**	**Eve**	**Night**	**Total**
25R	SN_VIS	0.47%	0.53%	0.09%	0.43%	25R	LW_STR2	0.44%	0.55%	2.71%	0.82%
25R	SW_N1	0.54%	0.80%	0.55%	0.58%	25R	LW_STR3	0.04%	0.05%	0.24%	0.07%
25R	SW_VIS	0.10%	0.16%	0.11%	0.11%	25R	LW_SXC	0.00%	0.00%	0.02%	0.01%
25R	SW_WAK1	0.15%	0.22%	0.15%	0.16%	25R	NJ_GMN	0.06%	0.07%	0.03%	0.05%
Total		**100.00%**	**100.00%**	**100.00%**	**100.00%**	25R	NJ_MZB1	2.15%	2.78%	1.24%	2.08%
						25R	NJ_MZB2	1.01%	1.30%	0.58%	0.97%
						25R	NJ_PMD	0.22%	0.29%	0.13%	0.22%
						25R	NJ_TWA	0.11%	0.14%	0.06%	0.11%
						25R	SJ_GMN	1.05%	1.17%	0.46%	0.97%
						25R	SJ_LUP	1.08%	1.20%	0.47%	0.99%
						25R	SJ_MZB1	4.13%	4.59%	1.79%	3.80%
						25R	SJ_MZB2	0.19%	0.21%	0.08%	0.18%
						25R	SJ_STR	0.38%	0.42%	0.16%	0.35%
						25R	SJ_TR2	0.16%	0.18%	0.07%	0.15%
						25R	SJ_TRN	0.77%	0.86%	0.34%	0.71%
						25R	SJ_VNY	0.15%	0.17%	0.07%	0.14%
						25R	SN_GMN	0.40%	0.39%	0.26%	0.38%
						25R	SN_LUP	3.60%	3.54%	2.37%	3.40%
						25R	SN_MZB1	8.56%	8.42%	5.62%	8.06%
						25R	SN_MZB2	1.31%	1.29%	0.86%	1.23%
						25R	SN_N1	1.70%	1.67%	1.12%	1.60%
						25R	SN_N2	0.31%	0.30%	0.20%	0.29%
						25R	SW_GMN	0.19%	0.20%	0.38%	0.22%
						25R	SW_LUP	0.71%	0.74%	1.45%	0.84%
						25R	SW_MZB1	3.94%	4.11%	8.00%	4.63%
						25R	SW_MZB2	0.45%	0.47%	0.91%	0.53%
						25R	SW_N1	1.07%	1.11%	2.16%	1.25%
						25R	SW_N2	0.34%	0.35%	0.68%	0.39%
						Total		**100.00%**	**100.00%**	**100.00%**	**100.00%**

Notes:

Day: 7:00 a.m. to 6:59 p.m., Eve: 7:00 p.m. to 9:59 p.m., Night: 10:00 p.m. to 6:59 a.m.
Totals may not add to 100 percent due to rounding

Source: Ricondo & Associates, Inc., 2012 (2025 forecast); LAWA, 2008 (2009 flight track utilization).

3.4 Alternative 3 Future (2025) Conditions

3.4.1 Alternative 3 Runway Utilization

Forecast runway assignments for this alternative were developed utilizing SIMMOD airfield and airspace simulation model, and therefore are subject to constraints imposed on the modeling process by the airfield capabilities and noise abatement measures. The function of the SIMMOD model is to assign individual flights to specific runways based largely on minimizing separation requirements between various aircraft types and assign aircraft to runways based on traffic demand to maintain operational efficiency and reduce delay. Refer to the North Runway Alternatives Simulation Analysis in Appendix F, Operational Analysis, of the SPAS Report for additional details. Runway usage by aircraft category is provided in **Table 5**. **Table 11** presents the results of the simulation assignment of aircraft to runways.

Table 11

2025 Runway Utilization Percentages - Alternative 3

	Landings				Takeoffs			
Runway	**Day**	**Eve**	**Night**	**Total**	**Day**	**Eve**	**Night**	**Total**
6L	1.0%	1.1%	0.7%	1.0%	0.2%	0.0%	0.0%	0.1%
6R	0.1%	0.2%	16.9%	2.4%	1.1%	1.2%	0.5%	1.0%
7L	0.0%	0.0%	13.3%	1.8%	0.8%	0.7%	0.8%	0.8%
7R	0.9%	0.9%	0.8%	0.9%	0.1%	0.2%	0.2%	0.1%
24L	9.1%	10.0%	1.4%	8.2%	48.0%	43.3%	34.2%	45.2%
24R	43.3%	44.9%	30.5%	41.9%	1.1%	0.2%	0.0%	0.8%
25L	42.2%	40.0%	35.5%	40.9%	5.5%	11.8%	5.8%	6.3%
25R	3.4%	2.9%	0.9%	3.0%	43.4%	42.6%	58.5%	45.8%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Notes:

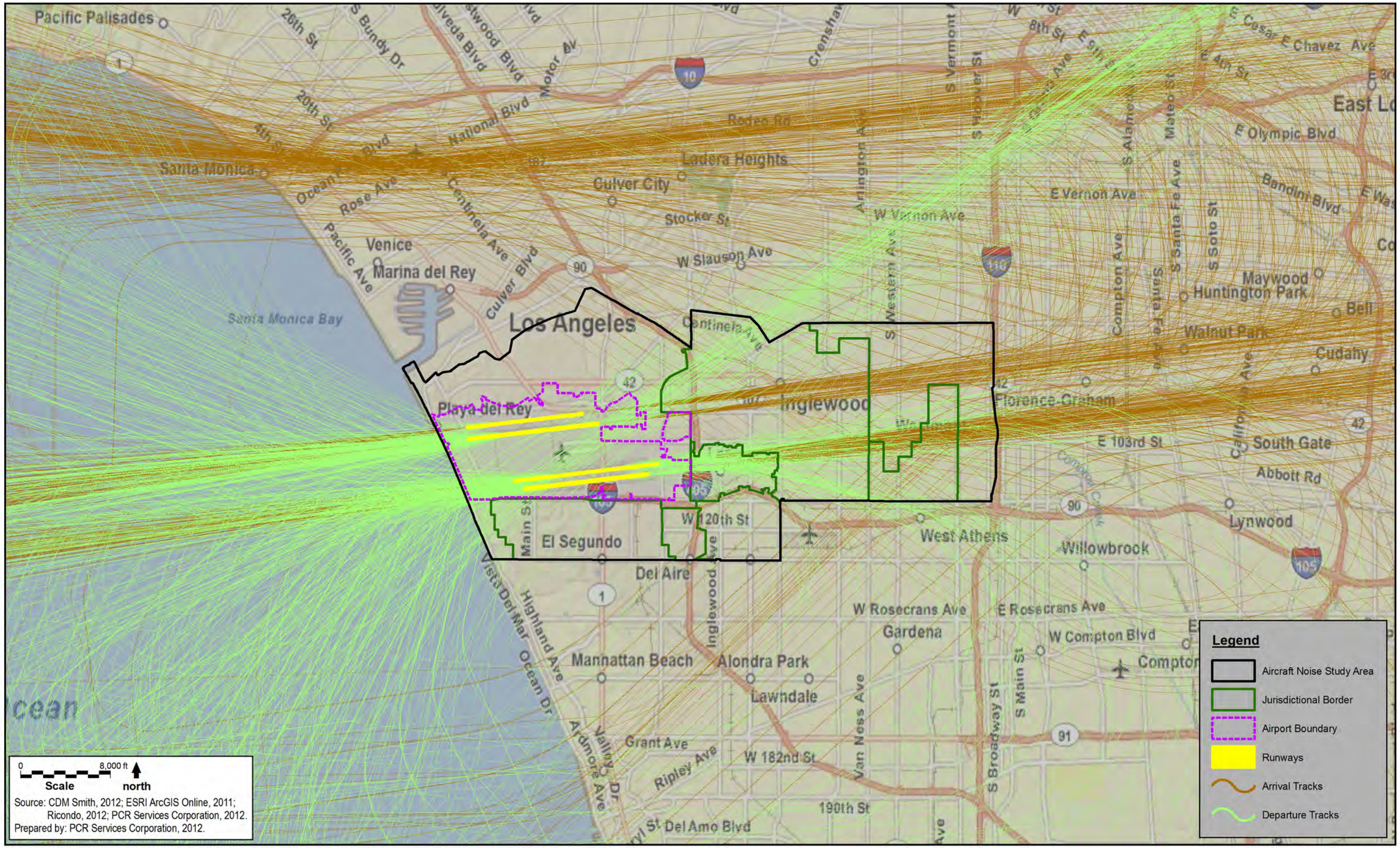
Day: 7:00 a.m. to 6:59 p.m., Eve: 7:00 p.m. to 9:59 p.m., Night: 10:00 p.m. to 6:59 a.m.
Totals may not add to 100 percent due to rounding.

Source: Ricondo & Associates, Inc., 2012 (SIMMOD output); LAWA, 2009 (2009 Over-Ocean flight data and runway use).

The airport's predominant configuration utilizes Runways 24R and 25L for arrivals and Runways 24L and 25R for departures. The airport's present noise abatement measures, which express a preference for Over-Ocean procedures between midnight and 6:30 a.m., are reflected in the more frequent use of Runway 6R for arrival operations during the night hours. The dominant operating configuration during the period when Over-Ocean procedures are in effect consists of approaches to the north inboard runway (Runway 6R) or south inboard runway (Runway 7L), and departures from the south inboard runway (Runway 25R) and north inboard runway (Runway 24L). The use of Over-Ocean procedures was based on baseline (2009) conditions and applied to the forecasted operations. This included non-conforming easterly departures as well. Also reflected in the nighttime usage is the airport's policy that, to the extent practical, operations between 10:00 p.m. and 7:00 a.m. will be made to and from the inboard runways, but was based on demand levels as modeled in SIMMOD.

3.4.2 Alternative 3 Flight Tracks

The flight tracks and their usage for Alternative 3 are not substantially different from the utilization patterns of the baseline (2009) conditions. Flight tracks are illustrated in **Figure 4**. The 340 feet southward shift of Runway 6R/24L accounts for most of the change, while the relocation of the thresholds for both north airfield runways accounts for the remainder. The proportions of operations assigned to each flight track are indicated in **Table 12**. As is the case with all alternatives, the dominant flight paths that impact the noise exposure pattern at LAX are associated with the arrivals from the east.



Source: CDM Smith, 2012; ESRI ArcGIS Online, 2011; Ricondo, 2012; PCR Services Corporation, 2012.
Prepared by: PCR Services Corporation, 2012.

LAX Specific Plan Amendment Study Draft EIR	**2025 Alternative 3 Flight Tracks**	Figure 4

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Table 12

2025 Flight Track Utilization Percentages - Alternative 3

Arrivals						Departures					
Runway	Track	Day	Eve	Night	Total	Runway	Track	Day	Eve	Night	Total
6L	LN_CIV1	0.03%	0.05%	0.04%	0.04%	6L	NJ_FIM	0.01%	0.01%	0.00%	0.01%
6L	LN_CIV2	0.03%	0.04%	0.03%	0.03%	6L	NJ_GMN	0.02%	0.01%	0.01%	0.02%
6L	LN_CIV3	0.01%	0.01%	0.01%	0.01%	6L	SN_LUP	0.13%	0.03%	0.00%	0.09%
6L	LN_STR	0.04%	0.05%	0.04%	0.04%	6R	LN_GMN	0.07%	0.05%	0.08%	0.07%
6L	LW_CIV1	0.10%	0.15%	0.09%	0.10%	6R	LN_GMN2	0.07%	0.05%	0.08%	0.07%
6L	LW_FIM	0.01%	0.02%	0.01%	0.01%	6R	LW_LUP	0.05%	0.13%	0.01%	0.05%
6L	NJ_CAS	0.03%	0.02%	0.04%	0.03%	6R	LW_LUP1	0.03%	0.06%	0.00%	0.03%
6L	NJ_WAK	0.03%	0.02%	0.04%	0.03%	6R	NJ_FIM	0.03%	0.05%	0.03%	0.03%
6L	SJ_CIV	0.03%	0.03%	0.01%	0.02%	6R	NJ_GMN	0.02%	0.03%	0.02%	0.02%
6L	SJ_FIM	0.17%	0.18%	0.05%	0.15%	6R	SJ_GMN	0.16%	0.18%	0.05%	0.15%
6L	SN_CIV1	0.21%	0.18%	0.13%	0.19%	6R	SJ_LUP	0.06%	0.07%	0.02%	0.06%
6L	SN_CIV2	0.01%	0.01%	0.01%	0.01%	6R	SN_GMN	0.18%	0.18%	0.06%	0.16%
6L	SN_FIM	0.18%	0.16%	0.11%	0.17%	6R	SN_LUP	0.30%	0.29%	0.09%	0.27%
6L	SN_OCN	0.01%	0.01%	0.01%	0.01%	6R	SW_N1	0.11%	0.06%	0.06%	0.10%
6L	SW_CIV	0.05%	0.09%	0.06%	0.06%	7L	LN_BLH1	0.02%	0.02%	0.02%	0.02%
6L	SW_N1	0.03%	0.06%	0.04%	0.04%	7L	LN_BLH2	0.04%	0.04%	0.04%	0.04%
6R	LN_CIV1	0.00%	0.00%	0.51%	0.07%	7L	LN_LUP	0.01%	0.01%	0.01%	0.01%
6R	LN_CIV2	0.00%	0.00%	0.20%	0.03%	7L	LN_VTU	0.06%	0.06%	0.06%	0.06%
6R	LN_FIM	0.00%	0.00%	0.14%	0.02%	7L	LW_GMN	0.00%	0.00%	0.00%	0.00%
6R	LN_STR	0.00%	0.01%	2.75%	0.37%	7L	LW_LUP	0.00%	0.00%	0.00%	0.00%
6R	LW_CIV	0.00%	0.00%	0.77%	0.10%	7L	LW_SXC	0.01%	0.01%	0.01%	0.01%
6R	LW_CIV1	0.00%	0.00%	0.44%	0.06%	7L	LW_SXC1	0.00%	0.00%	0.01%	0.00%
6R	LW_FIM1	0.01%	0.01%	2.96%	0.40%	7L	LW_VTU	0.05%	0.05%	0.11%	0.06%
6R	LW_FIM2	0.00%	0.00%	0.88%	0.12%	7L	NJ_BLH1	0.03%	0.04%	0.01%	0.03%
6R	LW_STR	0.00%	0.00%	0.22%	0.03%	7L	NJ_BLH2	0.04%	0.06%	0.02%	0.04%
6R	NJ_CAS	0.00%	0.00%	0.05%	0.01%	7L	SJ_BLH	0.06%	0.07%	0.02%	0.06%
6R	NJ_SAU	0.01%	0.00%	0.47%	0.07%	7L	SJ_LUP	0.03%	0.03%	0.01%	0.02%
6R	NJ_WAK1	0.00%	0.00%	0.05%	0.01%	7L	SJ_VTU	0.04%	0.04%	0.01%	0.03%
6R	NJ_WAK2	0.00%	0.00%	0.19%	0.03%	7L	SN_BLH	0.16%	0.11%	0.06%	0.14%
6R	SJ_CIV	0.02%	0.02%	0.89%	0.14%	7L	SN_N1	0.02%	0.02%	0.01%	0.02%
6R	SJ_FIM	0.02%	0.02%	0.69%	0.11%	7L	SN_VTU	0.10%	0.07%	0.04%	0.09%
6R	SN_CIV1	0.05%	0.05%	1.54%	0.25%	7L	SW_BLH	0.04%	0.04%	0.02%	0.04%
6R	SN_FIM	0.01%	0.01%	0.35%	0.06%	7L	SW_N1	0.02%	0.02%	0.01%	0.02%
6R	SW_CIV	0.00%	0.01%	1.72%	0.23%	7L	SW_VTU	0.05%	0.04%	0.02%	0.04%
6R	SW_FIM	0.00%	0.00%	0.24%	0.03%	7R	LN_BLH1	0.00%	0.02%	0.00%	0.00%
6R	SW_N1	0.00%	0.01%	1.84%	0.25%	7R	LW_BLH	0.00%	0.01%	0.01%	0.00%
7L	LN_CIV2	0.00%	0.00%	0.24%	0.03%	7R	LW_LUP	0.00%	0.01%	0.01%	0.00%
7L	LN_STR	0.00%	0.00%	1.10%	0.15%	7R	LW_VTU	0.02%	0.07%	0.07%	0.03%
7L	LW_CIV1	0.00%	0.00%	0.32%	0.04%	7R	NJ_BLH1	0.01%	0.01%	0.01%	0.01%
7L	LW_CIV2	0.00%	0.00%	1.27%	0.17%	7R	NJ_BLH2	0.01%	0.02%	0.01%	0.01%

Table 12

2025 Flight Track Utilization Percentages - Alternative 3

Arrivals						Departures					
Runway	Track	Day	Eve	Night	Total	Runway	Track	Day	Eve	Night	Total
7L	LW_FIM	0.00%	0.00%	1.91%	0.25%	7R	SJ_H20	0.05%	0.04%	0.03%	0.05%
7L	LW_STR	0.00%	0.00%	0.64%	0.08%	7R	SN_BLH	0.00%	0.00%	0.00%	0.00%
7L	NJ_SAU	0.00%	0.00%	0.58%	0.08%	7R	SW_N1	0.00%	0.01%	0.00%	0.00%
7L	SJ_CIV1	0.00%	0.00%	0.33%	0.04%	7R	SW_N2	0.00%	0.01%	0.00%	0.01%
7L	SJ_CIV2	0.00%	0.00%	0.20%	0.03%	24L	LN_GMN	0.01%	0.02%	0.02%	0.01%
7L	SJ_FIM	0.00%	0.00%	0.07%	0.01%	24L	LN_GMNX	0.10%	0.06%	0.15%	0.10%
7L	SN_CIV2	0.00%	0.00%	0.73%	0.10%	24L	LN_LUP	0.20%	0.28%	0.34%	0.24%
7L	SN_FIM	0.00%	0.00%	1.46%	0.19%	24L	LN_LUPX	1.52%	0.93%	2.37%	1.59%
7L	SN_OCN	0.00%	0.00%	0.73%	0.10%	24L	LN_MZB1	0.22%	0.31%	0.37%	0.26%
7L	SW_CIV1	0.00%	0.00%	2.07%	0.27%	24L	LN_MZB1X	1.65%	1.02%	2.58%	1.73%
7L	SW_N1	0.00%	0.00%	1.66%	0.22%	24L	LN_MZB2	0.06%	0.08%	0.10%	0.07%
7R	LN_CIV1	0.04%	0.05%	0.03%	0.04%	24L	LN_MZB2X	0.45%	0.28%	0.70%	0.47%
7R	LN_STR	0.10%	0.14%	0.08%	0.10%	24L	LN_STR	0.16%	0.22%	0.27%	0.18%
7R	LW_CIV1	0.01%	0.01%	0.01%	0.01%	24L	LN_STRX	1.20%	0.73%	1.86%	1.25%
7R	LW_CIV2	0.01%	0.01%	0.01%	0.01%	24L	LW_GMN	0.16%	0.20%	0.21%	0.17%
7R	LW_CIV3	0.00%	0.01%	0.01%	0.01%	24L	LW_LUP	0.48%	0.60%	0.61%	0.51%
7R	LW_CIV4	0.02%	0.03%	0.02%	0.02%	24L	LW_MZB1	0.27%	0.34%	0.35%	0.29%
7R	LW_FIM	0.03%	0.04%	0.03%	0.03%	24L	LW_MZB2	0.65%	0.83%	0.84%	0.71%
7R	LW_STR	0.01%	0.01%	0.01%	0.01%	24L	LW_STR	1.58%	1.99%	2.02%	1.70%
7R	NJ_OCN	0.06%	0.05%	0.06%	0.06%	24L	LW_SXC	0.02%	0.02%	0.02%	0.02%
7R	NJ_WAK1	0.02%	0.01%	0.02%	0.02%	24L	NJ_GMN	0.00%	0.00%	0.00%	0.00%
7R	SJ_CIV1	0.04%	0.02%	0.02%	0.04%	24L	NJ_GMNX	0.80%	1.55%	1.46%	1.00%
7R	SJ_CIV2	0.04%	0.02%	0.02%	0.04%	24L	NJ_MPD	0.00%	0.00%	0.00%	0.00%
7R	SJ_FIM	0.01%	0.01%	0.01%	0.01%	24L	NJ_MPDX	0.07%	0.13%	0.12%	0.09%
7R	SJ_OCN	0.08%	0.05%	0.04%	0.07%	24L	NJ_PMD	0.00%	0.00%	0.00%	0.00%
7R	SN_CIV1	0.23%	0.14%	0.21%	0.21%	24L	NJ_PMDX	0.12%	0.23%	0.22%	0.15%
7R	SN_OCN	0.15%	0.09%	0.13%	0.14%	24L	NJ_VTU	0.00%	0.00%	0.00%	0.00%
7R	SW_CIV1	0.03%	0.08%	0.04%	0.04%	24L	NJ_VTUX	0.93%	1.79%	1.69%	1.16%
7R	SW_CIV2	0.03%	0.08%	0.04%	0.04%	24L	SJ_GMN	2.78%	2.46%	0.48%	2.37%
7R	SW_FIM	0.01%	0.03%	0.02%	0.01%	24L	SJ_GMNX	1.14%	2.06%	0.74%	1.19%
7R	SW_N1	0.02%	0.04%	0.03%	0.02%	24L	SJ_LUP	0.54%	0.48%	0.09%	0.46%
7R	SW_OCN	0.00%	0.01%	0.00%	0.00%	24L	SJ_LUPX	0.22%	0.40%	0.14%	0.23%
24L	LN_FIM	0.18%	0.36%	0.02%	0.19%	24L	SJ_MZB	0.28%	0.24%	0.05%	0.23%
24L	LN_STR	0.63%	1.27%	0.06%	0.66%	24L	SJ_MZBX	0.11%	0.20%	0.07%	0.12%
24L	LN_STR2	0.09%	0.18%	0.01%	0.09%	24L	SJ_STR	0.84%	0.75%	0.14%	0.72%
24L	LN_WAK	0.18%	0.36%	0.02%	0.19%	24L	SJ_STRX	0.35%	0.62%	0.23%	0.36%
24L	LW_FIM1	0.60%	1.43%	0.12%	0.68%	24L	SJ_TRN	2.11%	1.87%	0.36%	1.80%
24L	LW_FIM2	0.03%	0.07%	0.01%	0.03%	24L	SJ_TRNX	0.87%	1.56%	0.57%	0.90%
24L	LW_STR	0.11%	0.26%	0.02%	0.12%	24L	SJ_VNY	0.05%	0.05%	0.01%	0.05%

Table 12

2025 Flight Track Utilization Percentages - Alternative 3

Arrivals						Departures					
Runway	Track	Day	Eve	Night	Total	Runway	Track	Day	Eve	Night	Total
24L	NJ_SAU	0.33%	0.14%	0.02%	0.26%	24L	SJ_VNYX	0.02%	0.04%	0.01%	0.02%
24L	NJ_WAK	0.38%	0.16%	0.02%	0.30%	24L	SN_GMN	2.57%	1.82%	0.81%	2.19%
24L	SJ_FIM	1.77%	1.56%	0.19%	1.53%	24L	SN_GMNX	2.24%	1.97%	1.61%	2.10%
24L	SJ_STR	0.41%	0.36%	0.05%	0.35%	24L	SN_LUP	3.03%	2.14%	0.95%	2.58%
24L	SN_FIM	1.59%	1.14%	0.20%	1.33%	24L	SN_LUPX	2.63%	2.31%	1.89%	2.47%
24L	SN_N1	1.92%	1.37%	0.24%	1.60%	24L	SN_MZB1	4.59%	3.25%	1.45%	3.92%
24L	SN_VIS	0.09%	0.06%	0.01%	0.07%	24L	SN_MZB1X	4.00%	3.51%	2.87%	3.76%
24L	SW_FIM	0.19%	0.32%	0.10%	0.20%	24L	SN_MZB2	0.41%	0.29%	0.13%	0.35%
24L	SW_N1	0.19%	0.32%	0.10%	0.20%	24L	SN_MZB2X	0.36%	0.31%	0.26%	0.33%
24L	SW_WAK	0.37%	0.64%	0.20%	0.39%	24L	SN_N1	2.57%	1.82%	0.81%	2.19%
24R	LN_FIM	0.73%	0.70%	0.69%	0.72%	24L	SN_N1X	2.24%	1.96%	1.61%	2.10%
24R	LN_STR	3.95%	3.83%	3.76%	3.90%	24L	SW_LUP	0.55%	0.26%	0.43%	0.49%
24R	LN_VIS	0.12%	0.12%	0.12%	0.12%	24L	SW_MZB	0.96%	0.45%	0.75%	0.86%
24R	LN_WAK	0.89%	0.86%	0.84%	0.88%	24L	SW_N1	1.92%	0.89%	1.50%	1.72%
24R	LW_FIM1	3.13%	5.48%	3.63%	3.59%	24R	LN_LUP	0.00%	0.00%	0.00%	0.00%
24R	LW_FIM2	0.43%	0.75%	0.50%	0.49%	24R	LN_MZB1	0.00%	0.00%	0.00%	0.00%
24R	LW_STR	0.69%	1.22%	0.81%	0.80%	24R	LN_MZB2	0.00%	0.00%	0.00%	0.00%
24R	LW_VIS	0.08%	0.14%	0.10%	0.09%	24R	LN_STR	0.00%	0.00%	0.00%	0.00%
24R	NJ_SAU	1.52%	0.98%	1.40%	1.41%	24R	NJ_GMN	0.32%	0.06%	0.00%	0.23%
24R	NJ_STR	0.02%	0.01%	0.02%	0.02%	24R	NJ_PMD	0.09%	0.02%	0.00%	0.07%
24R	NJ_VIS	0.04%	0.02%	0.03%	0.03%	24R	NJ_VTU	0.44%	0.09%	0.00%	0.32%
24R	NJ_WAK	1.39%	0.89%	1.28%	1.29%	24R	SJ_GMN	0.09%	0.01%	0.00%	0.06%
24R	SJ_FIM	6.14%	6.25%	1.95%	5.60%	24R	SJ_LUP	0.02%	0.00%	0.00%	0.02%
24R	SJ_STR	0.80%	0.82%	0.26%	0.73%	24R	SJ_STR	0.02%	0.00%	0.00%	0.02%
24R	SJ_TR1	0.42%	0.43%	0.13%	0.38%	24R	SJ_TR2	0.02%	0.00%	0.00%	0.02%
24R	SJ_VIS	0.08%	0.09%	0.03%	0.08%	24R	SJ_TRN	0.06%	0.00%	0.00%	0.04%
24R	SJ_VNY	0.12%	0.12%	0.04%	0.11%	24R	SN_GMN	0.00%	0.00%	0.00%	0.00%
24R	SN_FIM	9.96%	8.57%	6.12%	9.22%	24R	SN_LUP	0.00%	0.00%	0.00%	0.00%
24R	SN_N1	8.72%	7.50%	5.36%	8.07%	24R	SN_MZB1	0.00%	0.00%	0.00%	0.00%
24R	SN_VIS	0.35%	0.30%	0.22%	0.33%	24R	SN_MZB2	0.00%	0.00%	0.00%	0.00%
24R	SW_FIM	0.60%	0.93%	0.51%	0.65%	24R	SN_N1	0.00%	0.00%	0.00%	0.00%
24R	SW_N1	1.42%	2.20%	1.21%	1.53%	24R	SW_N1	0.00%	0.00%	0.00%	0.00%
24R	SW_VIS	0.06%	0.09%	0.05%	0.06%	25L	LN_GMN	0.00%	0.05%	0.00%	0.01%
24R	SW_WAK	1.66%	2.57%	1.41%	1.78%	25L	LN_LUP	0.00%	0.13%	0.00%	0.02%
25L	LN_FIM1	0.07%	0.11%	0.04%	0.07%	25L	LN_MZB1	0.00%	0.46%	0.00%	0.06%
25L	LN_FIM2	0.01%	0.02%	0.01%	0.01%	25L	LN_MZB2	0.00%	0.11%	0.00%	0.01%
25L	LN_STR	4.70%	7.58%	2.60%	4.90%	25L	LN_STR	0.00%	0.05%	0.00%	0.01%
25L	LN_VIS	0.34%	0.55%	0.19%	0.36%	25L	LW_GMN	0.08%	0.33%	0.15%	0.12%
25L	LN_WAK1	0.26%	0.43%	0.15%	0.28%	25L	LW_LUP	0.02%	0.10%	0.05%	0.04%
25L	LN_WAK2	0.02%	0.03%	0.01%	0.02%	25L	LW_MZB1	0.41%	1.77%	0.81%	0.64%

Table 12

2025 Flight Track Utilization Percentages - Alternative 3

Arrivals						Departures					
Runway	Track	Day	Eve	Night	Total	Runway	Track	Day	Eve	Night	Total
25L	LW_FIM1	0.73%	0.95%	0.75%	0.77%	25L	LW_MZB2	0.07%	0.29%	0.13%	0.11%
25L	LW_FIM2	0.02%	0.03%	0.02%	0.02%	25L	LW_STR	0.37%	1.59%	0.72%	0.58%
25L	LW_STR	1.66%	2.15%	1.69%	1.75%	25L	LW_STR1	0.05%	0.23%	0.10%	0.08%
25L	LW_VIS	1.18%	1.53%	1.20%	1.24%	25L	LW_STR2	0.28%	1.19%	0.54%	0.43%
25L	NJ_MPD	0.61%	0.51%	0.59%	0.59%	25L	LW_STR3	0.23%	1.00%	0.46%	0.36%
25L	NJ_SAU	0.31%	0.26%	0.30%	0.30%	25L	NJ_GMN	0.05%	0.11%	0.05%	0.06%
25L	NJ_VIS	2.59%	2.17%	2.50%	2.51%	25L	NJ_MZB1	0.60%	1.35%	0.60%	0.69%
25L	NJ_WAK1	0.35%	0.29%	0.33%	0.33%	25L	NJ_MZB2	0.28%	0.63%	0.28%	0.32%
25L	SJ_FIM1	1.27%	0.67%	0.64%	1.09%	25L	NJ_PMD	0.03%	0.07%	0.03%	0.03%
25L	SJ_FIM2	0.06%	0.03%	0.03%	0.05%	25L	SJ_GMN	0.21%	0.13%	0.11%	0.19%
25L	SJ_STR	5.83%	3.06%	2.95%	4.98%	25L	SJ_LUP	0.54%	0.33%	0.28%	0.47%
25L	SJ_VIS	1.75%	0.92%	0.89%	1.50%	25L	SJ_MZB1	1.07%	0.65%	0.55%	0.93%
25L	SJ_VNY	0.07%	0.03%	0.03%	0.06%	25L	SJ_MZB2	0.20%	0.13%	0.11%	0.18%
25L	SN_FIM1	0.55%	0.27%	0.47%	0.49%	25L	SJ_ST2	0.18%	0.11%	0.09%	0.16%
25L	SN_N1	13.91%	6.93%	12.04%	12.49%	25L	SJ_STR	0.11%	0.07%	0.06%	0.09%
25L	SN_VIS	2.57%	1.28%	2.22%	2.30%	25L	SJ_TRN	0.05%	0.03%	0.03%	0.05%
25L	SW_FIM	0.06%	0.20%	0.11%	0.09%	25L	SJ_VNY	0.20%	0.12%	0.10%	0.17%
25L	SW_N1	2.56%	7.86%	4.50%	3.71%	25L	SN_LUP	0.02%	0.00%	0.00%	0.01%
25L	SW_VIS	0.52%	1.59%	0.91%	0.75%	25L	SN_MZB1	0.09%	0.00%	0.00%	0.06%
25L	SW_WAK1	0.18%	0.54%	0.31%	0.25%	25L	SN_MZB2	0.02%	0.00%	0.00%	0.01%
25R	LN_FIM1	0.01%	0.01%	0.00%	0.01%	25L	SN_N1	0.01%	0.00%	0.00%	0.00%
25R	LN_STR	0.22%	0.19%	0.06%	0.19%	25L	SW_GMN	0.02%	0.04%	0.03%	0.02%
25R	LN_VIS	0.05%	0.04%	0.01%	0.04%	25L	SW_LUP	0.03%	0.07%	0.06%	0.04%
25R	LN_WAK1	0.03%	0.02%	0.01%	0.02%	25L	SW_MZB1	0.20%	0.53%	0.44%	0.28%
25R	LN_WAK2	0.01%	0.01%	0.00%	0.01%	25L	SW_MZB2	0.01%	0.03%	0.03%	0.02%
25R	LW_FIM1	0.13%	0.08%	0.01%	0.10%	25L	SW_N1	0.02%	0.06%	0.05%	0.03%
25R	LW_FIM2	0.04%	0.03%	0.00%	0.03%	25R	LN_GMN	0.04%	0.05%	0.08%	0.05%
25R	LW_STR	0.23%	0.13%	0.02%	0.18%	25R	LN_LUP	1.22%	1.29%	2.22%	1.39%
25R	LW_VIS	0.21%	0.12%	0.02%	0.17%	25R	LN_MZB1	3.01%	3.20%	5.49%	3.44%
25R	NJ_MPD	0.03%	0.03%	0.01%	0.03%	25R	LN_MZB2	0.71%	0.76%	1.30%	0.82%
25R	NJ_SAU	0.03%	0.02%	0.01%	0.02%	25R	LN_STR1	1.19%	1.26%	2.16%	1.35%
25R	NJ_VIS	0.21%	0.17%	0.08%	0.19%	25R	LN_STR2	0.25%	0.26%	0.45%	0.28%
25R	NJ_WAK1	0.02%	0.02%	0.01%	0.02%	25R	LN_SXC	0.01%	0.01%	0.02%	0.01%
25R	SJ_FIM1	0.14%	0.06%	0.00%	0.11%	25R	LW_GMN	0.08%	0.11%	0.47%	0.15%
25R	SJ_STR	0.49%	0.22%	0.00%	0.38%	25R	LW_LUP	0.26%	0.34%	1.48%	0.47%
25R	SJ_VIS	0.17%	0.08%	0.00%	0.13%	25R	LW_MZB1	0.40%	0.53%	2.30%	0.72%
25R	SN_FIM1	0.06%	0.06%	0.01%	0.05%	25R	LW_MZB2	0.32%	0.42%	1.83%	0.58%
25R	SN_N1	0.76%	0.80%	0.15%	0.68%	25R	LW_STR1	1.48%	1.98%	8.55%	2.70%
25R	SN_VIS	0.18%	0.20%	0.04%	0.17%	25R	LW_STR2	0.48%	0.63%	2.74%	0.86%

Table 12

2025 Flight Track Utilization Percentages - Alternative 3

Arrivals						Departures					
Runway	**Track**	**Day**	**Eve**	**Night**	**Total**	**Runway**	**Track**	**Day**	**Eve**	**Night**	**Total**
25R	SW_N1	0.26%	0.42%	0.31%	0.29%	25R	LW_STR3	0.04%	0.06%	0.25%	0.08%
25R	SW_VIS	0.05%	0.08%	0.06%	0.06%	25R	LW_SXC	0.00%	0.01%	0.02%	0.01%
25R	SW_WAK1	0.07%	0.12%	0.08%	0.08%	25R	NJ_GMN	0.06%	0.06%	0.03%	0.05%
Total		**100.00%**	**100.00%**	**100.00%**	**100.00%**	25R	NJ_MZB1	2.15%	2.49%	1.21%	2.04%
						25R	NJ_MZB2	1.01%	1.17%	0.56%	0.95%
						25R	NJ_PMD	0.22%	0.26%	0.13%	0.21%
						25R	NJ_TWA	0.11%	0.13%	0.06%	0.10%
						25R	SJ_GMN	0.92%	1.07%	0.53%	0.87%
						25R	SJ_LUP	0.93%	1.09%	0.54%	0.89%
						25R	SJ_MZB1	3.58%	4.19%	2.08%	3.41%
						25R	SJ_MZB2	0.17%	0.19%	0.10%	0.16%
						25R	SJ_STR	0.33%	0.38%	0.19%	0.31%
						25R	SJ_TR2	0.14%	0.17%	0.08%	0.13%
						25R	SJ_TRN	0.67%	0.78%	0.39%	0.64%
						25R	SJ_VNY	0.13%	0.15%	0.08%	0.12%
						25R	SN_GMN	0.42%	0.33%	0.26%	0.39%
						25R	SN_LUP	3.83%	3.01%	2.38%	3.49%
						25R	SN_MZB1	9.10%	7.15%	5.64%	8.29%
						25R	SN_MZB2	1.39%	1.09%	0.86%	1.27%
						25R	SN_N1	1.81%	1.42%	1.12%	1.65%
						25R	SN_N2	0.33%	0.26%	0.20%	0.30%
						25R	SW_GMN	0.19%	0.18%	0.37%	0.21%
						25R	SW_LUP	0.70%	0.67%	1.38%	0.81%
						25R	SW_MZB1	3.87%	3.69%	7.62%	4.46%
						25R	SW_MZB2	0.44%	0.42%	0.87%	0.51%
						25R	SW_N1	1.05%	1.00%	2.06%	1.21%
						25R	SW_N2	0.33%	0.31%	0.65%	0.38%
						Total		**100.00%**	**100.00%**	**100.00%**	**100.00%**

Notes:

Day: 7:00 a.m. to 6:59 p.m., Eve: 7:00 p.m. to 9:59 p.m., Night: 10:00 p.m. to 6:59 a.m.
Totals may not add to 100 percent due to rounding.

Source: Ricondo & Associates, Inc., 2012 (2025 forecast); LAWA, 2008 (2009 flight track utilization).

Departure operations along tracks to the east have little impact upon the CNEL noise exposure contour locations, due to the infrequent use of east flow operations. Departure tracks to the west define the greatest area of the noise exposure pattern, but the least area of overflight impact because virtually all the area under the noise exposure contours to the west is over the ocean.

The dispersion of individual aircraft departure tracks around the flight paths is expected to decrease in the future as the industry moves toward the development of GPS/FMS flight procedures. Use of GPS procedures will result in the maintenance of more consistent flight paths than has been the case historically, because pilots (or on-board FMS) will use specific geographic coordinates to navigate to and from the airport. Further, additional dispersion adjustments of flight tracks in the dominant departure direction lends no refinement to the definition of impacts, because there are no noise-sensitive properties directly west of the runways under the departure paths.

3.4.3 Alternative 3 Fleet and Aircraft Operations

The fleet and aircraft operations assumptions remain constant for all of the alternatives. Refer to Section 2.3.2 and **Table 8** for additional information.

ting in an increase in the total area exposed to 65 CNEL or higher levels of aircraft noise.

3.5 Alternative 4 Future (2025) Conditions

3.5.1 Alternative 4 Runway Utilization

Forecast runway assignments for this alternative were developed utilizing SIMMOD airfield and airspace simulation model, and therefore are subject to constraints imposed on the modeling process by the airfield capabilities and noise abatement measures. The function of the SIMMOD model is to assign individual flights to specific runways based largely on minimizing separation requirements between various aircraft types to increase operational efficiency and reduce delay. Refer to the North Runway Alternatives Simulation Analysis in Appendix F, Operational Analysis, of the SPAS Report for additional details. Runway usage by aircraft category is provided in **Table 5**. In this alternative, the north airfield would be used to accommodate approximately 5 percent more small wide-bodied aircraft operations due to the Runway 24L extension to the east. **Table 13** presents the results of the simulation assignment of aircraft to runways.

Table 13

2025 Runway Utilization Percentages - Alternative 4

	Landings				Takeoffs			
Runway	**Day**	**Eve**	**Night**	**Total**	**Day**	**Eve**	**Night**	**Total**
6L	1.0%	1.1%	0.7%	1.0%	0.1%	0.0%	0.0%	0.1%
6R	0.2%	0.2%	16.2%	2.3%	0.9%	1.1%	0.4%	0.9%
7L	0.0%	0.0%	14.4%	1.9%	1.0%	0.8%	0.8%	1.0%
7R	0.9%	0.9%	0.7%	0.9%	0.1%	0.2%	0.2%	0.1%
24L	4.4%	3.8%	0.1%	3.7%	46.9%	41.2%	34.6%	44.2%
24R	44.4%	43.4%	27.1%	42.0%	1.9%	0.0%	0.0%	1.3%
25L	42.0%	43.0%	38.3%	41.6%	5.5%	11.0%	5.1%	6.1%
25R	7.1%	7.6%	2.5%	6.6%	43.6%	45.7%	58.9%	46.3%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Notes:

Day: 7:00 a.m. to 6:59 p.m., Eve: 7:00 p.m. to 9:59 p.m., Night: 10:00 p.m. to 6:59 a.m.
Totals may not add to 100 percent due to rounding.

Source: Ricondo & Associates, Inc., 2012 (SIMMOD output); LAWA, 2009 (2009 Over-Ocean flight data and runway use).

The airport's predominant configuration utilizes Runways 24R and 25L for arrivals and Runways 24L and 25R for departures. The airport's present noise abatement measures, which express a preference for Over-Ocean procedures between midnight and 6:30 a.m., are reflected in the more frequent use of Runway 6R for arrival operations during the night hours. The dominant operating configuration during the period when Over-Ocean procedures are in effect consists of approaches to the north inboard runway (Runway 6R) or south inboard runway (Runway 7L), and departures from the south inboard runway (Runway 25R) and north inboard runway (Runway 24L). The use of Over-Ocean procedures was based on baseline (2009) conditions and applied to the forecasted operations. This included non-conforming easterly departures as well. Also reflected in the nighttime usage is the airport's policy that, to the extent practical, operations between 10:00 p.m. and 7:00 a.m. will be made to and from the inboard runways, but was based on demand levels as modeled in SIMMOD.

3.5.2 Alternative 4 Flight Tracks

The flight tracks and their usage for Alternative 4 are not expected to be different from the utilization patterns of the baseline (2009) conditions. Flight tracks are illustrated in **Figure 5**. The only changes to the airfield are regarding the departure thresholds for Runways 7L and 24L. The proportions of operations assigned to each flight track are indicated in **Table 14**. As is the case with all alternatives, the dominant flight paths that impact the noise exposure pattern at LAX are associated with the arrivals from the east.

Departure operations along tracks to the east have little impact upon the CNEL noise exposure contour locations, due to the infrequent use of east flow operations. Departure tracks to the west define the greatest area of the noise exposure pattern, but the least area of overflight impact because virtually all the area under the noise exposure contours to the west is over the ocean.

The dispersion of individual aircraft departure tracks around the flight paths is expected to decrease in the future as the industry moves toward the development of GPS/FMS flight procedures. Use of GPS procedures will result in the maintenance of more consistent flight paths than has been the case historically, because pilots (or on-board FMS) will use specific geographic coordinates to navigate to and from the airport. Further, additional dispersion adjustments of flight tracks in the dominant departure direction lends no refinement to the definition of impacts, because there are no noise-sensitive properties directly west of the runways under the departure paths.

3.5.3 Alternative 4 Fleet and Aircraft Operations

The fleet and aircraft operations assumptions remain constant for all of the alternatives. Refer to Section 2.3.2 and **Table 8** for additional information.

3.6 Alternative 5 Future (2025) Conditions

3.6.1 Alternative 5 Runway Utilization

Forecast runway assignments for this alternative were developed from the SIMMOD results related to Alternative 1 as Alternative 5 was not simulated in the SIMMOD analysis. Due to the similarities of Alternatives 1 and 5, Alternative's 1 runway utilization was used in the analysis of this alternative as it is not anticipated to change. Refer to the North Runway Alternatives Simulation Analysis in Appendix F, Operational Analysis, of the SPAS Report for additional details. Runway usage by aircraft category is provided in **Table 5**. **Table 15** presents the results of the simulation assignment of aircraft to runways.

Table 14

2025 Flight Track Utilization Percentages - Alternative 4

Arrivals						Departures					
Runway	**Track**	**Day**	**Eve**	**Night**	**Total**	**Runway**	**Track**	**Day**	**Eve**	**Night**	**Total**
6L	LN_CIV1	0.03%	0.05%	0.04%	0.04%	6L	NJ_FIM	0.00%	0.00%	0.00%	0.00%
6L	LN_CIV2	0.03%	0.05%	0.03%	0.03%	6L	NJ_GMN	0.01%	0.01%	0.00%	0.01%
6L	LN_CIV3	0.01%	0.01%	0.01%	0.01%	6L	SN_LUP	0.05%	0.03%	0.00%	0.04%
6L	LN_STR	0.04%	0.06%	0.04%	0.04%	6R	LN_GMN	0.04%	0.04%	0.04%	0.04%
6L	LW_CIV1	0.09%	0.14%	0.08%	0.10%	6R	LN_GMN2	0.04%	0.04%	0.04%	0.04%
6L	LW_FIM	0.01%	0.02%	0.01%	0.01%	6R	LW_LUP	0.04%	0.13%	0.00%	0.05%
6L	NJ_CAS	0.03%	0.02%	0.04%	0.03%	6R	LW_LUP1	0.02%	0.06%	0.00%	0.02%
6L	NJ_WAK	0.03%	0.02%	0.04%	0.03%	6R	NJ_FIM	0.03%	0.05%	0.04%	0.04%
6L	SJ_CIV	0.02%	0.02%	0.01%	0.02%	6R	NJ_GMN	0.02%	0.03%	0.02%	0.02%
6L	SJ_FIM	0.17%	0.16%	0.06%	0.15%	6R	SJ_GMN	0.13%	0.17%	0.04%	0.12%
6L	SN_CIV1	0.23%	0.20%	0.16%	0.22%	6R	SJ_LUP	0.05%	0.06%	0.01%	0.04%
6L	SN_CIV2	0.01%	0.01%	0.01%	0.01%	6R	SN_GMN	0.18%	0.17%	0.05%	0.16%
6L	SN_FIM	0.20%	0.17%	0.13%	0.18%	6R	SN_LUP	0.29%	0.29%	0.08%	0.26%
6L	SN_OCN	0.01%	0.01%	0.01%	0.01%	6R	SW_N1	0.07%	0.06%	0.05%	0.06%
6L	SW_CIV	0.05%	0.09%	0.05%	0.06%	7L	LN_BLH1	0.02%	0.02%	0.02%	0.02%
6L	SW_N1	0.03%	0.06%	0.03%	0.04%	7L	LN_BLH2	0.06%	0.05%	0.04%	0.05%
6R	LN_CIV1	0.00%	0.00%	0.43%	0.06%	7L	LN_LUP	0.01%	0.01%	0.01%	0.01%
6R	LN_CIV2	0.00%	0.00%	0.17%	0.02%	7L	LN_VTU	0.09%	0.07%	0.06%	0.08%
6R	LN_FIM	0.00%	0.00%	0.12%	0.02%	7L	LW_GMN	0.00%	0.00%	0.00%	0.00%
6R	LN_STR	0.01%	0.01%	2.32%	0.31%	7L	LW_LUP	0.00%	0.00%	0.00%	0.00%
6R	LW_CIV	0.00%	0.00%	0.76%	0.10%	7L	LW_SXC	0.01%	0.01%	0.01%	0.01%
6R	LW_CIV1	0.00%	0.00%	0.44%	0.06%	7L	LW_SXC1	0.00%	0.00%	0.01%	0.00%
6R	LW_FIM1	0.01%	0.01%	2.94%	0.40%	7L	LW_VTU	0.06%	0.05%	0.12%	0.07%
6R	LW_FIM2	0.00%	0.00%	0.87%	0.12%	7L	NJ_BLH1	0.03%	0.04%	0.01%	0.03%
6R	LW_STR	0.00%	0.00%	0.22%	0.03%	7L	NJ_BLH2	0.04%	0.05%	0.02%	0.04%
6R	NJ_CAS	0.00%	0.00%	0.05%	0.01%	7L	SJ_BLH	0.09%	0.07%	0.02%	0.08%
6R	NJ_SAU	0.01%	0.01%	0.47%	0.07%	7L	SJ_LUP	0.04%	0.03%	0.01%	0.03%
6R	NJ_WAK1	0.00%	0.00%	0.05%	0.01%	7L	SJ_VTU	0.05%	0.04%	0.01%	0.05%
6R	NJ_WAK2	0.01%	0.00%	0.19%	0.03%	7L	SN_BLH	0.21%	0.12%	0.07%	0.17%
6R	SJ_CIV	0.03%	0.02%	0.86%	0.14%	7L	SN_N1	0.03%	0.02%	0.01%	0.02%
6R	SJ_FIM	0.02%	0.02%	0.66%	0.11%	7L	SN_VTU	0.13%	0.08%	0.04%	0.11%
6R	SN_CIV1	0.06%	0.05%	1.47%	0.25%	7L	SW_BLH	0.06%	0.04%	0.02%	0.05%
6R	SN_FIM	0.01%	0.01%	0.33%	0.06%	7L	SW_N1	0.03%	0.02%	0.01%	0.02%
6R	SW_CIV	0.00%	0.01%	1.74%	0.24%	7L	SW_VTU	0.06%	0.05%	0.03%	0.06%
6R	SW_FIM	0.00%	0.00%	0.24%	0.03%	7R	LN_BLH1	0.00%	0.02%	0.00%	0.00%
6R	SW_N1	0.00%	0.01%	1.86%	0.25%	7R	LW_BLH	0.00%	0.00%	0.00%	0.00%
7L	LN_CIV2	0.00%	0.00%	0.41%	0.05%	7R	LW_LUP	0.00%	0.00%	0.00%	0.00%
7L	LN_STR	0.00%	0.00%	1.84%	0.24%	7R	LW_VTU	0.02%	0.05%	0.06%	0.03%
7L	LW_CIV1	0.00%	0.00%	0.33%	0.04%	7R	NJ_BLH1	0.01%	0.01%	0.01%	0.01%

Table 14

2025 Flight Track Utilization Percentages - Alternative 4

Arrivals						Departures					
Runway	**Track**	**Day**	**Eve**	**Night**	**Total**	**Runway**	**Track**	**Day**	**Eve**	**Night**	**Total**
7L	LW_CIV2	0.00%	0.00%	1.33%	0.18%	7R	NJ_BLH2	0.01%	0.02%	0.01%	0.01%
7L	LW_FIM	0.00%	0.00%	1.99%	0.26%	7R	SJ_H20	0.05%	0.04%	0.03%	0.05%
7L	LW_STR	0.00%	0.00%	0.66%	0.09%	7R	SN_BLH	0.00%	0.00%	0.00%	0.00%
7L	NJ_SAU	0.00%	0.00%	0.68%	0.09%	7R	SW_N1	0.00%	0.01%	0.00%	0.00%
7L	SJ_CIV1	0.00%	0.00%	0.32%	0.04%	7R	SW_N2	0.01%	0.01%	0.00%	0.01%
7L	SJ_CIV2	0.00%	0.00%	0.19%	0.03%	24L	LN_GMN	0.02%	0.04%	0.03%	0.03%
7L	SJ_FIM	0.00%	0.00%	0.06%	0.01%	24L	LN_GMNX	0.08%	0.03%	0.15%	0.09%
7L	SN_CIV2	0.00%	0.00%	0.71%	0.09%	24L	LN_LUP	0.35%	0.64%	0.43%	0.40%
7L	SN_FIM	0.00%	0.00%	1.42%	0.19%	24L	LN_LUPX	1.30%	0.50%	2.30%	1.37%
7L	SN_OCN	0.00%	0.00%	0.71%	0.09%	24L	LN_MZB1	0.38%	0.70%	0.46%	0.43%
7L	SW_CIV1	0.00%	0.00%	2.07%	0.27%	24L	LN_MZB1X	1.42%	0.54%	2.50%	1.49%
7L	SW_N1	0.00%	0.00%	1.65%	0.22%	24L	LN_MZB2	0.10%	0.19%	0.13%	0.12%
7R	LN_CIV1	0.04%	0.05%	0.02%	0.04%	24L	LN_MZB2X	0.38%	0.15%	0.68%	0.40%
7R	LN_STR	0.10%	0.13%	0.06%	0.10%	24L	LN_STR	0.28%	0.50%	0.34%	0.31%
7R	LW_CIV1	0.01%	0.02%	0.01%	0.01%	24L	LN_STRX	1.03%	0.39%	1.81%	1.08%
7R	LW_CIV2	0.01%	0.02%	0.01%	0.01%	24L	LW_GMN	0.16%	0.26%	0.21%	0.18%
7R	LW_CIV3	0.00%	0.01%	0.01%	0.01%	24L	LW_LUP	0.48%	0.78%	0.61%	0.54%
7R	LW_CIV4	0.02%	0.03%	0.02%	0.02%	24L	LW_MZB1	0.27%	0.44%	0.35%	0.30%
7R	LW_FIM	0.03%	0.05%	0.03%	0.03%	24L	LW_MZB2	0.66%	1.07%	0.84%	0.74%
7R	LW_STR	0.01%	0.02%	0.01%	0.01%	24L	LW_STR	1.58%	2.58%	2.03%	1.78%
7R	NJ_OCN	0.06%	0.05%	0.06%	0.06%	24L	LW_SXC	0.02%	0.03%	0.02%	0.02%
7R	NJ_WAK1	0.02%	0.01%	0.02%	0.02%	24L	NJ_GMN	0.00%	0.00%	0.00%	0.00%
7R	SJ_CIV1	0.04%	0.02%	0.02%	0.04%	24L	NJ_GMNX	0.78%	1.57%	1.47%	0.99%
7R	SJ_CIV2	0.04%	0.02%	0.02%	0.04%	24L	NJ_MPD	0.00%	0.00%	0.00%	0.00%
7R	SJ_FIM	0.01%	0.01%	0.00%	0.01%	24L	NJ_MPDX	0.07%	0.13%	0.13%	0.08%
7R	SJ_OCN	0.08%	0.05%	0.03%	0.07%	24L	NJ_PMD	0.00%	0.00%	0.00%	0.00%
7R	SN_CIV1	0.20%	0.13%	0.16%	0.18%	24L	NJ_PMDX	0.12%	0.24%	0.22%	0.15%
7R	SN_OCN	0.13%	0.09%	0.10%	0.12%	24L	NJ_VTU	0.00%	0.00%	0.00%	0.00%
7R	SW_CIV1	0.03%	0.08%	0.04%	0.04%	24L	NJ_VTUX	0.90%	1.82%	1.71%	1.15%
7R	SW_CIV2	0.03%	0.08%	0.04%	0.04%	24L	SJ_GMN	0.33%	0.91%	0.49%	0.43%
7R	SW_FIM	0.01%	0.03%	0.02%	0.01%	24L	SJ_GMNX	3.03%	3.50%	0.87%	2.74%
7R	SW_N1	0.02%	0.04%	0.02%	0.02%	24L	SJ_LUP	0.06%	0.18%	0.09%	0.08%
7R	SW_OCN	0.00%	0.01%	0.00%	0.00%	24L	SJ_LUPX	0.59%	0.68%	0.17%	0.53%
24L	LN_FIM	0.13%	0.16%	0.00%	0.12%	24L	SJ_MZB	0.03%	0.09%	0.05%	0.04%
24L	LN_STR	0.47%	0.57%	0.00%	0.42%	24L	SJ_MZBX	0.30%	0.35%	0.09%	0.27%
24L	LN_STR2	0.07%	0.08%	0.00%	0.06%	24L	SJ_STR	0.10%	0.27%	0.15%	0.13%
24L	LN_WAK	0.13%	0.16%	0.00%	0.12%	24L	SJ_STRX	0.92%	1.06%	0.27%	0.83%
24L	LW_FIM1	0.19%	0.30%	0.01%	0.19%	24L	SJ_TRN	0.25%	0.69%	0.37%	0.32%
24L	LW_FIM2	0.01%	0.01%	0.00%	0.01%	24L	SJ_TRNX	2.31%	2.66%	0.67%	2.08%
24L	LW_STR	0.04%	0.05%	0.00%	0.03%	24L	SJ_VNY	0.01%	0.02%	0.01%	0.01%

Table 14

2025 Flight Track Utilization Percentages - Alternative 4

Arrivals						Departures					
Runway	**Track**	**Day**	**Eve**	**Night**	**Total**	**Runway**	**Track**	**Day**	**Eve**	**Night**	**Total**
24L	NJ_SAU	0.20%	0.12%	0.01%	0.16%	24L	SJ_VNYX	0.06%	0.07%	0.02%	0.05%
24L	NJ_WAK	0.23%	0.14%	0.01%	0.18%	24L	SN_GMN	1.39%	0.96%	1.01%	1.28%
24L	SJ_FIM	1.03%	0.81%	0.01%	0.86%	24L	SN_GMNX	3.56%	2.38%	1.46%	3.07%
24L	SJ_STR	0.24%	0.19%	0.00%	0.20%	24L	SN_LUP	1.64%	1.12%	1.18%	1.50%
24L	SN_FIM	0.61%	0.41%	0.03%	0.50%	24L	SN_LUPX	4.19%	2.80%	1.71%	3.61%
24L	SN_N1	0.74%	0.49%	0.04%	0.60%	24L	SN_MZB1	2.49%	1.71%	1.80%	2.28%
24L	SN_VIS	0.03%	0.02%	0.00%	0.03%	24L	SN_MZB1X	6.36%	4.25%	2.60%	5.49%
24L	SW_FIM	0.07%	0.07%	0.00%	0.06%	24L	SN_MZB2	0.22%	0.15%	0.16%	0.20%
24L	SW_N1	0.07%	0.07%	0.00%	0.06%	24L	SN_MZB2X	0.57%	0.38%	0.23%	0.49%
24L	SW_WAK	0.13%	0.13%	0.00%	0.12%	24L	SN_N1	1.39%	0.96%	1.01%	1.28%
24R	LN_FIM	0.72%	1.00%	0.60%	0.75%	24L	SN_N1X	3.56%	2.38%	1.46%	3.07%
24R	LN_STR	3.91%	5.46%	3.27%	4.08%	24L	SW_LUP	0.51%	0.17%	0.40%	0.45%
24R	LN_VIS	0.12%	0.17%	0.10%	0.12%	24L	SW_MZB	0.90%	0.29%	0.70%	0.79%
24R	LN_WAK	0.88%	1.23%	0.73%	0.92%	24L	SW_N1	1.79%	0.59%	1.41%	1.58%
24R	LW_FIM1	2.53%	3.30%	1.78%	2.56%	24R	LN_LUP	0.00%	0.00%	0.00%	0.00%
24R	LW_FIM2	0.35%	0.45%	0.24%	0.35%	24R	LN_MZB1	0.00%	0.00%	0.00%	0.00%
24R	LW_STR	0.56%	0.73%	0.39%	0.57%	24R	LN_MZB2	0.00%	0.00%	0.00%	0.00%
24R	LW_VIS	0.07%	0.09%	0.05%	0.07%	24R	LN_STR	0.00%	0.00%	0.00%	0.00%
24R	NJ_SAU	1.70%	1.10%	1.30%	1.54%	24R	NJ_GMN	0.23%	0.00%	0.00%	0.16%
24R	NJ_STR	0.02%	0.01%	0.02%	0.02%	24R	NJ_PMD	0.07%	0.00%	0.00%	0.05%
24R	NJ_VIS	0.04%	0.03%	0.03%	0.04%	24R	NJ_VTU	0.32%	0.00%	0.00%	0.23%
24R	NJ_WAK	1.55%	1.00%	1.19%	1.41%	24R	SJ_GMN	0.19%	0.00%	0.00%	0.13%
24R	SJ_FIM	7.56%	7.63%	2.35%	6.88%	24R	SJ_LUP	0.05%	0.00%	0.00%	0.03%
24R	SJ_STR	0.99%	1.00%	0.31%	0.90%	24R	SJ_STR	0.05%	0.00%	0.00%	0.03%
24R	SJ_TR1	0.52%	0.52%	0.16%	0.47%	24R	SJ_TR2	0.05%	0.00%	0.00%	0.03%
24R	SJ_VIS	0.10%	0.10%	0.03%	0.09%	24R	SJ_TRN	0.12%	0.00%	0.00%	0.09%
24R	SJ_VNY	0.14%	0.14%	0.04%	0.13%	24R	SN_GMN	0.17%	0.00%	0.00%	0.12%
24R	SN_FIM	10.22%	7.26%	6.71%	9.25%	24R	SN_LUP	0.13%	0.00%	0.00%	0.09%
24R	SN_N1	8.94%	6.36%	5.87%	8.10%	24R	SN_MZB1	0.26%	0.00%	0.00%	0.18%
24R	SN_VIS	0.36%	0.26%	0.24%	0.33%	24R	SN_MZB2	0.04%	0.00%	0.00%	0.03%
24R	SW_FIM	0.51%	0.89%	0.27%	0.54%	24R	SN_N1	0.21%	0.00%	0.00%	0.15%
24R	SW_N1	1.20%	2.12%	0.63%	1.28%	24R	SW_N1	0.00%	0.00%	0.00%	0.00%
24R	SW_VIS	0.05%	0.09%	0.03%	0.05%	25L	LN_GMN	0.00%	0.05%	0.00%	0.01%
24R	SW_WAK	1.40%	2.47%	0.73%	1.49%	25L	LN_LUP	0.00%	0.13%	0.00%	0.02%
25L	LN_FIM1	0.06%	0.09%	0.04%	0.07%	25L	LN_MZB1	0.00%	0.46%	0.00%	0.06%
25L	LN_FIM2	0.01%	0.02%	0.01%	0.01%	25L	LN_MZB2	0.00%	0.11%	0.00%	0.01%
25L	LN_STR	4.57%	6.30%	2.98%	4.65%	25L	LN_STR	0.00%	0.05%	0.00%	0.01%
25L	LN_VIS	0.33%	0.46%	0.22%	0.34%	25L	LW_GMN	0.08%	0.31%	0.14%	0.12%
25L	LN_WAK1	0.26%	0.36%	0.17%	0.26%	25L	LW_LUP	0.03%	0.10%	0.04%	0.04%

Table 14

2025 Flight Track Utilization Percentages - Alternative 4

Arrivals						Departures					
Runway	**Track**	**Day**	**Eve**	**Night**	**Total**	**Runway**	**Track**	**Day**	**Eve**	**Night**	**Total**
25L	LN_WAK2	0.02%	0.03%	0.01%	0.02%	25L	LW_MZB1	0.44%	1.65%	0.72%	0.63%
25L	LW_FIM1	0.88%	1.52%	1.16%	1.03%	25L	LW_MZB2	0.07%	0.27%	0.12%	0.10%
25L	LW_FIM2	0.03%	0.05%	0.04%	0.03%	25L	LW_STR	0.40%	1.47%	0.64%	0.57%
25L	LW_STR	1.99%	3.43%	2.62%	2.32%	25L	LW_STR1	0.06%	0.21%	0.09%	0.08%
25L	LW_VIS	1.42%	2.44%	1.86%	1.65%	25L	LW_STR2	0.30%	1.10%	0.48%	0.43%
25L	NJ_MPD	0.57%	0.49%	0.58%	0.56%	25L	LW_STR3	0.25%	0.93%	0.41%	0.36%
25L	NJ_SAU	0.29%	0.25%	0.30%	0.29%	25L	NJ_GMN	0.04%	0.09%	0.05%	0.05%
25L	NJ_VIS	2.40%	2.08%	2.44%	2.35%	25L	NJ_MZB1	0.50%	1.14%	0.60%	0.60%
25L	NJ_WAK1	0.32%	0.28%	0.33%	0.31%	25L	NJ_MZB2	0.24%	0.53%	0.28%	0.28%
25L	SJ_FIM1	1.09%	0.51%	0.60%	0.93%	25L	NJ_PMD	0.03%	0.06%	0.03%	0.03%
25L	SJ_FIM2	0.05%	0.02%	0.03%	0.04%	25L	SJ_GMN	0.21%	0.13%	0.12%	0.19%
25L	SJ_STR	5.02%	2.32%	2.74%	4.26%	25L	SJ_LUP	0.54%	0.34%	0.31%	0.48%
25L	SJ_VIS	1.51%	0.70%	0.82%	1.28%	25L	SJ_MZB1	1.07%	0.67%	0.61%	0.94%
25L	SJ_VNY	0.06%	0.03%	0.03%	0.05%	25L	SJ_MZB2	0.20%	0.13%	0.12%	0.18%
25L	SN_FIM1	0.55%	0.35%	0.44%	0.50%	25L	SJ_ST2	0.18%	0.11%	0.10%	0.16%
25L	SN_N1	14.03%	8.76%	11.26%	12.77%	25L	SJ_STR	0.11%	0.07%	0.06%	0.09%
25L	SN_VIS	2.59%	1.62%	2.08%	2.36%	25L	SJ_TRN	0.05%	0.03%	0.03%	0.05%
25L	SW_FIM	0.07%	0.21%	0.14%	0.11%	25L	SJ_VNY	0.20%	0.12%	0.11%	0.17%
25L	SW_N1	3.02%	8.44%	5.78%	4.29%	25L	SN_LUP	0.02%	0.00%	0.00%	0.01%
25L	SW_VIS	0.61%	1.71%	1.17%	0.87%	25L	SN_MZB1	0.09%	0.00%	0.00%	0.06%
25L	SW_WAK1	0.21%	0.58%	0.40%	0.29%	25L	SN_MZB2	0.02%	0.00%	0.00%	0.01%
25R	LN_FIM1	0.02%	0.01%	0.00%	0.01%	25L	SN_N1	0.01%	0.00%	0.00%	0.00%
25R	LN_STR	0.54%	0.41%	0.11%	0.46%	25L	SW_GMN	0.02%	0.04%	0.00%	0.02%
25R	LN_VIS	0.12%	0.09%	0.03%	0.11%	25L	SW_LUP	0.04%	0.07%	0.01%	0.04%
25R	LN_WAK1	0.07%	0.05%	0.01%	0.06%	25L	SW_MZB1	0.28%	0.53%	0.05%	0.27%
25R	LN_WAK2	0.03%	0.02%	0.01%	0.03%	25L	SW_MZB2	0.02%	0.03%	0.00%	0.02%
25R	LW_FIM1	0.26%	0.43%	0.13%	0.27%	25L	SW_N1	0.03%	0.06%	0.01%	0.03%
25R	LW_FIM2	0.09%	0.14%	0.04%	0.09%	25R	LN_GMN	0.05%	0.05%	0.08%	0.05%
25R	LW_STR	0.46%	0.75%	0.23%	0.48%	25R	LN_LUP	1.26%	1.34%	2.23%	1.43%
25R	LW_VIS	0.41%	0.67%	0.21%	0.43%	25R	LN_MZB1	3.11%	3.32%	5.51%	3.53%
25R	NJ_MPD	0.06%	0.02%	0.04%	0.05%	25R	LN_MZB2	0.74%	0.79%	1.31%	0.84%
25R	NJ_SAU	0.05%	0.02%	0.03%	0.04%	25R	LN_STR1	1.23%	1.31%	2.17%	1.39%
25R	NJ_VIS	0.37%	0.14%	0.22%	0.31%	25R	LN_STR2	0.26%	0.27%	0.45%	0.29%
25R	NJ_WAK1	0.04%	0.02%	0.02%	0.04%	25R	LN_SXC	0.01%	0.01%	0.02%	0.01%
25R	SJ_FIM1	0.21%	0.13%	0.02%	0.17%	25R	LW_GMN	0.08%	0.09%	0.48%	0.15%
25R	SJ_STR	0.73%	0.45%	0.09%	0.60%	25R	LW_LUP	0.25%	0.28%	1.51%	0.46%
25R	SJ_VIS	0.25%	0.16%	0.03%	0.21%	25R	LW_MZB1	0.38%	0.44%	2.34%	0.71%
25R	SN_FIM1	0.14%	0.16%	0.03%	0.13%	25R	LW_MZB2	0.31%	0.35%	1.86%	0.56%
25R	SN_N1	1.96%	2.25%	0.47%	1.81%	25R	LW_STR1	1.43%	1.64%	8.71%	2.65%
25R	SN_VIS	0.48%	0.55%	0.11%	0.44%	25R	LW_STR2	0.46%	0.53%	2.79%	0.85%

Table 14

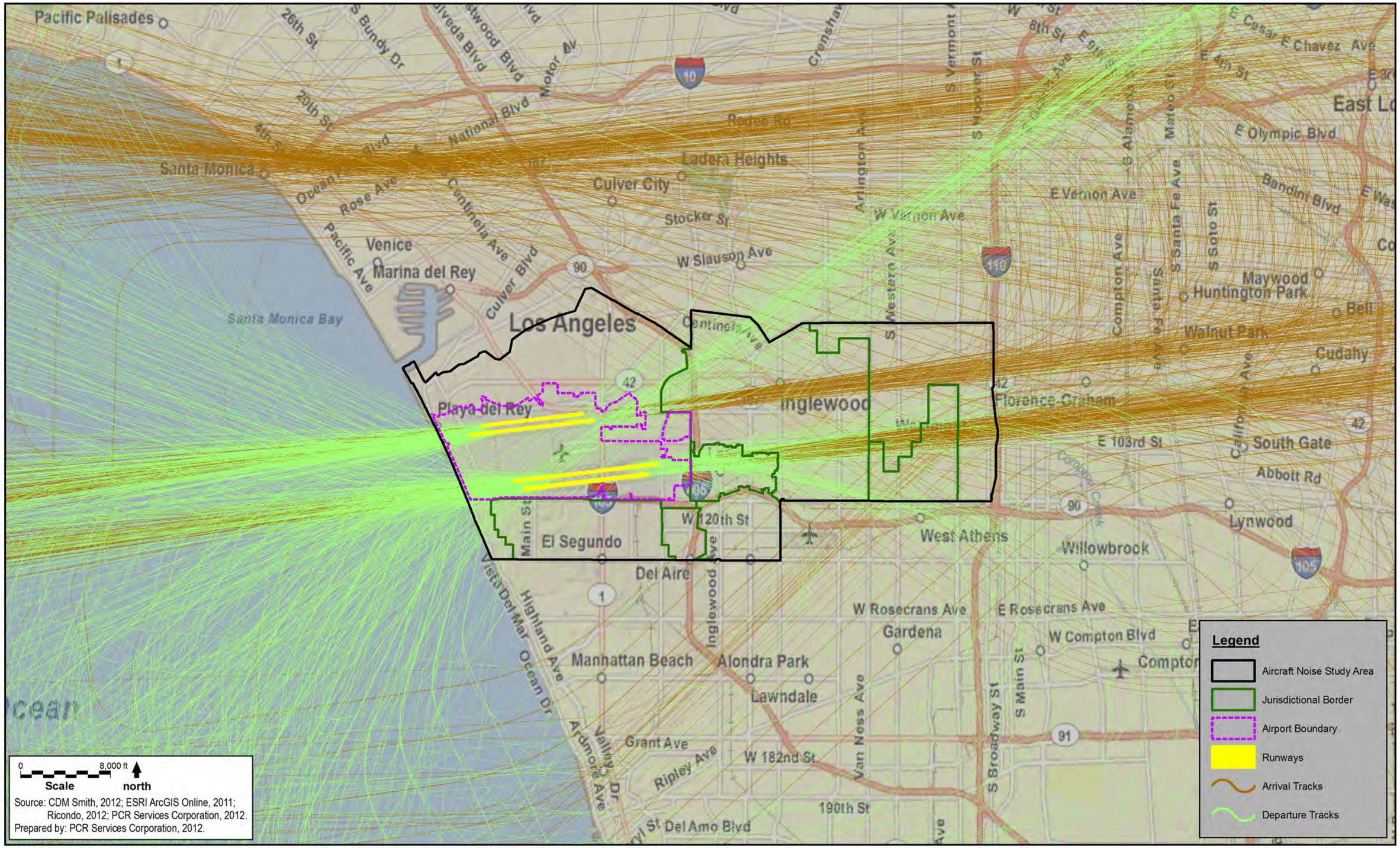
2025 Flight Track Utilization Percentages - Alternative 4

Arrivals						Departures					
Runway	**Track**	**Day**	**Eve**	**Night**	**Total**	**Runway**	**Track**	**Day**	**Eve**	**Night**	**Total**
25R	SW_N1	0.58%	0.76%	0.47%	0.59%	25R	LW_STR3	0.04%	0.05%	0.25%	0.08%
25R	SW_VIS	0.11%	0.15%	0.09%	0.12%	25R	LW_SXC	0.00%	0.00%	0.03%	0.01%
25R	SW_WAK1	0.16%	0.21%	0.13%	0.16%	25R	NJ_GMN	0.06%	0.07%	0.03%	0.06%
Total		**100.00%**	**100.00%**	**100.00%**	**100.00%**	25R	NJ_MZB1	2.43%	2.77%	1.19%	2.27%
						25R	NJ_MZB2	1.13%	1.30%	0.56%	1.06%
						25R	NJ_PMD	0.25%	0.29%	0.12%	0.24%
						25R	NJ_TWA	0.12%	0.14%	0.06%	0.12%
						25R	SJ_GMN	1.06%	1.11%	0.47%	0.97%
						25R	SJ_LUP	1.08%	1.13%	0.48%	0.99%
						25R	SJ_MZB1	4.15%	4.33%	1.83%	3.79%
						25R	SJ_MZB2	0.19%	0.20%	0.08%	0.18%
						25R	SJ_STR	0.38%	0.39%	0.17%	0.34%
						25R	SJ_TR2	0.16%	0.17%	0.07%	0.15%
						25R	SJ_TRN	0.78%	0.81%	0.34%	0.71%
						25R	SJ_VNY	0.15%	0.16%	0.07%	0.14%
						25R	SN_GMN	0.39%	0.39%	0.26%	0.37%
						25R	SN_LUP	3.48%	3.53%	2.33%	3.30%
						25R	SN_MZB1	8.27%	8.39%	5.53%	7.84%
						25R	SN_MZB2	1.26%	1.28%	0.84%	1.20%
						25R	SN_N1	1.64%	1.67%	1.10%	1.56%
						25R	SN_N2	0.30%	0.30%	0.20%	0.28%
						25R	SW_GMN	0.19%	0.19%	0.38%	0.22%
						25R	SW_LUP	0.71%	0.73%	1.45%	0.84%
						25R	SW_MZB1	3.94%	4.01%	8.03%	4.62%
						25R	SW_MZB2	0.45%	0.46%	0.92%	0.53%
						25R	SW_N1	1.07%	1.09%	2.17%	1.25%
						25R	SW_N2	0.34%	0.34%	0.68%	0.39%
						Total		**100.00%**	**100.00%**	**100.00%**	**100.00%**

Notes:

Day: 7:00 a.m. to 6:59 p.m., Eve: 7:00 p.m. to 9:59 p.m., Night: 10:00 p.m. to 6:59 a.m.
Totals may not add to 100 percent due to rounding.

Source: Ricondo & Associates, Inc., 2012 (2025 forecast); LAWA, 2008 (2009 flight track utilization).



LAX Specific Plan Amendment Study Draft EIR	**2025 Alternative 4 Flight Tracks**	Figure 5

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Table 15

2025 Runway Utilization Percentages - Alternative 5

	Landings				Takeoffs			
Runway	**Day**	**Eve**	**Night**	**Total**	**Day**	**Eve**	**Night**	**Total**
6L	1.0%	1.1%	0.7%	1.0%	0.1%	0.0%	0.0%	0.0%
6R	0.2%	0.1%	16.2%	2.3%	0.9%	1.2%	0.4%	0.9%
7L	0.0%	0.0%	14.6%	1.9%	1.0%	0.8%	0.9%	1.0%
7R	0.9%	1.0%	0.7%	0.9%	0.1%	0.2%	0.2%	0.1%
24L	3.7%	2.8%	0.2%	3.1%	48.1%	40.2%	35.4%	45.1%
24R	45.5%	44.4%	27.6%	43.0%	1.0%	0.0%	0.0%	0.7%
25L	41.7%	43.1%	37.6%	41.4%	5.6%	11.0%	5.0%	6.2%
25R	7.0%	7.4%	2.4%	6.5%	43.1%	46.6%	58.1%	46.0%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Notes:

Day: 7:00 a.m. to 6:59 p.m., Eve: 7:00 p.m. to 9:59 p.m., Night: 10:00 p.m. to 6:59 a.m.
Totals may not add to 100 percent due to rounding.

Source: Ricondo & Associates, Inc., 2012 (SIMMOD output); LAWA, 2009 (2009 Over-Ocean flight data and runway use).

The airport's predominant configuration utilizes Runways 24R and 25L for arrivals and Runways 24L and 25R for departures. The airport's present noise abatement measures, which express a preference for Over-Ocean procedures between midnight and 6:30 a.m., are reflected in the more frequent use of Runway 6R for arrival operations during the night hours. The dominant operating configuration during the period when Over-Ocean procedures are in effect consists of approaches to the north inboard runway (Runway 6R) or south inboard runway (Runway 7L), and departures from the south inboard runway (Runway 25R) and north inboard runway (Runway 24L). The use of Over-Ocean procedures was based on baseline (2009) conditions and applied to the forecasted operations. This included non-conforming easterly departures as well. Also reflected in the nighttime usage is the airport's policy that, to the extent practical, operations between 10:00 p.m. and 7:00 a.m. will be made to and from the inboard runways, but was based on low demand levels as modeled in SIMMOD.

3.6.2 Alternative 5 Flight Tracks

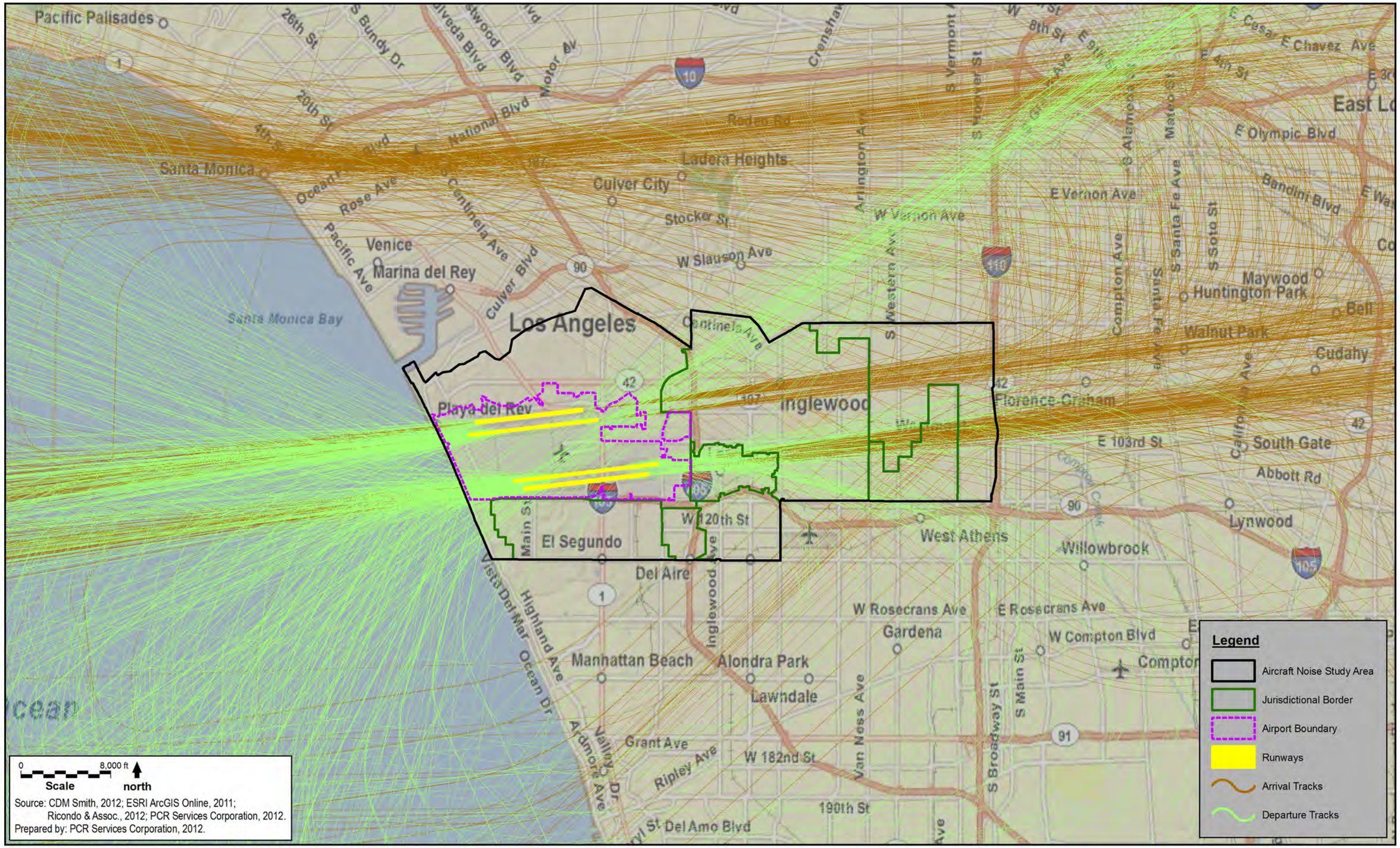
The flight tracks and their usage for Alternative 5 are not substantially different from the utilization patterns of the baseline (2009) conditions and are based upon the SIMMOD results returned for Alternative 1. Flight tracks for 2025 conditions are illustrated in **Figure 6**. The proportions of operations assigned to each flight track are indicated in **Table 16**. As is the case with all alternatives, the dominant flight paths that impact the noise exposure pattern at LAX are associated with the arrivals from the east.

Departure operations along tracks to the east have little impact upon the CNEL noise exposure contour locations, due to the infrequent use of east flow operations. Departure tracks to the west define the greatest area of the noise exposure pattern, but the least area of overflight impact because virtually all the area under the noise exposure contours to the west is over the ocean.

The dispersion of individual aircraft departure tracks around the flight paths is expected to decrease in the future as the industry moves toward the development of GPS/FMS flight procedures. Use of GPS procedures will result in the maintenance of more consistent flight paths than has been the case historically, because pilots (or on-board FMS) will use specific geographic coordinates to navigate to and from the airport. Further, additional dispersion adjustments of flight tracks in the dominant departure direction lends no refinement to the definition of impacts, because there are no noise-sensitive properties directly west of the runways under the departure paths.

3.6.3 Alternative 5 Fleet and Aircraft Operations

The fleet and aircraft operations assumptions remain constant for all of the alternatives. Refer to Section 2.3.2 and **Table 8**.



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2025 Alternative 5 Flight Tracks

Figure
6

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Table 16

2025 Flight Track Utilization Percentages - Alternative 5

Arrivals						Departures					
Runway	**Track**	**Day**	**Eve**	**Night**	**Total**	**Runway**	**Track**	**Day**	**Eve**	**Night**	**Total**
6L	LN_CIV1	0.03%	0.05%	0.03%	0.04%	6L	NJ_FIM	0.01%	0.00%	0.00%	0.00%
6L	LN_CIV2	0.03%	0.04%	0.03%	0.03%	6L	NJ_GMN	0.01%	0.01%	0.00%	0.01%
6L	LN_CIV3	0.01%	0.01%	0.01%	0.01%	6L	SN_LUP	0.05%	0.02%	0.00%	0.04%
6L	LN_STR	0.04%	0.06%	0.04%	0.04%	6R	LN_GMN	0.04%	0.04%	0.04%	0.04%
6L	LW_CIV1	0.10%	0.15%	0.07%	0.10%	6R	LN_GMN2	0.04%	0.04%	0.04%	0.04%
6L	LW_FIM	0.01%	0.02%	0.01%	0.01%	6R	LW_LUP	0.04%	0.13%	0.00%	0.05%
6L	NJ_CAS	0.03%	0.02%	0.03%	0.03%	6R	LW_LUP1	0.02%	0.06%	0.00%	0.02%
6L	NJ_WAK	0.03%	0.02%	0.03%	0.03%	6R	NJ_FIM	0.03%	0.06%	0.04%	0.04%
6L	SJ_CIV	0.03%	0.03%	0.01%	0.02%	6R	NJ_GMN	0.02%	0.03%	0.02%	0.02%
6L	SJ_FIM	0.17%	0.19%	0.05%	0.16%	6R	SJ_GMN	0.13%	0.18%	0.04%	0.12%
6L	SN_CIV1	0.24%	0.21%	0.15%	0.22%	6R	SJ_LUP	0.05%	0.07%	0.01%	0.04%
6L	SN_CIV2	0.01%	0.01%	0.01%	0.01%	6R	SN_GMN	0.18%	0.18%	0.05%	0.16%
6L	SN_FIM	0.20%	0.18%	0.13%	0.19%	6R	SN_LUP	0.30%	0.30%	0.08%	0.26%
6L	SN_OCN	0.02%	0.01%	0.01%	0.01%	6R	SW_N1	0.06%	0.07%	0.05%	0.06%
6L	SW_CIV	0.05%	0.09%	0.05%	0.05%	7L	LN_BLH1	0.02%	0.02%	0.02%	0.02%
6L	SW_N1	0.03%	0.06%	0.03%	0.04%	7L	LN_BLH2	0.05%	0.05%	0.05%	0.05%
6R	LN_CIV1	0.00%	0.00%	0.43%	0.06%	7L	LN_LUP	0.01%	0.01%	0.01%	0.01%
6R	LN_CIV2	0.00%	0.00%	0.17%	0.02%	7L	LN_VTU	0.09%	0.07%	0.09%	0.08%
6R	LN_FIM	0.00%	0.00%	0.12%	0.02%	7L	LW_GMN	0.00%	0.00%	0.00%	0.00%
6R	LN_STR	0.01%	0.01%	2.32%	0.31%	7L	LW_LUP	0.00%	0.00%	0.00%	0.00%
6R	LW_CIV	0.00%	0.00%	0.77%	0.10%	7L	LW_SXC	0.01%	0.01%	0.01%	0.01%
6R	LW_CIV1	0.00%	0.00%	0.44%	0.06%	7L	LW_SXC1	0.00%	0.00%	0.01%	0.00%
6R	LW_FIM1	0.01%	0.01%	2.97%	0.40%	7L	LW_VTU	0.06%	0.06%	0.12%	0.07%
6R	LW_FIM2	0.00%	0.00%	0.88%	0.12%	7L	NJ_BLH1	0.03%	0.04%	0.01%	0.03%
6R	LW_STR	0.00%	0.00%	0.22%	0.03%	7L	NJ_BLH2	0.04%	0.05%	0.02%	0.04%
6R	NJ_CAS	0.00%	0.00%	0.05%	0.01%	7L	SJ_BLH	0.09%	0.07%	0.03%	0.08%
6R	NJ_SAU	0.01%	0.01%	0.47%	0.07%	7L	SJ_LUP	0.04%	0.03%	0.01%	0.03%
6R	NJ_WAK1	0.00%	0.00%	0.05%	0.01%	7L	SJ_VTU	0.05%	0.04%	0.02%	0.05%
6R	NJ_WAK2	0.01%	0.00%	0.19%	0.03%	7L	SN_BLH	0.20%	0.13%	0.07%	0.17%
6R	SJ_CIV	0.02%	0.01%	0.88%	0.14%	7L	SN_N1	0.03%	0.02%	0.01%	0.02%
6R	SJ_FIM	0.02%	0.01%	0.68%	0.10%	7L	SN_VTU	0.13%	0.08%	0.04%	0.11%
6R	SN_CIV1	0.06%	0.05%	1.47%	0.25%	7L	SW_BLH	0.06%	0.04%	0.02%	0.05%
6R	SN_FIM	0.01%	0.01%	0.34%	0.06%	7L	SW_N1	0.03%	0.02%	0.01%	0.02%
6R	SW_CIV	0.00%	0.01%	1.73%	0.23%	7L	SW_VTU	0.06%	0.05%	0.03%	0.06%
6R	SW_FIM	0.00%	0.00%	0.24%	0.03%	7R	LN_BLH1	0.00%	0.02%	0.00%	0.00%
6R	SW_N1	0.00%	0.01%	1.85%	0.25%	7R	LW_BLH	0.00%	0.00%	0.00%	0.00%
7L	LN_CIV2	0.00%	0.00%	0.41%	0.05%	7R	LW_LUP	0.00%	0.00%	0.00%	0.00%
7L	LN_STR	0.00%	0.00%	1.85%	0.25%	7R	LW_VTU	0.02%	0.06%	0.05%	0.03%
7L	LW_CIV1	0.00%	0.00%	0.34%	0.04%	7R	NJ_BLH1	0.01%	0.01%	0.01%	0.01%
7L	LW_CIV2	0.00%	0.00%	1.35%	0.18%	7R	NJ_BLH2	0.01%	0.02%	0.01%	0.01%

Table 16

2025 Flight Track Utilization Percentages - Alternative 5

Arrivals						Departures					
Runway	Track	Day	Eve	Night	Total	Runway	Track	Day	Eve	Night	Total
7L	LW_FIM	0.00%	0.00%	2.02%	0.27%	7R	SJ_H20	0.05%	0.04%	0.03%	0.05%
7L	LW_STR	0.00%	0.00%	0.67%	0.09%	7R	SN_BLH	0.00%	0.00%	0.00%	0.00%
7L	NJ_SAU	0.00%	0.00%	0.70%	0.09%	7R	SW_N1	0.00%	0.01%	0.00%	0.00%
7L	SJ_CIV1	0.00%	0.00%	0.32%	0.04%	7R	SW_N2	0.01%	0.01%	0.00%	0.01%
7L	SJ_CIV2	0.00%	0.00%	0.19%	0.03%	24L	LN_GMN	0.03%	0.00%	0.05%	0.03%
7L	SJ_FIM	0.00%	0.00%	0.06%	0.01%	24L	LN_GMNX	0.07%	0.08%	0.12%	0.08%
7L	SN_CIV2	0.00%	0.00%	0.74%	0.10%	24L	LN_LUP	0.47%	0.02%	0.84%	0.48%
7L	SN_FIM	0.00%	0.00%	1.48%	0.20%	24L	LN_LUPX	1.17%	1.23%	1.90%	1.29%
7L	SN_OCN	0.00%	0.00%	0.74%	0.10%	24L	LN_MZB1	0.51%	0.02%	0.91%	0.52%
7L	SW_CIV1	0.00%	0.00%	2.07%	0.27%	24L	LN_MZB1X	1.27%	1.33%	2.07%	1.41%
7L	SW_N1	0.00%	0.00%	1.66%	0.22%	24L	LN_MZB2	0.14%	0.01%	0.25%	0.14%
7R	LN_CIV1	0.04%	0.06%	0.02%	0.04%	24L	LN_MZB2X	0.34%	0.36%	0.56%	0.38%
7R	LN_STR	0.10%	0.15%	0.05%	0.10%	24L	LN_STR	0.37%	0.02%	0.66%	0.38%
7R	LW_CIV1	0.01%	0.02%	0.01%	0.01%	24L	LN_STRX	0.92%	0.96%	1.49%	1.02%
7R	LW_CIV2	0.01%	0.02%	0.01%	0.01%	24L	LW_GMN	0.17%	0.24%	0.24%	0.19%
7R	LW_CIV3	0.00%	0.01%	0.01%	0.01%	24L	LW_LUP	0.50%	0.70%	0.70%	0.56%
7R	LW_CIV4	0.02%	0.03%	0.02%	0.02%	24L	LW_MZB1	0.28%	0.40%	0.40%	0.32%
7R	LW_FIM	0.02%	0.05%	0.03%	0.03%	24L	LW_MZB2	0.69%	0.97%	0.97%	0.77%
7R	LW_STR	0.01%	0.02%	0.01%	0.01%	24L	LW_STR	1.65%	2.33%	2.33%	1.85%
7R	NJ_OCN	0.06%	0.05%	0.06%	0.06%	24L	LW_SXC	0.02%	0.02%	0.02%	0.02%
7R	NJ_WAK1	0.02%	0.01%	0.02%	0.02%	24L	NJ_GMN	0.00%	0.00%	0.00%	0.00%
7R	SJ_CIV1	0.04%	0.02%	0.02%	0.04%	24L	NJ_GMNX	1.01%	1.60%	1.47%	1.16%
7R	SJ_CIV2	0.04%	0.02%	0.02%	0.04%	24L	NJ_MPD	0.00%	0.00%	0.00%	0.00%
7R	SJ_FIM	0.01%	0.01%	0.00%	0.01%	24L	NJ_MPDX	0.09%	0.14%	0.13%	0.10%
7R	SJ_OCN	0.08%	0.05%	0.04%	0.07%	24L	NJ_PMD	0.00%	0.00%	0.00%	0.00%
7R	SN_CIV1	0.20%	0.13%	0.16%	0.18%	24L	NJ_PMDX	0.15%	0.24%	0.22%	0.17%
7R	SN_OCN	0.13%	0.08%	0.10%	0.12%	24L	NJ_VTU	0.00%	0.00%	0.00%	0.00%
7R	SW_CIV1	0.03%	0.08%	0.04%	0.04%	24L	NJ_VTUX	1.17%	1.86%	1.71%	1.34%
7R	SW_CIV2	0.03%	0.08%	0.04%	0.04%	24L	SJ_GMN	0.79%	1.18%	0.88%	0.85%
7R	SW_FIM	0.01%	0.03%	0.02%	0.01%	24L	SJ_GMNX	2.69%	3.16%	0.53%	2.39%
7R	SW_N1	0.02%	0.04%	0.02%	0.02%	24L	SJ_LUP	0.15%	0.23%	0.17%	0.17%
7R	SW_OCN	0.00%	0.01%	0.00%	0.00%	24L	SJ_LUPX	0.52%	0.62%	0.10%	0.47%
24L	LN_FIM	0.09%	0.12%	0.00%	0.08%	24L	SJ_MZB	0.08%	0.12%	0.09%	0.08%
24L	LN_STR	0.32%	0.41%	0.00%	0.30%	24L	SJ_MZBX	0.27%	0.31%	0.05%	0.24%
24L	LN_STR2	0.05%	0.06%	0.00%	0.04%	24L	SJ_STR	0.24%	0.36%	0.27%	0.26%
24L	LN_WAK	0.09%	0.12%	0.00%	0.08%	24L	SJ_STRX	0.82%	0.96%	0.16%	0.73%
24L	LW_FIM1	0.17%	0.30%	0.01%	0.17%	24L	SJ_TRN	0.60%	0.90%	0.67%	0.65%
24L	LW_FIM2	0.01%	0.01%	0.00%	0.01%	24L	SJ_TRNX	2.04%	2.41%	0.40%	1.82%
24L	LW_STR	0.03%	0.05%	0.00%	0.03%	24L	SJ_VNY	0.02%	0.02%	0.02%	0.02%
24L	NJ_SAU	0.18%	0.19%	0.01%	0.16%	24L	SJ_VNYX	0.05%	0.06%	0.01%	0.05%

Table 16

2025 Flight Track Utilization Percentages - Alternative 5

Arrivals						Departures					
Runway	**Track**	**Day**	**Eve**	**Night**	**Total**	**Runway**	**Track**	**Day**	**Eve**	**Night**	**Total**
24L	NJ_WAK	0.20%	0.21%	0.01%	0.18%	24L	SN_GMN	1.96%	1.51%	1.27%	1.79%
24L	SJ_FIM	0.83%	0.41%	0.01%	0.65%	24L	SN_GMNX	3.06%	1.72%	1.19%	2.59%
24L	SJ_STR	0.19%	0.10%	0.00%	0.15%	24L	SN_LUP	2.31%	1.77%	1.50%	2.11%
24L	SN_FIM	0.54%	0.30%	0.06%	0.44%	24L	SN_LUPX	3.60%	2.02%	1.39%	3.04%
24L	SN_N1	0.65%	0.36%	0.08%	0.52%	24L	SN_MZB1	3.50%	2.69%	2.27%	3.20%
24L	SN_VIS	0.03%	0.02%	0.00%	0.02%	24L	SN_MZB1X	5.46%	3.07%	2.12%	4.62%
24L	SW_FIM	0.07%	0.05%	0.00%	0.06%	24L	SN_MZB2	0.31%	0.24%	0.20%	0.29%
24L	SW_N1	0.07%	0.05%	0.00%	0.06%	24L	SN_MZB2X	0.49%	0.27%	0.19%	0.41%
24L	SW_WAK	0.14%	0.09%	0.00%	0.11%	24L	SN_N1	1.96%	1.51%	1.27%	1.79%
24R	LN_FIM	0.75%	1.06%	0.59%	0.78%	24L	SN_N1X	3.06%	1.72%	1.19%	2.59%
24R	LN_STR	4.06%	5.78%	3.20%	4.24%	24L	SW_LUP	0.51%	0.14%	0.41%	0.45%
24R	LN_VIS	0.12%	0.18%	0.10%	0.13%	24L	SW_MZB	0.89%	0.24%	0.72%	0.78%
24R	LN_WAK	0.91%	1.30%	0.72%	0.95%	24L	SW_N1	1.78%	0.48%	1.43%	1.56%
24R	LW_FIM1	2.71%	3.32%	2.21%	2.74%	24R	LN_LUP	0.00%	0.00%	0.00%	0.00%
24R	LW_FIM2	0.37%	0.46%	0.30%	0.38%	24R	LN_MZB1	0.00%	0.00%	0.00%	0.00%
24R	LW_STR	0.60%	0.74%	0.49%	0.61%	24R	LN_MZB2	0.00%	0.00%	0.00%	0.00%
24R	LW_VIS	0.07%	0.09%	0.06%	0.07%	24R	LN_STR	0.00%	0.00%	0.00%	0.00%
24R	NJ_SAU	1.73%	1.01%	1.30%	1.55%	24R	NJ_GMN	0.22%	0.00%	0.00%	0.16%
24R	NJ_STR	0.02%	0.01%	0.02%	0.02%	24R	NJ_PMD	0.06%	0.00%	0.00%	0.05%
24R	NJ_VIS	0.04%	0.02%	0.03%	0.04%	24R	NJ_VTU	0.31%	0.00%	0.00%	0.22%
24R	NJ_WAK	1.58%	0.93%	1.19%	1.42%	24R	SJ_GMN	0.10%	0.00%	0.00%	0.07%
24R	SJ_FIM	7.66%	8.00%	2.56%	7.04%	24R	SJ_LUP	0.03%	0.00%	0.00%	0.02%
24R	SJ_STR	1.00%	1.05%	0.33%	0.92%	24R	SJ_STR	0.03%	0.00%	0.00%	0.02%
24R	SJ_TR1	0.52%	0.54%	0.17%	0.48%	24R	SJ_TR2	0.03%	0.00%	0.00%	0.02%
24R	SJ_VIS	0.10%	0.11%	0.03%	0.10%	24R	SJ_TRN	0.07%	0.00%	0.00%	0.05%
24R	SJ_VNY	0.15%	0.15%	0.05%	0.13%	24R	SN_GMN	0.04%	0.00%	0.00%	0.03%
24R	SN_FIM	10.45%	7.37%	6.67%	9.44%	24R	SN_LUP	0.03%	0.00%	0.00%	0.02%
24R	SN_N1	9.15%	6.45%	5.84%	8.26%	24R	SN_MZB1	0.06%	0.01%	0.00%	0.04%
24R	SN_VIS	0.37%	0.26%	0.24%	0.33%	24R	SN_MZB2	0.01%	0.00%	0.00%	0.01%
24R	SW_FIM	0.51%	0.90%	0.25%	0.54%	24R	SN_N1	0.05%	0.00%	0.00%	0.04%
24R	SW_N1	1.19%	2.12%	0.59%	1.27%	24R	SW_N1	0.00%	0.00%	0.00%	0.00%
24R	SW_VIS	0.05%	0.09%	0.02%	0.05%	25L	LN_GMN	0.00%	0.05%	0.00%	0.01%
24R	SW_WAK	1.39%	2.47%	0.68%	1.48%	25L	LN_LUP	0.00%	0.13%	0.00%	0.02%
25L	LN_FIM1	0.06%	0.09%	0.04%	0.07%	25L	LN_MZB1	0.00%	0.46%	0.00%	0.06%
25L	LN_FIM2	0.01%	0.02%	0.01%	0.01%	25L	LN_MZB2	0.00%	0.11%	0.00%	0.01%
25L	LN_STR	4.53%	6.28%	3.08%	4.63%	25L	LN_STR	0.00%	0.05%	0.00%	0.01%
25L	LN_VIS	0.33%	0.46%	0.22%	0.34%	25L	LW_GMN	0.08%	0.32%	0.13%	0.12%
25L	LN_WAK1	0.26%	0.35%	0.17%	0.26%	25L	LW_LUP	0.03%	0.10%	0.04%	0.04%
25L	LN_WAK2	0.02%	0.03%	0.01%	0.02%	25L	LW_MZB1	0.44%	1.67%	0.71%	0.63%
25L	LW_FIM1	0.83%	1.53%	1.02%	0.97%	25L	LW_MZB2	0.07%	0.28%	0.12%	0.10%

Table 16

2025 Flight Track Utilization Percentages - Alternative 5

Arrivals						Departures					
Runway	**Track**	**Day**	**Eve**	**Night**	**Total**	**Runway**	**Track**	**Day**	**Eve**	**Night**	**Total**
25L	LW_FIM2	0.03%	0.05%	0.03%	0.03%	25L	LW_STR	0.39%	1.50%	0.64%	0.57%
25L	LW_STR	1.88%	3.46%	2.31%	2.20%	25L	LW_STR1	0.06%	0.22%	0.09%	0.08%
25L	LW_VIS	1.34%	2.46%	1.64%	1.57%	25L	LW_STR2	0.29%	1.12%	0.48%	0.43%
25L	NJ_MPD	0.56%	0.47%	0.56%	0.55%	25L	LW_STR3	0.25%	0.95%	0.40%	0.36%
25L	NJ_SAU	0.29%	0.24%	0.29%	0.28%	25L	NJ_GMN	0.05%	0.09%	0.05%	0.05%
25L	NJ_VIS	2.39%	2.01%	2.36%	2.32%	25L	NJ_MZB1	0.57%	1.06%	0.61%	0.64%
25L	NJ_WAK1	0.32%	0.27%	0.31%	0.31%	25L	NJ_MZB2	0.27%	0.50%	0.29%	0.30%
25L	SJ_FIM1	1.12%	0.51%	0.58%	0.95%	25L	NJ_PMD	0.03%	0.05%	0.03%	0.03%
25L	SJ_FIM2	0.05%	0.02%	0.03%	0.04%	25L	SJ_GMN	0.22%	0.14%	0.12%	0.19%
25L	SJ_STR	5.15%	2.33%	2.65%	4.35%	25L	SJ_LUP	0.55%	0.34%	0.29%	0.48%
25L	SJ_VIS	1.55%	0.70%	0.79%	1.31%	25L	SJ_MZB1	1.08%	0.68%	0.58%	0.95%
25L	SJ_VNY	0.06%	0.03%	0.03%	0.05%	25L	SJ_MZB2	0.21%	0.13%	0.11%	0.18%
25L	SN_FIM1	0.55%	0.35%	0.45%	0.50%	25L	SJ_ST2	0.18%	0.11%	0.10%	0.16%
25L	SN_N1	13.88%	8.88%	11.31%	12.70%	25L	SJ_STR	0.11%	0.07%	0.06%	0.10%
25L	SN_VIS	2.56%	1.64%	2.09%	2.34%	25L	SJ_TRN	0.05%	0.03%	0.03%	0.05%
25L	SW_FIM	0.08%	0.21%	0.15%	0.11%	25L	SJ_VNY	0.20%	0.12%	0.11%	0.17%
25L	SW_N1	3.06%	8.47%	5.85%	4.34%	25L	SN_LUP	0.02%	0.00%	0.00%	0.01%
25L	SW_VIS	0.62%	1.72%	1.19%	0.88%	25L	SN_MZB1	0.09%	0.00%	0.00%	0.06%
25L	SW_WAK1	0.21%	0.58%	0.40%	0.30%	25L	SN_MZB2	0.02%	0.00%	0.00%	0.01%
25R	LN_FIM1	0.02%	0.01%	0.00%	0.01%	25L	SN_N1	0.01%	0.00%	0.00%	0.00%
25R	LN_STR	0.59%	0.30%	0.11%	0.48%	25L	SW_GMN	0.02%	0.04%	0.00%	0.02%
25R	LN_VIS	0.13%	0.07%	0.03%	0.11%	25L	SW_LUP	0.04%	0.07%	0.01%	0.04%
25R	LN_WAK1	0.08%	0.04%	0.01%	0.06%	25L	SW_MZB1	0.28%	0.53%	0.05%	0.27%
25R	LN_WAK2	0.03%	0.02%	0.01%	0.03%	25L	SW_MZB2	0.02%	0.03%	0.00%	0.02%
25R	LW_FIM1	0.27%	0.40%	0.12%	0.27%	25L	SW_N1	0.03%	0.06%	0.01%	0.03%
25R	LW_FIM2	0.09%	0.13%	0.04%	0.09%	25R	LN_GMN	0.05%	0.05%	0.08%	0.05%
25R	LW_STR	0.46%	0.71%	0.21%	0.47%	25R	LN_LUP	1.27%	1.27%	2.20%	1.42%
25R	LW_VIS	0.42%	0.64%	0.19%	0.43%	25R	LN_MZB1	3.14%	3.15%	5.45%	3.52%
25R	NJ_MPD	0.06%	0.04%	0.05%	0.06%	25R	LN_MZB2	0.75%	0.75%	1.30%	0.84%
25R	NJ_SAU	0.05%	0.03%	0.04%	0.04%	25R	LN_STR1	1.24%	1.24%	2.15%	1.39%
25R	NJ_VIS	0.38%	0.22%	0.30%	0.34%	25R	LN_STR2	0.26%	0.26%	0.45%	0.29%
25R	NJ_WAK1	0.04%	0.03%	0.03%	0.04%	25R	LN_SXC	0.01%	0.01%	0.02%	0.01%
25R	SJ_FIM1	0.20%	0.14%	0.00%	0.16%	25R	LW_GMN	0.07%	0.10%	0.46%	0.14%
25R	SJ_STR	0.69%	0.47%	0.01%	0.56%	25R	LW_LUP	0.24%	0.32%	1.46%	0.45%
25R	SJ_VIS	0.24%	0.16%	0.00%	0.19%	25R	LW_MZB1	0.37%	0.49%	2.26%	0.69%
25R	SN_FIM1	0.14%	0.16%	0.02%	0.13%	25R	LW_MZB2	0.29%	0.39%	1.80%	0.55%
25R	SN_N1	1.88%	2.15%	0.34%	1.72%	25R	LW_STR1	1.37%	1.82%	8.43%	2.58%
25R	SN_VIS	0.46%	0.52%	0.08%	0.42%	25R	LW_STR2	0.44%	0.58%	2.70%	0.83%
25R	SW_N1	0.55%	0.77%	0.51%	0.58%	25R	LW_STR3	0.04%	0.05%	0.24%	0.07%
25R	SW_VIS	0.11%	0.15%	0.10%	0.11%	25R	LW_SXC	0.00%	0.01%	0.02%	0.01%

Table 16

2025 Flight Track Utilization Percentages - Alternative 5

Arrivals						Departures					
Runway	**Track**	**Day**	**Eve**	**Night**	**Total**	**Runway**	**Track**	**Day**	**Eve**	**Night**	**Total**
25R	SW_WAK1	0.15%	0.22%	0.14%	0.16%	25R	NJ_GMN	0.05%	0.07%	0.03%	0.05%
Total		**100.00%**	**100.00%**	**100.00%**	**100.00%**	25R	NJ_MZB1	2.04%	2.79%	1.17%	1.99%
						25R	NJ_MZB2	0.95%	1.30%	0.55%	0.93%
						25R	NJ_PMD	0.21%	0.29%	0.12%	0.21%
						25R	NJ_TWA	0.10%	0.14%	0.06%	0.10%
						25R	SJ_GMN	1.05%	1.12%	0.46%	0.96%
						25R	SJ_LUP	1.07%	1.15%	0.47%	0.98%
						25R	SJ_MZB1	4.10%	4.40%	1.81%	3.76%
						25R	SJ_MZB2	0.19%	0.20%	0.08%	0.17%
						25R	SJ_STR	0.37%	0.40%	0.16%	0.34%
						25R	SJ_TR2	0.16%	0.17%	0.07%	0.15%
						25R	SJ_TRN	0.77%	0.82%	0.34%	0.70%
						25R	SJ_VNY	0.15%	0.16%	0.07%	0.14%
						25R	SN_GMN	0.39%	0.40%	0.26%	0.37%
						25R	SN_LUP	3.55%	3.65%	2.33%	3.36%
						25R	SN_MZB1	8.43%	8.67%	5.54%	7.99%
						25R	SN_MZB2	1.29%	1.32%	0.85%	1.22%
						25R	SN_N1	1.68%	1.72%	1.10%	1.59%
						25R	SN_N2	0.30%	0.31%	0.20%	0.29%
						25R	SW_GMN	0.19%	0.20%	0.38%	0.22%
						25R	SW_LUP	0.72%	0.74%	1.45%	0.84%
						25R	SW_MZB1	3.96%	4.12%	8.01%	4.64%
						25R	SW_MZB2	0.45%	0.47%	0.92%	0.53%
						25R	SW_N1	1.07%	1.11%	2.17%	1.26%
						25R	SW_N2	0.34%	0.35%	0.68%	0.39%
						Total		**100.00%**	**100.00%**	**100.00%**	**100.00%**

Notes:

Day: 7:00 a.m. to 6:59 p.m., Eve: 7:00 p.m. to 9:59 p.m., Night: 10:00 p.m. to 6:59 a.m.
Totals may not add to 100 percent due to rounding.

Source: Ricondo & Associates, Inc., 2012 (2025 forecast); LAWA, 2008 (2009 flight track utilization).

3.7 Alternative 6 Future (2025) Conditions

3.7.1 Alternative 6 Runway Utilization

Forecast runway assignments for this alternative were developed from the SIMMOD results related to Alternative 1 as Alternative 6 was not simulated in the SIMMOD analysis. Due to the similarities of Alternatives 1 and 6, Alternative's 1 runway utilization was used in the analysis of this alternative as it is not anticipated to change. Refer to the North Runway Alternatives Simulation Analysis in Appendix F, Operational Analysis, of the SPAS Report for additional details. Runway usage by aircraft category is provided in **Table 5**. **Table 17** presents the results of the simulation assignment of aircraft to runways.

Table 17

2025 Runway Utilization Percentages - Alternative 6

	Landings				Takeoffs			
Runway	**Day**	**Eve**	**Night**	**Total**	**Day**	**Eve**	**Night**	**Total**
6L	1.0%	1.1%	0.7%	1.0%	0.1%	0.0%	0.0%	0.0%
6R	0.2%	0.1%	16.2%	2.3%	0.9%	1.2%	0.4%	0.9%
7L	0.0%	0.0%	14.6%	1.9%	1.0%	0.8%	0.9%	1.0%
7R	0.9%	1.0%	0.7%	0.9%	0.1%	0.2%	0.2%	0.1%
24L	3.7%	2.8%	0.2%	3.1%	48.1%	40.2%	35.4%	45.1%
24R	45.5%	44.4%	27.6%	43.0%	1.0%	0.0%	0.0%	0.7%
25L	41.7%	43.1%	37.6%	41.4%	5.6%	11.0%	5.0%	6.2%
25R	7.0%	7.4%	2.4%	6.5%	43.1%	46.6%	58.1%	46.0%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Notes:

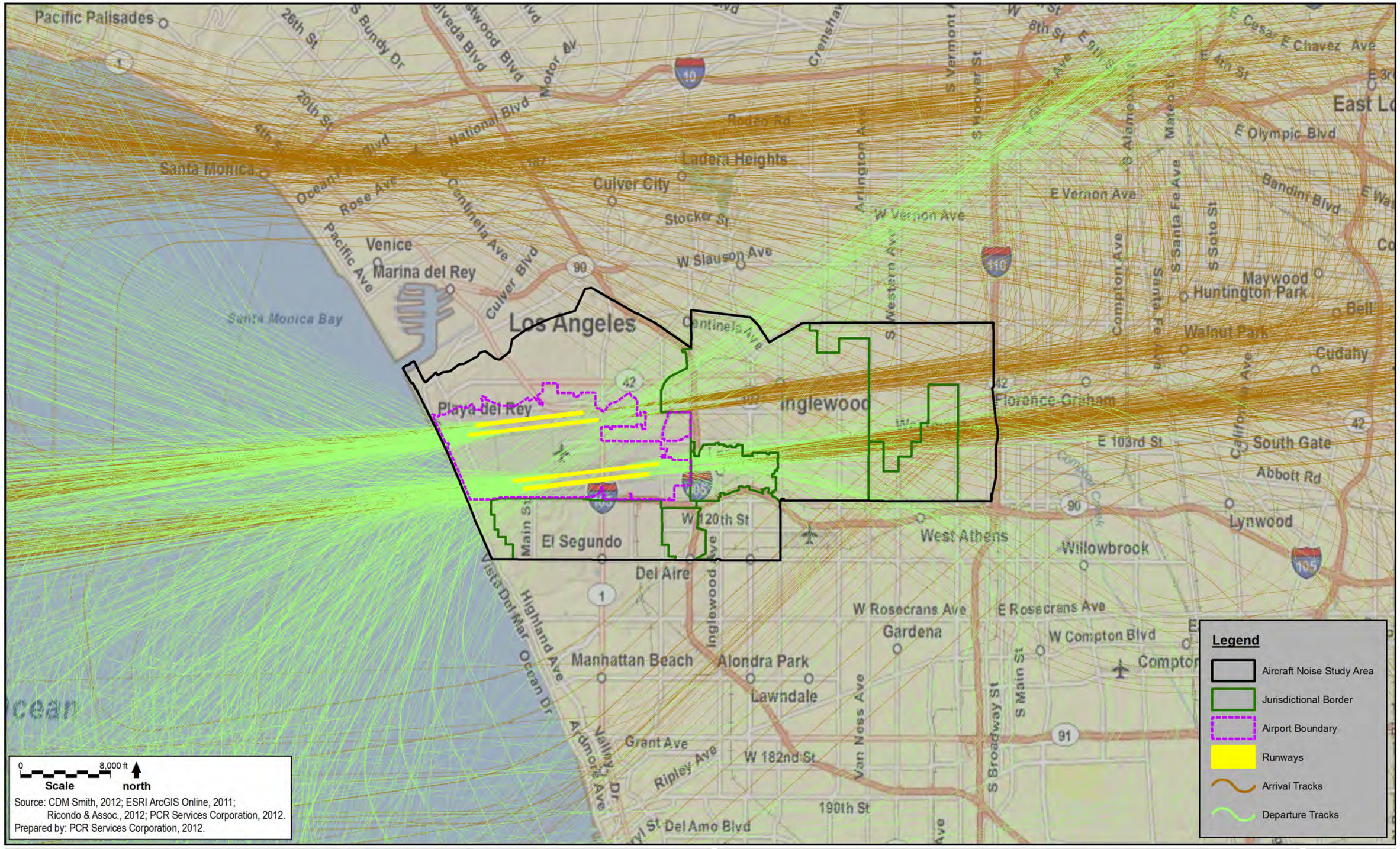
Day: 7:00 a.m. to 6:59 p.m., Eve: 7:00 p.m. to 9:59 p.m., Night: 10:00 p.m. to 6:59 a.m.
Totals may not add to 100 percent due to rounding.

Source: Ricondo & Associates, Inc., 2012 (SIMMOD output); LAWA, 2009 (2009 Over-Ocean flight data and runway use).

The airport's predominant configuration utilizes Runways 24R and 25L for arrivals and Runways 24L and 25R for departures. The airport's present noise abatement measures, which express a preference for Over-Ocean procedures between midnight and 6:30 a.m., are reflected in the more frequent use of Runway 6R for arrival operations during the night hours. The dominant operating configuration during the period when Over-Ocean procedures are in effect consists of approaches to the north inboard runway (Runway 6R) or south inboard runway (Runway 7L), and departures from the south inboard runway (Runway 25R) and north inboard runway (Runway 24L). The use of Over-Ocean procedures was based on baseline (2009) conditions and applied to the forecasted operations. This included non-conforming easterly departures as well. Also reflected in the nighttime usage is the airport's policy that, to the extent practical, operations between 10:00 p.m. and 7:00 a.m. will be made to and from the inboard runways, but was based on low demand levels as modeled in SIMMOD.

3.7.2 Alternative 6 Flight Tracks

The flight tracks and their usage for Alternative 6 are not substantially different from the utilization patterns of the baseline (2009) conditions and are based upon the SIMMOD results returned for Alternative 1. Flight tracks for 2025 conditions are illustrated in **Figure 7**. The proportions of operations assigned to each flight track are indicated in **Table 18**. As is the case with all alternatives, the dominant flight paths that impact the noise exposure pattern at LAX are associated with the arrivals from the east.



LAX Specific Plan Amendment Study Draft EIR	**2025 Alternative 6 Flight Tracks**	Figure 7

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Table 18

2025 Flight Track Utilization Percentages - Alternative 6

Arrivals						Departures					
Runway	Track	Day	Eve	Night	Total	Runway	Track	Day	Eve	Night	Total
6L	LN_CIV1	0.03%	0.05%	0.03%	0.04%	6L	NJ_FIM	0.01%	0.00%	0.00%	0.00%
6L	LN_CIV2	0.03%	0.04%	0.03%	0.03%	6L	NJ_GMN	0.01%	0.01%	0.00%	0.01%
6L	LN_CIV3	0.01%	0.01%	0.01%	0.01%	6L	SN_LUP	0.05%	0.02%	0.00%	0.04%
6L	LN_STR	0.04%	0.06%	0.04%	0.04%	6R	LN_GMN	0.04%	0.04%	0.04%	0.04%
6L	LW_CIV1	0.10%	0.15%	0.07%	0.10%	6R	LN_GMN2	0.04%	0.04%	0.04%	0.04%
6L	LW_FIM	0.01%	0.02%	0.01%	0.01%	6R	LW_LUP	0.04%	0.13%	0.00%	0.05%
6L	NJ_CAS	0.03%	0.02%	0.03%	0.03%	6R	LW_LUP1	0.02%	0.06%	0.00%	0.02%
6L	NJ_WAK	0.03%	0.02%	0.03%	0.03%	6R	NJ_FIM	0.03%	0.06%	0.04%	0.04%
6L	SJ_CIV	0.03%	0.03%	0.01%	0.02%	6R	NJ_GMN	0.02%	0.03%	0.02%	0.02%
6L	SJ_FIM	0.17%	0.19%	0.05%	0.16%	6R	SJ_GMN	0.13%	0.18%	0.04%	0.12%
6L	SN_CIV1	0.24%	0.21%	0.15%	0.22%	6R	SJ_LUP	0.05%	0.07%	0.01%	0.04%
6L	SN_CIV2	0.01%	0.01%	0.01%	0.01%	6R	SN_GMN	0.18%	0.18%	0.05%	0.16%
6L	SN_FIM	0.20%	0.18%	0.13%	0.19%	6R	SN_LUP	0.30%	0.30%	0.08%	0.26%
6L	SN_OCN	0.02%	0.01%	0.01%	0.01%	6R	SW_N1	0.06%	0.07%	0.05%	0.06%
6L	SW_CIV	0.05%	0.09%	0.05%	0.05%	7L	LN_BLH1	0.02%	0.02%	0.02%	0.02%
6L	SW_N1	0.03%	0.06%	0.03%	0.04%	7L	LN_BLH2	0.05%	0.05%	0.05%	0.05%
6R	LN_CIV1	0.00%	0.00%	0.43%	0.06%	7L	LN_LUP	0.01%	0.01%	0.01%	0.01%
6R	LN_CIV2	0.00%	0.00%	0.17%	0.02%	7L	LN_VTU	0.09%	0.07%	0.09%	0.08%
6R	LN_FIM	0.00%	0.00%	0.12%	0.02%	7L	LW_GMN	0.00%	0.00%	0.00%	0.00%
6R	LN_STR	0.01%	0.01%	2.32%	0.31%	7L	LW_LUP	0.00%	0.00%	0.00%	0.00%
6R	LW_CIV	0.00%	0.00%	0.77%	0.10%	7L	LW_SXC	0.01%	0.01%	0.01%	0.01%
6R	LW_CIV1	0.00%	0.00%	0.44%	0.06%	7L	LW_SXC1	0.00%	0.00%	0.01%	0.00%
6R	LW_FIM1	0.01%	0.01%	2.97%	0.40%	7L	LW_VTU	0.06%	0.06%	0.12%	0.07%
6R	LW_FIM2	0.00%	0.00%	0.88%	0.12%	7L	NJ_BLH1	0.03%	0.04%	0.01%	0.03%
6R	LW_STR	0.00%	0.00%	0.22%	0.03%	7L	NJ_BLH2	0.04%	0.05%	0.02%	0.04%
6R	NJ_CAS	0.00%	0.00%	0.05%	0.01%	7L	SJ_BLH	0.09%	0.07%	0.03%	0.08%
6R	NJ_SAU	0.01%	0.01%	0.47%	0.07%	7L	SJ_LUP	0.04%	0.03%	0.01%	0.03%
6R	NJ_WAK1	0.00%	0.00%	0.05%	0.01%	7L	SJ_VTU	0.05%	0.04%	0.02%	0.05%
6R	NJ_WAK2	0.01%	0.00%	0.19%	0.03%	7L	SN_BLH	0.20%	0.13%	0.07%	0.17%
6R	SJ_CIV	0.02%	0.01%	0.88%	0.14%	7L	SN_N1	0.03%	0.02%	0.01%	0.02%
6R	SJ_FIM	0.02%	0.01%	0.68%	0.10%	7L	SN_VTU	0.13%	0.08%	0.04%	0.11%
6R	SN_CIV1	0.06%	0.05%	1.47%	0.25%	7L	SW_BLH	0.06%	0.04%	0.02%	0.05%
6R	SN_FIM	0.01%	0.01%	0.34%	0.06%	7L	SW_N1	0.03%	0.02%	0.01%	0.02%
6R	SW_CIV	0.00%	0.01%	1.73%	0.23%	7L	SW_VTU	0.06%	0.05%	0.03%	0.06%
6R	SW_FIM	0.00%	0.00%	0.24%	0.03%	7R	LN_BLH1	0.00%	0.02%	0.00%	0.00%
6R	SW_N1	0.00%	0.01%	1.85%	0.25%	7R	LW_BLH	0.00%	0.00%	0.00%	0.00%
7L	LN_CIV2	0.00%	0.00%	0.41%	0.05%	7R	LW_LUP	0.00%	0.00%	0.00%	0.00%
7L	LN_STR	0.00%	0.00%	1.85%	0.25%	7R	LW_VTU	0.02%	0.06%	0.05%	0.03%
7L	LW_CIV1	0.00%	0.00%	0.34%	0.04%	7R	NJ_BLH1	0.01%	0.01%	0.01%	0.01%
7L	LW_CIV2	0.00%	0.00%	1.35%	0.18%	7R	NJ_BLH2	0.01%	0.02%	0.01%	0.01%

Table 18

2025 Flight Track Utilization Percentages - Alternative 6

Arrivals						Departures					
Runway	Track	Day	Eve	Night	Total	Runway	Track	Day	Eve	Night	Total
7L	LW_FIM	0.00%	0.00%	2.02%	0.27%	7R	SJ_H20	0.05%	0.04%	0.03%	0.05%
7L	LW_STR	0.00%	0.00%	0.67%	0.09%	7R	SN_BLH	0.00%	0.00%	0.00%	0.00%
7L	NJ_SAU	0.00%	0.00%	0.70%	0.09%	7R	SW_N1	0.00%	0.01%	0.00%	0.00%
7L	SJ_CIV1	0.00%	0.00%	0.32%	0.04%	7R	SW_N2	0.01%	0.01%	0.00%	0.01%
7L	SJ_CIV2	0.00%	0.00%	0.19%	0.03%	24L	LN_GMN	0.03%	0.00%	0.05%	0.03%
7L	SJ_FIM	0.00%	0.00%	0.06%	0.01%	24L	LN_GMNX	0.07%	0.08%	0.12%	0.08%
7L	SN_CIV2	0.00%	0.00%	0.74%	0.10%	24L	LN_LUP	0.47%	0.02%	0.84%	0.48%
7L	SN_FIM	0.00%	0.00%	1.48%	0.20%	24L	LN_LUPX	1.17%	1.23%	1.90%	1.29%
7L	SN_OCN	0.00%	0.00%	0.74%	0.10%	24L	LN_MZB1	0.51%	0.02%	0.91%	0.52%
7L	SW_CIV1	0.00%	0.00%	2.07%	0.27%	24L	LN_MZB1X	1.27%	1.33%	2.07%	1.41%
7L	SW_N1	0.00%	0.00%	1.66%	0.22%	24L	LN_MZB2	0.14%	0.01%	0.25%	0.14%
7R	LN_CIV1	0.04%	0.06%	0.02%	0.04%	24L	LN_MZB2X	0.34%	0.36%	0.56%	0.38%
7R	LN_STR	0.10%	0.15%	0.05%	0.10%	24L	LN_STR	0.37%	0.02%	0.66%	0.38%
7R	LW_CIV1	0.01%	0.02%	0.01%	0.01%	24L	LN_STRX	0.92%	0.96%	1.49%	1.02%
7R	LW_CIV2	0.01%	0.02%	0.01%	0.01%	24L	LW_GMN	0.17%	0.24%	0.24%	0.19%
7R	LW_CIV3	0.00%	0.01%	0.01%	0.01%	24L	LW_LUP	0.50%	0.70%	0.70%	0.56%
7R	LW_CIV4	0.02%	0.03%	0.02%	0.02%	24L	LW_MZB1	0.28%	0.40%	0.40%	0.32%
7R	LW_FIM	0.02%	0.05%	0.03%	0.03%	24L	LW_MZB2	0.69%	0.97%	0.97%	0.77%
7R	LW_STR	0.01%	0.02%	0.01%	0.01%	24L	LW_STR	1.65%	2.33%	2.33%	1.85%
7R	NJ_OCN	0.06%	0.05%	0.06%	0.06%	24L	LW_SXC	0.02%	0.02%	0.02%	0.02%
7R	NJ_WAK1	0.02%	0.01%	0.02%	0.02%	24L	NJ_GMN	0.00%	0.00%	0.00%	0.00%
7R	SJ_CIV1	0.04%	0.02%	0.02%	0.04%	24L	NJ_GMNX	1.01%	1.60%	1.47%	1.16%
7R	SJ_CIV2	0.04%	0.02%	0.02%	0.04%	24L	NJ_MPD	0.00%	0.00%	0.00%	0.00%
7R	SJ_FIM	0.01%	0.01%	0.00%	0.01%	24L	NJ_MPDX	0.09%	0.14%	0.13%	0.10%
7R	SJ_OCN	0.08%	0.05%	0.04%	0.07%	24L	NJ_PMD	0.00%	0.00%	0.00%	0.00%
7R	SN_CIV1	0.20%	0.13%	0.16%	0.18%	24L	NJ_PMDX	0.15%	0.24%	0.22%	0.17%
7R	SN_OCN	0.13%	0.08%	0.10%	0.12%	24L	NJ_VTU	0.00%	0.00%	0.00%	0.00%
7R	SW_CIV1	0.03%	0.08%	0.04%	0.04%	24L	NJ_VTUX	1.17%	1.86%	1.71%	1.34%
7R	SW_CIV2	0.03%	0.08%	0.04%	0.04%	24L	SJ_GMN	0.79%	1.18%	0.88%	0.85%
7R	SW_FIM	0.01%	0.03%	0.02%	0.01%	24L	SJ_GMNX	2.69%	3.16%	0.53%	2.39%
7R	SW_N1	0.02%	0.04%	0.02%	0.02%	24L	SJ_LUP	0.15%	0.23%	0.17%	0.17%
7R	SW_OCN	0.00%	0.01%	0.00%	0.00%	24L	SJ_LUPX	0.52%	0.62%	0.10%	0.47%
24L	LN_FIM	0.09%	0.12%	0.00%	0.08%	24L	SJ_MZB	0.08%	0.12%	0.09%	0.08%
24L	LN_STR	0.32%	0.41%	0.00%	0.30%	24L	SJ_MZBX	0.27%	0.31%	0.05%	0.24%
24L	LN_STR2	0.05%	0.06%	0.00%	0.04%	24L	SJ_STR	0.24%	0.36%	0.27%	0.26%
24L	LN_WAK	0.09%	0.12%	0.00%	0.08%	24L	SJ_STRX	0.82%	0.96%	0.16%	0.73%
24L	LW_FIM1	0.17%	0.30%	0.01%	0.17%	24L	SJ_TRN	0.60%	0.90%	0.67%	0.65%
24L	LW_FIM2	0.01%	0.01%	0.00%	0.01%	24L	SJ_TRNX	2.04%	2.41%	0.40%	1.82%
24L	LW_STR	0.03%	0.05%	0.00%	0.03%	24L	SJ_VNY	0.02%	0.02%	0.02%	0.02%
24L	NJ_SAU	0.18%	0.19%	0.01%	0.16%	24L	SJ_VNYX	0.05%	0.06%	0.01%	0.05%

Table 18

2025 Flight Track Utilization Percentages - Alternative 6

Arrivals						Departures					
Runway	**Track**	**Day**	**Eve**	**Night**	**Total**	**Runway**	**Track**	**Day**	**Eve**	**Night**	**Total**
24L	NJ_WAK	0.20%	0.21%	0.01%	0.18%	24L	SN_GMN	1.96%	1.51%	1.27%	1.79%
24L	SJ_FIM	0.83%	0.41%	0.01%	0.65%	24L	SN_GMNX	3.06%	1.72%	1.19%	2.59%
24L	SJ_STR	0.19%	0.10%	0.00%	0.15%	24L	SN_LUP	2.31%	1.77%	1.50%	2.11%
24L	SN_FIM	0.54%	0.30%	0.06%	0.44%	24L	SN_LUPX	3.60%	2.02%	1.39%	3.04%
24L	SN_N1	0.65%	0.36%	0.08%	0.52%	24L	SN_MZB1	3.50%	2.69%	2.27%	3.20%
24L	SN_VIS	0.03%	0.02%	0.00%	0.02%	24L	SN_MZB1X	5.46%	3.07%	2.12%	4.62%
24L	SW_FIM	0.07%	0.05%	0.00%	0.06%	24L	SN_MZB2	0.31%	0.24%	0.20%	0.29%
24L	SW_N1	0.07%	0.05%	0.00%	0.06%	24L	SN_MZB2X	0.49%	0.27%	0.19%	0.41%
24L	SW_WAK	0.14%	0.09%	0.00%	0.11%	24L	SN_N1	1.96%	1.51%	1.27%	1.79%
24R	LN_FIM	0.75%	1.06%	0.59%	0.78%	24L	SN_N1X	3.06%	1.72%	1.19%	2.59%
24R	LN_STR	4.06%	5.78%	3.20%	4.24%	24L	SW_LUP	0.51%	0.14%	0.41%	0.45%
24R	LN_VIS	0.12%	0.18%	0.10%	0.13%	24L	SW_MZB	0.89%	0.24%	0.72%	0.78%
24R	LN_WAK	0.91%	1.30%	0.72%	0.95%	24L	SW_N1	1.78%	0.48%	1.43%	1.56%
24R	LW_FIM1	2.71%	3.32%	2.21%	2.74%	24R	LN_LUP	0.00%	0.00%	0.00%	0.00%
24R	LW_FIM2	0.37%	0.46%	0.30%	0.38%	24R	LN_MZB1	0.00%	0.00%	0.00%	0.00%
24R	LW_STR	0.60%	0.74%	0.49%	0.61%	24R	LN_MZB2	0.00%	0.00%	0.00%	0.00%
24R	LW_VIS	0.07%	0.09%	0.06%	0.07%	24R	LN_STR	0.00%	0.00%	0.00%	0.00%
24R	NJ_SAU	1.73%	1.01%	1.30%	1.55%	24R	NJ_GMN	0.22%	0.00%	0.00%	0.16%
24R	NJ_STR	0.02%	0.01%	0.02%	0.02%	24R	NJ_PMD	0.06%	0.00%	0.00%	0.05%
24R	NJ_VIS	0.04%	0.02%	0.03%	0.04%	24R	NJ_VTU	0.31%	0.00%	0.00%	0.22%
24R	NJ_WAK	1.58%	0.93%	1.19%	1.42%	24R	SJ_GMN	0.10%	0.00%	0.00%	0.07%
24R	SJ_FIM	7.66%	8.00%	2.56%	7.04%	24R	SJ_LUP	0.03%	0.00%	0.00%	0.02%
24R	SJ_STR	1.00%	1.05%	0.33%	0.92%	24R	SJ_STR	0.03%	0.00%	0.00%	0.02%
24R	SJ_TR1	0.52%	0.54%	0.17%	0.48%	24R	SJ_TR2	0.03%	0.00%	0.00%	0.02%
24R	SJ_VIS	0.10%	0.11%	0.03%	0.10%	24R	SJ_TRN	0.07%	0.00%	0.00%	0.05%
24R	SJ_VNY	0.15%	0.15%	0.05%	0.13%	24R	SN_GMN	0.04%	0.00%	0.00%	0.03%
24R	SN_FIM	10.45%	7.37%	6.67%	9.44%	24R	SN_LUP	0.03%	0.00%	0.00%	0.02%
24R	SN_N1	9.15%	6.45%	5.84%	8.26%	24R	SN_MZB1	0.06%	0.01%	0.00%	0.04%
24R	SN_VIS	0.37%	0.26%	0.24%	0.33%	24R	SN_MZB2	0.01%	0.00%	0.00%	0.01%
24R	SW_FIM	0.51%	0.90%	0.25%	0.54%	24R	SN_N1	0.05%	0.00%	0.00%	0.04%
24R	SW_N1	1.19%	2.12%	0.59%	1.27%	24R	SW_N1	0.00%	0.00%	0.00%	0.00%
24R	SW_VIS	0.05%	0.09%	0.02%	0.05%	25L	LN_GMN	0.00%	0.05%	0.00%	0.01%
24R	SW_WAK	1.39%	2.47%	0.68%	1.48%	25L	LN_LUP	0.00%	0.13%	0.00%	0.02%
25L	LN_FIM1	0.06%	0.09%	0.04%	0.07%	25L	LN_MZB1	0.00%	0.46%	0.00%	0.06%
25L	LN_FIM2	0.01%	0.02%	0.01%	0.01%	25L	LN_MZB2	0.00%	0.11%	0.00%	0.01%
25L	LN_STR	4.53%	6.28%	3.08%	4.63%	25L	LN_STR	0.00%	0.05%	0.00%	0.01%
25L	LN_VIS	0.33%	0.46%	0.22%	0.34%	25L	LW_GMN	0.08%	0.32%	0.13%	0.12%
25L	LN_WAK1	0.26%	0.35%	0.17%	0.26%	25L	LW_LUP	0.03%	0.10%	0.04%	0.04%
25L	LN_WAK2	0.02%	0.03%	0.01%	0.02%	25L	LW_MZB1	0.44%	1.67%	0.71%	0.63%
25L	LW_FIM1	0.83%	1.53%	1.02%	0.97%	25L	LW_MZB2	0.07%	0.28%	0.12%	0.10%

Table 18

2025 Flight Track Utilization Percentages - Alternative 6

Arrivals						Departures					
Runway	**Track**	**Day**	**Eve**	**Night**	**Total**	**Runway**	**Track**	**Day**	**Eve**	**Night**	**Total**
25L	LW_FIM2	0.03%	0.05%	0.03%	0.03%	25L	LW_STR	0.39%	1.50%	0.64%	0.57%
25L	LW_STR	1.88%	3.46%	2.31%	2.20%	25L	LW_STR1	0.06%	0.22%	0.09%	0.08%
25L	LW_VIS	1.34%	2.46%	1.64%	1.57%	25L	LW_STR2	0.29%	1.12%	0.48%	0.43%
25L	NJ_MPD	0.56%	0.47%	0.56%	0.55%	25L	LW_STR3	0.25%	0.95%	0.40%	0.36%
25L	NJ_SAU	0.29%	0.24%	0.29%	0.28%	25L	NJ_GMN	0.05%	0.09%	0.05%	0.05%
25L	NJ_VIS	2.39%	2.01%	2.36%	2.32%	25L	NJ_MZB1	0.57%	1.06%	0.61%	0.64%
25L	NJ_WAK1	0.32%	0.27%	0.31%	0.31%	25L	NJ_MZB2	0.27%	0.50%	0.29%	0.30%
25L	SJ_FIM1	1.12%	0.51%	0.58%	0.95%	25L	NJ_PMD	0.03%	0.05%	0.03%	0.03%
25L	SJ_FIM2	0.05%	0.02%	0.03%	0.04%	25L	SJ_GMN	0.22%	0.14%	0.12%	0.19%
25L	SJ_STR	5.15%	2.33%	2.65%	4.35%	25L	SJ_LUP	0.55%	0.34%	0.29%	0.48%
25L	SJ_VIS	1.55%	0.70%	0.79%	1.31%	25L	SJ_MZB1	1.08%	0.68%	0.58%	0.95%
25L	SJ_VNY	0.06%	0.03%	0.03%	0.05%	25L	SJ_MZB2	0.21%	0.13%	0.11%	0.18%
25L	SN_FIM1	0.55%	0.35%	0.45%	0.50%	25L	SJ_ST2	0.18%	0.11%	0.10%	0.16%
25L	SN_N1	13.88%	8.88%	11.31%	12.70%	25L	SJ_STR	0.11%	0.07%	0.06%	0.10%
25L	SN_VIS	2.56%	1.64%	2.09%	2.34%	25L	SJ_TRN	0.05%	0.03%	0.03%	0.05%
25L	SW_FIM	0.08%	0.21%	0.15%	0.11%	25L	SJ_VNY	0.20%	0.12%	0.11%	0.17%
25L	SW_N1	3.06%	8.47%	5.85%	4.34%	25L	SN_LUP	0.02%	0.00%	0.00%	0.01%
25L	SW_VIS	0.62%	1.72%	1.19%	0.88%	25L	SN_MZB1	0.09%	0.00%	0.00%	0.06%
25L	SW_WAK1	0.21%	0.58%	0.40%	0.30%	25L	SN_MZB2	0.02%	0.00%	0.00%	0.01%
25R	LN_FIM1	0.02%	0.01%	0.00%	0.01%	25L	SN_N1	0.01%	0.00%	0.00%	0.00%
25R	LN_STR	0.59%	0.30%	0.11%	0.48%	25L	SW_GMN	0.02%	0.04%	0.00%	0.02%
25R	LN_VIS	0.13%	0.07%	0.03%	0.11%	25L	SW_LUP	0.04%	0.07%	0.01%	0.04%
25R	LN_WAK1	0.08%	0.04%	0.01%	0.06%	25L	SW_MZB1	0.28%	0.53%	0.05%	0.27%
25R	LN_WAK2	0.03%	0.02%	0.01%	0.03%	25L	SW_MZB2	0.02%	0.03%	0.00%	0.02%
25R	LW_FIM1	0.27%	0.40%	0.12%	0.27%	25L	SW_N1	0.03%	0.06%	0.01%	0.03%
25R	LW_FIM2	0.09%	0.13%	0.04%	0.09%	25R	LN_GMN	0.05%	0.05%	0.08%	0.05%
25R	LW_STR	0.46%	0.71%	0.21%	0.47%	25R	LN_LUP	1.27%	1.27%	2.20%	1.42%
25R	LW_VIS	0.42%	0.64%	0.19%	0.43%	25R	LN_MZB1	3.14%	3.15%	5.45%	3.52%
25R	NJ_MPD	0.06%	0.04%	0.05%	0.06%	25R	LN_MZB2	0.75%	0.75%	1.30%	0.84%
25R	NJ_SAU	0.05%	0.03%	0.04%	0.04%	25R	LN_STR1	1.24%	1.24%	2.15%	1.39%
25R	NJ_VIS	0.38%	0.22%	0.30%	0.34%	25R	LN_STR2	0.26%	0.26%	0.45%	0.29%
25R	NJ_WAK1	0.04%	0.03%	0.03%	0.04%	25R	LN_SXC	0.01%	0.01%	0.02%	0.01%
25R	SJ_FIM1	0.20%	0.14%	0.00%	0.16%	25R	LW_GMN	0.07%	0.10%	0.46%	0.14%
25R	SJ_STR	0.69%	0.47%	0.01%	0.56%	25R	LW_LUP	0.24%	0.32%	1.46%	0.45%
25R	SJ_VIS	0.24%	0.16%	0.00%	0.19%	25R	LW_MZB1	0.37%	0.49%	2.26%	0.69%
25R	SN_FIM1	0.14%	0.16%	0.02%	0.13%	25R	LW_MZB2	0.29%	0.39%	1.80%	0.55%
25R	SN_N1	1.88%	2.15%	0.34%	1.72%	25R	LW_STR1	1.37%	1.82%	8.43%	2.58%
25R	SN_VIS	0.46%	0.52%	0.08%	0.42%	25R	LW_STR2	0.44%	0.58%	2.70%	0.83%
25R	SW_N1	0.55%	0.77%	0.51%	0.58%	25R	LW_STR3	0.04%	0.05%	0.24%	0.07%
25R	SW_VIS	0.11%	0.15%	0.10%	0.11%	25R	LW_SXC	0.00%	0.01%	0.02%	0.01%

Table 18

2025 Flight Track Utilization Percentages - Alternative 6

Arrivals						Departures					
Runway	**Track**	**Day**	**Eve**	**Night**	**Total**	**Runway**	**Track**	**Day**	**Eve**	**Night**	**Total**
25R	SW_WAK1	0.15%	0.22%	0.14%	0.16%	25R	NJ_GMN	0.05%	0.07%	0.03%	0.05%
Total		**100.00%**	**100.00%**	**100.00%**	**100.00%**	25R	NJ_MZB1	2.04%	2.79%	1.17%	1.99%
						25R	NJ_MZB2	0.95%	1.30%	0.55%	0.93%
						25R	NJ_PMD	0.21%	0.29%	0.12%	0.21%
						25R	NJ_TWA	0.10%	0.14%	0.06%	0.10%
						25R	SJ_GMN	1.05%	1.12%	0.46%	0.96%
						25R	SJ_LUP	1.07%	1.15%	0.47%	0.98%
						25R	SJ_MZB1	4.10%	4.40%	1.81%	3.76%
						25R	SJ_MZB2	0.19%	0.20%	0.08%	0.17%
						25R	SJ_STR	0.37%	0.40%	0.16%	0.34%
						25R	SJ_TR2	0.16%	0.17%	0.07%	0.15%
						25R	SJ_TRN	0.77%	0.82%	0.34%	0.70%
						25R	SJ_VNY	0.15%	0.16%	0.07%	0.14%
						25R	SN_GMN	0.39%	0.40%	0.26%	0.37%
						25R	SN_LUP	3.55%	3.65%	2.33%	3.36%
						25R	SN_MZB1	8.43%	8.67%	5.54%	7.99%
						25R	SN_MZB2	1.29%	1.32%	0.85%	1.22%
						25R	SN_N1	1.68%	1.72%	1.10%	1.59%
						25R	SN_N2	0.30%	0.31%	0.20%	0.29%
						25R	SW_GMN	0.19%	0.20%	0.38%	0.22%
						25R	SW_LUP	0.72%	0.74%	1.45%	0.84%
						25R	SW_MZB1	3.96%	4.12%	8.01%	4.64%
						25R	SW_MZB2	0.45%	0.47%	0.92%	0.53%
						25R	SW_N1	1.07%	1.11%	2.17%	1.26%
						25R	SW_N2	0.34%	0.35%	0.68%	0.39%
						Total		**100.00%**	**100.00%**	**100.00%**	**100.00%**

Notes:

Day: 7:00 a.m. to 6:59 p.m., Eve: 7:00 p.m. to 9:59 p.m., Night: 10:00 p.m. to 6:59 a.m.
Totals may not add to 100 percent due to rounding.

Source: Ricondo & Associates, Inc., 2012 (2025 forecast); LAWA, 2008 (2009 flight track utilization).

Departure operations along tracks to the east have little impact upon the CNEL noise exposure contour locations, due to the infrequent use of east flow operations. Departure tracks to the west define the greatest area of the noise exposure pattern, but the least area of overflight impact because virtually all the area under the noise exposure contours to the west is over the ocean.

The dispersion of individual aircraft departure tracks around the flight paths is expected to decrease in the future as the industry moves toward the development of GPS/FMS flight procedures. Use of GPS procedures will result in the maintenance of more consistent flight paths than has been the case historically, because pilots (or on-board FMS) will use specific geographic coordinates to navigate to and from the airport. Further, additional dispersion adjustments of flight tracks in the dominant departure direction lends no refinement to the definition of impacts, because there are no noise-sensitive properties directly west of the runways under the departure paths.

3.7.3 Alternative 6 Fleet and Aircraft Operations

The fleet and aircraft operations assumptions remain constant for all of the alternatives. Refer to Section 2.3.2 and **Table 8**.

3.8 Alternative 7 Future (2025) Conditions

3.8.1 Alternative 7 Runway Utilization

Forecast runway assignments for this alternative were developed from the SIMMOD results related to Alternative 1 as Alternative 7 was not simulated in the SIMMOD analysis. Due to the similarities of Alternatives 1 and 7, Alternative's 1 runway utilization was used in the analysis of this alternative as it is not anticipated to change. Refer to the North Runway Alternatives Simulation Analysis in Appendix F, Operational Analysis, of the SPAS Report for additional details. Runway usage by aircraft category is provided in **Table 5**. **Table 19** presents the results of the simulation assignment of aircraft to runways.

Table 19

2025 Runway Utilization Percentages - Alternative 7

	Landings				Takeoffs			
Runway	**Day**	**Eve**	**Night**	**Total**	**Day**	**Eve**	**Night**	**Total**
6L	1.0%	1.1%	0.7%	1.0%	0.1%	0.0%	0.0%	0.0%
6R	0.2%	0.1%	16.2%	2.3%	0.9%	1.2%	0.4%	0.9%
7L	0.0%	0.0%	14.6%	1.9%	1.0%	0.8%	0.9%	1.0%
7R	0.9%	1.0%	0.7%	0.9%	0.1%	0.2%	0.2%	0.1%
24L	3.7%	2.8%	0.2%	3.1%	48.1%	40.2%	35.4%	45.1%
24R	45.5%	44.4%	27.6%	43.0%	1.0%	0.0%	0.0%	0.7%
25L	41.7%	43.1%	37.6%	41.4%	5.6%	11.0%	5.0%	6.2%
25R	7.0%	7.4%	2.4%	6.5%	43.1%	46.6%	58.1%	46.0%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Notes:

Day: 7:00 a.m. to 6:59 p.m., Eve: 7:00 p.m. to 9:59 p.m., Night: 10:00 p.m. to 6:59 a.m.
Totals may not add to 100 percent due to rounding.

Source: Ricondo & Associates, Inc., 2012 (SIMMOD output); LAWA, 2009 (2009 Over-Ocean flight data and runway use).

The airport's predominant configuration utilizes Runways 24R and 25L for arrivals and Runways 24L and 25R for departures. The airport's present noise abatement measures, which express a preference for Over-Ocean procedures between midnight and 6:30 a.m., are reflected in the more frequent use of

Runway 6R for arrival operations during the night hours. The dominant operating configuration during the period when Over-Ocean procedures are in effect consists of approaches to the north inboard runway (Runway 6R) or south inboard runway (Runway 7L), and departures from the south inboard runway (Runway 25R) and north inboard runway (Runway 24L). The use of Over-Ocean procedures was based on baseline (2009) conditions and applied to the forecasted operations. This included non-conforming easterly departures as well. Also reflected in the nighttime usage is the airport's policy that, to the extent practical, operations between 10:00 p.m. and 7:00 a.m. will be made to and from the inboard runways, but was based on low demand levels as modeled in SIMMOD.

3.8.2 Alternative 7 Flight Tracks

The flight tracks and their usage for Alternative 7 are not substantially different from the utilization patterns of the baseline (2009) conditions and are based upon the SIMMOD results returned for Alternative 1. Flight tracks for 2025 conditions are illustrated in **Figure 8**. The proportions of operations assigned to each flight track are indicated in **Table 20**. As is the case with all alternatives, the dominant flight paths that impact the noise exposure pattern at LAX are associated with the arrivals from the east.

Departure operations along tracks to the east have little impact upon the CNEL noise exposure contour locations, due to the infrequent use of east flow operations. Departure tracks to the west define the greatest area of the noise exposure pattern, but the least area of overflight impact because virtually all the area under the noise exposure contours to the west is over the ocean.

The dispersion of individual aircraft departure tracks around the flight paths is expected to decrease in the future as the industry moves toward the development of GPS/FMS flight procedures. Use of GPS procedures will result in the maintenance of more consistent flight paths than has been the case historically, because pilots (or on-board FMS) will use specific geographic coordinates to navigate to and from the airport. Further, additional dispersion adjustments of flight tracks in the dominant departure direction lends no refinement to the definition of impacts, because there are no noise-sensitive properties directly west of the runways under the departure paths.

3.8.3 Alternative 7 Fleet and Aircraft Operations

The fleet and aircraft operations assumptions remain constant for all of the alternatives. Refer to Section 2.3.2 and **Table 8**.

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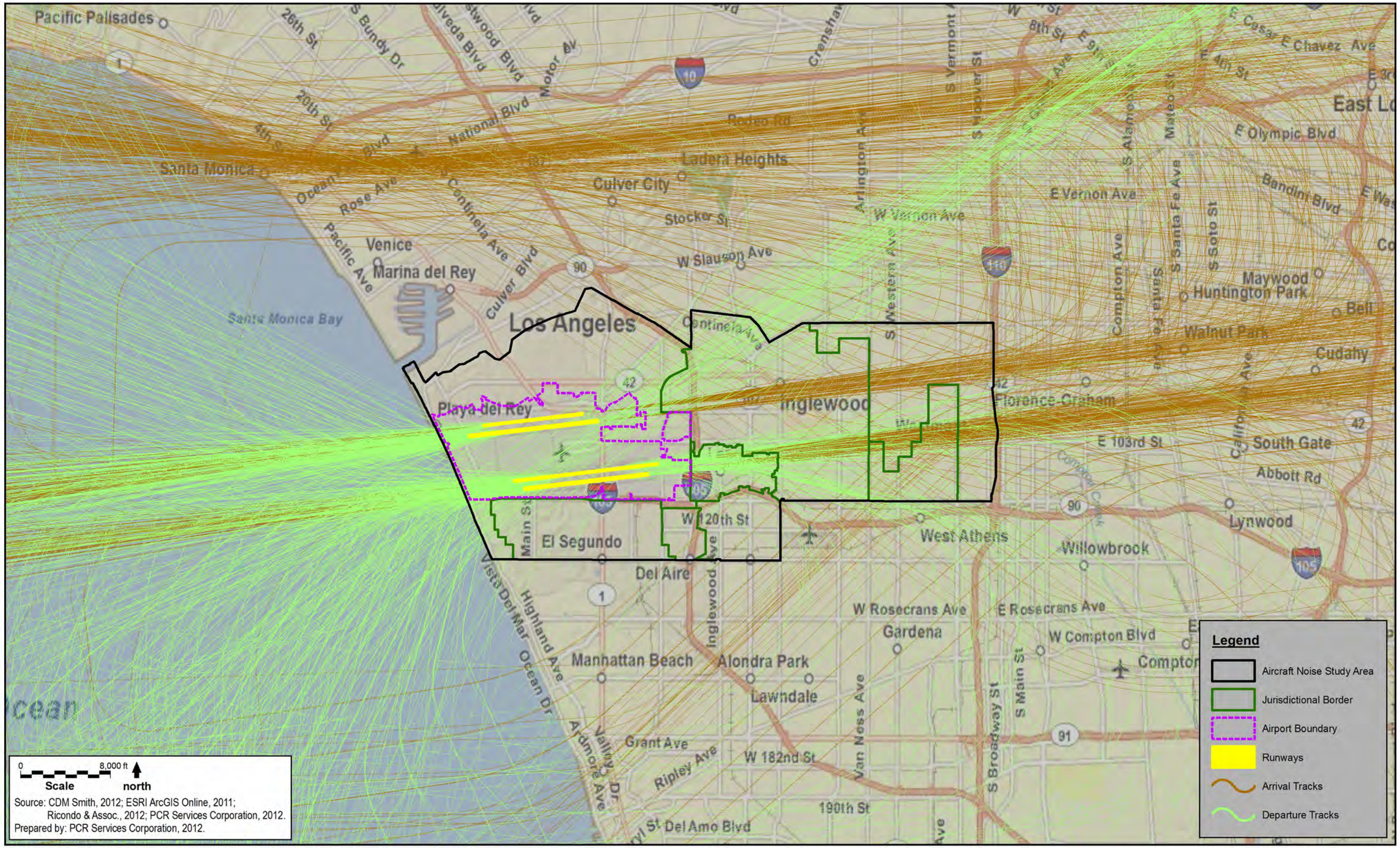

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2025 Alternative 7 Flight Tracks

Figure
8

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Table 20

2025 Flight Track Utilization Percentages - Alternative 7

Arrivals						Departures					
Runway	**Track**	**Day**	**Eve**	**Night**	**Total**	**Runway**	**Track**	**Day**	**Eve**	**Night**	**Total**
6L	LN_CIV1	0.03%	0.05%	0.03%	0.04%	6L	NJ_FIM	0.01%	0.00%	0.00%	0.00%
6L	LN_CIV2	0.03%	0.04%	0.03%	0.03%	6L	NJ_GMN	0.01%	0.01%	0.00%	0.01%
6L	LN_CIV3	0.01%	0.01%	0.01%	0.01%	6L	SN_LUP	0.05%	0.02%	0.00%	0.04%
6L	LN_STR	0.04%	0.06%	0.04%	0.04%	6R	LN_GMN	0.04%	0.04%	0.04%	0.04%
6L	LW_CIV1	0.10%	0.15%	0.07%	0.10%	6R	LN_GMN2	0.04%	0.04%	0.04%	0.04%
6L	LW_FIM	0.01%	0.02%	0.01%	0.01%	6R	LW_LUP	0.04%	0.13%	0.00%	0.05%
6L	NJ_CAS	0.03%	0.02%	0.03%	0.03%	6R	LW_LUP1	0.02%	0.06%	0.00%	0.02%
6L	NJ_WAK	0.03%	0.02%	0.03%	0.03%	6R	NJ_FIM	0.03%	0.06%	0.04%	0.04%
6L	SJ_CIV	0.03%	0.03%	0.01%	0.02%	6R	NJ_GMN	0.02%	0.03%	0.02%	0.02%
6L	SJ_FIM	0.17%	0.19%	0.05%	0.16%	6R	SJ_GMN	0.13%	0.18%	0.04%	0.12%
6L	SN_CIV1	0.24%	0.21%	0.15%	0.22%	6R	SJ_LUP	0.05%	0.07%	0.01%	0.04%
6L	SN_CIV2	0.01%	0.01%	0.01%	0.01%	6R	SN_GMN	0.18%	0.18%	0.05%	0.16%
6L	SN_FIM	0.20%	0.18%	0.13%	0.19%	6R	SN_LUP	0.30%	0.30%	0.08%	0.26%
6L	SN_OCN	0.02%	0.01%	0.01%	0.01%	6R	SW_N1	0.06%	0.07%	0.05%	0.06%
6L	SW_CIV	0.05%	0.09%	0.05%	0.05%	7L	LN_BLH1	0.02%	0.02%	0.02%	0.02%
6L	SW_N1	0.03%	0.06%	0.03%	0.04%	7L	LN_BLH2	0.05%	0.05%	0.05%	0.05%
6R	LN_CIV1	0.00%	0.00%	0.43%	0.06%	7L	LN_LUP	0.01%	0.01%	0.01%	0.01%
6R	LN_CIV2	0.00%	0.00%	0.17%	0.02%	7L	LN_VTU	0.09%	0.07%	0.09%	0.08%
6R	LN_FIM	0.00%	0.00%	0.12%	0.02%	7L	LW_GMN	0.00%	0.00%	0.00%	0.00%
6R	LN_STR	0.01%	0.01%	2.32%	0.31%	7L	LW_LUP	0.00%	0.00%	0.00%	0.00%
6R	LW_CIV	0.00%	0.00%	0.77%	0.10%	7L	LW_SXC	0.01%	0.01%	0.01%	0.01%
6R	LW_CIV1	0.00%	0.00%	0.44%	0.06%	7L	LW_SXC1	0.00%	0.00%	0.01%	0.00%
6R	LW_FIM1	0.01%	0.01%	2.97%	0.40%	7L	LW_VTU	0.06%	0.06%	0.12%	0.07%
6R	LW_FIM2	0.00%	0.00%	0.88%	0.12%	7L	NJ_BLH1	0.03%	0.04%	0.01%	0.03%
6R	LW_STR	0.00%	0.00%	0.22%	0.03%	7L	NJ_BLH2	0.04%	0.05%	0.02%	0.04%
6R	NJ_CAS	0.00%	0.00%	0.05%	0.01%	7L	SJ_BLH	0.09%	0.07%	0.03%	0.08%
6R	NJ_SAU	0.01%	0.01%	0.47%	0.07%	7L	SJ_LUP	0.04%	0.03%	0.01%	0.03%
6R	NJ_WAK1	0.00%	0.00%	0.05%	0.01%	7L	SJ_VTU	0.05%	0.04%	0.02%	0.05%
6R	NJ_WAK2	0.01%	0.00%	0.19%	0.03%	7L	SN_BLH	0.20%	0.13%	0.07%	0.17%
6R	SJ_CIV	0.02%	0.01%	0.88%	0.14%	7L	SN_N1	0.03%	0.02%	0.01%	0.02%
6R	SJ_FIM	0.02%	0.01%	0.68%	0.10%	7L	SN_VTU	0.13%	0.08%	0.04%	0.11%
6R	SN_CIV1	0.06%	0.05%	1.47%	0.25%	7L	SW_BLH	0.06%	0.04%	0.02%	0.05%
6R	SN_FIM	0.01%	0.01%	0.34%	0.06%	7L	SW_N1	0.03%	0.02%	0.01%	0.02%
6R	SW_CIV	0.00%	0.01%	1.73%	0.23%	7L	SW_VTU	0.06%	0.05%	0.03%	0.06%
6R	SW_FIM	0.00%	0.00%	0.24%	0.03%	7R	LN_BLH1	0.00%	0.02%	0.00%	0.00%
6R	SW_N1	0.00%	0.01%	1.85%	0.25%	7R	LW_BLH	0.00%	0.00%	0.00%	0.00%
7L	LN_CIV2	0.00%	0.00%	0.41%	0.05%	7R	LW_LUP	0.00%	0.00%	0.00%	0.00%
7L	LN_STR	0.00%	0.00%	1.85%	0.25%	7R	LW_VTU	0.02%	0.06%	0.05%	0.03%
7L	LW_CIV1	0.00%	0.00%	0.34%	0.04%	7R	NJ_BLH1	0.01%	0.01%	0.01%	0.01%
7L	LW_CIV2	0.00%	0.00%	1.35%	0.18%	7R	NJ_BLH2	0.01%	0.02%	0.01%	0.01%

Table 20

2025 Flight Track Utilization Percentages - Alternative 7

Arrivals						Departures					
Runway	Track	Day	Eve	Night	Total	Runway	Track	Day	Eve	Night	Total
7L	LW_FIM	0.00%	0.00%	2.02%	0.27%	7R	SJ_H20	0.05%	0.04%	0.03%	0.05%
7L	LW_STR	0.00%	0.00%	0.67%	0.09%	7R	SN_BLH	0.00%	0.00%	0.00%	0.00%
7L	NJ_SAU	0.00%	0.00%	0.70%	0.09%	7R	SW_N1	0.00%	0.01%	0.00%	0.00%
7L	SJ_CIV1	0.00%	0.00%	0.32%	0.04%	7R	SW_N2	0.01%	0.01%	0.00%	0.01%
7L	SJ_CIV2	0.00%	0.00%	0.19%	0.03%	24L	LN_GMN	0.03%	0.00%	0.05%	0.03%
7L	SJ_FIM	0.00%	0.00%	0.06%	0.01%	24L	LN_GMNX	0.07%	0.08%	0.12%	0.08%
7L	SN_CIV2	0.00%	0.00%	0.74%	0.10%	24L	LN_LUP	0.47%	0.02%	0.84%	0.48%
7L	SN_FIM	0.00%	0.00%	1.48%	0.20%	24L	LN_LUPX	1.17%	1.23%	1.90%	1.29%
7L	SN_OCN	0.00%	0.00%	0.74%	0.10%	24L	LN_MZB1	0.51%	0.02%	0.91%	0.52%
7L	SW_CIV1	0.00%	0.00%	2.07%	0.27%	24L	LN_MZB1X	1.27%	1.33%	2.07%	1.41%
7L	SW_N1	0.00%	0.00%	1.66%	0.22%	24L	LN_MZB2	0.14%	0.01%	0.25%	0.14%
7R	LN_CIV1	0.04%	0.06%	0.02%	0.04%	24L	LN_MZB2X	0.34%	0.36%	0.56%	0.38%
7R	LN_STR	0.10%	0.15%	0.05%	0.10%	24L	LN_STR	0.37%	0.02%	0.66%	0.38%
7R	LW_CIV1	0.01%	0.02%	0.01%	0.01%	24L	LN_STRX	0.92%	0.96%	1.49%	1.02%
7R	LW_CIV2	0.01%	0.02%	0.01%	0.01%	24L	LW_GMN	0.17%	0.24%	0.24%	0.19%
7R	LW_CIV3	0.00%	0.01%	0.01%	0.01%	24L	LW_LUP	0.50%	0.70%	0.70%	0.56%
7R	LW_CIV4	0.02%	0.03%	0.02%	0.02%	24L	LW_MZB1	0.28%	0.40%	0.40%	0.32%
7R	LW_FIM	0.02%	0.05%	0.03%	0.03%	24L	LW_MZB2	0.69%	0.97%	0.97%	0.77%
7R	LW_STR	0.01%	0.02%	0.01%	0.01%	24L	LW_STR	1.65%	2.33%	2.33%	1.85%
7R	NJ_OCN	0.06%	0.05%	0.06%	0.06%	24L	LW_SXC	0.02%	0.02%	0.02%	0.02%
7R	NJ_WAK1	0.02%	0.01%	0.02%	0.02%	24L	NJ_GMN	0.00%	0.00%	0.00%	0.00%
7R	SJ_CIV1	0.04%	0.02%	0.02%	0.04%	24L	NJ_GMNX	1.01%	1.60%	1.47%	1.16%
7R	SJ_CIV2	0.04%	0.02%	0.02%	0.04%	24L	NJ_MPD	0.00%	0.00%	0.00%	0.00%
7R	SJ_FIM	0.01%	0.01%	0.00%	0.01%	24L	NJ_MPDX	0.09%	0.14%	0.13%	0.10%
7R	SJ_OCN	0.08%	0.05%	0.04%	0.07%	24L	NJ_PMD	0.00%	0.00%	0.00%	0.00%
7R	SN_CIV1	0.20%	0.13%	0.16%	0.18%	24L	NJ_PMDX	0.15%	0.24%	0.22%	0.17%
7R	SN_OCN	0.13%	0.08%	0.10%	0.12%	24L	NJ_VTU	0.00%	0.00%	0.00%	0.00%
7R	SW_CIV1	0.03%	0.08%	0.04%	0.04%	24L	NJ_VTUX	1.17%	1.86%	1.71%	1.34%
7R	SW_CIV2	0.03%	0.08%	0.04%	0.04%	24L	SJ_GMN	0.79%	1.18%	0.88%	0.85%
7R	SW_FIM	0.01%	0.03%	0.02%	0.01%	24L	SJ_GMNX	2.69%	3.16%	0.53%	2.39%
7R	SW_N1	0.02%	0.04%	0.02%	0.02%	24L	SJ_LUP	0.15%	0.23%	0.17%	0.17%
7R	SW_OCN	0.00%	0.01%	0.00%	0.00%	24L	SJ_LUPX	0.52%	0.62%	0.10%	0.47%
24L	LN_FIM	0.09%	0.12%	0.00%	0.08%	24L	SJ_MZB	0.08%	0.12%	0.09%	0.08%
24L	LN_STR	0.32%	0.41%	0.00%	0.30%	24L	SJ_MZBX	0.27%	0.31%	0.05%	0.24%
24L	LN_STR2	0.05%	0.06%	0.00%	0.04%	24L	SJ_STR	0.24%	0.36%	0.27%	0.26%
24L	LN_WAK	0.09%	0.12%	0.00%	0.08%	24L	SJ_STRX	0.82%	0.96%	0.16%	0.73%
24L	LW_FIM1	0.17%	0.30%	0.01%	0.17%	24L	SJ_TRN	0.60%	0.90%	0.67%	0.65%
24L	LW_FIM2	0.01%	0.01%	0.00%	0.01%	24L	SJ_TRNX	2.04%	2.41%	0.40%	1.82%
24L	LW_STR	0.03%	0.05%	0.00%	0.03%	24L	SJ_VNY	0.02%	0.02%	0.02%	0.02%
24L	NJ_SAU	0.18%	0.19%	0.01%	0.16%	24L	SJ_VNYX	0.05%	0.06%	0.01%	0.05%

Table 20

2025 Flight Track Utilization Percentages - Alternative 7

Arrivals						Departures					
Runway	Track	Day	Eve	Night	Total	Runway	Track	Day	Eve	Night	Total
24L	NJ_WAK	0.20%	0.21%	0.01%	0.18%	24L	SN_GMN	1.96%	1.51%	1.27%	1.79%
24L	SJ_FIM	0.83%	0.41%	0.01%	0.65%	24L	SN_GMNX	3.06%	1.72%	1.19%	2.59%
24L	SJ_STR	0.19%	0.10%	0.00%	0.15%	24L	SN_LUP	2.31%	1.77%	1.50%	2.11%
24L	SN_FIM	0.54%	0.30%	0.06%	0.44%	24L	SN_LUPX	3.60%	2.02%	1.39%	3.04%
24L	SN_N1	0.65%	0.36%	0.08%	0.52%	24L	SN_MZB1	3.50%	2.69%	2.27%	3.20%
24L	SN_VIS	0.03%	0.02%	0.00%	0.02%	24L	SN_MZB1X	5.46%	3.07%	2.12%	4.62%
24L	SW_FIM	0.07%	0.05%	0.00%	0.06%	24L	SN_MZB2	0.31%	0.24%	0.20%	0.29%
24L	SW_N1	0.07%	0.05%	0.00%	0.06%	24L	SN_MZB2X	0.49%	0.27%	0.19%	0.41%
24L	SW_WAK	0.14%	0.09%	0.00%	0.11%	24L	SN_N1	1.96%	1.51%	1.27%	1.79%
24R	LN_FIM	0.75%	1.06%	0.59%	0.78%	24L	SN_N1X	3.06%	1.72%	1.19%	2.59%
24R	LN_STR	4.06%	5.78%	3.20%	4.24%	24L	SW_LUP	0.51%	0.14%	0.41%	0.45%
24R	LN_VIS	0.12%	0.18%	0.10%	0.13%	24L	SW_MZB	0.89%	0.24%	0.72%	0.78%
24R	LN_WAK	0.91%	1.30%	0.72%	0.95%	24L	SW_N1	1.78%	0.48%	1.43%	1.56%
24R	LW_FIM1	2.71%	3.32%	2.21%	2.74%	24R	LN_LUP	0.00%	0.00%	0.00%	0.00%
24R	LW_FIM2	0.37%	0.46%	0.30%	0.38%	24R	LN_MZB1	0.00%	0.00%	0.00%	0.00%
24R	LW_STR	0.60%	0.74%	0.49%	0.61%	24R	LN_MZB2	0.00%	0.00%	0.00%	0.00%
24R	LW_VIS	0.07%	0.09%	0.06%	0.07%	24R	LN_STR	0.00%	0.00%	0.00%	0.00%
24R	NJ_SAU	1.73%	1.01%	1.30%	1.55%	24R	NJ_GMN	0.22%	0.00%	0.00%	0.16%
24R	NJ_STR	0.02%	0.01%	0.02%	0.02%	24R	NJ_PMD	0.06%	0.00%	0.00%	0.05%
24R	NJ_VIS	0.04%	0.02%	0.03%	0.04%	24R	NJ_VTU	0.31%	0.00%	0.00%	0.22%
24R	NJ_WAK	1.58%	0.93%	1.19%	1.42%	24R	SJ_GMN	0.10%	0.00%	0.00%	0.07%
24R	SJ_FIM	7.66%	8.00%	2.56%	7.04%	24R	SJ_LUP	0.03%	0.00%	0.00%	0.02%
24R	SJ_STR	1.00%	1.05%	0.33%	0.92%	24R	SJ_STR	0.03%	0.00%	0.00%	0.02%
24R	SJ_TR1	0.52%	0.54%	0.17%	0.48%	24R	SJ_TR2	0.03%	0.00%	0.00%	0.02%
24R	SJ_VIS	0.10%	0.11%	0.03%	0.10%	24R	SJ_TRN	0.07%	0.00%	0.00%	0.05%
24R	SJ_VNY	0.15%	0.15%	0.05%	0.13%	24R	SN_GMN	0.04%	0.00%	0.00%	0.03%
24R	SN_FIM	10.45%	7.37%	6.67%	9.44%	24R	SN_LUP	0.03%	0.00%	0.00%	0.02%
24R	SN_N1	9.15%	6.45%	5.84%	8.26%	24R	SN_MZB1	0.06%	0.01%	0.00%	0.04%
24R	SN_VIS	0.37%	0.26%	0.24%	0.33%	24R	SN_MZB2	0.01%	0.00%	0.00%	0.01%
24R	SW_FIM	0.51%	0.90%	0.25%	0.54%	24R	SN_N1	0.05%	0.00%	0.00%	0.04%
24R	SW_N1	1.19%	2.12%	0.59%	1.27%	24R	SW_N1	0.00%	0.00%	0.00%	0.00%
24R	SW_VIS	0.05%	0.09%	0.02%	0.05%	25L	LN_GMN	0.00%	0.05%	0.00%	0.01%
24R	SW_WAK	1.39%	2.47%	0.68%	1.48%	25L	LN_LUP	0.00%	0.13%	0.00%	0.02%
25L	LN_FIM1	0.06%	0.09%	0.04%	0.07%	25L	LN_MZB1	0.00%	0.46%	0.00%	0.06%
25L	LN_FIM2	0.01%	0.02%	0.01%	0.01%	25L	LN_MZB2	0.00%	0.11%	0.00%	0.01%
25L	LN_STR	4.53%	6.28%	3.08%	4.63%	25L	LN_STR	0.00%	0.05%	0.00%	0.01%
25L	LN_VIS	0.33%	0.46%	0.22%	0.34%	25L	LW_GMN	0.08%	0.32%	0.13%	0.12%
25L	LN_WAK1	0.26%	0.35%	0.17%	0.26%	25L	LW_LUP	0.03%	0.10%	0.04%	0.04%
25L	LN_WAK2	0.02%	0.03%	0.01%	0.02%	25L	LW_MZB1	0.44%	1.67%	0.71%	0.63%
25L	LW_FIM1	0.83%	1.53%	1.02%	0.97%	25L	LW_MZB2	0.07%	0.28%	0.12%	0.10%

Table 20

2025 Flight Track Utilization Percentages - Alternative 7

Arrivals						Departures					
Runway	Track	Day	Eve	Night	Total	Runway	Track	Day	Eve	Night	Total
25L	LW_FIM2	0.03%	0.05%	0.03%	0.03%	25L	LW_STR	0.39%	1.50%	0.64%	0.57%
25L	LW_STR	1.88%	3.46%	2.31%	2.20%	25L	LW_STR1	0.06%	0.22%	0.09%	0.08%
25L	LW_VIS	1.34%	2.46%	1.64%	1.57%	25L	LW_STR2	0.29%	1.12%	0.48%	0.43%
25L	NJ_MPD	0.56%	0.47%	0.56%	0.55%	25L	LW_STR3	0.25%	0.95%	0.40%	0.36%
25L	NJ_SAU	0.29%	0.24%	0.29%	0.28%	25L	NJ_GMN	0.05%	0.09%	0.05%	0.05%
25L	NJ_VIS	2.39%	2.01%	2.36%	2.32%	25L	NJ_MZB1	0.57%	1.06%	0.61%	0.64%
25L	NJ_WAK1	0.32%	0.27%	0.31%	0.31%	25L	NJ_MZB2	0.27%	0.50%	0.29%	0.30%
25L	SJ_FIM1	1.12%	0.51%	0.58%	0.95%	25L	NJ_PMD	0.03%	0.05%	0.03%	0.03%
25L	SJ_FIM2	0.05%	0.02%	0.03%	0.04%	25L	SJ_GMN	0.22%	0.14%	0.12%	0.19%
25L	SJ_STR	5.15%	2.33%	2.65%	4.35%	25L	SJ_LUP	0.55%	0.34%	0.29%	0.48%
25L	SJ_VIS	1.55%	0.70%	0.79%	1.31%	25L	SJ_MZB1	1.08%	0.68%	0.58%	0.95%
25L	SJ_VNY	0.06%	0.03%	0.03%	0.05%	25L	SJ_MZB2	0.21%	0.13%	0.11%	0.18%
25L	SN_FIM1	0.55%	0.35%	0.45%	0.50%	25L	SJ_ST2	0.18%	0.11%	0.10%	0.16%
25L	SN_N1	13.88%	8.88%	11.31%	12.70%	25L	SJ_STR	0.11%	0.07%	0.06%	0.10%
25L	SN_VIS	2.56%	1.64%	2.09%	2.34%	25L	SJ_TRN	0.05%	0.03%	0.03%	0.05%
25L	SW_FIM	0.08%	0.21%	0.15%	0.11%	25L	SJ_VNY	0.20%	0.12%	0.11%	0.17%
25L	SW_N1	3.06%	8.47%	5.85%	4.34%	25L	SN_LUP	0.02%	0.00%	0.00%	0.01%
25L	SW_VIS	0.62%	1.72%	1.19%	0.88%	25L	SN_MZB1	0.09%	0.00%	0.00%	0.06%
25L	SW_WAK1	0.21%	0.58%	0.40%	0.30%	25L	SN_MZB2	0.02%	0.00%	0.00%	0.01%
25R	LN_FIM1	0.02%	0.01%	0.00%	0.01%	25L	SN_N1	0.01%	0.00%	0.00%	0.00%
25R	LN_STR	0.59%	0.30%	0.11%	0.48%	25L	SW_GMN	0.02%	0.04%	0.00%	0.02%
25R	LN_VIS	0.13%	0.07%	0.03%	0.11%	25L	SW_LUP	0.04%	0.07%	0.01%	0.04%
25R	LN_WAK1	0.08%	0.04%	0.01%	0.06%	25L	SW_MZB1	0.28%	0.53%	0.05%	0.27%
25R	LN_WAK2	0.03%	0.02%	0.01%	0.03%	25L	SW_MZB2	0.02%	0.03%	0.00%	0.02%
25R	LW_FIM1	0.27%	0.40%	0.12%	0.27%	25L	SW_N1	0.03%	0.06%	0.01%	0.03%
25R	LW_FIM2	0.09%	0.13%	0.04%	0.09%	25R	LN_GMN	0.05%	0.05%	0.08%	0.05%
25R	LW_STR	0.46%	0.71%	0.21%	0.47%	25R	LN_LUP	1.27%	1.27%	2.20%	1.42%
25R	LW_VIS	0.42%	0.64%	0.19%	0.43%	25R	LN_MZB1	3.14%	3.15%	5.45%	3.52%
25R	NJ_MPD	0.06%	0.04%	0.05%	0.06%	25R	LN_MZB2	0.75%	0.75%	1.30%	0.84%
25R	NJ_SAU	0.05%	0.03%	0.04%	0.04%	25R	LN_STR1	1.24%	1.24%	2.15%	1.39%
25R	NJ_VIS	0.38%	0.22%	0.30%	0.34%	25R	LN_STR2	0.26%	0.26%	0.45%	0.29%
25R	NJ_WAK1	0.04%	0.03%	0.03%	0.04%	25R	LN_SXC	0.01%	0.01%	0.02%	0.01%
25R	SJ_FIM1	0.20%	0.14%	0.00%	0.16%	25R	LW_GMN	0.07%	0.10%	0.46%	0.14%
25R	SJ_STR	0.69%	0.47%	0.01%	0.56%	25R	LW_LUP	0.24%	0.32%	1.46%	0.45%
25R	SJ_VIS	0.24%	0.16%	0.00%	0.19%	25R	LW_MZB1	0.37%	0.49%	2.26%	0.69%
25R	SN_FIM1	0.14%	0.16%	0.02%	0.13%	25R	LW_MZB2	0.29%	0.39%	1.80%	0.55%
25R	SN_N1	1.88%	2.15%	0.34%	1.72%	25R	LW_STR1	1.37%	1.82%	8.43%	2.58%
25R	SN_VIS	0.46%	0.52%	0.08%	0.42%	25R	LW_STR2	0.44%	0.58%	2.70%	0.83%
25R	SW_N1	0.55%	0.77%	0.51%	0.58%	25R	LW_STR3	0.04%	0.05%	0.24%	0.07%
25R	SW_VIS	0.11%	0.15%	0.10%	0.11%	25R	LW_SXC	0.00%	0.01%	0.02%	0.01%

Table 20

2025 Flight Track Utilization Percentages - Alternative 7

Arrivals						Departures					
Runway	**Track**	**Day**	**Eve**	**Night**	**Total**	**Runway**	**Track**	**Day**	**Eve**	**Night**	**Total**
25R	SW_WAK1	0.15%	0.22%	0.14%	0.16%	25R	NJ_GMN	0.05%	0.07%	0.03%	0.05%
Total		**100.00%**	**100.00%**	**100.00%**	**100.00%**	25R	NJ_MZB1	2.04%	2.79%	1.17%	1.99%
						25R	NJ_MZB2	0.95%	1.30%	0.55%	0.93%
						25R	NJ_PMD	0.21%	0.29%	0.12%	0.21%
						25R	NJ_TWA	0.10%	0.14%	0.06%	0.10%
						25R	SJ_GMN	1.05%	1.12%	0.46%	0.96%
						25R	SJ_LUP	1.07%	1.15%	0.47%	0.98%
						25R	SJ_MZB1	4.10%	4.40%	1.81%	3.76%
						25R	SJ_MZB2	0.19%	0.20%	0.08%	0.17%
						25R	SJ_STR	0.37%	0.40%	0.16%	0.34%
						25R	SJ_TR2	0.16%	0.17%	0.07%	0.15%
						25R	SJ_TRN	0.77%	0.82%	0.34%	0.70%
						25R	SJ_VNY	0.15%	0.16%	0.07%	0.14%
						25R	SN_GMN	0.39%	0.40%	0.26%	0.37%
						25R	SN_LUP	3.55%	3.65%	2.33%	3.36%
						25R	SN_MZB1	8.43%	8.67%	5.54%	7.99%
						25R	SN_MZB2	1.29%	1.32%	0.85%	1.22%
						25R	SN_N1	1.68%	1.72%	1.10%	1.59%
						25R	SN_N2	0.30%	0.31%	0.20%	0.29%
						25R	SW_GMN	0.19%	0.20%	0.38%	0.22%
						25R	SW_LUP	0.72%	0.74%	1.45%	0.84%
						25R	SW_MZB1	3.96%	4.12%	8.01%	4.64%
						25R	SW_MZB2	0.45%	0.47%	0.92%	0.53%
						25R	SW_N1	1.07%	1.11%	2.17%	1.26%
						25R	SW_N2	0.34%	0.35%	0.68%	0.39%
						Total		**100.00%**	**100.00%**	**100.00%**	**100.00%**

Notes:

Day: 7:00 a.m. to 6:59 p.m., Eve: 7:00 p.m. to 9:59 p.m., Night: 10:00 p.m. to 6:59 a.m.
Totals may not add to 100 percent due to rounding.

Source: Ricondo & Associates, Inc., 2012 (2025 forecast); LAWA, 2008 (2009 flight track utilization).

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