NOISE ABATEMENT PROGRAM QUARTERLY REPORT

For the period:

January 1, 2018 through March 31, 2018

Prepared in accordance with:

AIRPORT NOISE STANDARD STATE OF CALIFORNIA

California Administrative Code Title 21, Chapter 2.5, SubChapter 6: Division of Aeronautics Noise Standards

Submitted by:

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John Wayne Airport, Orange County

INTRODUCTION

This is the 181st Quarterly Report submitted by the County of Orange in accordance with the requirements of the California Airport Noise Standards (California Administrative Code Title 21, Chapter 2.5, SubChapter 6: Division of Aeronautics Noise Standards). Effective January 1, 1986, the criteria for defining "Noise Impact Area" was changed from 70 dB to 65 dB Community Noise Equivalent Level (CNEL). Under this criteria, John Wayne Airport currently has a "Noise Impact Area."

NOISE IMPACT SUMMARY

Caltrans' Aeronautics Program has established guidelines in the California State Noise Standard to control residential area noise levels produced by aircraft operations using the State's airports. Under those guidelines, residential noise sensitive areas exposed to an average Community Noise Equivalent Level (CNEL) of more than 65 dB define the "Noise Impact Area." John Wayne Airport uses ten permanent remote noise monitoring stations (NMS) located in Newport Beach, Santa Ana, Tustin and Irvine to measure noise levels, at the following locations:

MONITOR STATIONS

NMS-1S: Golf Course, 3100 Irvine Ave., Newport Beach	NMS-6S: 1912 Santiago, Newport Beach
NMS-2S: 20162 S.W. Birch St., Newport Beach	NMS-7S: 1131 Back Bay Drive, Newport Beach
NMS-3S: 2139 Anniversary Lane, Newport Beach	NMS-8N: 17372 Eastman Street, Irvine
NMS-4S: 2338 Tustin Ave., Newport Beach	NMS-9N: 1300 S. Grand Avenue, Santa Ana
NMS-5S: 324 ½ Vista Madera, Newport Beach	NMS-10N: 17952 Beneta Way, Tustin

The map in Figure 1 shows the general location of each permanent remote monitor station.

Figure 2 shows the Airport's "Noise Impact Area" for the previous year (April 1, 2017 - March 31, 2018). The Figure 2 information was developed by Landrum and Brown, in consultation with John Wayne Airport. CNEL values measured for the period and current digitized land use information were utilized to calculate the land area acreages, number of residences and estimated number of people within the "Noise Impact Area".

JOHN WAYNE AIRPORT





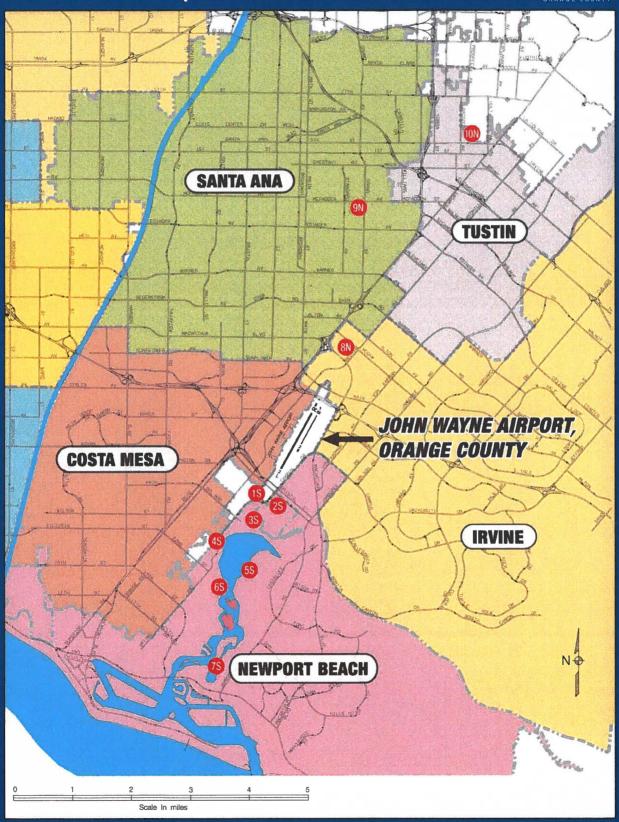
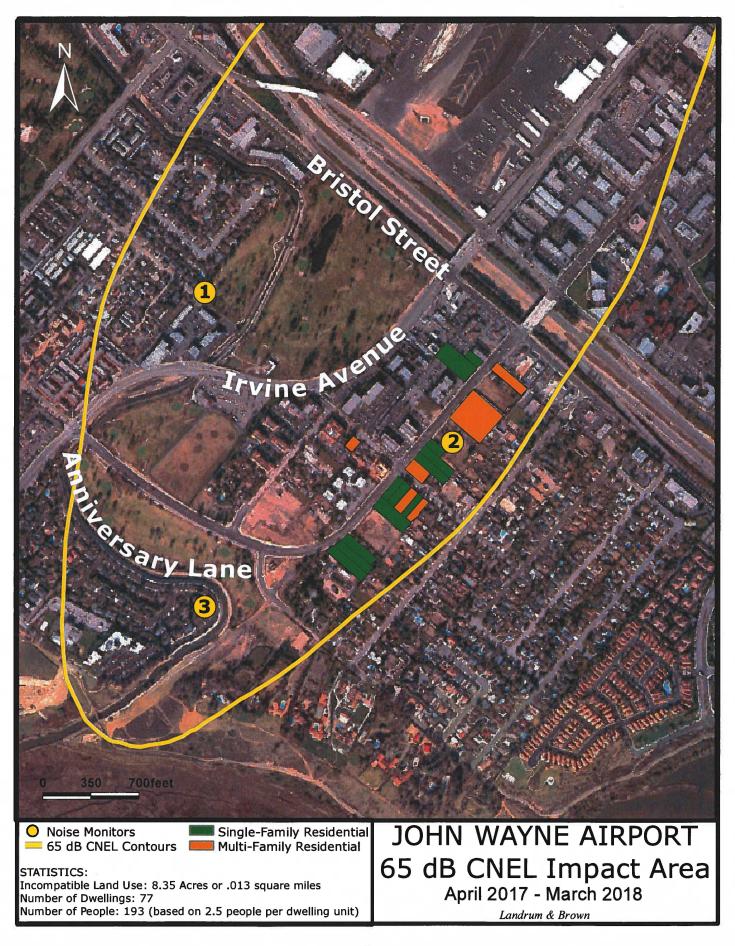


Figure 2



AIRCRAFT TRAFFIC SUMMARY

The Airport traffic summary for this quarter is shown in Table 1 below. Air Carrier operational count histories and average daily departure counts are illustrated in Tables 9 & 11.

TABLE 1 LANDING AND TAKEOFF OPERATIONS January - March 2018

Period	Air Car	riers	GA Jet (1)	Total	Average Daily
	Jet	Prop		Operations (2)	Jet Operations
January	7,317	66	2,755	25,041	325
February	6,570	56	2,902	23,348	338
March	7,601	62	3,167	25,419	347
First Quarter	21,488	184	8,824	73,808	337
Twelve Months 04/01/17 - 03/31/18	89,901	1,282	35,189	302,094	343

- NOTE: (1) GA Jet figures include a 5% factor for operations not identified by the JWA noise monitor stations.
 - (2) Counts in this column are based upon records provided by the local FAA representatives.

COMMUNITY NOISE EQUIVALENT LEVELS

The monthly, quarterly and twelve month Community Noise Equivalent Level (CNEL) average values for each monitor station are shown in Table 2, while daily CNEL values are shown in Tables 3 through 5. Insufficient data is indicated by "#N/A" entries in each table. Also, "*#N/A" entries in each table indicate there were no aircraft related noise events.

Average Single Event Noise Exposure Level (SENEL) values for Air Carrier and General Aviation Jet aircraft are shown in Tables 6 through 8.

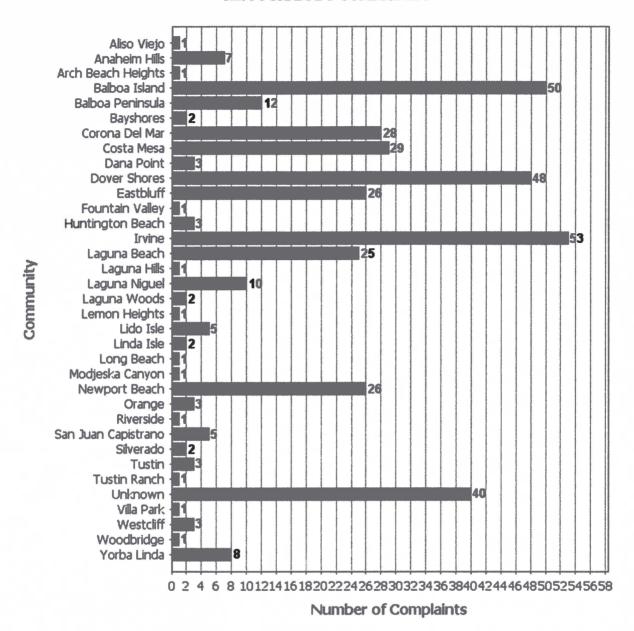
ACOUSTICAL INSULATION PROGRAM

Four hundred eighteen residences in the Santa Ana Heights area have been sound attenuated and an avigation easement reserved through the County's Acoustical Insulation Program, which closed in December 2009. The County has also acquired 46 residences as part of the Purchase Assurance Program, many of which were acoustically insulated, an avigation easement reserved and then resold. Among these County acquired homes, those located within areas designated for Business Park uses were razed, avigation easements were reserved, and the land resold for compatible Business Park uses. A total of 464 residences in the Santa Ana Heights area have been purchased or otherwise made compatible through the County's Purchase Assurance and Acoustical Insulation Programs. Seventy-seven dwelling units in Santa Ana Heights remain in the "Noise Impacted Area" (within 65 dB CNEL contour).

COMPLAINT TOTALS (January 1, 2018 - March 31, 2018)

The Airport's Access and Noise Office receives and investigates noise complaints from local citizens and all other sources. During the January 1, 2018 through March 31, 2018, the Office received 410 complaints from local citizens. This is a 16.8% decrease from the 493 complaints received last quarter. It is a 11.1% decrease from the 461 complaints received during the same quarter last year. Figure 4 shows the distribution of the quarterly complaints from local communities.

FIGURE 3 HISTOGRAM BY COMMUNITY



Note:

- City of Newport Beach 202 total number of complaints.
- 79% of the complaints from the "Dover Shores" category were from one household.
- 85% of the complaints from the "Irvine" category were from one household.
- 60% of the complaints from the "Laguna Beach" category were from one household.
- 68% of the complaints from the "Unknown" category were from one household.

TABLE 2
LONG TERM MEASURED LEVELS
Aircraft CNEL from 04/01/17 through 03/31/18
Values in db at Each Site

Period	NMS Site										
	1S	2S	3S	4S	5S	6S	7S	8N	9N	10N	
Apr 2017	68.1	66.9	66.4	59.2	59.5	59.3	56.4	68.0	43.1	55.6	
# Days	30	30	30	30	30	30	30	30	28	30	
May 2017	67.9	67.0	66.6	59.1	60.0	59.2	56.5	68.1	41.6	56.0	
# Days	31	31	31	31	31	31	31	31	28	31	
Jun 2017	68.1	67.1	66.7	59.1	59.2	59.2	56.2	68.2	42.0	55.6	
# Days	30	30	30	30	30	30	30	30	28	30	
Q-2 2017	68.0	67.0	66.5	59.1	59.6	59.2	56.3	68.1	42.3	55.8	
# Days	91	91	91	91	91	91	91	91	84	91	
Jul 2017	68.0	67.0	66.6	59.1	59.0	60.1	56.2	68.0	43.3	54.9	
# Days	27	31	31	31	31	31	31	31	29	31	
Aug 2017	68.4	67.4	67.0	59.6	59.5	60.6	56.7	68.3	43.3	55.4	
# Days	31	31	31	31	31	31	31	31	24	31	
Sep 2017	68.0	67.1	66.6	59.3	59.4	60.4	56.7	67.8	42.2	55.1	
# Days	30	30	30	30	30	30	30	30	28	30	
Q-3 2017	68.1	67.2	66.8	59.3	59.3	60.3	56.5	68.0	43.0	55.2	
# Days	88	92	92	92	92	92	92	92	81	92	
Oct 2017	68.1	67.0	66.8	59.6	59.2	60.7	56.7	68.0	45.0	55.8	
# Days	31	31	31	31	26	31	30	31	26	31	
Nov 2017	68.4	67.4	67.0	60.1	59.4	60.7	56.9	68.0	43.4	56.4	
# Days	30	30	30	30	30	30	22	30	30	30	
Dec 2017	66.7	65.7	66.3	57.9	57.3	60.6	54.4	66.7	43.4	54.5	
# Days	31	31	31	31	31	31	31	31	26	27	
Q-4 2017	67.8	66.8	66.7	59.3	58.7	60.7	56.0	67.6	44.0	55.7	
# Days	92	92	92	92	87	92	83	92	82	88	
Jan 2018	67.8	66.8	66.3	59.6	59.2	60.5	56.4	67.5	44.0	55.6	
# Days	31	31	31	31	31	31	31	31	31	31	
Feb 2018	67.7	66.9	66.1	59.8	59.3	60.4	56.6	67.5	44.5	56.0	
# Days	28	28	28	28	28	28	28	28	28	28	
Mar 2018	68.2	67.4	66.5	60.3	59.8	60.7	57.4	68.3	43.2	57.0	
# Days	31	30	31	31	31	31	31	31	29	31	
Q-1 2018	67.9	67.0	66.3	59.9	59.4	60.6	56.9	67.8	43.9	56.3	
# Days	90	89	90	90	90	90	90	90	88	90	
Q-2 2017 th											
Total	67.9	67.0	66.6	59.4	59.3	60.2	56.5	67.9	43.3	55.7	
# Days	361	364	365	365	360	365	356	365	335	361	
Q-1 2017 th	ru Q-4 2	017 (Pre	vious 4 (Quarters	s)						
Total	67.9	66.9	66.6	59.3	59.1	60.1	56.3	67.9	43.3	55.5	
# Days	361	365	365	365	360	365	356	365	321	361	
Change from	m Previo	ous 4 Qua	arters								
T	0.0	0.1	0.0	0.1	0.2	0.1	0.2	0.0	0.0	0.2	

TABLE 3
DAILY CNEL VALUES AT EACH MONITOR STATION
January 2018

Date		NMS Site										
	1S	2S	3S	4S	5S	6S	7S	8N	9N	10N		
1	68.6	67.8	67.2	60.5	60.3	61.6	57.2	68.5	44.0	57.7		
2	69.5	68.3	67.9	60.2	59.3	60.8	56.5	68.8	42.1	55.4		
3	68.3	67.0	66.8	59.9	59.2	59.9	55.9	68.3	41.2	55.8		
4	68.1	67.1	66.6	60.1	59.7	60.6	56.7	67.7	40.6	56.7		
5	68.3	67.7	66.7	60.2	60.2	61.0	57.7	68.3	45.2	57.0		
6	67.4	66.5	65.9	59.2	59.0	60.2	56.6	66.4	38.5	55.6		
7	68.9	67.8	67.2	60.5	59.9	61.0	57.5	68.3	51.2	56.2		
8	68.6	66.6	68.7	60.6	59.6	63.8	56.5	66.2	46.4	54.6		
9	67.8	67.2	65.6	60.2	60.7	60.4	57.5	68.6	40.6	58.7		
10	68.4	67.1	65.3	61.0	60.2	61.0	57.8	68.3	42.3	57.5		
11	69.3	68.1	67.7	60.9	60.1	61.4	58.2	68.6	46.5	56.9		
12	69.2	68.3	67.9	60.5	60.6	61.5	57.7	68.4	47.6	56.8		
13	66.5	65.0	64.7	57.8	56.6	58.0	54.1	63.6	44.7	49.8		
14	66.6	65.4	64.3	57.7	56.9	58.1	54.3	66.7	42.2	53.1		
15	68.4	67.0	66.7	60.3	59.9	60.3	57.0	68.8	39.5	56.8		
16	68.2	67.5	66.5	60.1	59.8	60.5	57.0	67.1	40.5	55.8		
17	68.1	67.2	66.4	59.9	59.5	60.2	56.9	68.1	36.0	57.0		
18	68.3	67.1	66.5	60.6	59.7	60.5	57.0	68.6	39.4	56.7		
19	68.7	67.9	66.8	61.1	60.7	61.2	58.2	68.9	36.9	58.5		
20	63.5	63.3	63.6	54.3	56.9	59.0	53.2	64.3	43.0	50.4		
21	67.5	66.8	66.0	60.0	59.4	60.0	57.0	67.8	47.5	55.6		
22	67.5	66.4	65.7	58.8	58.7	59.3	55.6	67.1	30.9	54.1		
23	67.2	66.4	65.3	59.0	58.6	59.7	56.0	66.9	41.5	53.3		
24	67.1	66.3	65.1	58.6	58.1	58.7	54.7	67.1	45.8	54.8		
25	68.1	67.6	66.8	61.0	60.8	61.4	58.1	68.4	49.4	57.4		
26	69.0	68.2	67.1	60.9	60.6	61.5	58.0	67.5	39.7	55.5		
27	65.7	64.5	64.2	57.2	56.3	57.8	54.0	63.1	37.0	47.9		
28	58.1	55.5	66.6	46.0	50.2	63.2	40.9	63.5	35.7	37.7		
29	66.3	65.0	64.8	57.2	56.4	58.6	54.2	66.2	42.5	52.5		
30	66.4	64.9	64.5	58.0	57.2	58.1	54.2	66.3	40.8	53.2		
31	67.0	66.2	65.1	59.0	58.0	59.0	55.3	67.2	41.6	54.4		
Days	31	31	31	31	31	31	31	31	31	31		
En. Avg	67.8	66.8	66.3	59.6	59.2	60.5	56.4	67.5	44.0			

#N/A indicates insufficient data.

^{*#}N/A indicates no aircraft-related noise events.

TABLE 4
DAILY CNEL VALUES AT EACH MONITOR STATION
February 2018

Date					NMS	Site				
	1S	2S	3S	4S	5S	6S	7S	8N	9N	10N
1	67.5	66.9	65.9	59.5	58.7	59.8	55.8	67.8	36.6	55.8
2	67.7	67.0	65.7	59.3	58.5	59.2	55.3	67.4	41.1	55.2
3	65.8	65.1	64.2	57.6	57.5	58.2	54.0	65.3	37.1	51.8
4	67.8	67.0	65.8	59.4	58.7	59.7	55.7	67.6	47.4	55.9
5	68.5	67.4	66.7	60.6	59.7	60.5	56.3	68.6	37.2	57.8
6	67.6	66.8	65.8	60.1	59.3	60.2	56.3	67.9	48.5	55.8
7	67.8	67.1	65.8	58.7	58.4	59.2	55.6	67.5	42.9	54.1
8	68.0	67.0	66.8	58.6	59.2	59.8	55.5	67.1	37.7	54.2
9	69.4	68.1	67.7	61.5	59.9	61.2	57.0	68.6	48.8	57.2
10	66.8	65.7	64.8	59.9	58.0	59.7	55.6	65.7	48.8	53.9
11	68.3	67.5	66.6	60.5	60.1	60.9	57.3	68.4	40.2	56.9
12	68.2	67.4	66.2	61.0	60.7	61.2	58.4	68.6	44.7	58.2
13	67.5	66.2	65.6	60.8	58.6	60.1	56.9	67.4	35.4	56.0
14	68.3	67.2	66.8	61.5	59.8	60.3	56.1	68.1	40.1	56.9
15	68.6	68.2	67.4	60.6	60.4	61.5	57.9	67.8	42.3	54.7
16	64.5	63.7	64.3	55.3	56.0	59.5	52.5	67.1	44.2	53.4
17	66.4	65.6	64.5	58.4	57.1	58.1	54.5	64.4	47.5	52.4
18	67.6	66.9	65.6	60.0	59.2	60.2	57.1	68.1	41.5	57.4
19	67.3	67.1	68.3	57.6	59.9	63.5	56.3	65.4	36.4	53.2
20	67.6	66.7	65.9	59.2	59.0	60.0	56.6	66.9	44.4	54.4
21	68.2	67.2	66.2	60.5	60.0	60.8	57.8	67.7	45.8	56.4
22	68.1	67.7	66.4	60.9	60.6	61.4	58.7	69.0	44.9	58.7
23	66.9	66.6	66.4	57.9	59.8	61.0	56.6	67.6	45.4	53.4
24	65.7	65.4	64.0	57.7	57.6	58.2	55.3	64.8	43.6	53.5
25	68.0	67.2	66.4	59.1	59.2	60.0	56.4	66.8	45.8	54.8
26	68.3	67.6	66.4	61.1	60.2	61.1	58.0	68.7	48.5	58.2
27	68.0	67.1	66.6	60.9	60.3	61.4	58.2	67.8	38.7	57.4
28	67.7	66.8	65.8	61.0	59.9	61.0	58.1	68.8	40.4	58.1
Days	28	28	28	28	28	28	28	28	28	28
En. Avg	67.7	66.9	66.1	59.8	59.3	60.4	56.6	67.5	44.5	56.0

#N/A indicates insufficient data.

^{*#}N/A indicates no aircraft-related noise events.

TABLE 5
DAILY CNEL VALUES AT EACH MONITOR STATION
March 2018

Date					NMS	Site	2			
	1S	2S	3S	4S	5S	6S	7S	8N	9N	10N
1	68.5	67.6	66.9	60.8	60.8	61.4	58.3	68.6	48.6	57.6
2	69.0	68.1	66.8	61.7	60.9	61.6	58.8	69.2	41.6	58.6
3	66.3	64.9	64.5	59.0	58.8	59.3	56.3	65.7	*#N/A	54.7
4	68.1	#N/A	66.4	59.7	60.2	60.7	57.6	67.6	42.1	55.5
5	66.4	66.7	65.3	57.8	57.3	59.3	54.5	66.5	44.7	49.7
6	66.1	65.2	64.1	56.7	56.1	57.0	52.9	66.5	36.0	51.8
7	67.5	66.9	65.7	58.9	58.3	58.8	54.9	67.8	31.1	54.9
8	68.2	67.5	66.1	59.9	59.0	59.9	56.2	68.3	39.8	57.0
9	68.7	67.7	67.1	61.4	60.3	61.6	58.1	69.6	40.2	57.6
10	68.2	66.9	66.5	60.9	59.3	60.8	57.3	67.2	*#N/A	56.5
11	69.2	67.8	67.0	61.9	60.1	61.7	58.7	69.5	43.7	58.3
12	68.9	68.1	67.0	60.7	60.6	61.5	58.0	68.4	40.7	57.3
13	68.4	67.6	66.6	60.0	60.0	60.9	57.9	68.7	45.3	57.8
14	68.3	67.8	66.5	60.7	60.7	61.2	58.5	68.9	35.1	58.6
15	68.9	68.5	66.9	61.2	61.3	61.7	59.0	69.1	33.0	58.6
16	68.8	67.8	66.9	61.7	60.8	61.5	58.7	68.9	40.4	58.5
17	66.8	66.4	65.4	59.1	59.5	59.9	55.9	66.1	32.8	55.3
18	68.6	67.9	66.7	61.0	60.3	61.3	58.2	69.1	45.5	57.5
19	68.6	67.7	67.0	60.0	59.3	60.6	57.1	67.7	43.2	55.9
20	68.2	67.0	66.3	59.9	59.9	60.4	57.0	68.1	32.5	57.1
21	69.0	68.1	67.3	60.7	59.9	61.0	57.5	68.8	45.8	56.8
22	69.4	68.2	67.4	62.1	60.7	61.8	58.7	69.7	32.9	59.4
23	69.3	68.7	67.7	61.4	61.0	61.9	58.9	69.0	31.7	57.9
24	66.9	66.0	65.3	60.0	58.8	60.2	57.0	67.1	43.9	56.1
25	68.0	67.5	66.5	60.6	60.2	60.6	58.3	69.0	46.5	58.3
26	67.8	67.3	66.3	59.9	59.9	60.7	57.6	68.3	41.1	56.7
27	66.9	65.8	65.6	58.4	58.4	60.1	55.7	67.4	47.1	55.4
28	68.2	67.4	66.4	60.0	59.7	60.2	57.1	68.3	48.0	56.8
29	69.0	68.1	67.4	60.8	60.0	61.0	57.4	68.9	47.1	57.4
30	68.5	67.9	67.1	60.2	59.7	60.8	56.5	68.4	37.6	56.9
31	66.7	65.2	65.1	58.6	57.9	59.1	55.3	66.8	38.4	56.7
Days	31	30	31	31	31	31	31	31	29	31
En. Avg	68.2	67.4	66.5	60.3	59.8	60.7	57.4	68.3	43.2	57.0

#N/A indicates insufficient data.

^{*#}N/A indicates no aircraft-related noise events.

${\bf TABLE~6}$ MEASURED AVERAGE SINGLE EVENT NOISE EXPOSURE LEVELS

Commercial Class A January - March 2018

Carrier	AC Type	# Deps						NMS	Site				
				1S	2S	3S	4S	5S	6S	7S	8N	9N	10N
Alaska Air	B737	63	Average	94.9	94.4	93.4	88.5		88.1	83.6	91.1	#N/A	#N/A
	D 52.0	1000	Count	(55)	(53)	(57)	(56)	(55)			(6)	(0)	(0)
	B738	1028	Average Count	97.8 (984)	96.7 (931)	95.3 (978)	89.0 (986)	88.9 (969)	89.6 (972)	86.2 (967)	92.3 (29)	78.8 (1)	80.2 (6)
American	A320	89	Average	94.4	93.5	92.5	86.1	85.0		83.9	88.4	#N/A	78.8
	1320	0,	Count	(81)	(79)	(77)	(80)	(77)	(79)	(77)	(7)	(0)	(1)
	B738	1289	Average	98.8	97.7	97.0	89.6	89.1	89.8	86.5	93.2	87.5	80.5
	7155	202	Count	(1219)	(1140)	(1210)	(1218)	(1193)	(1189)		(54)	(12)	(8)
Compass	E175	382	Average Count	95.6 (365)	95.0 (343)	95.5 (367)	89.3 (363)	88.4 (362)	88.9 (365)	84.8 (363)	92.1 (12)	#N/A (0)	#N/A (0)
Delta	A319	232	Average	96.1	95.3	95.2	88.9	87.9	87.9	, ,	93.4	85.7	82.5
			Count	(177)	(172)	(182)	(178)	(175)	(179)	(179)	(45)	(36)	(11)
	A320	3		96.6	94.9	95.3	89.2	87.1	87.4		#N/A	#N/A	#N/A
	Date	145	Count	(3)	(2)	(3)	(3)	(3)	(3)	(3)	(0)	(0)	(0)
	B712	145	Average Count	91.7 (137)	91.9 (128)	87.6 (134)	80.8 (110)	80.5 (111)	81.9 (126)	79.4 (84)	85.3 (8)	#N/A (0)	#N/A (0)
	B737	28	Average	96.5	95.0	93.2	86.7	87.2	88.5	85.8	96.4	90.2	#N/A
			Count	(27)	(27)	(27)	(27)	(25)	(26)	(26)	(1)	(1)	(0)
	B738	1	Average	91.9	91.3	89.3	81.0	84.3	84.3	80.9	#N/A	#N/A	#N/A
	7		Count	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(0)	(0)	(0)
	B752	303	Average Count	96.5 (268)	95.7 (261)	95.8 (269)	89.2 (266)	87.8 (258)	88.1 (262)	84.4 (260)	92.8 (29)	86.7 (14)	81.7 (9)
FedEx	A306	64	Average	97.5	97.2	94.5	88.9	88.2	89.1	85.7	99.5	83.6	85.4
I COLLA	11500	01	Count	(62)	(62)	(62)	(63)	(62)	(63)	(63)	(1)	(1)	(1)
Frontier Airlines	A20N	38	Average	90.1	89.1	88.4	82.8	80.4	82.9	80.3	86.6	#N/A	#N/A
			Count	(36)	(36)	(36)	(35)	(32)	(35)	(14)	(2)	(0)	(0)
	A319	89	Average Count	94.0	93.3	92.2	86.8	85.7	86.9	83.8	89.6	#N/A	#N/A
	A320	51	Average	(85) 95.3	(82) 95.0	(85) 92.9	(85) 86.3	(83) 85.7	(85) 86.7	(84) 84.2	(4) 88.2	(0) #N/A	(0) #N/A
	A320	31	Count	(49)	93.0 (47)	92.9 (48)	(49)	63.7 (49)	(49)	(48)	(2)	$^{\text{HN/A}}$	#IN/A (0)
Horizon Air	DH8D	4	Average	84.6	84.6	85.9	79.0	79.5	79.4	#N/A	#N/A	#N/A	#N/A
			Count	(4)	(2)	(4)	(2)	(2)	(4)	(0)	(0)	(0)	(0)
	E175	179	Average	93.2	92.7	91.2	87.4	85.8	86.5	83.1	90.6	#N/A	#N/A
C 414	B737	1/15	Count	(174)	(160)	(174)	(172)	(172)	(169)	(166)	(3)	(0)	(0)
Southwest	B/3/	1015	Average Count	92.7 (1496)	92.3 (1420)	90.2 (1510)	85.3 (1532)	85.2 (1515)	85.9 (1508)	83.3 (1484)	92.1 (63)	80.3 (2)	76.3 (1)
	B738	6	Average	94.0	93.5	90.0	` /	` ′	` ′		#N/A	#N/A	#N/A
			Count	(6)	(5)	(5)	(6)			(6)	(0)	(0)	(0)
United	A320	504	Average	94.3	93.7	92.1	86.2		88.3	86.3	92.8	85.5	82.0
	D727	2.15	Count	(456)	(430)	(456)	(448)	(444)	(449)	(447)	(41)	(24)	(6)
	B737	343	Average Count	96.5 (315)	95.2 (304)	96.0 (329)	90.0 (328)			86.0 (327)	92.6 (9)	86.0 (1)	79.1 (1)
	B738	741	Average	97.9	96.7	95.8	89.5	· ·	, ,	86.5	93.4	89.1	80.9
			Count	(699)		(696)	(701)	(689)	(691)	(688)	(30)	(9)	(8)
UPS	B752	51	Average	95.8	95.7	93.9	86.6	86.3	86.7	82.4	92.0	#N/A	#N/A
			Count	(50)	(50)	(48)	(47)	(49)		(49)	(1)	(0)	(0)
WestJet	B737	77	Average	95.9	94.7	94.9	89.8				92.0	#N/A	78.2
			Count	(73)	(66)	(73)	(71)	(70)	(73)	(73)	(4)	(0)	(1)

TABLE 7 MEASURED AVERAGE SINGLE EVENT NOISE EXPOSURE LEVELS Commercial Class E

January - March 2018

Carrier	AC Type	# Deps						NMS	Site			,	
			i.	1S	2S	3S	4S	5S	6S	7S	8N	9N	10N
Delta	B712	276	Average Count	92.0 (269)	500 10 1000 100	87.9 (267)	80.4 (204)	Acceptonical	755 616 6 561	79.1 (179)	84.5 (5)	Annual Contraction	#N/A (0)
Horizon Air	DH8D	87	Average Count	84.3 (82)	84.9 (72)		5 (5) (5)	78.6 (25)		78.3 (1)	81.8 (4)	1000000 1000000000000000000000000000000	#N/A (0)
	E175	105	Average Count	91.5 (96)		89.1 (98)	85.6 (97)			83.8 (92)	89.0 (6)		
SkyWest Coml.	E175	795	Average Count	90.5 (762)	90.3 (703)	88.8 (761)	85.2 (764)	84.2 (745)		83.2 (721)	89.7 (25)	86.8 (1)	77.5 (1)
Southwest	B737	2173	Average Count	91.8 (2062)		89.5 (2036)	85.0 (2067)			82.9 (2019)	91.6 (78)	81.1	80.2 (5)

TABLE 8 MEASURED AVERAGE SINGLE EVENT NOISE EXPOSURE LEVELS Commuter January - March 2018

Carrier	AC Type	# Deps						NMS	Site				
				1S	2S	3S	4S	5S	6S	7S	8N	9N	10N
SkyWest	CRJ7	69	Average	88.4	88.3	86.8	80.3	80.8	81.5	79.9	88.5	#N/A	#N/A
			Count	(67)	(65)	(66)	(45)	(59)	(67)	(50)	(2)	(0)	(0)

TABLE 8-GA MEASURED AVERAGE SINGLE EVENT NOISE EXPOSURE LEVELS General Aviation January - March 2018

Carrier	AC Type	# Deps		NMS Site									
				1S	2S	3S	4S	5S	6S	7S	8N	9N	10N
General Aviation	Jet	4202	Average	88.5	87.9	89.1	83.2	83.0	83.8	82.1	85.8	81.8	#N/A
			Count	(3841)	(3603)	(3759)	(2224)	(1772)	(2392)	(929)	(167)	(7)	(0)

TABLE 9
AIR CARRIER OPERATIONAL HISTORY

Carrier		AC Type			Year		
			2014	2015	2016	2017	2018
Alaska Air	AS	B734	89	80	76	24	
		B737	4,381	2,666	3,258	1,233	120
		B738	2,486	4,590	4,439	6,420	2,05
American	AA	A319		42	178	332	160
		A320		344	868	266	12
		A321		326	563	56	
		B738	9,339	9,090	10,538	11,556	2,575
		B752	4	22	74	4	
Compass	CP	E170			152	78	
		E175			1,669	2,726	764
Delta	DL	A319	3,290	3,352	3,444	2,053	463
		A320	142	162	160	94	(
		B712				3,267	842
		B737				146	56
		B738	4	4		40	2
		B739		2			
		B752	2,196	2,130	2,128	2,137	607
FedEx	FM	A306	508	508	510	506	128
		A310	2				
Frontier Airlines	F9	A20N*					76
		A319	2,381	1,497	646	356	178
		A320		154	740	628	102
		A321			2		
		A32N*			12	438	
Horizon Air	QX	DH8D			1,156	1,456	184
		E175				339	572
Interjet	40	A320	428				
SkyWest Coml.	SC	CRJ9	2,007	1,922	1,899	1,440	
	_	E175			3,554	4,761	1,592
Southwest	WN	B38M				2	
		B733	2				
		B737	33,490	37,101	41,806	35,971	7,577
		B738	1,385	2,586	1,144	58	12
United	UA	A319	1,926	1,393	1,999	1,470	188
		A320	2,774	3,207	2,670	3,957	823
		B737	4,436	4,523	5,246	4,044	688
		B738	1,748	1,853	1,252	3,302	1,483
		B752	237	44		2	
UPS	5X	A306		52	52	45	
		B752	414	366	370	369	102
US Airways	AW	A319	808	240			
		A320	1,426	1,476			
		A321	934	740			
		B752	46	98			
WestJet	WS	B736	4		32	30	
		B737	728	718	642	644	154
Total			77,615	81,288	91,279	90,250	21,535

^{*}In 2018, the code for the Airbus A320neo was changed from A32N to A20N.

TABLE 10 AIRCRAFT OPERATIONAL HISTORY

Aircraft			Year		
	2014	2015	2016	2017	2018
A20N*					76
A306	508	560	562	551	128
A310	2				
A319	8,405	6,524	6,267	4,211	995
A320	4,770	5,343	4,438	4,945	943
A321	934	1,066	565	56	
A32N*			12	438	
B38M				2	
B712				3,267	842
B733	2				
B734	89	80	76	24	
B736	4		32	30	
B737	43,035	45,008	50,952	42,038	8,601
B738	14,962	18,123	17,373	21,376	6,129
B739		2			
B752	2,897	2,660	2,572	2,512	709
CRJ9	2,007	1,922	1,899	1,440	
DH8D		·	1,156	1,456	184
E170			152	78	
E175			5,223	7,826	2,928
Total	77,615	81,288	91,279	90,250	21,535

^{*}In 2018, the code for the Airbus A320neo was changed from A32N to A20N.

TABLE 11
AIR CARRIER AVERAGE DAILY DEPARTURE HISTORY

Carrier		AC Type	Year				
			2014	2015	2016	2017	2018
Alaska Air	AS	B734	.121	.110	.104	.033	
		B737	6.000	3.652	4.451	1.693	.173
		B738	3.408	6.288	6.066	8.789	2.819
American	AA	A319		.058	.243	.455	.227
		A320		.471	1.186	.364	.016
		A321		.447	.770	.077	
		B738	12.792	12.452	14.402	15.827	3.532
		B752	.005	.030	.101	.005	
Compass	CP	E170			.208	.107	
		E175			2.279	3.734	1.047
Delta	DL	A319	4.507	4.592	4.705	2.811	.636
		A320	.195	.222	.219	.129	.008
		B712				4.471	1.153
		B737				.200	.077
		B738	.005	.005		.055	.003
		B739		.003			
		B752	3.008	2.918	2.910	2.926	.833
FedEx	FM	A306	.696	.696	.697	.693	.175
		A310	.003				
Frontier Airlines	F9	A20N*					.104
		A319	3.260	2.052	.883	.488	.244
		A320		.211	1.011	.860	.140
		A321			.003		
		A32N*			.016	.600	
Horizon Air	QX	DH8D			1.579	1.995	.252
		E175				.466	.784
Interjet	40	A320	.586				
SkyWest Coml.	SC	CRJ9	2.748	2.633	2.593	1.975	
		E175			4.855	6.523	2.181
Southwest	WN	B38M				.003	
		B733	.003				
		B737	45.874	50.819	57.104	49.274	10.378
		B738	1.901	3.542	1.563	.079	.016
United	UA	A319	2.636	1.910	2.730	2.014	.258
		A320	3.803	4.395	3.648	5.422	1.126
		B737	6.077	6.195	7.169	5.534	.942
		B738	2.395	2.537	1.710	4.526	2.033
		B752	.326	.060		.003	
UPS	5X	A306		.071	.071	.060	
		B752	.567	.501	.505	.507	.140
US Airways	AW	A319	1.107	.329			
		A320	1.953	2.022			
		A321	1.279	1.014			
		B752	.063	.134			
WestJet	WS	B736	.005		.044	.041	
		B737	.997	.984	.877	.882	.211
Total			106.321	111.351	124.699	123.622	29.507

^{*}In 2018, the code for the Airbus A320neo was changed from A32N to A20N.





QUARTERLY NOISE MEETING

Date:

March 14, 2018

Time:

2:00 PM

Place:

Airport Commission Room

ITEMS DISCUSSED

Beatrice Siercke read the JWA airport statistics for the month of January 2018. Ms. Siercke also reviewed the fourth quarter 2018 Quarterly Report and discussed the key elements of the report. Nikolas Gaskins presented an overview of the Southern California Metroplex Project, and discussed the main points of the Federal Aviation Administration (FAA) Settlement Agreement with the City of Newport Beach and the County of Orange regarding the Southern California Metroplex Project.

Sally Peterson of Newport Beach and member of CAANP and the Balboa Island Airport Group discussed her concerns, which she believes is a huge increase in general aviation traffic in the fourth quarter of 2017 and asked why this was the case. Mr. Gaskins stated he is aware of the increase in general aviation traffic, but does not know the reason for the increase. Ms. Peterson asked how many jet operations took place in the fourth quarter of 2017. Anthony Cangey referenced the total jet operations from the Quarterly Report. Ms. Peterson also believes that Delta's flights are quieter than others, and was curious if Delta uses a different aircraft than the other carriers. Mr. Gaskins indicated that Delta operates the B717 and its affiliate SkyWest operates the E175, which are quieter in comparison to larger aircraft types.

David Cook of Newport Beach and member of the Newport Beach Aviation Committee asked if general aviation jet pilots use the PIGGN departure procedure. Mr. Gaskins stated general aviation aircraft flying IFR are flying the PIGGN procedure. Mr. Cook also wanted to know if any aircraft are still using the old MUSEL and CHANL departure procedures. Mr. Gaskins stated a small percentage of general aviation use the old MUSEL and CHANL, but the commercial aircraft are using the most updated procedures. Mr. Cook had a question from the capacity allocation process presentation at the previous Newport Beach Airport Forum regarding the 400,000 passenger capacity set-aside for commuter carriers, and was curious about how the remaining passenger capacity is allocated. Mr. Gaskins explained it is based on the demand from the carriers and historically one carrier has taken all of the remaining seats, but the airport has seen an increase in demand from other carriers over the

John Wayne Airport Quarterly Noise Meeting - March 14, 2018 Page 2

past several years. Mr. Cook asked if the STAYY departure procedure implementation has been delayed because there is a NOTAM suggesting the STAYY is "out of service" until September. Mr. Gaskins stated that according to the last update the airport has received, the STAYY implementation was delayed until March 29th but he would look into it. Mr. Cook also asked what radar source is used for Volans. Nick explained Volans uses ADS-B and ASDE-X which are fused together, which is a benefit because if one source does not pick up the information, the other source will.

Jim Mosher of Newport Beach wanted an explanation on the format of the Quarterly Report, and wanted to know if the format can be changed and how other airports report. Mr. Mosher recommended the Quarterly Report have a legend or table to better explain the aircraft codes used within specific tables throughout the report. Nick explained that Title 21 of the California Noise Standards requires this report to be submitted to the State every quarter and other airports do utilize different formats. Nick also added that JWA has been looking into modifying the format of the Quarterly Report and other reports to make them more user friendly to the public, and the airport is willing to discuss any suggestions, including Mr. Mosher's suggestion of adding a table to clarify the aircraft codes. Mr. Mosher also recommended that the Airport list the noise level averages of all the noise monitors and not just the first three noise monitors in Table 1 of the General Aviation Noise Ordinance Semi-Annual Report due to the Airport's General Aviation Improvement Plan, and the expected increase in general aviation traffic which could result from this program. Mr. Mosher followed up by mentioning that community members often state that the planes are much louder than they used to be, and noted that there is a measurement that was used in the Environmental Impact Report (EIR) of the Settlement Agreement called "Time above 65 dB" which can be used to measure the loudness of the planes. Mr. Mosher feels it would be of great benefit to publish this metric on a regular basis to see if the value of "Time above 65" dB" has increased.

QUARTERLY NOISE MEETING ROSTER

March 14, 2018

<u>NAME</u> <u>ORGANIZATION</u>

Lisa Johansen Resident – Tustin

Jim Johansen Resident – Tustin

Sally Peterson CAANP | Balboa Island Airport Group

Jim Mosher Resident – Newport Beach

David Cook Newport Beach Aviation Committee

Nick Gaskins John Wayne Airport

Anthony Cangey John Wayne Airport

Beatrice Siercke John Wayne Airport

Louie Ilustrisimo John Wayne Airport

SUMMARY OF STATISTICAL INFORMATION FOR CALIFORNIA DEPARTMENT OF TRANSPORTATION

1. Size of Noise Impact Area as defined in the Noise Standards (California Code of Regulations, Title 21, chapter 2.5, Subchapter 6):

8.35 (acres or 0.013 square miles)

- 2. Estimated Number of dwelling units included in the Noise Impact Area as defined in the Noise Standards: 77 dwelling units
- 3. Estimated number of people residing within the Noise Impact Area as defined in the Noise Standards:

 193 (based on 2.5 people per dwelling unit)
- 4. Identification of aircraft of type having highest takeoff noise level operating at this airport together with estimated number of operations by this aircraft type during the calendar quarter reporting period:

 B737-800 6,142 (arrivals + departures)
- 5. Total number of aircraft operations during the calendar quarter:

73,808

6. Number of Air Carrier operations during the calendar quarter: (Not mandatory)

21,672

 Percentage of Air Carrier operations by aircraft certified under Federal Aviation Regulation (FAR) Part 36, Stage III: (Not mandatory)

100%

8. Estimated number of operations by General Aviation aircraft during the calendar quarter: (Not mandatory)

51,950

9. Estimated number of operations by Military aircraft during the calendar quarter: (Not mandatory)