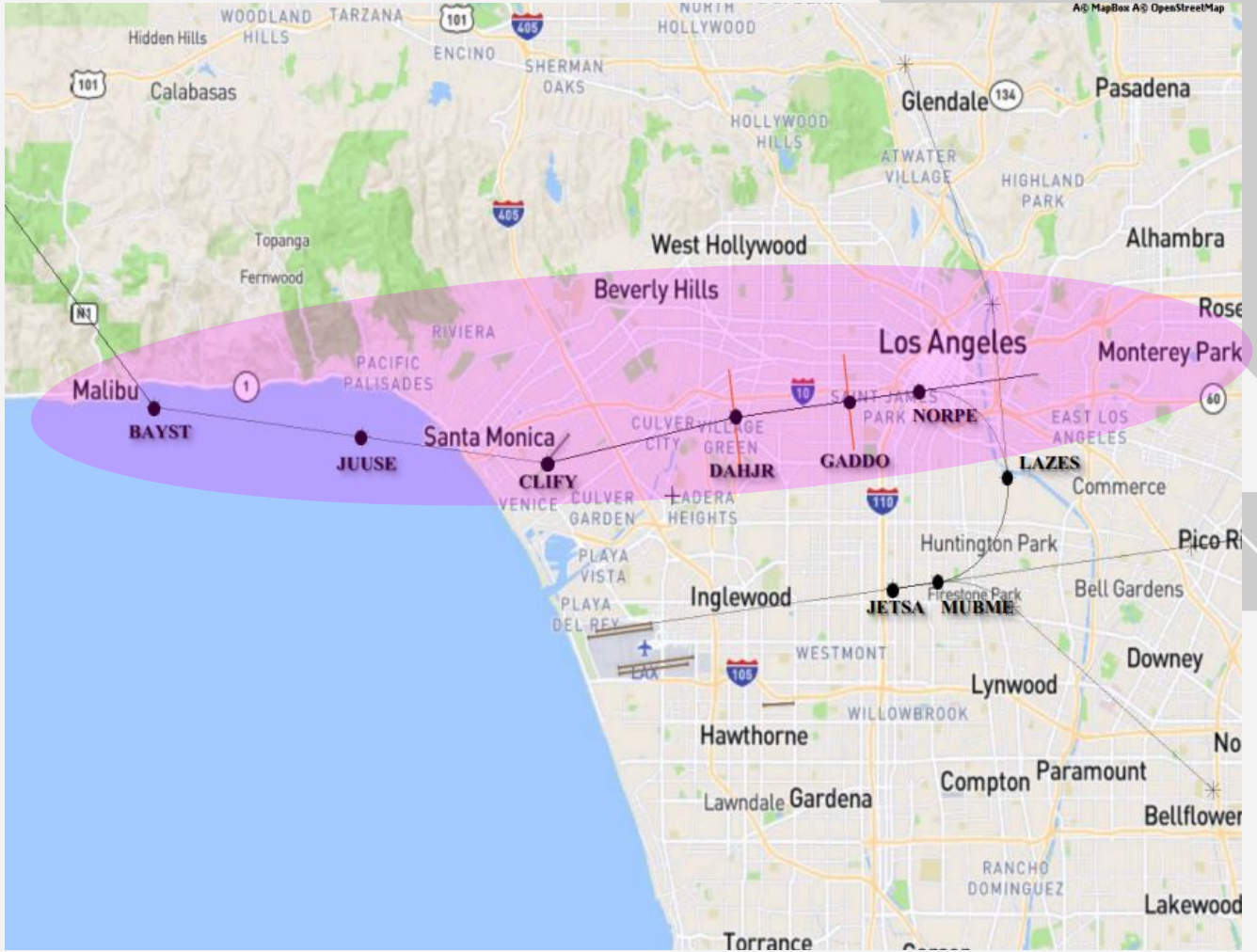
LAX Metroplex / Wide Area Ad Hoc Committee

LAX Community Noise Roundtable
Mar 2020

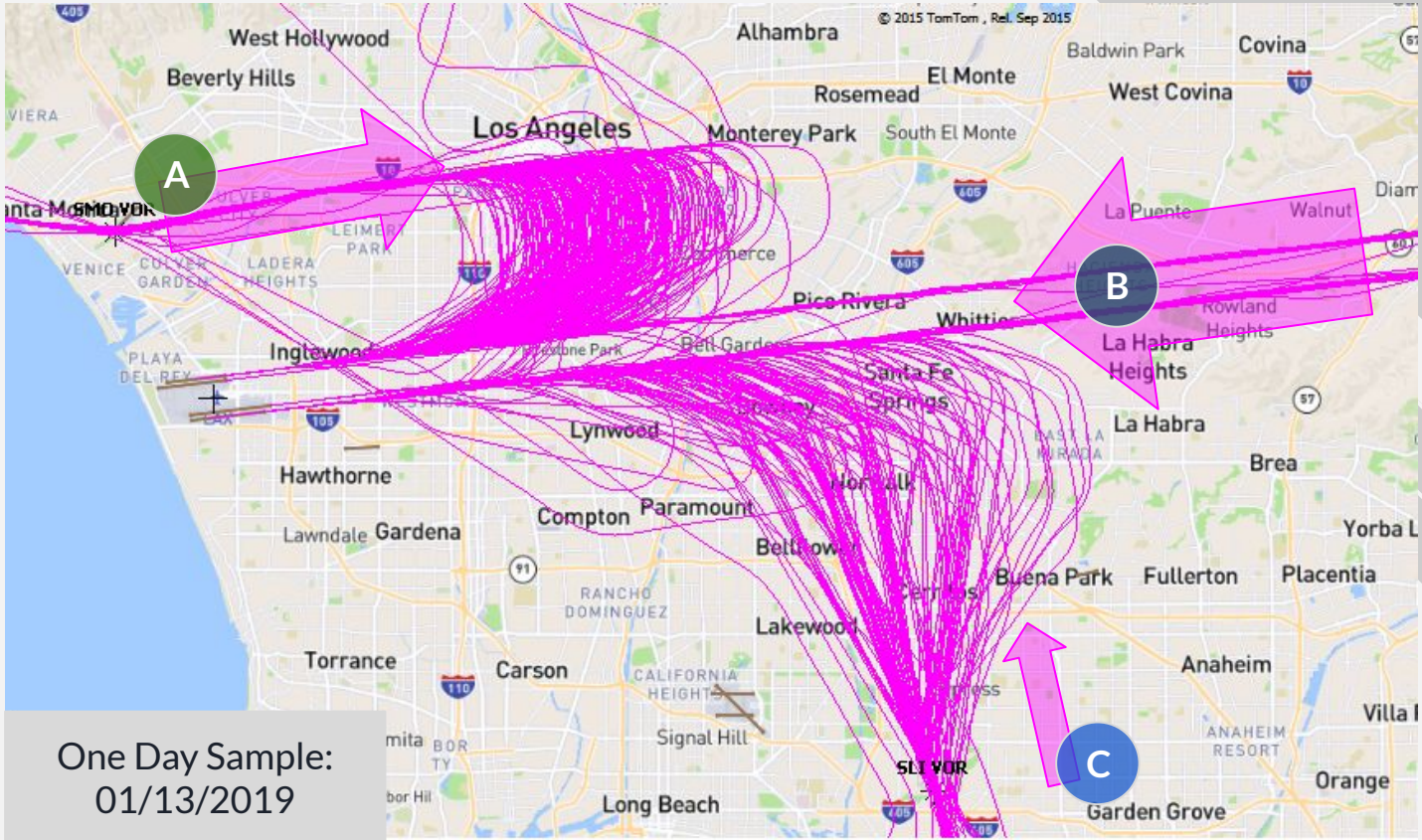
1. North Downwind Arrival Flight Paths
2. LAX and Other Airports
3. DAHJR Flight Data - 24 hours
4. DAHJR - 0100 to 0500 hours
5. GADDO Flight Data - 24 hours
6. Follow Up: Quiet Skies CA - CSDA Option A, B Study
7. City Attorney Legal Action Filed Against FAA



1. North Downwind Arrival Flight Paths

Area in **pink** affected by North Downwind Arrival and has been studied more extensively in prior and current initiatives undertaken by the Metroplex Ad Hoc Committee of the LAX Community Noise Roundtable

1. North Downwind Arrival Flight Paths - Merges

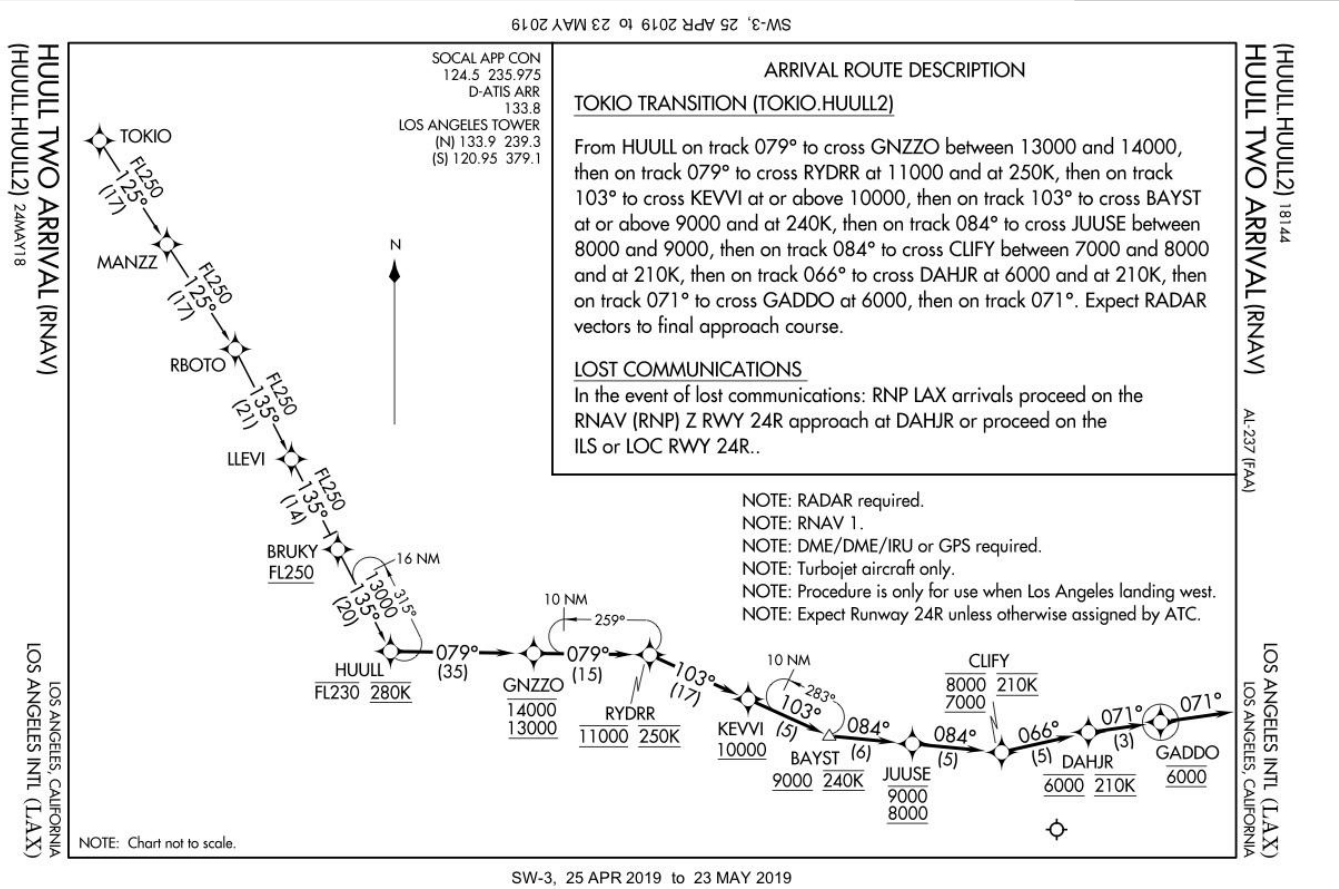


One Day Sample:
01/13/2019

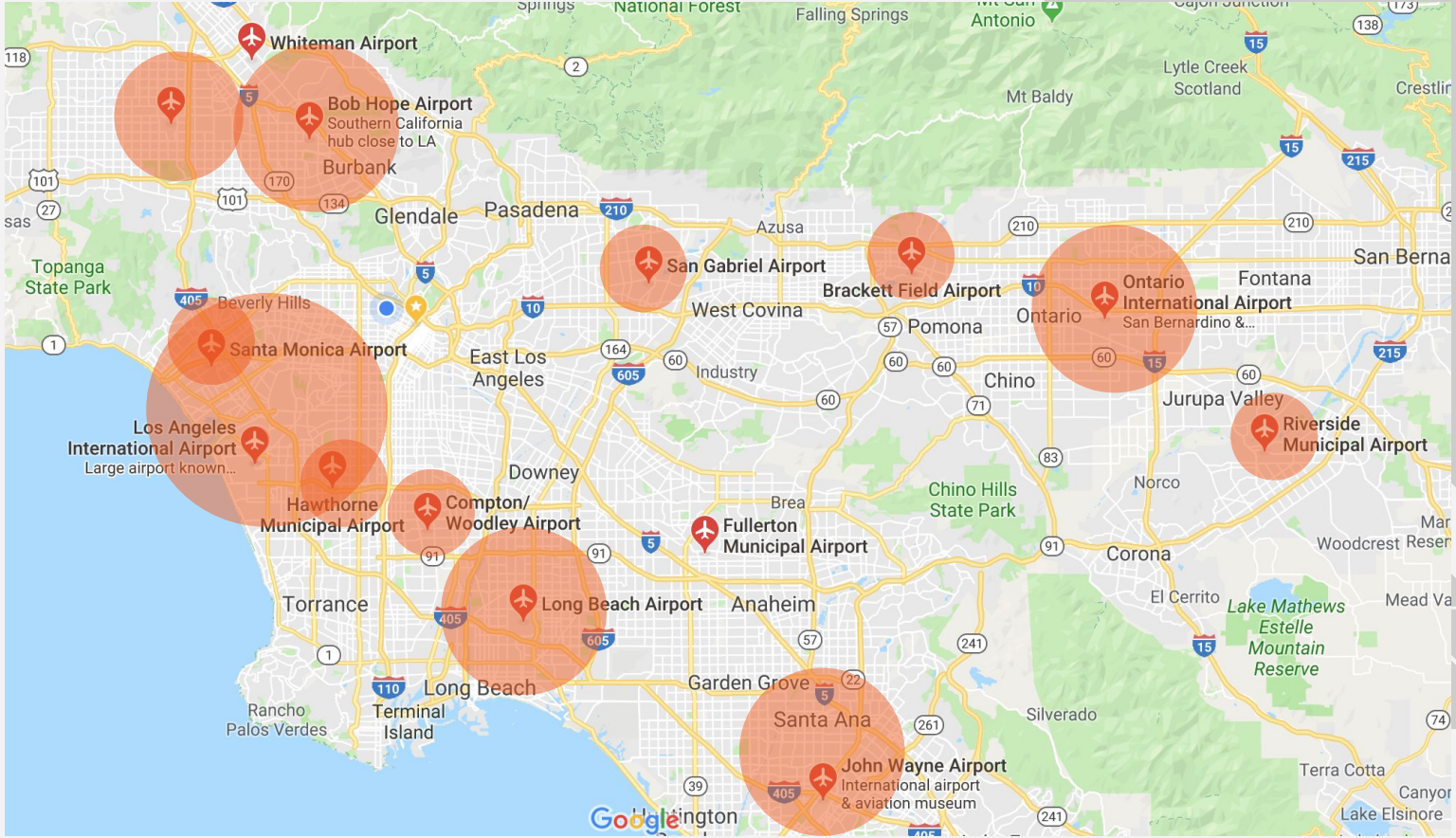
Percentage breakout of flights landing including their origin paths from one day at LAX

- A — North Arrivals **36%** of inbound air traffic
- B — East Arrivals **52%** of inbound air traffic
- C — South Arrivals **12%** of inbound air traffic

1. North Downwind Arrival Flight Paths - HUULL



2. LAX and Other Airports



3. 6000 Foot Alt +/- 300 at DAHJR - 24 hours

ANOMS Gate Penetration - DAHJR
January 1-31, 2019

Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes
>6300	552	7.6%		
6000-6299	1636	22.5%		
5700-5999	1958	26.9%	56.9%	
5500-5699	979	13.4%	43.1%	
5000-5499	1423	19.5%		89.9%
4500-4999	522	7.2%		
4000-4499	156	2.1%		99.2%
3500-3999	50	0.7%		
3000-3499	10	0.1%		100.0%
2500-2999	1	0.0%		
<2500	0	0.0%		100.0%
Grand Total	**7287**	**100%**		

Prepared by: LAWA Noise Management
*Data source: LAX ANOMS

ANOMS Gate Penetration - DAHJR
February 1-28, 2019

Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes
>6300	765	9.9%		
6000-6299	1996	25.9%		
5700-5999	2214	28.7%	64.6%	
5500-5699	968	12.6%	35.4%	
5000-5499	1251	16.2%		93.4%
4500-4999	368	4.8%		
4000-4499	98	1.3%		99.4%
3500-3999	34	0.4%		
3000-3499	8	0.1%		99.9%
2500-2999	4	0.1%		
<2500	0	0.0%		100.0%
Grand Total	**7706**	**100%**		

Prepared by: LAWA Noise Management
*Data source: LAX ANOMS

ANOMS Gate Penetration - DAHJR
March 1-31, 2019

Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes
>6300	713	8.0%		
6000-6299	2220	24.9%		
5700-5999	2595	29.1%	62.0%	
5500-5699	1113	12.5%	38.0%	
5000-5499	1574	17.7%		92.1%
4500-4999	524	5.9%		
4000-4499	136	1.5%		99.5%
3500-3999	33	0.4%		
3000-3499	7	0.1%		100.0%
2500-2999	1	0.0%		
<2500	0	0.0%		100.0%
Grand Total	**8916**	**100%**		

Prepared by: LAWA Noise Management
*Data source: LAX ANOMS

ANOMS Gate Penetration - DAHJR
April 1-30, 2019

Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes
>6300	679	7.5%		
6000-6299	2368	26.1%		
5700-5999	2677	29.5%	63.1%	
5500-5699	1155	12.7%	36.9%	
5000-5499	1566	17.3%		93.2%
4500-4999	463	5.1%		
4000-4499	120	1.3%		99.6%
3500-3999	27	0.3%		
3000-3499	6	0.1%		100.0%
2500-2999	3	0.0%		
<2500	1	0.0%		100.0%
Grand Total	**9065**	**100%**		

Prepared by: LAWA Noise Management
*Data source: LAX ANOMS

3. 6000 Foot Alt +/- 300 at DAHJR - 24 hours

ANOMS Gate Penetration - DAHJR
May 1-31, 2019

Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes
>6300	660	7.1%		
6000-6299	2381	25.7%		
5700-5999	2669	28.9%	61.7%	
5500-5699	1209	13.1%	38.3%	
5000-5499	1630	17.6%		92.4%
4500-4999	517	5.6%		
4000-4499	141	1.5%		99.5%
3500-3999	29	0.3%		
3000-3499	10	0.1%		99.9%
2500-2999	4	0.0%		
<2500	1	0.0%		100.0%
Grand Total	**9251**	**100%**		

Prepared by: LAWA Noise Management
*Data source: LAX ANOMS

ANOMS Gate Penetration - DAHJR
June 1-30, 2019

Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes
>6300	642	6.8%		
6000-6299	2759	29.2%		
5700-5999	2985	31.6%	67.6%	
5500-5699	1138	12.1%	32.4%	
5000-5499	1398	14.8%		94.5%
4500-4999	420	4.4%		
4000-4499	74	0.8%		99.7%
3500-3999	14	0.1%		
3000-3499	9	0.1%		100.0%
2500-2999	1	0.0%		
<2500	0	0.0%		100.0%
Grand Total	**9440**	**100%**		

Prepared by: LAWA Noise Management
*Data source: LAX ANOMS

ANOMS Gate Penetration - DAHJR
July 1-31, 2019

Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes
>6300	784	7.9%		
6000-6299	2699	27.3%		
5700-5999	3129	31.6%	66.8%	
5500-5699	1313	13.3%	33.2%	
5000-5499	1508	15.2%		95.4%
4500-4999	359	3.6%		
4000-4499	75	0.8%		99.7%
3500-3999	21	0.2%		
3000-3499	4	0.0%		100.0%
2500-2999	0	0.0%		
<2500	0	0.0%		100.0%
Grand Total	**9892**	**100%**		

Prepared by: LAWA Noise Management
*Data source: LAX ANOMS

ANOMS Gate Penetration - DAHJR
August 1-31, 2019

Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes
>6300	698	7.1%		
6000-6299	2627	26.9%		
5700-5999	3108	31.8%	65.8%	
5500-5699	1275	13.0%	34.2%	
5000-5499	1551	15.9%		94.7%
4500-4999	417	4.3%		
4000-4499	88	0.9%		99.8%
3500-3999	14	0.1%		
3000-3499	1	0.0%		100.0%
2500-2999	0	0.0%		
<2500	1	0.0%		100.0%
Grand Total	**9780**	**100%**		

Prepared by: LAWA Noise Management
*Data source: LAX ANOMS

3. 6000 Foot Alt +/- 300 at DAHJR - 24 hours

ANOMS Gate Penetration - DAHJR
September 1-30, 2019

Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes
>6300	675	7.7%		
6000-6299	2178	25.0%		
5700-5999	2570	29.5%	62.2%	
5500-5699	1129	12.9%	37.8%	
5000-5499	1574	18.0%		93.1%
4500-4999	465	5.3%		
4000-4499	95	1.1%		99.6%
3500-3999	29	0.3%		
3000-3499	8	0.1%		100.0%
2500-2999	1	0.0%		
<2500	0	0.0%		100.0%
Grand Total	**8724**	**100%**		

Prepared by: LAWA Noise Management
*Data source: LAX ANOMS

ANOMS Gate Penetration - DAHJR
October 1-31, 2019

Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes
>6300	633	7.0%		
6000-6299	2070	23.0%		
5700-5999	2728	30.3%	60.3%	
5500-5699	1146	12.7%	39.7%	
5000-5499	1729	19.2%		92.3%
4500-4999	533	5.9%		
4000-4499	125	1.4%		99.6%
3500-3999	29	0.3%		
3000-3499	6	0.1%		100.0%
2500-2999	1	0.0%		
<2500	0	0.0%		100.0%
Grand Total	**9000**	**100%**		

Prepared by: LAWA Noise Management
*Data source: LAX ANOMS

ANOMS Gate Penetration - DAHJR
November 1-30, 2019

Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes
>6300	493	6.1%		
6000-6299	1780	22.0%		
5700-5999	2371	29.3%	57.3%	
5500-5699	1102	13.6%	42.7%	
5000-5499	1662	20.5%		91.5%
4500-4999	512	6.3%		
4000-4499	144	1.8%		99.6%
3500-3999	26	0.3%		
3000-3499	8	0.1%		100.0%
2500-2999	1	0.0%		
<2500	0	0.0%		100.0%
Grand Total	**8099**	**100%**		

Prepared by: LAWA Noise Management
*Data source: LAX ANOMS

ANOMS Gate Penetration - DAHJR
December 1-31, 2019

Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes
>6300	584	7.6%		
6000-6299	1752	22.9%		
5700-5999	2288	29.9%	60.5%	
5500-5699	995	13.0%	39.5%	
5000-5499	1325	17.3%		90.9%
4500-4999	509	6.7%		
4000-4499	131	1.7%		99.3%
3500-3999	39	0.5%		
3000-3499	15	0.2%		100.0%
2500-2999	2	0.0%		
<2500	1	0.0%		100.0%
Grand Total	**7641**	**100%**		

Prepared by: LAWA Noise Management
*Data source: LAX ANOMS

3. 6000 Foot Alt +/- 300 at DAHJR - 24 hours

ANOMS Gate Penetration - DAHJR
January 1-31, 2020

Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes
>6300	664	7.6%		
6000-6299	2141	24.5%		
5700-5999	2550	29.1%	61.2%	
5500-5699	1117	12.8%	38.8%	
5000-5499	1574	18.0%		92.0%
4500-4999	504	5.8%		
4000-4499	148	1.7%		99.4%
3500-3999	40	0.5%		
3000-3499	8	0.1%		100.0%
2500-2999	2	0.0%		
<2500	0	0.0%		100.0%
Grand Total	**8748**	**100%**		

Prepared by: LAWA Noise Management
*Data source: LAX ANOMS

ANOMS Gate Penetration - DAHJR
February 1-29, 2020

Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes
>6300	447	5.9%		
6000-6299	1535	20.2%		
5700-5999	2149	28.3%	54.4%	
5500-5699	1009	13.3%	45.6%	
5000-5499	1632	21.5%		89.2%
4500-4999	580	7.6%		
4000-4499	173	2.3%		99.1%
3500-3999	54	0.7%		
3000-3499	11	0.1%		100.0%
2500-2999	3	0.0%		
<2500	0	0.0%		100.0%
Grand Total	**7593**	**100%**		

Prepared by: LAWA Noise Management
*Data source: LAX ANOMS

4. DAHJR - 0100 to 0500 totals

	Time of Night						
Altitude MSL (ft)	12:00 to 12:59 AM	1:00 to 1:59 AM	2:00 to 2:59 AM	3:00 to 3:59 AM	4:00 to 4:59 AM	5:00 to 5:59 AM	Totals by Height
>6000	15	5	2	5	14	36	**77**
5750-6000	18	2	1	7	7	10	**45**
5500-5749	6	1	1	2	1	7	**18**
5250-5499	2	1	2	2	0	4	**11**
5000-5249	5	0	2	2	1	4	**14**
4750-4999	1	1	0	0	0	0	**2**
<4750	1	1	0	0	2	2	**6**
Total of All Flights	**48**	**11**	**8**	**18**	**25**	**63**	**173**
		1 to 5 Total		**19**			

Oct 2018
19 flights

	Time of Night						
Altitude MSL (ft)	12:00 to 12:59 AM	1:00 to 1:59 AM	2:00 to 2:59 AM	3:00 to 3:59 AM	4:00 to 4:59 AM	5:00 to 5:59 AM	Totals by Height
>6000	24	13	11	9	58	72	**187**
5750-6000	13	4	3	0	9	19	**48**
5500-5749	6	0	1	1	2	6	**16**
5250-5499	3	2	1	1	2	8	**17**
5000-5249	2	1	1	1	1	3	**9**
4750-4999	3	0	0	0	0	0	**3**
<4750	6	1	0	0	2	6	**15**
Total of All Flights	**57**	**21**	**17**	**12**	**74**	**114**	**295**
		1 to 5 Total		**17**			

Nov 2018
17 flights

Prepared by: LAWA Noise Management
Data Source : LAX ANOMS

4. DAHJR - 0100 to 0500 totals

	Time of Night						
Altitude MSL (ft)	12:00 to 12:59 AM	1:00 to 1:59 AM	2:00 to 2:59 AM	3:00 to 3:59 AM	4:00 to 4:59 AM	5:00 to 5:59 AM	Totals by Height
>6000	27	10	8	6	28	48	**127**
5750-6000	13	1	2	1	15	32	**64**
5500-5749	11	1	0	1	7	10	**30**
5250-5499	6	0	2	0	8	3	**19**
5000-5249	6	0	1	0	3	4	**14**
4750-4999	0	0	0	0	1	2	**3**
<4750	2	0	0	1	0	3	**6**
Total of All Flights	**65**	**12**	**13**	**9**	**62**	**102**	**263**
		1 to 5 Total		**25**			

Dec 2018
25 flights

	Time of Night						
Altitude MSL (ft)	12:00 to 12:59 AM	1:00 to 1:59 AM	2:00 to 2:59 AM	3:00 to 3:59 AM	4:00 to 4:59 AM	5:00 to 5:59 AM	Totals by Height
>6000	10	6	6	4	3	13	**42**
5750-6000	6	2	0	0	5	6	**19**
5500-5749	9	0	1	1	2	3	**16**
5250-5499	2	0	1	0	3	4	**10**
5000-5249	2	0	0	1	0	0	**3**
4750-4999	1	0	0	1	0	1	**3**
<4750	2	0	0	2	0	1	**5**
Total of All Flights	**32**	**8**	**8**	**9**	**13**	**28**	**98**
		1 to 5 Total		**12**			

Jan 2019
12 flights

Prepared by: LAWA Noise Management
Data Source : LAX ANOMS

4. DAHJR - 0100 to 0500 totals

	Time of Night						
Altitude MSL (ft)	12:00 to 12:59 AM	1:00 to 1:59 AM	2:00 to 2:59 AM	3:00 to 3:59 AM	4:00 to 4:59 AM	5:00 to 5:59 AM	Totals by Height
>6000	10	4	3	1	7	9	**34**
5750-6000	5	0	0	4	1	2	**12**
5500-5749	3	0	0	0	3	2	**8**
5250-5499	2	1	0	0	1	0	**4**
5000-5249	1	0	0	1	0	2	**4**
4750-4999	24	6	11	2	26	40	**109**
<4750	1	0	0	0	0	3	**4**
Total of All Flights	**46**	**11**	**14**	**8**	**38**	**58**	**175**
		1 to 5 Total		**51**			

Feb 2019
51 flights

	Time of Night						
Altitude MSL (ft)	12:00 to 12:59 AM	1:00 to 1:59 AM	2:00 to 2:59 AM	3:00 to 3:59 AM	4:00 to 4:59 AM	5:00 to 5:59 AM	Totals by Height
>6000	15	5	2	4	10	11	**47**
5750-6000	38	12	2	17	45	52	**166**
5500-5749	7	0	0	0	3	0	**10**
5250-5499	1	0	1	0	3	5	**10**
5000-5249	1	0	0	0	2	3	**6**
4750-4999	1	1	0	0	1	0	**3**
<4750	2	0	0	0	1	0	**3**
Total of All Flights	**65**	**18**	**5**	**21**	**65**	**71**	**245**
		1 to 5 Total		**12**			

Mar 2019
12 flights

Prepared by: LAWA Noise Management
Data Source : LAX ANOMS

4. DAHJR - 0100 to 0500 totals

Apr 2019
6 flights

	Time of Night						
Altitude MSL (ft)	12:59 AM	1:00 to 1:59 AM	2:00 to 2:59 AM	3:00 to 3:59 AM	4:00 to 4:59 AM	5:00 to 5:59 AM	Totals by Height
>6000	26	20	10	22	58	56	**192**
5750-6000	23	3	2	7	6	25	**66**
5500-5749	5	2	0	1	1	3	**12**
5250-5499	1	0	0	0	0	1	**2**
5000-5249	1	0	0	0	1	2	**4**
4750-4999	0	0	0	0	0	0	**0**
<4750	2	0	1	0	0	0	**3**
Total of All Flights	**58**	**25**	**13**	**30**	**66**	**87**	**279**
		1 to 5 Total		**6**			

May 2019
6 flights

	Time of Night						
Altitude MSL (ft)	12:00 to 12:59 AM	1:00 to 1:59 AM	2:00 to 2:59 AM	3:00 to 3:59 AM	4:00 to 4:59 AM	5:00 to 5:59 AM	Totals by Height
>6000	41	10	5	15	47	49	**167**
5750-6000	17	5	0	1	15	17	**55**
5500-5749	6	2	0	1	1	2	**12**
5250-5499	2	0	0	0	1	0	**3**
5000-5249	6	0	0	0	0	2	**8**
4750-4999	2	0	0	0	0	1	**3**
<4750	4	0	0	1	0	0	**5**
Total of All Flights	**78**	**17**	**5**	**18**	**64**	**71**	**253**
		1 to 5 Total		**6**			

Prepared by: LAWA Noise Management
Data Source : LAX ANOMS

4. DAHJR - 0100 to 0500 totals

	Time of Night						
Altitude MSL (ft)	12:00 to 12:59 AM	1:00 to 1:59 AM	2:00 to 2:59 AM	3:00 to 3:59 AM	4:00 to 4:59 AM	5:00 to 5:59 AM	Totals by Height
>6000	44	5	3	19	63	91	**225**
5750-6000	21	5	2	5	15	31	**79**
5500-5749	11	0	0	2	1	3	**17**
5250-5499	4	0	0	0	0	2	**6**
5000-5249	4	0	0	1	0	0	**5**
4750-4999	4	1	0	0	0	1	**6**
<4750	4	1	0	1	1	1	**8**
Total of All Flights	**92**	**12**	**5**	**28**	**80**	**129**	**346**
		1 to 5 Total		**8**			

Jun 2019
8 flights

	Time of Night						
Altitude MSL (ft)	12:00 to 12:59 AM	1:00 to 1:59 AM	2:00 to 2:59 AM	3:00 to 3:59 AM	4:00 to 4:59 AM	5:00 to 5:59 AM	Totals by Height
>6000	56	8	7	15	39	55	**180**
5750-6000	29	1	2	3	14	25	**74**
5500-5749	9	0	1	0	2	1	**13**
5250-5499	3	0	0	0	0	2	**5**
5000-5249	3	0	0	0	0	1	**4**
4750-4999	1	0	0	0	0	0	**1**
<4750	2	0	0	0	0	0	**2**
Total of All Flights	**103**	**9**	**10**	**18**	**55**	**84**	**279**
		1 to 5 Total		**3**			

Jul 2019
3 flights

Prepared by: LAWA Noise Management
Data Source : LAX ANOMS

4. DAHJR - 0100 to 0500 totals

	Time of Night						
Altitude MSL (ft)	12:00 to 12:59 AM	1:00 to 1:59 AM	2:00 to 2:59 AM	3:00 to 3:59 AM	4:00 to 4:59 AM	5:00 to 5:59 AM	Totals by Height
>6000	35	3	13	9	43	61	**164**
5750-6000	26	4	1	0	15	22	**68**
5500-5749	9	4	1	0	0	1	**15**
5250-5499	2	0	0	0	0	2	**4**
5000-5249	5	0	1	0	0	0	**6**
4750-4999	2	0	0	0	0	1	**3**
<4750	1	0	0	0	0	1	**2**
Total of All Flights	**80**	**11**	**16**	**9**	**58**	**88**	**262**
		1 to 5 Total		**6**			

Aug 2019
6 flights

	Time of Night						
Altitude MSL (ft)	12:00 to 12:59 AM	1:00 to 1:59 AM	2:00 to 2:59 AM	3:00 to 3:59 AM	4:00 to 4:59 AM	5:00 to 5:59 AM	Totals by Height
>6000	27	4	1	0	4	25	**61**
5750-6000	10	0	0	1	3	11	**25**
5500-5749	6	0	0	0	1	1	**8**
5250-5499	5	0	0	0	0	0	**5**
5000-5249	3	0	0	0	0	1	**4**
4750-4999	1	0	0	0	0	0	**1**
<4750	1	0	0	0	0	0	**1**
Total of All Flights	**53**	**4**	**1**	**1**	**8**	**38**	**105**
		1 to 5 Total		**1**			

Sep 2019
1 flight

Prepared by: LAWA Noise Management
Data Source : LAX ANOMS

4. DAHJR - 0100 to 0500 totals

	Time of Night						
Altitude MSL (ft)	12:00 to 12:59 AM	1:00 to 1:59 AM	2:00 to 2:59 AM	3:00 to 3:59 AM	4:00 to 4:59 AM	5:00 to 5:59 AM	Totals by Height
>6000	21	2	2	3	3	24	**55**
5750-6000	6	0	0	1	0	6	**13**
5500-5749	6	0	0	0	0	3	**9**
5250-5499	1	0	0	0	1	0	**2**
5000-5249	1	0	0	0	0	1	**2**
4750-4999	0	0	0	0	0	3	**3**
<4750	3	0	0	0	0	0	**3**
Total of All Flights	**38**	**2**	**2**	**4**	**4**	**37**	**87**
		1 to 5 Total		**1**			

Oct 2019
1 flight

	Time of Night						
Altitude MSL (ft)	12:00 to 12:59 AM	1:00 to 1:59 AM	2:00 to 2:59 AM	3:00 to 3:59 AM	4:00 to 4:59 AM	5:00 to 5:59 AM	Totals by Height
>6000	14	1	2	5	12	37	**71**
5750-6000	6	1	0	1	4	21	**33**
5500-5749	4	0	1	0	0	4	**9**
5250-5499	2	0	0	0	2	3	**7**
5000-5249	1	0	0	0	0	2	**3**
4750-4999	2	0	0	0	0	1	**3**
<4750	1	0	0	0	1	0	**2**
Total of All Flights	**30**	**2**	**3**	**6**	**19**	**68**	**128**
		1 to 5 Total		**4**			

Nov 2019
4 flights

Prepared by: LAWA Noise Management
Data Source : LAX ANOMS

4. DAHJR - 0100 to 0500 totals

	Time of Night						
Altitude MSL (ft)	12:00 to 12:59 AM	1:00 to 1:59 AM	2:00 to 2:59 AM	3:00 to 3:59 AM	4:00 to 4:59 AM	5:00 to 5:59 AM	Totals by Height
>6000	6	0	0	0	0	0	**6**
5750-6000	6	1	0	0	0	0	**7**
5500-5749	3	0	0	0	0	0	**3**
5250-5499	0	0	0	0	0	0	**0**
5000-5249	2	0	0	0	0	0	**2**
4750-4999	1	0	0	0	1	0	**2**
<4750	0	0	0	0	0	0	**0**
Total of All Flights	**18**	**1**	**0**	**0**	**1**	**0**	**20**
		1 to 5 Total		**1**			

Dec 2019
1 flight

	Time of Night						
Altitude MSL (ft)	12:00 to 12:59 AM	1:00 to 1:59 AM	2:00 to 2:59 AM	3:00 to 3:59 AM	4:00 to 4:59 AM	5:00 to 5:59 AM	Totals by Height
>6000	11	2	11	10	25	54	**113**
5750-6000	7	0	2	3	5	32	**49**
5500-5749	4	3	1	1	1	8	**18**
5250-5499	1	0	0	1	2	0	**4**
5000-5249	1	0	0	0	1	4	**6**
4750-4999	0	1	1	0	0	2	**4**
<4750	3	1	0	0	0	1	**5**
Total of All Flights	**27**	**7**	**15**	**15**	**34**	**101**	**199**
		1 to 5 Total		**13**			

Jan 2020
13 flights

Prepared by: LAWA Noise Management
Data Source : LAX ANOMS

4. DAHJR - 0100 to 0500 totals

	Time of Night						
Altitude MSL (ft)	**12:00 to 12:59 AM**	**1:00 to 1:59 AM**	**2:00 to 2:59 AM**	**3:00 to 3:59 AM**	**4:00 to 4:59 AM**	**5:00 to 5:59 AM**	**Totals by Height**
>6000	8	1	0	2	6	33	**50**
5750-6000	6	0	3	1	4	7	**21**
5500-5749	0	0	0	0	1	5	**6**
5250-5499	1	0	1	0	2	1	**5**
5000-5249	1	0	0	0	0	2	**3**
4750-4999	1	0	0	0	1	2	**4**
<4750	0	0	0	1	0	2	**3**
Total of All Flights	**17**	**1**	**4**	**4**	**14**	**52**	**92**
		1 to 5 Total		**6**			

Feb 2020
6 flights

5. 6000 Foot Alt +/- 300 at GADDO - 24 hours

ANOMS Gate Penetration - GADDO
September 1-30, 2018

Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes
>6300	55	1%		
6000-6299	227	2%		
5700-5999	526	6%	8.5%	
5500-5699	462	5%	91.5%	
5000-5499	2454	26%		39.2%
4500-4999	2841	30%		
4000-4499	1784	19%		88.0%
3500-3999	790	8%		
3000-3499	264	3%		99.1%
2500-2999	84	1%		
<2500	5	0%		100.0%
Grand Total	**9492**	**100%**		

ANOMS Gate Penetration - GADDO
October 1-31, 2018

Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes
>6300	47	0.5%		
6000-6299	151	1.6%		
5700-5999	448	4.9%	7.0%	
5500-5699	389	4.2%	93.0%	
5000-5499	2166	23.5%		34.8%
4500-4999	2633	28.6%		
4000-4499	1888	20.5%		83.9%
3500-3999	948	10.3%		
3000-3499	419	4.6%		98.8%
2500-2999	107	1.2%		
<2500	5	0.1%		100.0%
Grand Total	**9201**	**100%**		

ANOMS Gate Penetration - GADDO
November 1-30, 2018

Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes
>6300	67	0.8%		
6000-6299	184	2.1%		
5700-5999	459	5.2%	8.0%	
5500-5699	372	4.2%	92.0%	
5000-5499	2053	23.1%		35.3%
4500-4999	2581	29.1%		
4000-4499	1744	19.7%		84.1%
3500-3999	907	10.2%		
3000-3499	359	4.0%		98.4%
2500-2999	142	1.6%		
<2500	4	0.0%		100.0%
Grand Total	**8872**	**100%**		

ANOMS Gate Penetration - GADDO
December 1-31, 2018

Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes
>6300	43	0.5%		
6000-6299	163	1.9%		
5700-5999	438	5.1%	7.6%	
5500-5699	415	4.9%	92.4%	
5000-5499	1937	22.8%		35.2%
4500-4999	2380	28.0%		
4000-4499	1696	19.9%		83.1%
3500-3999	907	10.7%		
3000-3499	408	4.8%		98.5%
2500-2999	121	1.4%		
<2500	6	0.1%		100.0%
Grand Total	**8514**	**100%**		

5. 6000 Foot Alt +/- 300 at GADDO - 24 hours

ANOMS Gate Penetration - GADDO
January 1-31, 2019

Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes
>6300	41	0.6%		
6000-6299	120	1.6%		
5700-5999	335	4.6%	6.8%	
5500-5699	320	4.4%	93.2%	
5000-5499	1572	21.6%		32.8%
4500-4999	1992	27.4%		
4000-4499	1577	21.7%		81.9%
3500-3999	799	11.0%		
3000-3499	375	5.2%		98.0%
2500-2999	138	1.9%		
<2500	5	0.1%		100.0%
Grand Total	**7274**	**100%**		

ANOMS Gate Penetration - GADDO
February 1-28, 2019

Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes
>6300	66	0.9%		
6000-6299	156	2.0%		
5700-5999	437	5.7%	8.6%	
5500-5699	440	5.7%	91.4%	
5000-5499	1984	25.8%		40.1%
4500-4999	2145	27.9%		
4000-4499	1387	18.0%		86.0%
3500-3999	676	8.8%		
3000-3499	314	4.1%		98.8%
2500-2999	83	1.1%		
<2500	7	0.1%		100.0%
Grand Total	**7695**	**100%**		

ANOMS Gate Penetration - GADDO
March 1-31, 2019

Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes
>6300	52	0.6%		
6000-6299	154	1.7%		
5700-5999	397	4.5%	6.8%	
5500-5699	413	4.6%	93.2%	
5000-5499	2259	25.4%		36.8%
4500-4999	2531	28.4%		
4000-4499	1739	19.5%		84.7%
3500-3999	873	9.8%		
3000-3499	375	4.2%		98.7%
2500-2999	107	1.2%		
<2500	7	0.1%		100.0%
Grand Total	**8907**	**100%**		

ANOMS Gate Penetration - GADDO
April 1-30, 2019

Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes
>6300	50	0.6%		
6000-6299	162	1.8%		
5700-5999	490	5.4%	7.8%	
5500-5699	435	4.8%	92.2%	
5000-5499	2357	26.0%		38.6%
4500-4999	2629	29.0%		
4000-4499	1686	18.6%		86.2%
3500-3999	778	8.6%		
3000-3499	358	4.0%		98.8%
2500-2999	108	1.2%		
<2500	3	0.0%		100.0%
Grand Total	**9056**	**100%**		

5. 6000 Foot Alt +/- 300 at GADDO - 24 hours

ANOMS Gate Penetration - GADDO
May 1-31, 2019

Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes
>6300	52	0.6%		
6000-6299	162	1.8%		
5700-5999	477	5.2%	7.5%	
5500-5699	463	5.0%	92.5%	
5000-5499	2306	25.0%		37.4%
4500-4999	2752	29.8%		
4000-4499	1703	18.4%		85.7%
3500-3999	820	8.9%		
3000-3499	350	3.8%		98.3%
2500-2999	143	1.5%		
<2500	11	0.1%		100.0%
Grand Total	**9239**	**100%**		

Prepared by: LAWA Noise Management
*Data source: LAX ANOMS

ANOMS Gate Penetration - GADDO
June 1-30, 2019

Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes
>6300	41	0.4%		
6000-6299	186	2.0%		
5700-5999	522	5.5%	7.9%	
5500-5699	457	4.8%	92.1%	
5000-5499	2734	29.0%		41.8%
4500-4999	2832	30.0%		
4000-4499	1651	17.5%		89.3%
3500-3999	698	7.4%		
3000-3499	238	2.5%		99.2%
2500-2999	73	0.8%		
<2500	5	0.1%		100.0%
Grand Total	**9437**	**100%**		

Prepared by: LAWA Noise Management
*Data source: LAX ANOMS

ANOMS Gate Penetration - GADDO
July 1-31, 2019

Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes
>6300	43	0.4%		
6000-6299	159	1.6%		
5700-5999	536	5.4%	7.5%	
5500-5699	511	5.2%	92.5%	
5000-5499	2886	29.2%		41.8%
4500-4999	3051	30.8%		
4000-4499	1741	17.6%		90.3%
3500-3999	678	6.9%		
3000-3499	231	2.3%		99.4%
2500-2999	55	0.6%		
<2500	0	0.0%		100.0%
Grand Total	**9891**	**100%**		

Prepared by: LAWA Noise Management
*Data source: LAX ANOMS

ANOMS Gate Penetration - GADDO
August 1-31, 2019

Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes
>6300	37	0.4%		
6000-6299	154	1.6%		
5700-5999	471	4.8%	6.8%	
5500-5699	472	4.8%	93.2%	
5000-5499	2731	27.9%		39.5%
4500-4999	3086	31.6%		
4000-4499	1782	18.2%		89.4%
3500-3999	737	7.5%		
3000-3499	252	2.6%		99.5%
2500-2999	49	0.5%		
<2500	2	0.0%		100.0%
Grand Total	**9773**	**100%**		

Prepared by: LAWA Noise Management
*Data source: LAX ANOMS

5. 6000 Foot Alt +/- 300 at GADDO - 24 hours

ANOMS Gate Penetration - GADDO
September 1-30, 2019

Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes
>6300	44	0.5%		
6000-6299	156	1.8%		
5700-5999	461	5.3%	7.6%	
5500-5699	466	5.3%	92.4%	
5000-5499	2232	25.6%		38.5%
4500-4999	2507	28.8%		
4000-4499	1682	19.3%		86.6%
3500-3999	781	9.0%		
3000-3499	310	3.6%		99.1%
2500-2999	74	0.8%		
<2500	7	0.1%		100.0%
Grand Total	**8720**	**100%**		

Prepared by: LAWA Noise Management
*Data source: LAX ANOMS

ANOMS Gate Penetration - GADDO
October 1-31, 2019

Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes
>6300	49	0.5%		
6000-6299	125	1.4%		
5700-5999	438	4.9%	6.8%	
5500-5699	370	4.1%	93.2%	
5000-5499	2041	22.7%		33.6%
4500-4999	2635	29.3%		
4000-4499	1881	20.9%		83.8%
3500-3999	917	10.2%		
3000-3499	435	4.8%		98.9%
2500-2999	96	1.1%		
<2500	7	0.1%		100.0%
Grand Total	**8994**	**100%**		

Prepared by: LAWA Noise Management
*Data source: LAX ANOMS

ANOMS Gate Penetration - GADDO
November 1-30, 2019

Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes
>6300	27	0.3%		
6000-6299	120	1.5%		
5700-5999	350	4.3%	6.1%	
5500-5699	308	3.8%	93.9%	
5000-5499	1759	21.7%		31.7%
4500-4999	2394	29.6%		
4000-4499	1721	21.3%		82.5%
3500-3999	919	11.4%		
3000-3499	394	4.9%		98.7%
2500-2999	98	1.2%		
<2500	5	0.1%		100.0%
Grand Total	**8095**	**100%**		

Prepared by: LAWA Noise Management
*Data source: LAX ANOMS

ANOMS Gate Penetration - GADDO
December 1-31, 2019

Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes
>6300	37	0.5%		
6000-6299	90	1.2%		
5700-5999	326	4.3%	5.9%	
5500-5699	323	4.2%	94.1%	
5000-5499	1878	24.6%		34.8%
4500-4999	2189	28.7%		
4000-4499	1513	19.8%		83.2%
3500-3999	768	10.1%		
3000-3499	383	5.0%		98.3%
2500-2999	118	1.5%		
<2500	11	0.1%		100.0%
Grand Total	**7636**	**100%**		

Prepared by: LAWA Noise Management
*Data source: LAX ANOMS

5. 6000 Foot Alt +/- 300 at GADDO - 24 hours

ANOMS Gate Penetration - GADDO
January 1-31, 2020

Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes
>6300	50	0.6%		
6000-6299	133	1.5%		
5700-5999	396	4.5%	6.6%	
5500-5699	399	4.6%	93.4%	
5000-5499	2124	24.3%		35.5%
4500-4999	2482	28.4%		
4000-4499	1771	20.3%		84.1%
3500-3999	874	10.0%		
3000-3499	385	4.4%		98.5%
2500-2999	121	1.4%		
<2500	8	0.1%		100.0%
Grand Total	**8743**	**100%**		

Prepared by: LAWA Noise Management
*Data source: LAX ANOMS

ANOMS Gate Penetration - GADDO
February 1-29, 2020

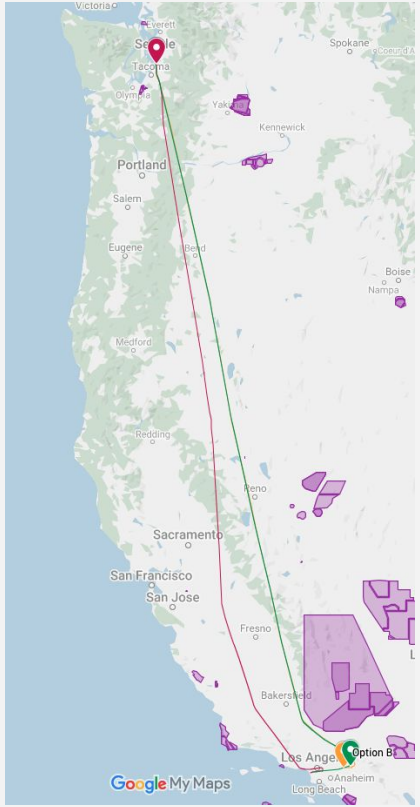
Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes
>6300	35	0.5%		
6000-6299	88	1.2%		
5700-5999	287	3.8%	5.4%	
5500-5699	276	3.6%	94.6%	
5000-5499	1546	20.3%		29.4%
4500-4999	2175	28.6%		
4000-4499	1678	22.1%		80.0%
3500-3999	936	12.3%		
3000-3499	441	5.8%		98.1%
2500-2999	132	1.7%		
<2500	10	0.1%		100.0%
Grand Total	**7604**	**100%**		

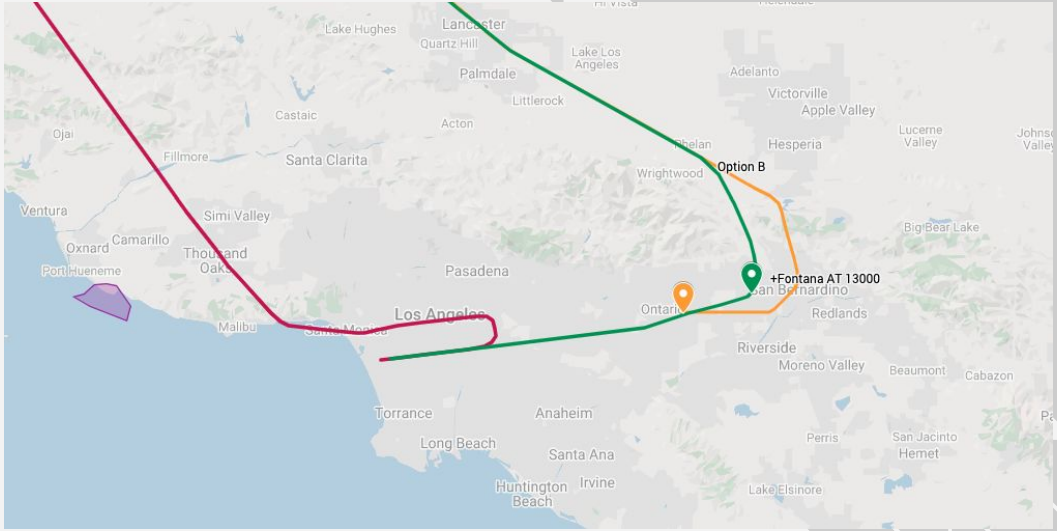
Prepared by: LAWA Noise Management
*Data source: LAX ANOMS

6. Follow Up: Quiet Skies CA - CSDA Option A, B Study

- At the last Roundtable (Jan 2020) Quiet Skies CA raised issues regarding the CSDA study that analyzed Options A & B put forth by Quiet Skies CA as proposed alternate flight procedures (in height and path) to reduce low-flying flights over City of LA, Culver City, etc.
- The Metroplex Ad-Hoc Committee agreed to document these issues and present any refined or clarified procedures from Quiet Skies CA

6. Option B, Proposed Route Example





Option B

ASA620 Seattle to Ontario

Delta Airlines DAL659 Seattle to LAX

Option B: 1,035 mi
Current : 1,016 mi

+19 mi (+1.9%)

- Rerouting existing North Downwind Flights along existing flight paths could pull traffic off the North Downwind, thus reducing noise exposure, without creating excessive additional time in the air or fuel burn
- This does not appear to require large-scale redesign of existing airspace since we can rely on existing flight paths to Ontario and join up with ANJLL FOUR arrivals similar to Option A

6. Option B, Distance Analysis

Origin	Current (mi)	Proposed (mi)	Difference (mi)
Spokane, WA	1,029	1,042	+13 (+1.3%)
Seattle	1,016	1,035	+19 (+1.9%)
Vancouver, BC	1,145	1,168	+23 (+2%)
Portland	890	936	+46 (+5.2%)
Sacramento	424	459	+35 (+8.2%)
San Jose	347	416	+69 (+19.8%)
San Francisco	376	452	+76 (+20.2%)
Oakland	389	460	+71 (+18.2%)
Fresno	250	314	+64 (+25.6%)

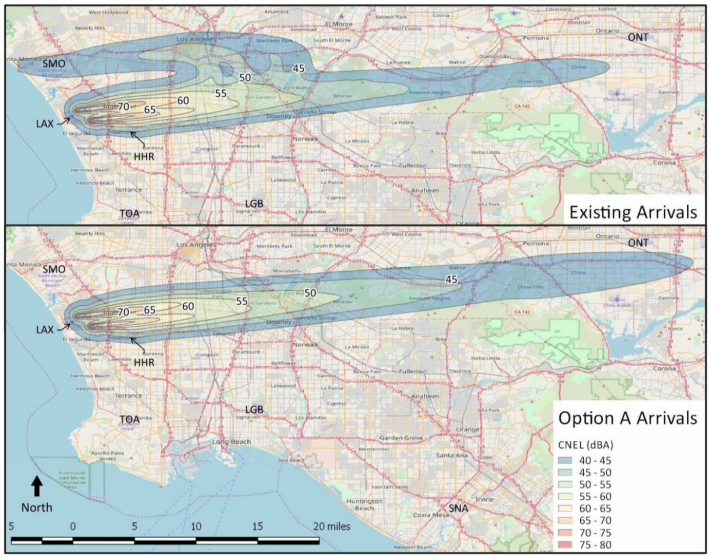
- Option B could provide a portion of flights currently flying the North Downwind another option off of the current route, thus lessening noise by reducing the frequency of flights over the current North Downwind path
- Option B flights modeled after existing flight paths to Ontario
- Merging with Option A at Fontana at 13000’

6. Option B, Additional Analysis

Option A: Task 2 - Noise Assessment

Noise modeling to compare existing and proposed route consisted of:

- 344 NW daily arrivals (ops)
- 462 E daily arrivals (ops)
- Using 737-700 aircraft to represent all aircraft types
- Average annual day of noise predicted (used by FAA/State of CA)
- CNEL Noise Metric (5 dBA penalty in evening, 10 dBA penalty at night)



CSDA DESIGN GROUP

LAX Los Angeles World Airports

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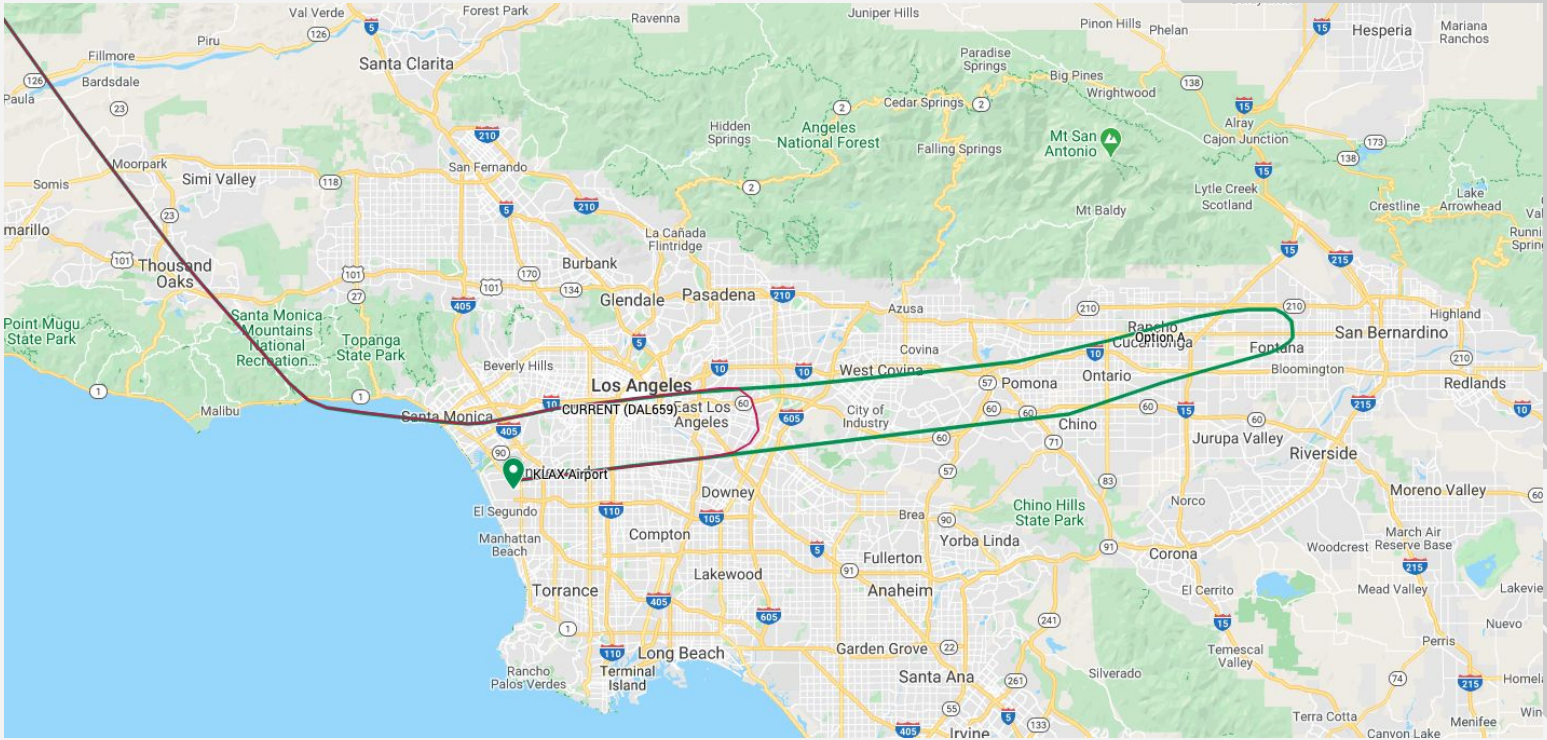
- CSDA did a noise assessment based on Option A. There is no counterpart for Option B
- Noise assessment if Oceania, representing 14% of traffic stayed on the same North Downwind course it is today, but remaining north to south LAX-bound traffic that could be pulled off onto an Option B procedure were routed accordingly, noise patterns would change given the proposed altitudes in Option B
- Noise assessment if a smaller percentage of flights were moved onto Option B, say 25%, 50%, and 75%? This would give the community of sense of how noise would shift if different origin points flying from north to south LAX arrivals were given Option B as their flightpath

6. Option A, Refined



Option A

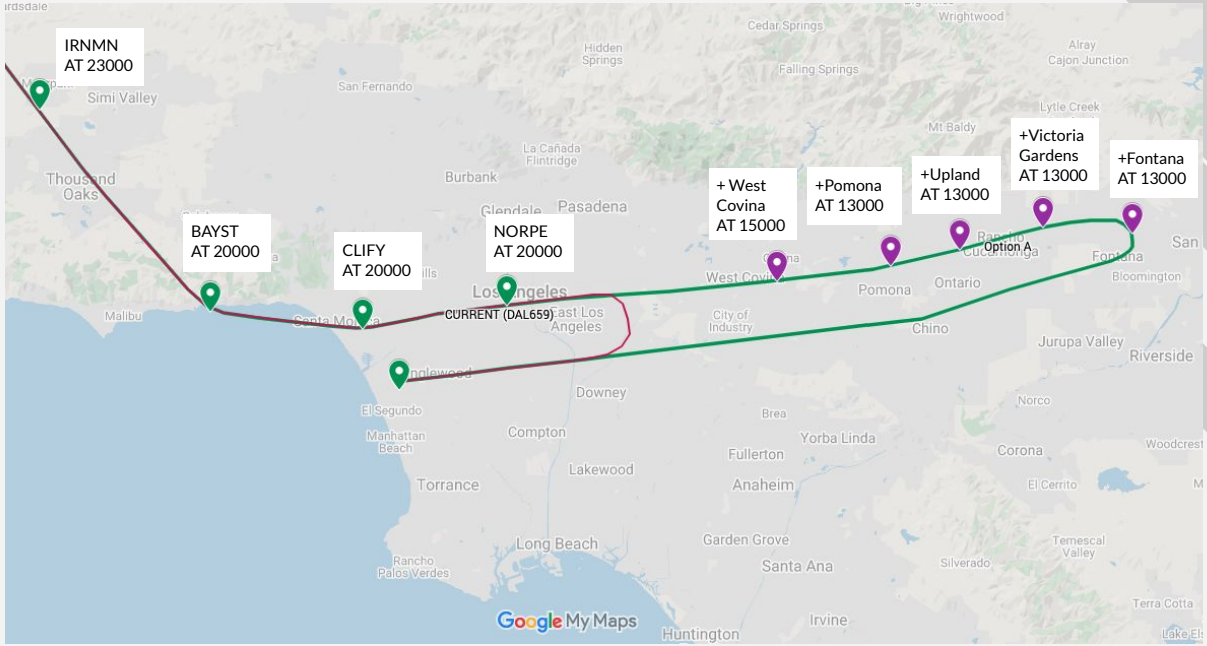
Delta Airlines flight DAL659 KSEA-LAX 01-09-2020

Option A: 1,113 mi
DAL 569: 1,035 mi

+78 mi (+7.5%)

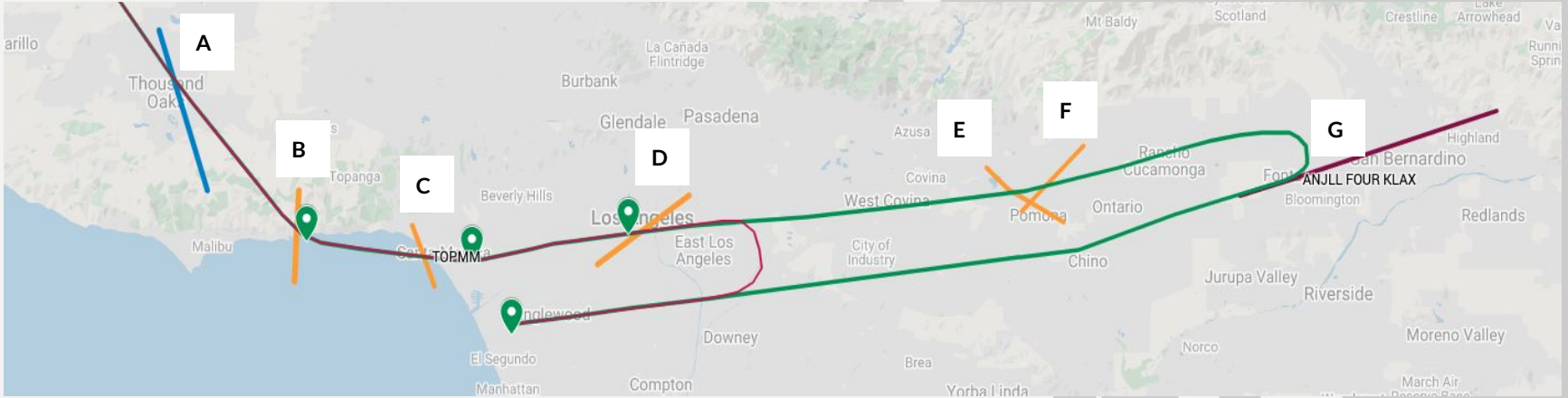
Option A Google Maps screenshot - precise path and waypoint location can be made available on request

6. Option A, Proposed Route



Fix	Option A Altitude	Current Altitude	Procedure
IRNMN	FL 230	16000-12000	IRNMN TWO ARRIVAL(RNAV)
BAYST	FL 200	AOA 9000	IRNMN TWO ARRIVAL(RNAV)
JUUSE	FL 200	9000-8000	IRNMN TWO ARRIVAL(RNAV)
CLIFY	FL 200	8000-7000	IRNMN TWO ARRIVAL(RNAV)
DAHJR	FL 200	AT 6000	IRNMN TWO ARRIVAL(RNAV)
GADDO	FL 200	AT 6000	IRNMN TWO ARRIVAL(RNAV)
NORPE	FL 200	3500	RNAV (RNP) Z RWY 24R
+ West Covina	AT 15000		IRNMN TWO ARRIVAL EXTENSION
+ Pomona	AT 13000		IRNMN TWO ARRIVAL EXTENSION
+ Upland	AT 13000		IRNMN TWO ARRIVAL EXTENSION
+ Victoria Gardens	AT 13000		IRNMN TWO ARRIVAL EXTENSION
+ Fontana	AT 13000		IRNMN TWO ARRIVAL EXTENSION
SKOLL	10000	10000	RNAV (RNP) Z RWY 24R

6. Option A, Procedures



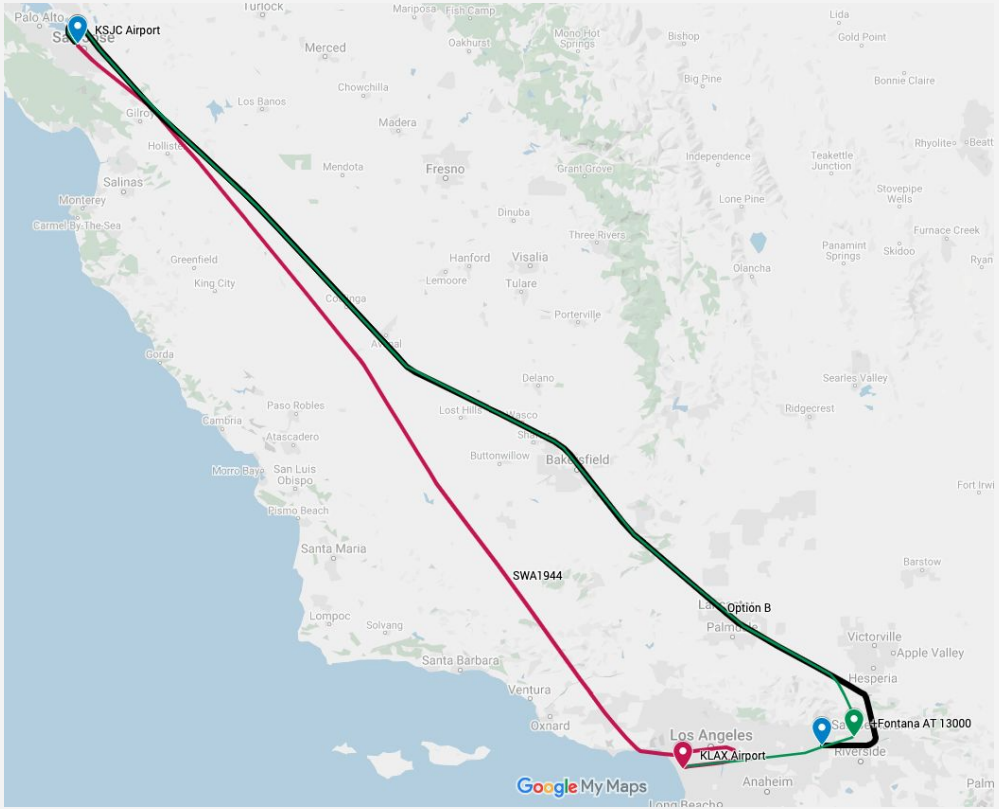
Map ID	Procedure	Option A Altitude	Procedure Altitude
A	KSNA OHSEA TWO ARRIVAL (RNAV)	23000	17000-20000
B	KLAX LADYJ FOUR DEPARTURE (RNAV)	20000	7000-8000
C	KLGB TOPMM FOUR DEPARTURES (RNAV)	20000	10000-12000
D	KLAX ORCKA THREE DEPARTURE	18000-20000	FL190-13000 - AOA 15000
E	KONT SNSHN FOUR DEPARTURE (RNAV)	15000-18000	AOB 8000
F	KLAX OSHNN EIGHT DEPARTURE (RNAV)	AT 15000	AOA 16000
G	ANJLL FOUR KLAX	12000-13000	12000-14000

7. City Attorney Legal Action Filed Against FAA

- June 2019, the City Attorney petitioned the U.S. 9th Circuit Court of Appeals regarding flight paths (a.k.a. North Downwind Arrival) over Mid-City, West Adams and Central Los Angeles
- 2/26/2020 City Attorney filed a Motion for Summary Disposition and Vacatur requesting the Court to grant the City's case and set aside existing flight path procedures until the FAA does a proper environmental review
- This motion asks the Court to make a decision now instead of waiting months for all the parties to submit full merits briefing. If this motion is denied/fails, the City Attorney is still able to proceed and both parties would then submit full merits briefing

THANK YOU

APPENDIX, additional Option B flight - San Jose to LAX



Option B: +69 mi (+19.8%)

Current: SWA1944 17-01-2020 KSJC - KLAX (347 mi)

SWA1974 29-02-2020 KSJC - KONT (416 mi)