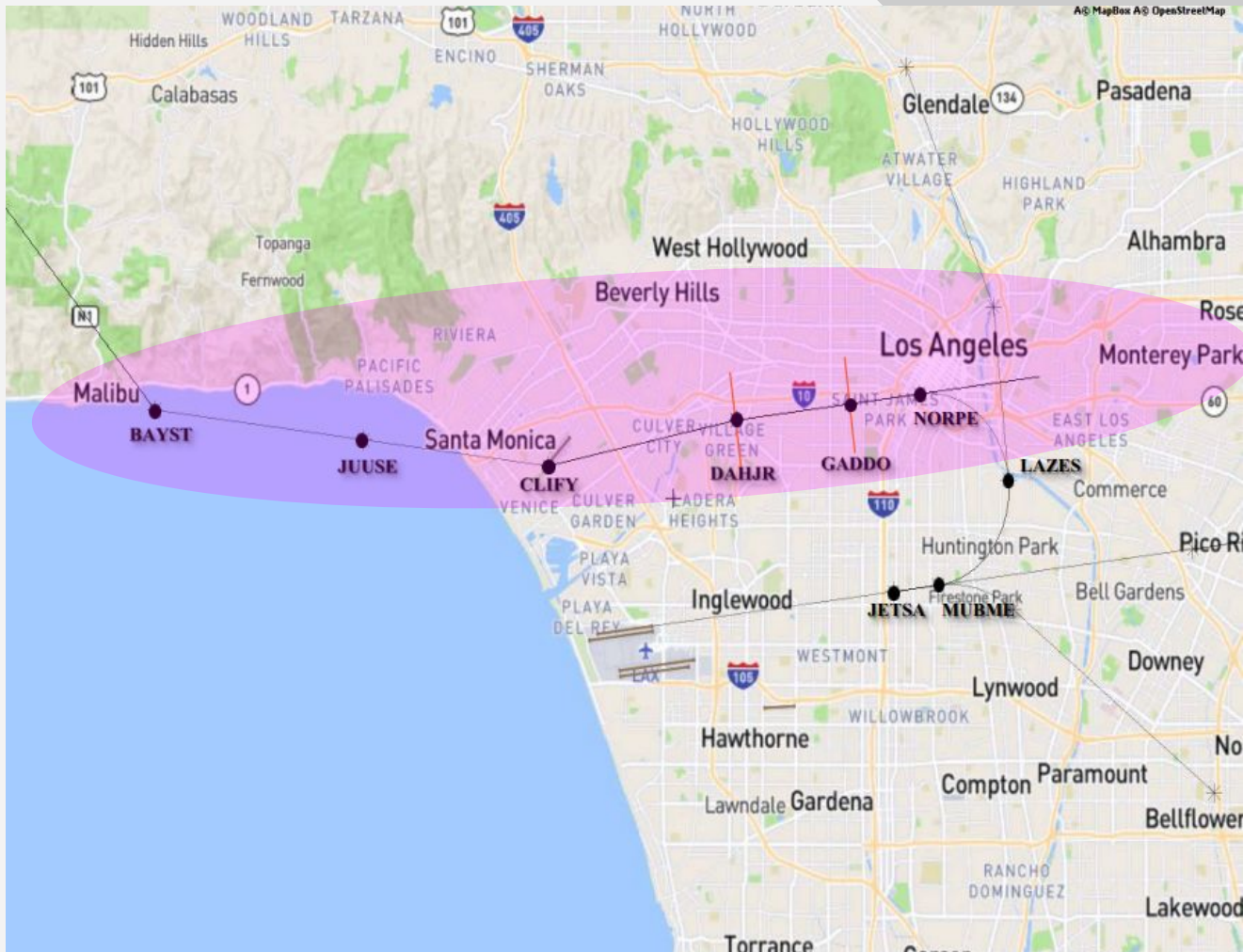




LAX Metroplex / Wide Area Ad Hoc Committee

LAX Community Noise Roundtable
May 2021

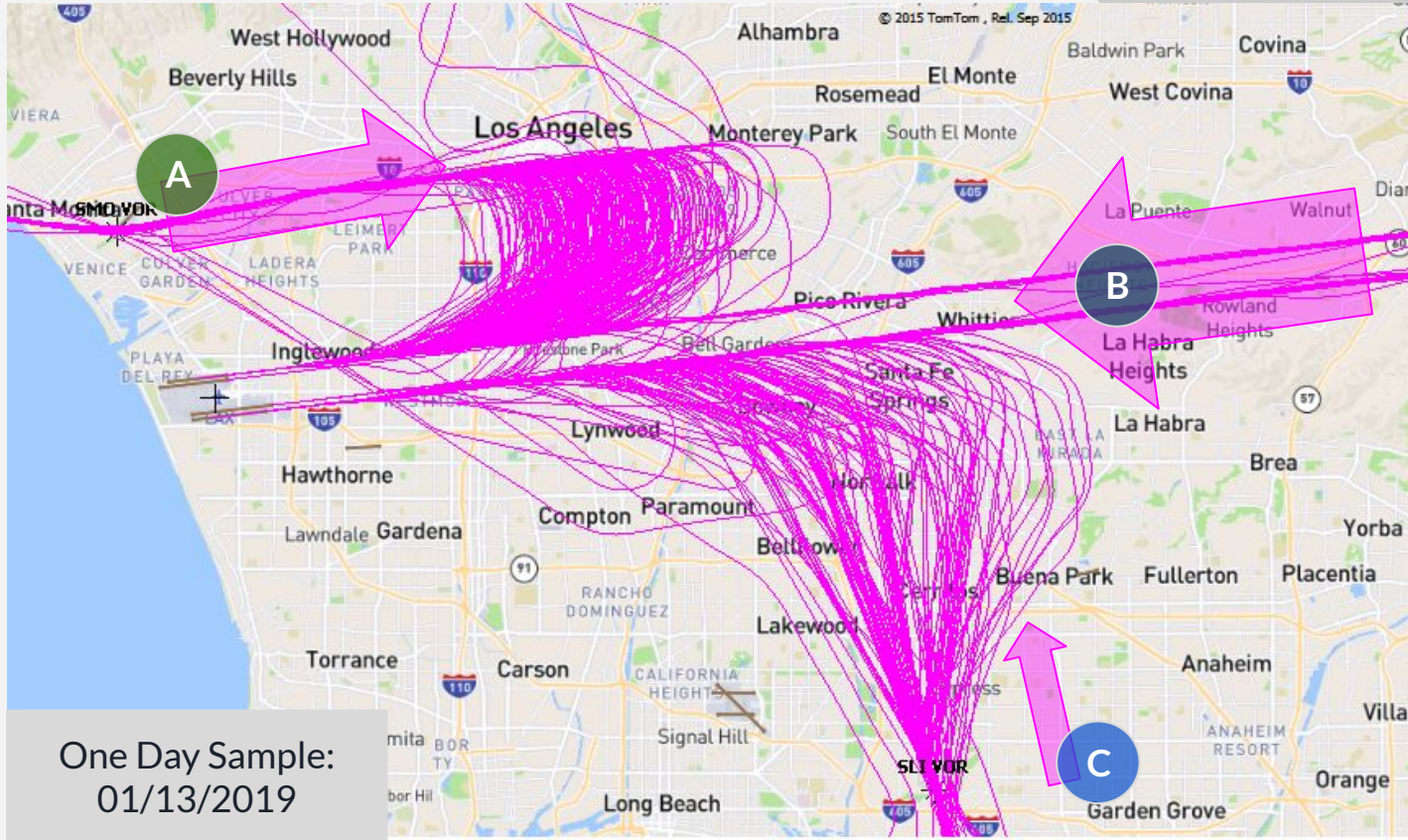
- 
1. North Downwind Arrival Flight Paths
 2. LAX and Other Airports
 3. DAHJR Flight Data - 24 hours
 4. DAHJR - 0100 to 0500 hours
 5. GADDO Flight Data - 24 hours
 6. North Downwind Height Directives
 7. Option B Proposal Development



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

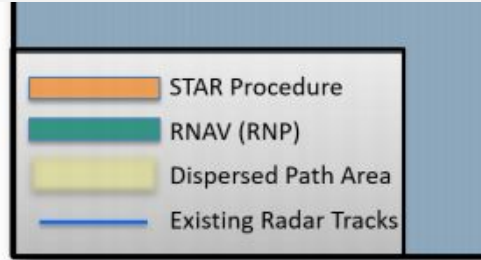


Percentage breakout of flights landing including their origin paths from one day at LAX

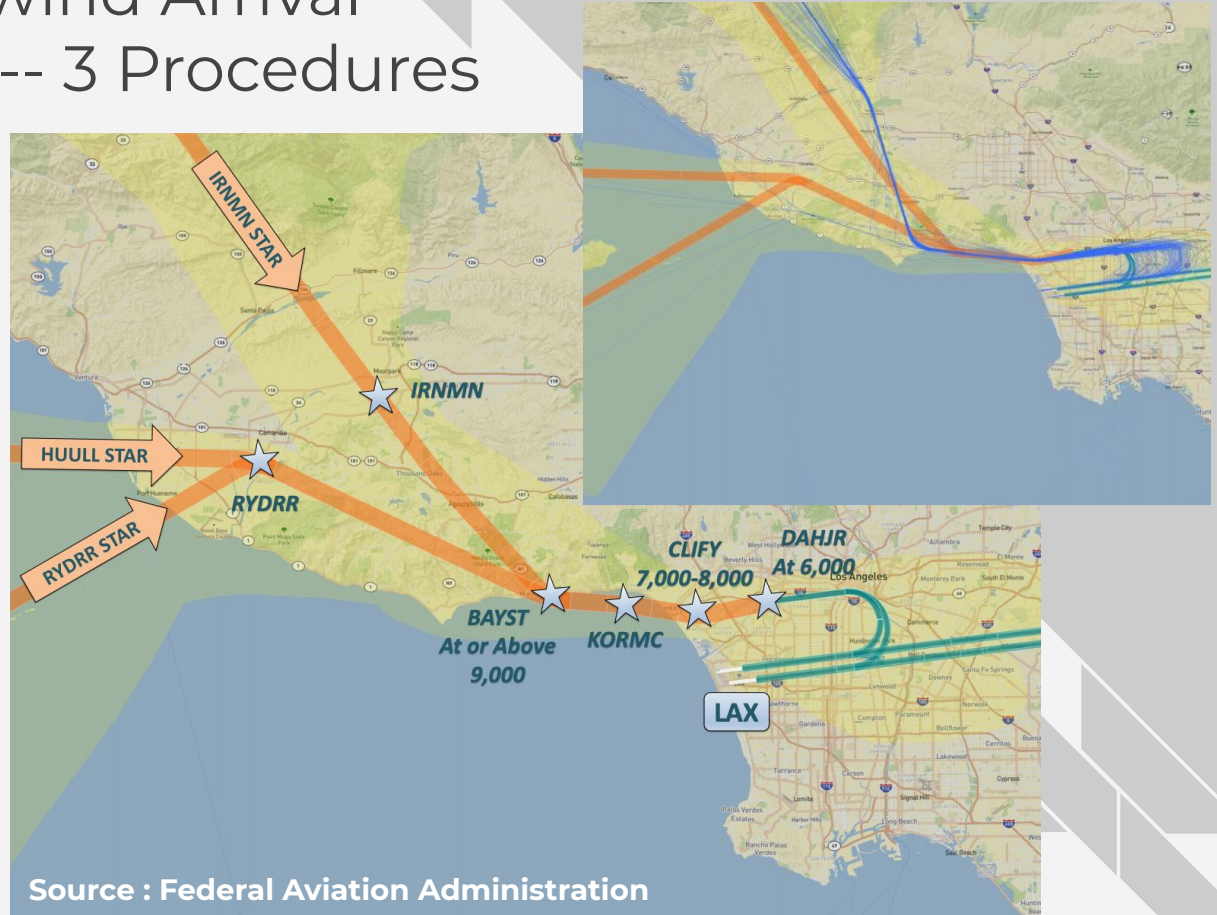
- A** North Arrivals
36% of inbound air traffic
- B** East Arrivals
52% of inbound air traffic
- C** South Arrivals
12% of inbound air traffic

One Day Sample:
01/13/2019

1. North Downwind Arrival Flight Paths -- 3 Procedures

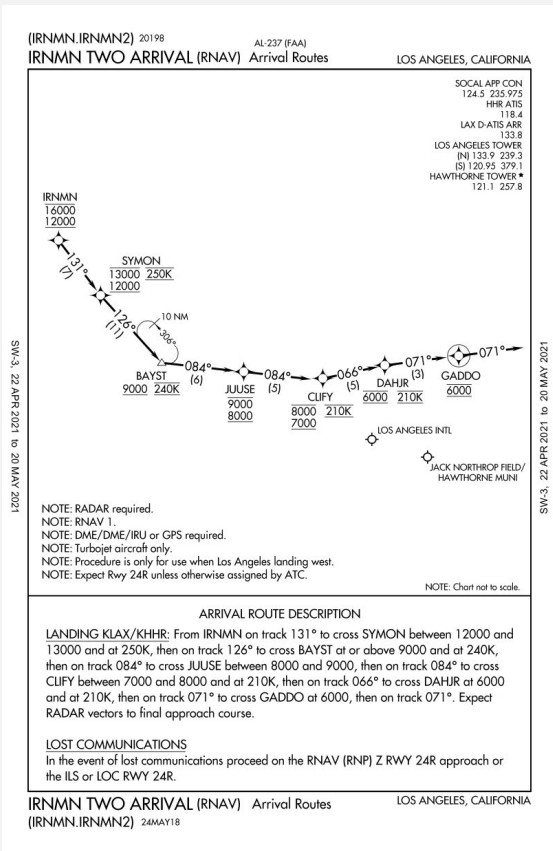


RYDRR, HUULL, & IRNMN are the 3 North Downwind Arrival Flight Paths into LAX

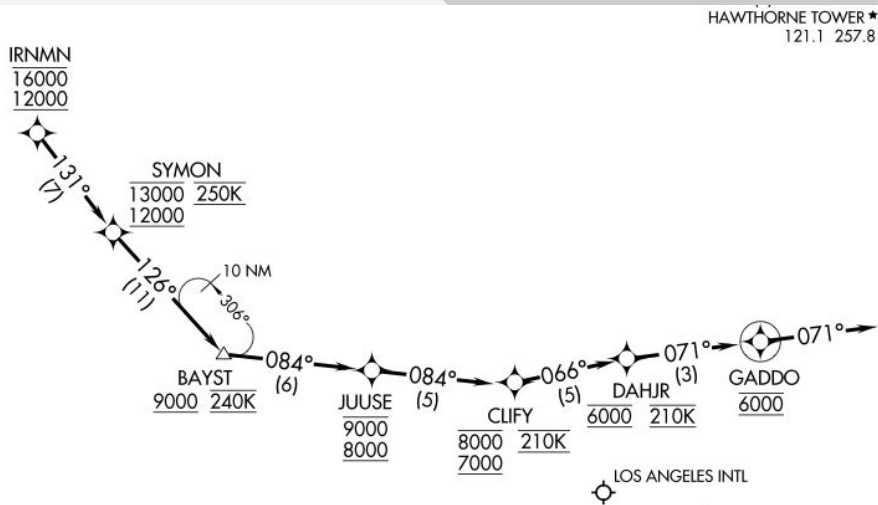


Source : Federal Aviation Administration

1. North Downwind Arrival Flight Paths - IRNMN



SW-3, 22 APR 2021 to 20 MAY 2021



ARRIVAL ROUTE DESCRIPTION

LANDING KLAX/KHHR: From IRNMN on track 131° to cross SYMON between 12000 and 13000 and at 250K, then on track 126° to cross BAYST at or above 9000 and at 240K, then on track 084° to cross JUUSE between 8000 and 9000, then on track 084° to cross CLIFY between 7000 and 8000 and at 210K, then on track 066° to cross DAHJR at 6000 and at 210K, then on track 071° to cross GADDO at 6000, then on track 071°. Expect RADAR vectors to final approach course.

LOST COMMUNICATIONS

In the event of lost communications proceed on the RNAV (RNP) Z RWY 24R approach or the ILS or LOC RWY 24R.

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

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

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

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
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
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
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

ANOMS Gate Penetration - DAHJR

March 1-31, 2020

Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes
>6300	394	6.0%		
6000-6299	1313	19.9%		
5700-5999	1814	27.6%	53.5%	
5500-5699	848	12.9%	46.5%	
5000-5499	1363	20.7%		87.1%
4500-4999	549	8.3%		
4000-4499	213	3.2%		98.6%
3500-3999	58	0.9%		
3000-3499	22	0.3%		99.9%
2500-2999	6	0.1%		
<2500	3	0.0%		100.0%
Grand Total	6583	100%		

Prepared by: LAWA Noise Management

*Data source: LAX ANOMS

ANOMS Gate Penetration - DAHJR

April 1-30, 2020

Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes
>6300	140	6.2%		
6000-6299	545	24.2%		
5700-5999	527	23.4%	53.8%	
5500-5699	289	12.8%	46.2%	
5000-5499	454	20.2%		86.8%
4500-4999	169	7.5%		
4000-4499	79	3.5%		97.8%
3500-3999	34	1.5%		
3000-3499	11	0.5%		99.8%
2500-2999	4	0.2%		
<2500	0	0.0%		100.0%
Grand Total	2252	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, 2020

Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes
>6300	212	7.7%		
6000-6299	740	26.9%		
5700-5999	657	23.9%	58.5%	
5500-5699	335	12.2%	41.5%	
5000-5499	527	19.2%		89.8%
4500-4999	200	7.3%		
4000-4499	59	2.1%		99.2%
3500-3999	12	0.4%		
3000-3499	8	0.3%		100.0%
2500-2999	1	0.0%		
<2500	0	0.0%		100.0%
Grand Total	2751	100%		

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

ANOMS Gate Penetration - DAHJR
June 1-30, 2020

Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes
>6300	244	7.7%		
6000-6299	775	24.5%		
5700-5999	845	26.7%	58.8%	
5500-5699	400	12.6%	41.2%	
5000-5499	595	18.8%		90.2%
4500-4999	214	6.8%		
4000-4499	76	2.4%		99.4%
3500-3999	17	0.5%		
3000-3499	1	0.0%		100.0%
2500-2999	1	0.0%		
<2500	0	0.0%		100.0%
Grand Total	3168	100%		

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

ANOMS Gate Penetration - DAHJR
July 1-31, 2020

Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes
>6300	306	7.7%		
6000-6299	1096	27.5%		
5700-5999	1132	28.4%	63.5%	
5500-5699	502	12.6%	36.5%	
5000-5499	680	17.0%		93.2%
4500-4999	205	5.1%		
4000-4499	51	1.3%		99.6%
3500-3999	14	0.4%		
3000-3499	3	0.1%		100.0%
2500-2999	0	0.0%		
<2500	0	0.0%		100.0%
Grand Total	3989	100%		

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

ANOMS Gate Penetration - DAHJR
August 1-31, 2020

Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes
>6300	275	6.5%		
6000-6299	1048	24.6%		
5700-5999	1245	29.2%	60.2%	
5500-5699	567	13.3%	39.8%	
5000-5499	828	19.4%		93.0%
4500-4999	220	5.2%		
4000-4499	56	1.3%		99.4%
3500-3999	19	0.4%		
3000-3499	5	0.1%		100.0%
2500-2999	0	0.0%		
<2500	0	0.0%		100.0%
Grand Total	4263	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, 2020

Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes
>6300	222	5.2%	55.2%	90.0%
6000-6299	974	23.0%		
5700-5999	1141	27.0%		
5500-5699	564	13.3%		
5000-5499	907	21.4%		
4500-4999	305	7.2%		
4000-4499	86	2.0%		
3500-3999	28	0.7%		
3000-3499	5	0.1%		
2500-2999	1	0.0%		
<2500	0	0.0%	100.0%	
Grand Total	4233	100%		

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

ANOMS Gate Penetration - DAHJR
November 1-30, 2020

Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes
>6300	353	7.5%	54.1%	88.8%
6000-6299	969	20.5%		
5700-5999	1232	26.1%		
5500-5699	660	14.0%		
5000-5499	977	20.7%		
4500-4999	363	7.7%		
4000-4499	124	2.6%		
3500-3999	30	0.6%		
3000-3499	10	0.2%		
2500-2999	3	0.1%		
<2500	0	0.0%	100.0%	
Grand Total	4721	100%		

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

ANOMS Gate Penetration - DAHJR
October 1-31, 2020

Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes
>6300	282	6.1%	57.8%	89.4%
6000-6299	1104	23.7%		
5700-5999	1305	28.0%		
5500-5699	583	12.5%		
5000-5499	885	19.0%		
4500-4999	365	7.8%		
4000-4499	86	1.8%		
3500-3999	28	0.6%		
3000-3499	10	0.2%		
2500-2999	4	0.1%		
<2500	1	0.0%	100.0%	
Grand Total	4653	100%		

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

ANOMS Gate Penetration - DAHJR
December 1-31, 2020

Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes
>6300	235	5.1%	47.4%	84.4%
6000-6299	797	17.4%		
5700-5999	1134	24.8%		
5500-5699	610	13.3%		
5000-5499	1081	23.6%		
4500-4999	496	10.8%		
4000-4499	160	3.5%		
3500-3999	35	0.8%		
3000-3499	20	0.4%		
2500-2999	4	0.1%		
<2500	0	0.0%	100.0%	
Grand Total	4572	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, 2021

Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes
>6300	224	5.4%	50.1%	86.8%
6000-6299	799	19.1%		
5700-5999	1073	25.6%		
5500-5699	615	14.7%		
5000-5499	924	22.1%		
4500-4999	360	8.6%		
4000-4499	114	2.7%		
3500-3999	45	1.1%		
3000-3499	25	0.6%		
2500-2999	6	0.1%		
<2500	1	0.0%	100.0%	
Grand Total	4186	100%		

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

ANOMS Gate Penetration - DAHJR
March 1-31, 2021

Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes
>6300	249	5.8%	51.9%	87.7%
6000-6299	865	20.0%		
5700-5999	1129	26.1%		
5500-5699	564	13.0%		
5000-5499	982	22.7%		
4500-4999	376	8.7%		
4000-4499	114	2.6%		
3500-3999	34	0.8%		
3000-3499	5	0.1%		
2500-2999	4	0.1%		
<2500	0	0.0%	100.0%	
Grand Total	4322	100%		

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

ANOMS Gate Penetration - DAHJR
February 1-28, 2021

Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes
>6300	263	6.2%	52.1%	88.2%
6000-6299	797	18.9%		
5700-5999	1139	27.0%		
5500-5699	576	13.6%		
5000-5499	950	22.5%		
4500-4999	338	8.0%		
4000-4499	118	2.8%		
3500-3999	30	0.7%		
3000-3499	10	0.2%		
2500-2999	2	0.0%		
<2500	1	0.0%	100.0%	
Grand Total	4224	100%		

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

ANOMS Gate Penetration - DAHJR
April 1-30, 2021

Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes
>6300	305	6.5%	54.5%	90.4%
6000-6299	1062	22.5%		
5700-5999	1209	25.6%		
5500-5699	652	13.8%		
5000-5499	1044	22.1%		
4500-4999	335	7.1%		
4000-4499	90	1.9%		
3500-3999	25	0.5%		
3000-3499	4	0.1%		
2500-2999	1	0.0%		
<2500	0	0.0%	100.0%	
Grand Total	4727	100%		

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

4. DAHJR - 0100 to 0500 totals

Altitude MSL (ft)	Time of Night						Totals by Height
	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	
>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			

Altitude MSL (ft)	Time of Night						Totals by Height
	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	
>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			

Oct 2018
19 flights

Nov 2018
17 flights

4. DAHJR - 0100 to 0500 totals

Altitude MSL (ft)	Time of Night						Totals by Height
	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	
>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				

Altitude MSL (ft)	Time of Night						Totals by Height
	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	
>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				

Dec 2018
25 flights

Jan 2019
12 flights

4. DAHJR - 0100 to 0500 totals

Altitude MSL (ft)	Time of Night						Totals by Height
	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	
>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				

Altitude MSL (ft)	Time of Night						Totals by Height
	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	
>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				

Feb 2019
51 flights

Mar 2019
12 flights

4. DAHJR - 0100 to 0500 totals

Altitude MSL (ft)	Time of Night						Totals by Height
	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	
>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			

Altitude MSL (ft)	Time of Night						Totals by Height
	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	
>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			

Apr 2019
6 flights

May 2019
6 flights

4. DAHJR - 0100 to 0500 totals

Altitude MSL (ft)	Time of Night						Totals by Height
	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	
>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

Altitude MSL (ft)	Time of Night						Totals by Height
	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	
>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

4. DAHJR - 0100 to 0500 totals

Altitude MSL (ft)	Time of Night						Totals by Height
	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	
>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				

Altitude MSL (ft)	Time of Night						Totals by Height
	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	
>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				

Aug 2019
6 flights

Sep 2019
1 flight

4. DAHJR - 0100 to 0500 totals

Altitude MSL (ft)	Time of Night						Totals by Height
	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	
>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			

Altitude MSL (ft)	Time of Night						Totals by Height
	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	
>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			

Oct 2019
1 flight

Nov 2019
4 flights

4. DAHJR - 0100 to 0500 totals

Altitude MSL (ft)	Time of Night						Totals by Height
	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	
>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

Altitude MSL (ft)	Time of Night						Totals by Height
	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	
>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

4. DAHJR - 0100 to 0500 totals

Altitude MSL (ft)	Time of Night						Totals by Height
	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	
>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

Altitude MSL (ft)	Time of Night						Totals by Height
	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	
>6000	9	1	0	2	2	12	26
5750-6000	7	1	0	0	1	5	14
5500-5749	0	0	2	0	1	2	5
5250-5499	0	0	0	0	0	2	2
5000-5249	1	0	0	1	0	0	2
4750-4999	1	0	1	0	0	0	2
<4750	1	0	0	0	0	2	3
Total of All Flights	19	2	3	3	4	23	54
		1 to 5 Total		5			

Mar 2020
5 flights

4. DAHJR - 0100 to 0500 totals

Apr 2020
4 flights

Altitude MSL (ft)	Time of Night						Totals by Height
	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	
>6000	3	0	1	3	6	1	14
5750-6000	0	1	0	0	1	0	2
5500-5749	2	0	0	0	2	0	4
5250-5499	0	0	1	0	0	0	1
5000-5249	0	1	0	0	0	0	1
4750-4999	0	0	0	0	0	0	0
<4750	0	0	0	0	0	0	0
Total of All Flights	5	2	2	3	9	1	22
		1 to 5 Total		4			

May 2020
7 flights

Altitude MSL (ft)	Time of Night						Totals by Height
	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	
>6000	3	9	5	6	6	4	33
5750-6000	0	5	1	1	1	0	8
5500-5749	0	0	0	0	2	3	5
5250-5499	0	1	1	1	0	0	3
5000-5249	0	1	0	0	0	0	1
4750-4999	0	0	0	0	0	0	0
<4750	0	1	0	0	0	0	1
Total of All Flights	3	17	7	8	9	7	51
		1 to 5 Total		7			

4. DAHJR - 0100 to 0500 totals

Jun 2020
0 flights

Altitude MSL (ft)	Time of Night						Totals by Height
	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	
>6000	1	0	0	0	0	3	4
5750-6000	2	0	0	0	0	0	2
5500-5749	2	0	0	0	0	0	2
5250-5499	0	0	0	0	0	1	1
5000-5249	0	0	0	0	0	0	0
4750-4999	0	0	0	0	0	0	0
<4750	0	0	0	0	0	0	0
Total of All Flights	5	0	0	0	0	4	9
		1 to 5 Total		0			

Jul 2020
9 flights

Altitude MSL (ft)	Time of Night						Totals by Height
	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	
>6000	7	3	3	6	4	14	37
5750-6000	2	2	2	1	4	2	13
5500-5749	2	0	1	2	1	0	6
5250-5499	0	0	0	0	0	0	0
5000-5249	0	0	0	2	1	0	3
4750-4999	0	0	1	1	0	1	3
<4750	0	0	0	0	0	0	0
Total of All Flights	11	5	7	12	10	17	62
		1 to 5 Total		9			

4. DAHJR - 0100 to 0500 totals

Altitude MSL (ft)	Time of Night						Totals by Height
	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	
>6000	2	0	4	6	5	11	28
5750-6000	1	0	0	0	5	3	9
5500-5749	2	1	0	0	0	0	3
5250-5499	0	1	0	0	0	2	3
5000-5249	0	0	0	0	0	0	0
4750-4999	0	0	0	0	0	0	0
<4750	0	0	0	0	0	0	0
Total of All Flights	5	2	4	6	10	16	43
		1 to 5 Total		2			

Aug 2020
2 flights

Altitude MSL (ft)	Time of Night						Totals by Height
	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	
>6000	2	2	7	8	10	21	50
5750-6000	2	1	4	0	2	5	14
5500-5749	1	1	0	0	0	0	2
5250-5499	0	0	0	0	0	0	0
5000-5249	1	0	0	0	0	1	2
4750-4999	0	0	0	0	0	0	0
<4750	0	0	0	0	0	0	0
Total of All Flights	6	4	11	8	12	27	68
		1 to 5 Total		1			

Sep 2020
2 flights

4. DAHJR - 0100 to 0500 totals

Altitude MSL (ft)	Time of Night						Totals by Height
	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	
>6000	7	3	2	7	9	37	65
5750-6000	1	3	0	5	2	7	18
5500-5749	0	1	2	0	0	2	5
5250-5499	0	0	0	1	0	2	3
5000-5249	0	0	0	0	0	3	3
4750-4999	0	0	1	1	0	1	3
<4750	0	0	0	0	0	2	2
Total of All Flights	8	7	5	14	11	54	99
		1 to 5 Total		6			

Oct 2020
6 flights

Altitude MSL (ft)	Time of Night						Totals by Height
	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	
>6000	9	6	8	2	14	26	65
5750-6000	0	0	2	0	7	11	20
5500-5749	2	1	3	1	3	3	13
5250-5499	2	0	0	0	1	3	6
5000-5249	0	0	0	1	0	0	1
4750-4999	0	0	0	0	0	1	1
<4750	0	0	0	0	0	0	0
Total of All Flights	13	7	13	4	25	44	106
		1 to 5 Total		10			

Nov 2020
10 flights

4. DAHJR - 0100 to 0500 totals

Altitude MSL (ft)	Time of Night						Totals by Height
	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	
>6000	1	7	2	4	9	12	35
5750-6000	1	1	0	0	1	5	8
5500-5749	4	1	0	0	0	1	6
5250-5499	0	0	0	0	0	4	4
5000-5249	0	0	0	0	0	0	0
4750-4999	0	0	0	0	0	0	0
<4750	0	0	0	0	0	0	0
Total of All Flights	6	9	2	4	10	22	53
		1 to 5 Total		1			

Altitude MSL (ft)	Time of Night						Totals by Height
	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	
>6000	1	1	0	1	7	13	23
5750-6000	2	0	0	0	3	5	10
5500-5749	1	0	0	0	0	0	1
5250-5499	1	0	0	0	1	1	3
5000-5249	1	0	0	0	0	0	1
4750-4999	1	0	0	0	0	0	1
<4750	0	0	0	0	0	0	0
Total of All Flights	7	1	0	1	11	19	39
		1 to 5 Total		1			

Dec 2020
1 flight

Jan 2021
1 flight

4. DAHJR - 0100 to 0500 totals

Altitude MSL (ft)	Time of Night						Totals by Height
	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	
>6000	2	1	2	1	2	20	28
5750-6000	1	1	0	1	0	6	9
5500-5749	2	0	0	0	5	3	10
5250-5499	1	0	3	1	2	3	10
5000-5249	0	0	1	1	1	2	5
4750-4999	0	0	0	0	0	0	0
<4750	0	0	0	0	0	2	2
Total of All Flights	6	2	6	4	10	36	64
	1 to 5 Total		14				

Feb 2021
14 flights

Altitude MSL (ft)	Time of Night						Totals by Height
	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	
>6000	4	2	6	2	7	22	43
5750-6000	3	0	0	1	4	7	15
5500-5749	1	1	0	0	0	1	3
5250-5499	1	0	0	0	0	1	2
5000-5249	0	0	0	0	0	1	1
4750-4999	0	0	0	0	0	0	0
<4750	0	0	1	0	0	0	1
Total of All Flights	9	3	7	3	11	32	65
	1 to 5 Total		2				

Mar 2021
2 flights

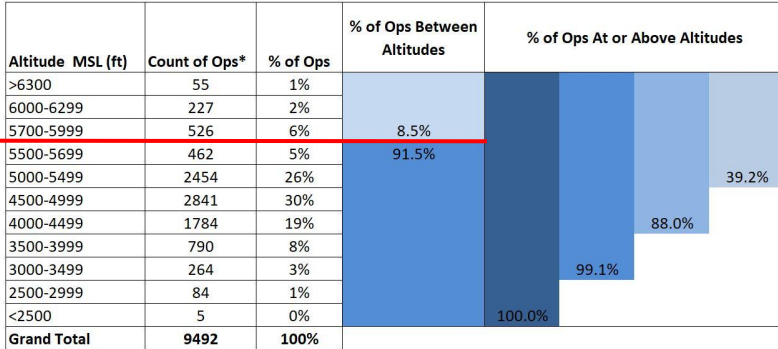
4. DAHJR - 0100 to 0500 totals

Altitude MSL (ft)	Time of Night						Totals by Height
	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	
>6000	0	5	10	3	14	25	57
5750-6000	1	4	2	2	1	7	17
5500-5749	0	0	0	1	0	1	2
5250-5499	0	0	0	0	0	1	1
5000-5249	0	0	0	0	0	0	0
4750-4999	0	0	0	0	0	0	0
<4750	0	0	1	0	0	0	1
Total of All Flights	1	9	13	6	15	34	78
	1 to 5 Total		2				

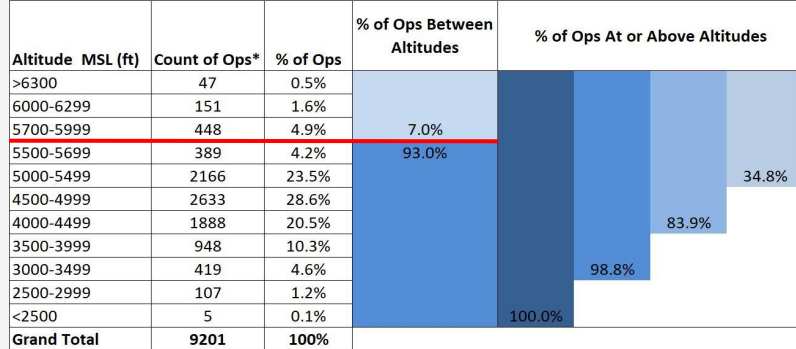
Apr 2021
2 flights

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

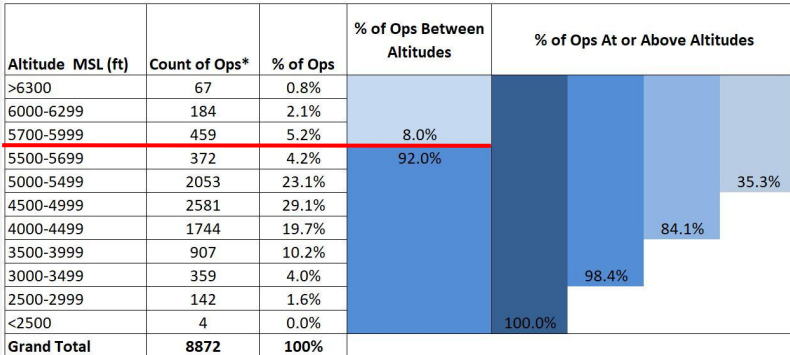
ANOMS Gate Penetration - GADDO
September 1-30, 2018



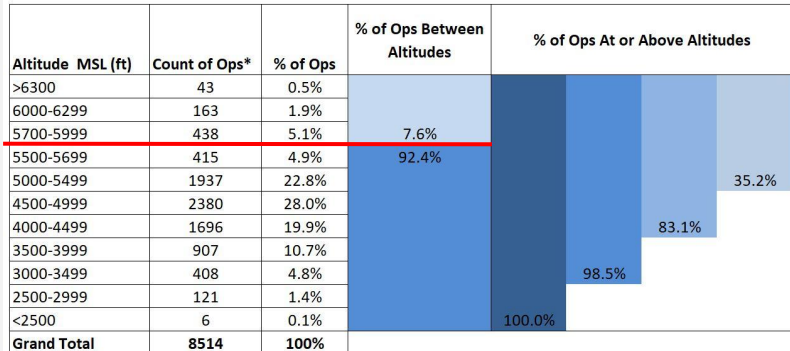
ANOMS Gate Penetration - GADDO
October 1-31, 2018



ANOMS Gate Penetration - GADDO
November 1-30, 2018



ANOMS Gate Penetration - GADDO
December 1-31, 2018



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%	93.2%	100.0%
6000-6299	120	1.6%		
5700-5999	335	4.6%		
5500-5699	320	4.4%		
5000-5499	1572	21.6%		
4500-4999	1992	27.4%		
4000-4499	1577	21.7%		
3500-3999	799	11.0%		
3000-3499	375	5.2%		
2500-2999	138	1.9%		
<2500	5	0.1%	81.9%	32.8%
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%	91.4%	100.0%
6000-6299	156	2.0%		
5700-5999	437	5.7%		
5500-5699	440	5.7%		
5000-5499	1984	25.8%		
4500-4999	2145	27.9%		
4000-4499	1387	18.0%		
3500-3999	676	8.8%		
3000-3499	314	4.1%		
2500-2999	83	1.1%		
<2500	7	0.1%	86.0%	40.1%
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%	93.2%	100.0%
6000-6299	154	1.7%		
5700-5999	397	4.5%		
5500-5699	413	4.6%		
5000-5499	2259	25.4%		
4500-4999	2531	28.4%		
4000-4499	1739	19.5%		
3500-3999	873	9.8%		
3000-3499	375	4.2%		
2500-2999	107	1.2%		
<2500	7	0.1%	84.7%	36.8%
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%	92.2%	100.0%
6000-6299	162	1.8%		
5700-5999	490	5.4%		
5500-5699	435	4.8%		
5000-5499	2357	26.0%		
4500-4999	2629	29.0%		
4000-4499	1686	18.6%		
3500-3999	778	8.6%		
3000-3499	358	4.0%		
2500-2999	108	1.2%		
<2500	3	0.0%	86.2%	38.6%
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
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
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
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%	93.4%	35.5%
6000-6299	133	1.5%		
5700-5999	396	4.5%		
5500-5699	399	4.6%		
5000-5499	2124	24.3%		
4500-4999	2482	28.4%		
4000-4499	1771	20.3%		
3500-3999	874	10.0%		
3000-3499	385	4.4%		
2500-2999	121	1.4%		
<2500	8	0.1%	100.0%	84.1%
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%	94.6%	29.4%
6000-6299	88	1.2%		
5700-5999	287	3.8%		
5500-5699	276	3.6%		
5000-5499	1546	20.3%		
4500-4999	2175	28.6%		
4000-4499	1678	22.1%		
3500-3999	936	12.3%		
3000-3499	441	5.8%		
2500-2999	132	1.7%		
<2500	10	0.1%	100.0%	80.0%
Grand Total	7604	100%		

Prepared by: LAWA Noise Management

*Data source: LAX ANOMS

ANOMS Gate Penetration - GADDO

March 1-31, 2020

Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes
>6300	18	0.3%	94.8%	27.8%
6000-6299	86	1.3%		
5700-5999	235	3.6%		
5500-5699	224	3.4%		
5000-5499	1261	19.2%		
4500-4999	1699	25.9%		
4000-4499	1439	21.9%		
3500-3999	873	13.3%		
3000-3499	534	8.1%		
2500-2999	180	2.7%		
<2500	22	0.3%	100.0%	75.5%
Grand Total	6571	100%		

Prepared by: LAWA Noise Management

*Data source: LAX ANOMS

ANOMS Gate Penetration - GADDO

April 1-30, 2020

Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes
>6300	13	0.6%	92.6%	33.8%
6000-6299	37	1.7%		
5700-5999	116	5.2%		
5500-5699	98	4.4%		
5000-5499	492	22.0%		
4500-4999	512	22.9%		
4000-4499	462	20.6%		
3500-3999	279	12.5%		
3000-3499	152	6.8%		
2500-2999	67	3.0%		
<2500	11	0.5%	100.0%	77.3%
Grand Total	2239	100%		

Prepared by: LAWA Noise Management

*Data source: LAX ANOMS

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

ANOMS Gate Penetration - GADDO
May 1-31, 2020

Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes	
>6300	24	0.9%	7.9%	92.1%	38.3%
6000-6299	56	2.0%			
5700-5999	137	5.0%			
5500-5699	145	5.3%			
5000-5499	687	25.1%			
4500-4999	656	23.9%			
4000-4499	548	20.0%			
3500-3999	309	11.3%			
3000-3499	138	5.0%			
2500-2999	39	1.4%			
<2500	5	0.1%	100.0%	98.5%	82.2%
Grand Total	2742	100%			

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

ANOMS Gate Penetration - GADDO
July 1-31, 2020

Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes	
>6300	31	0.8%	8.6%	91.4%	40.3%
6000-6299	84	2.1%			
5700-5999	226	5.7%			
5500-5699	199	5.0%			
5000-5499	1065	26.7%			
4500-4999	1092	27.4%			
4000-4499	733	18.4%			
3500-3999	355	8.9%			
3000-3499	151	3.8%			
2500-2999	43	1.1%			
<2500	3	0.1%	100.0%	98.8%	86.1%
Grand Total	3982	100%			

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

ANOMS Gate Penetration - GADDO
June 1-30, 2020

Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes	
>6300	27	0.9%	8.3%	91.7%	35.6%
6000-6299	59	1.9%			
5700-5999	175	5.5%			
5500-5699	137	4.3%			
5000-5499	725	23.0%			
4500-4999	823	26.1%			
4000-4499	650	20.6%			
3500-3999	362	11.5%			
3000-3499	154	4.9%			
2500-2999	43	1.4%			
<2500	1	0.0%	100.0%	98.6%	82.3%
Grand Total	3156	100%			

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

ANOMS Gate Penetration - GADDO
August 1-31, 2020

Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes	
>6300	37	0.9%	7.5%	92.5%	34.6%
6000-6299	86	2.0%			
5700-5999	195	4.6%			
5500-5699	157	3.7%			
5000-5499	997	23.4%			
4500-4999	1208	28.4%			
4000-4499	896	21.0%			
3500-3999	454	10.7%			
3000-3499	180	4.2%			
2500-2999	44	1.0%			
<2500	5	0.1%	100.0%	98.8%	84.0%
Grand Total	4259	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, 2020

Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes	
>6300	13	0.3%	94.0%	100.0%	79.7%
6000-6299	65	1.5%			
5700-5999	175	4.1%			
5500-5699	165	3.9%			
5000-5499	839	19.8%			
4500-4999	1113	26.3%			
4000-4499	1001	23.7%			
3500-3999	509	12.0%			
3000-3499	252	6.0%			
2500-2999	87	2.1%			
<2500	9	0.2%	100.0%		
Grand Total	4228	100%			

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

ANOMS Gate Penetration - GADDO
October 1-31, 2020

Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes	
>6300	24	0.5%	93.2%	100.0%	80.8%
6000-6299	74	1.6%			
5700-5999	217	4.7%			
5500-5699	188	4.1%			
5000-5499	1005	21.7%			
4500-4999	1238	26.7%			
4000-4499	1006	21.7%			
3500-3999	537	11.6%			
3000-3499	250	5.4%			
2500-2999	95	2.0%			
<2500	7	0.2%	100.0%		
Grand Total	4641	100%			

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

ANOMS Gate Penetration - GADDO
November 1-30, 2020

Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes	
>6300	42	0.9%	93.7%	100.0%	79.1%
6000-6299	70	1.5%			
5700-5999	183	3.9%			
5500-5699	174	3.7%			
5000-5499	912	19.4%			
4500-4999	1241	26.4%			
4000-4499	1102	23.4%			
3500-3999	590	12.5%			
3000-3499	288	6.1%			
2500-2999	101	2.1%			
<2500	6	0.1%	100.0%		
Grand Total	4709	100%			

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

ANOMS Gate Penetration - GADDO
December 1-31, 2020

Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes	
>6300	20	0.4%	95.7%	100.0%	72.2%
6000-6299	39	0.9%			
5700-5999	137	3.0%			
5500-5699	145	3.2%			
5000-5499	734	16.1%			
4500-4999	1175	25.8%			
4000-4499	1036	22.7%			
3500-3999	731	16.1%			
3000-3499	401	8.8%			
2500-2999	130	2.9%			
<2500	6	0.1%	100.0%		
Grand Total	4554	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, 2021

Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes
>6300	16	0.4%	4.6%	76.2%
6000-6299	35	0.8%		
5700-5999	140	3.4%	95.4%	26.5%
5500-5699	139	3.3%		
5000-5499	775	18.6%		
4500-4999	1068	25.6%		
4000-4499	1009	24.2%		
3500-3999	560	13.4%		
3000-3499	311	7.4%		
2500-2999	110	2.6%		
<2500	13	0.3%		
Grand Total	4176	100%		

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

ANOMS Gate Penetration - GADDO
February 1-28, 2021

Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes
>6300	24	0.6%	5.3%	76.7%
6000-6299	59	1.4%		
5700-5999	139	3.3%	94.7%	26.8%
5500-5699	130	3.1%		
5000-5499	777	18.4%		
4500-4999	1163	27.6%		
4000-4499	944	22.4%		
3500-3999	574	13.6%		
3000-3499	310	7.3%		
2500-2999	88	2.1%		
<2500	12	0.3%		
Grand Total	4220	100%		

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

ANOMS Gate Penetration - GADDO
March 1-31, 2021

Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes
>6300	19	0.4%	4.8%	76.5%
6000-6299	58	1.3%		
5700-5999	132	3.1%	95.2%	27.8%
5500-5699	149	3.5%		
5000-5499	841	19.5%		
4500-4999	1154	26.7%		
4000-4499	947	21.9%		
3500-3999	594	13.8%		
3000-3499	337	7.8%		
2500-2999	78	1.8%		
<2500	7	0.2%		
Grand Total	4316	100%		

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

ANOMS Gate Penetration - GADDO
April 1-30, 2021

Altitude MSL (ft)	Count of Ops*	% of Ops	% of Ops Between Altitudes	% of Ops At or Above Altitudes
>6300	25	0.5%	6.5%	80.4%
6000-6299	80	1.7%		
5700-5999	203	4.3%	93.5%	30.8%
5500-5699	183	3.9%		
5000-5499	963	20.4%		
4500-4999	1287	27.3%		
4000-4499	1055	22.4%		
3500-3999	566	12.0%		
3000-3499	277	5.9%		
2500-2999	74	1.6%		
<2500	6	0.1%		
Grand Total	4719	100%		

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

6. North Downwind Height Directives

- RYDRR, HUULL, & IRNMN -3 North Downwind Arrival Flight Paths into LAX
- March 2021 Roundtable meeting -- discussion regarding the responsibility of controllers and pilots for planes flying 6000 feet at DAHJR and GADDO
- Previously FAA has claimed that airlines and pilots have control for not flying proper heights; or that controllers had to bring flights in lower than 6000 feet at DAHJR and GADDO to allow for proper final approach spacing of landing aircraft

6. North Downwind Height Directives

- In March the Roundtable directed the Metroplex Ad Hoc Committee to engage with representatives from airlines to hear their perspective on this issue
- Reps. from Spirit and United were present and mentioned that FAA controllers are giving their pilots orders to descend and maintain 2500 feet for final approach into LAX after the CLIFY waypoint over SMO airport, this is before DAHJR and GADDO





Source : Federal Aviation Administration

LAX Los Angeles International Airport

STAR (Arrival)
 LAX RYDRR ONE RNAV STAR
 (Name Change from CENSR ONE)
 LAX HUULL ONE RNAV STAR
 LAX IRNMN ONE RNAV STAR

- RYDRR, HUULL, and IRNMN all follow the same lateral path after BAYST and will tie into the new RNAV/RNP approach for LAX
- CLIFY (co-located with SMO) altitude allows aircraft to be up to 1,000 feet higher than the current procedure
- Current ILS approach procedure allows aircraft to descend immediately after passing SMO; for aircraft flying the RNAV/RNP approach, the altitude restriction at DAHJR provides a minimum altitude of 6,000 feet until approximately 5 miles east of SMO
- ILS approach still available for non-RNP equipped aircraft; when requested, visual approaches will continue to be assigned when traffic conditions allow

6. North Downwind Height Directives

The FAA's own documentation confirms this

- The 6000 foot directive at RYDRR, HUULL, & IRNMN is only for RNAV (~10%)
- ILS and Visual approach, vast majority of flights are not required to

7. Option B Proposal Development

- Given frustrating lack of progress over the past 4 years for getting any major noise relief for communities under the North Downwind, Quiet Skies LA developed two proposals to route air traffic off the North Downwind
- These came to be known as Option A and Option B
- When this Option B was first studied by LAWA and aviation consultants hired, it was less developed than Option A, which was determined as infeasible
- The Metroplex Ad Hoc Committee agreed to continue studying Option B within the Committee

7. Option B Proposal Development

- A draft proposal of a refined Option B is under development and is expected to be presented at the next Roundtable meeting in July
- The refined Option B proposal will have details on approx. % of flights to be routed, heights and paths for those flights, and any expected impacts

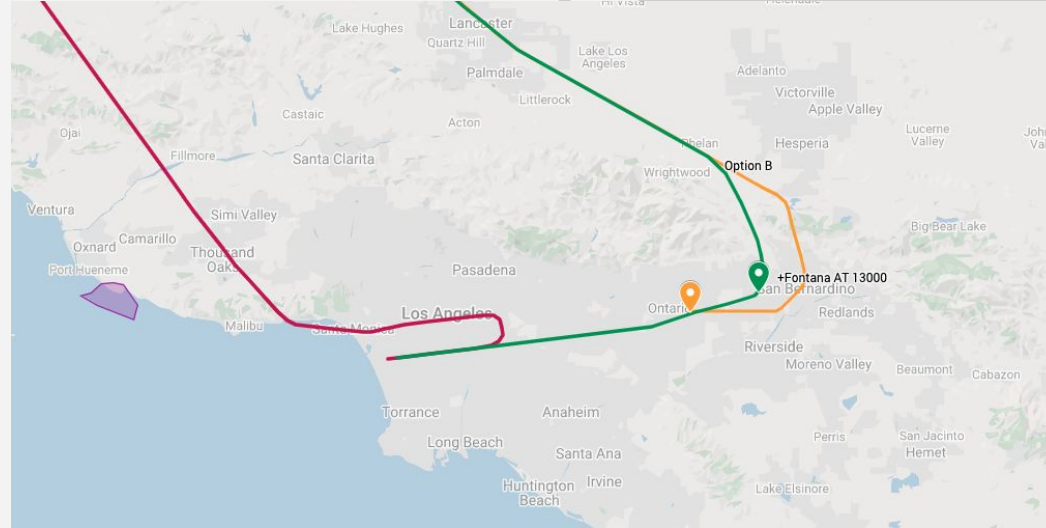
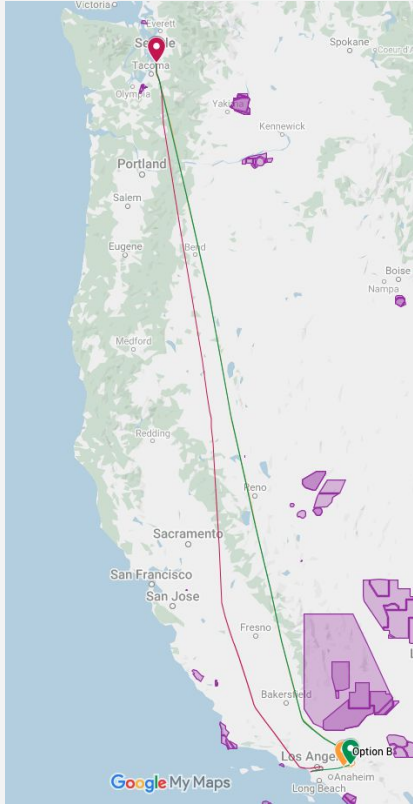


North Downwind Option B Proposal

05.07.2021

Metroplex Ad Hoc Committee
LAX Community Noise Roundtable
1 World Way
Los Angeles, CA 90045

7. Option B, Proposed Route Example

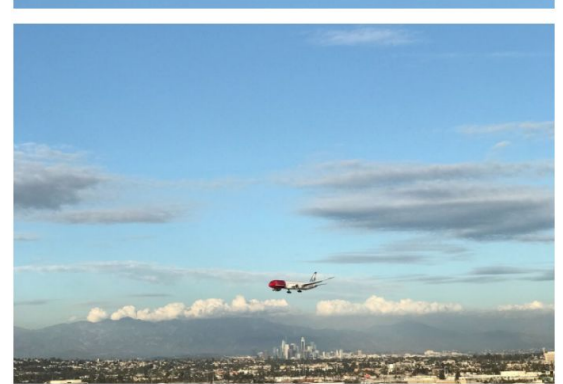


- Option B
- ASA620 Seattle to Ontario
- Delta Airlines DAL659 Seattle to LAX
- Option B: 1,035 mi
Current : 1,016 mi
- +19 mi (+1.9%)**

- Rerouting a portion of existing North Downwind flights from IRNMN into an existing eastern flight path could reducing noise exposure for North Downwind communities without creating excessive additional time in the air or fuel burn

7. Option B Proposal Development -- **WILL NOT**

- **WILL NOT** be done without potentially impacted communities having questions answered -- any official member of the RT can attend the next Metroplex Ad Hoc cmte.
- **WILL NOT** propose unrealistic changes to airspace
- If/when Option B is advanced by the RT, **WILL NOT** mean it will be implemented by FAA -- further and analysis and study expected



North Downwind Option B Proposal

05.07.2021

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THANK YOU