

NOISE ABATEMENT PROGRAM

QUARTERLY REPORT

For the period:
January 1, 2019 through March 31, 2019

Prepared in accordance with:

AIRPORT NOISE STANDARD

STATE OF CALIFORNIA

California Code of Regulations

Airport Noise Standards

Title 21: Public Works

Division 2.5 Division of Aeronautics (Department of Transportation)

Chapter 6. Noise Standards

Submitted by:



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Airport Director

John Wayne Airport, Orange County



INTRODUCTION

This is the 185th Quarterly Report submitted by the County of Orange in accordance with the requirements of the California Airport Noise Standards (California Code of Regulations, Title 21: Public Works, Division 2.5 Division of Aeronautics (Department of Transportation), Chapter 6. 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, 2018 - March 31, 2019). 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".

FIGURE 1
NOISE MONITORING STATIONS (NMS)
LOCATION MAP

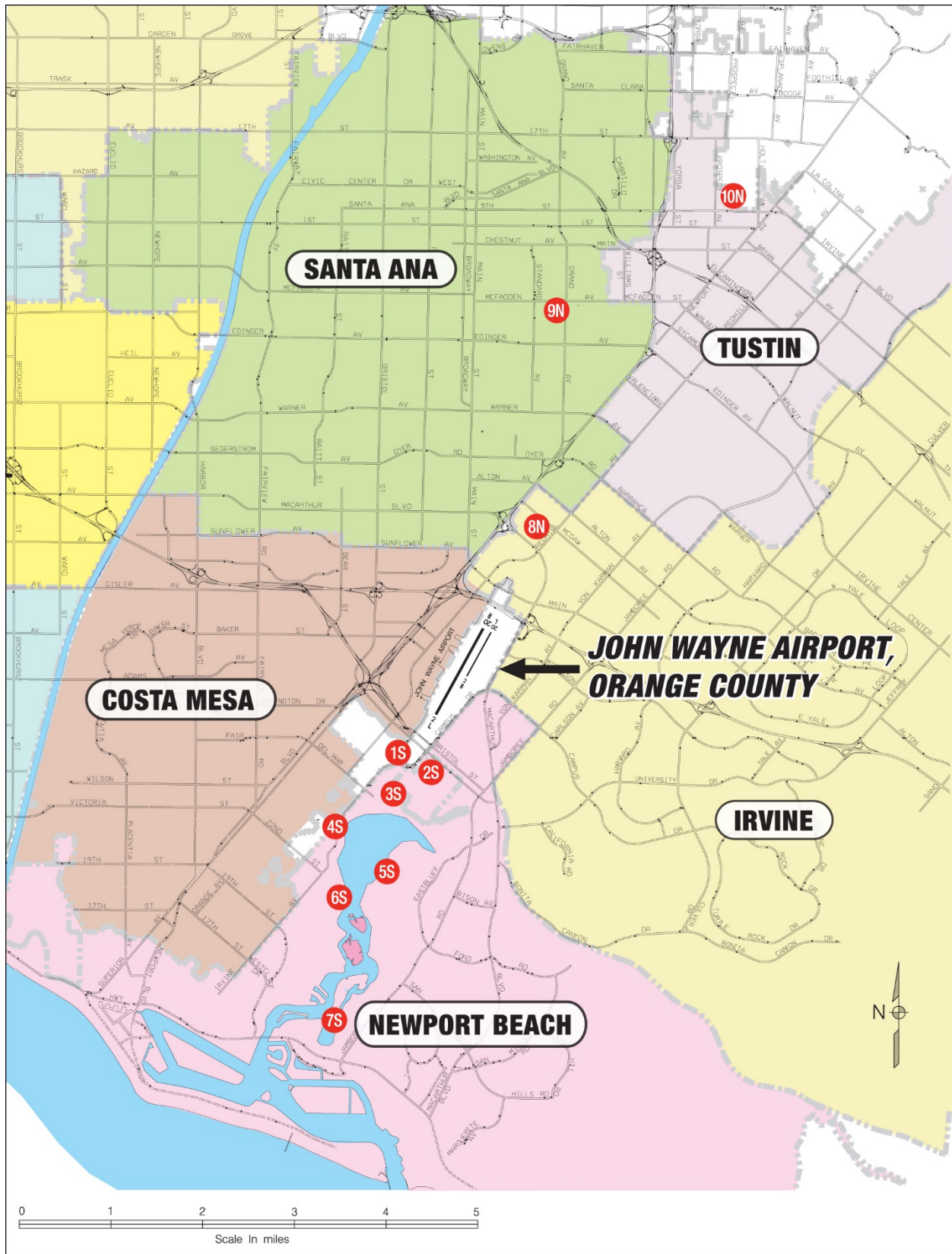


FIGURE 2



Noise Monitors	Single-Family Residential
65 dB CNEL Contours	Multi-Family Residential

STATISTICS:
 Incompatible Land Use: 6.67 Acres or .010 square miles
 Number of Dwellings: 67
 Number of People: 168 (based on 2.5 people per dwelling unit)

JOHN WAYNE AIRPORT
65 dB CNEL Impact Area
 April 2018 - March 2019
Landrum & Brown

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 2019

Period	Air Carriers		GA Jet (1)	Total Operations (2)	Average Daily Jet Operations
	Jet	Prop			
January	7,862	12	3,028	22,810	351
February	7,153	0	2,720	21,360	353
March	8,120	0	3,337	26,107	370
First Quarter	23,135	12	9,085	70,277	358
Twelve Months 04/01/18 - 03/31/19	94,579	556	36,533	313,252	359

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.

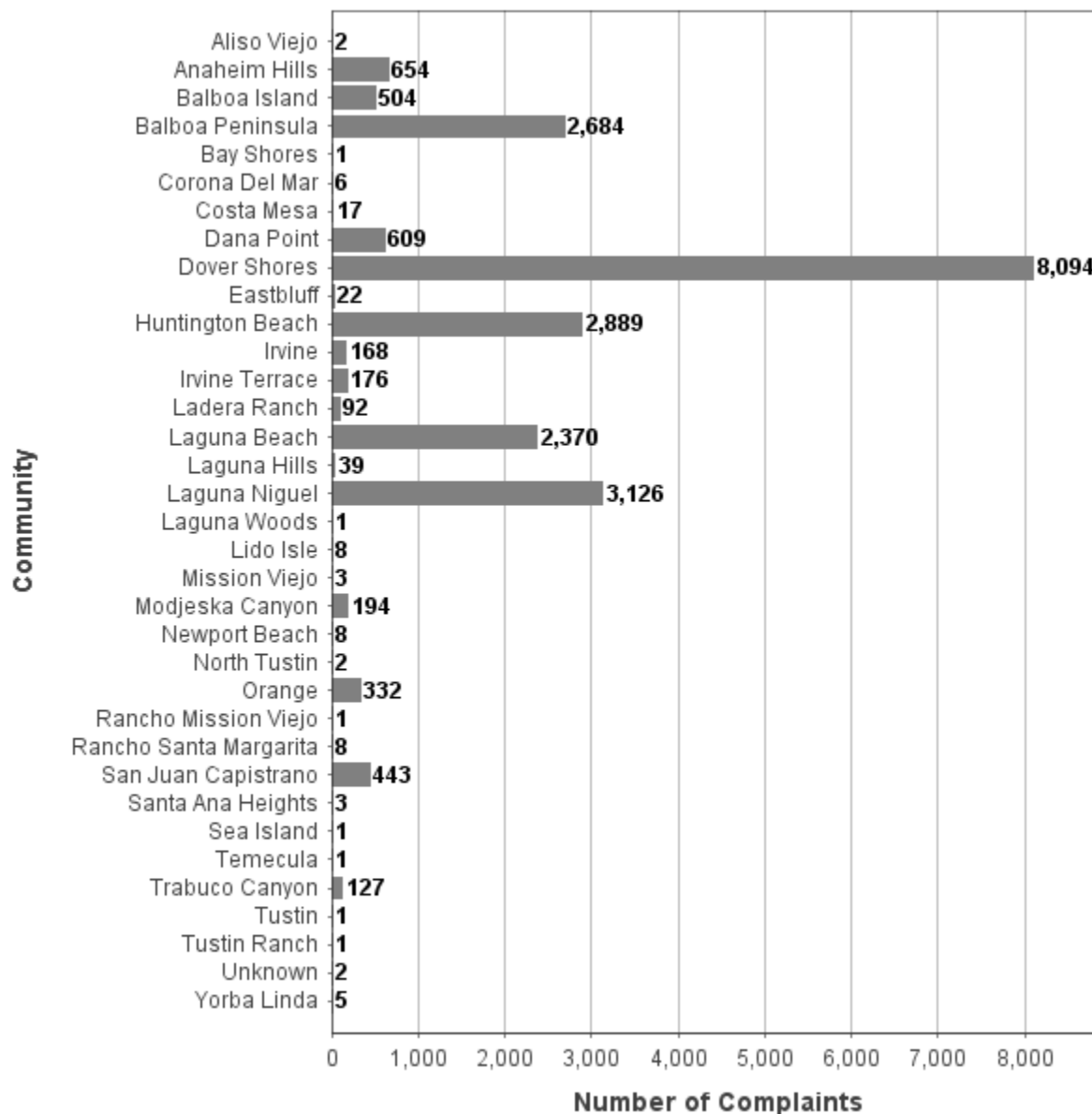
ACOUSTICAL INSULATION PROGRAM

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. 67 dwelling units in Santa Ana Heights remain in the “Noise Impacted Area” (within 65 dB CNEL contour).

COMPLAINT TOTALS (January 1, 2019 - March 31, 2019)

The Airport's Access and Noise Office receives and investigates noise complaints from local citizens and all other sources. During the January 1, 2019 through March 31, 2019, the Office received 22,594 complaints from local citizens. This is a 71.2% increase from the 13,198 complaints received last quarter. It is a 5,410.7% increase from the 410 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 – 11,442 total number of complaints.
- 96% of total complaints were from a complaint subscription service.
- 88% of complaints from “Balboa Island” category were from one point of contact.
- 99% of complaints from “Balboa Peninsula” category were from one point of contact.
- 74% of complaints from “Dana Point” category were from one point of contact.
- 91% of complaints from “Dover Shores” category were from one point of contact.
- 67% of complaints from “Huntington Beach” category were from one point of contact.
- 90% of complaints from “Irvine” category were from one point of contact.
- 100% of complaints from “Ladera Ranch” category were from one point of contact.
- 85% of complaints from “Laguna Beach” category were from one point of contact.
- 99% of complaints from “San Juan Capistrano” category were from one point of contact.
- 98% of complaints from “Trabuco Canyon” category were from one point of contact.

TABLE 2
LONG TERM MEASURED LEVELS
Aircraft CNEL from 04/01/18 through 03/31/19
Values in dB at Each Site

Period	NMS Site									
	1S	2S	3S	4S	5S	6S	7S	8N	9N	10N
Apr 2018	68.3	67.5	66.5	60.3	59.8	60.8	57.3	68.3	42.7	57.1
# Days	30	30	30	30	30	30	30	30	29	30
May 2018	68.5	67.6	66.7	60.9	60.1	60.9	57.5	68.7	49.4	57.8
# Days	31	31	31	31	31	31	31	31	25	31
Jun 2018	68.6	67.6	67.0	60.7	60.1	60.9	57.4	68.8	44.3	57.5
# Days	30	30	30	30	27	30	30	30	27	30
Q-2 2018	68.5	67.5	66.7	60.6	60.0	60.9	57.4	68.6	46.3	57.5
# Days	91	91	91	91	88	91	91	91	81	91
Jul 2018	68.5	67.5	66.8	60.1	59.6	60.6	57.0	68.2	42.6	56.2
# Days	31	31	31	31	31	31	31	31	30	31
Aug 2018	68.7	67.7	67.0	60.3	59.8	61.0	57.1	68.3	43.4	56.7
# Days	31	31	31	31	31	31	31	31	30	31
Sep 2018	68.3	67.4	66.7	60.0	59.7	60.7	56.6	67.9	43.5	56.5
# Days	30	30	30	30	30	30	30	30	25	30
Q-3 2018	68.5	67.5	66.8	60.1	59.7	60.8	56.9	68.1	43.2	56.5
# Days	92	92	92	92	92	92	92	92	85	92
Oct 2018	68.4	67.2	66.9	59.9	59.8	60.9	56.9	68.0	43.3	56.8
# Days	31	31	31	31	31	31	31	31	30	31
Nov 2018	67.5	66.4	66.4	59.5	59.0	60.7	56.7	67.3	44.8	55.8
# Days	30	30	30	29	30	30	28	30	28	30
Dec 2018	67.6	66.6	66.8	59.6	59.6	61.4	57.0	67.6	45.0	56.3
# Days	31	31	31	31	31	31	30	31	30	31
Q-4 2018	67.9	66.8	66.7	59.7	59.5	61.0	56.9	67.6	44.4	56.3
# Days	92	92	92	91	92	92	89	92	88	92
Jan 2019	67.7	66.6	66.5	59.9	59.5	60.7	57.0	67.9	43.4	57.1
# Days	31	31	31	31	31	31	31	31	28	29
Feb 2019	67.9	66.7	66.6	60.2	60.0	60.8	57.7	68.6	45.4	57.9
# Days	28	28	28	28	28	28	28	28	27	28
Mar 2019	67.9	66.9	66.9	60.2	59.9	61.2	57.4	68.5	43.8	57.6
# Days	30	31	31	31	31	31	31	31	28	31
Q-1 2019	67.8	66.8	66.7	60.1	59.8	60.9	57.3	68.3	44.3	57.5
# Days	89	90	90	90	90	90	90	90	83	88
Q-2 2018 thru Q-1 2019										
Total	68.2	67.2	66.7	60.2	59.7	60.9	57.1	68.2	44.7	57.0
# Days	364	365	365	364	362	365	362	365	337	363
Q-1 2018 thru Q-4 2018 (Previous 4 Quarters)										
Total	68.2	67.2	66.6	60.1	59.7	60.8	57.0	68.0	44.6	56.7
# Days	365	364	365	364	362	365	362	365	342	365
Change from Previous 4 Quarters										
	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.2	0.1	0.3

TABLE 3
DAILY CNEL VALUES AT EACH MONITOR STATION
January 2019

Date	NMS Site									
	1S	2S	3S	4S	5S	6S	7S	8N	9N	10N
1	56.2	51.2	66.5	38.9	44.7	62.2	34.2	62.1	31.1	*#N/A
2	67.4	66.4	65.4	59.3	59.1	60.1	56.7	68.1	40.1	56.2
3	67.2	66.2	65.7	59.0	58.5	59.2	56.0	67.9	44.5	57.1
4	68.3	67.4	66.6	60.7	59.9	60.8	57.0	68.4	42.6	57.1
5	68.2	66.7	66.2	61.0	59.5	60.7	57.8	67.6	35.8	57.5
6	69.3	68.0	67.4	61.0	61.3	61.6	58.7	69.0	44.4	58.6
7	68.5	67.6	67.3	61.4	60.8	61.6	58.5	68.5	38.7	58.1
8	67.5	66.6	66.2	59.7	59.8	60.1	56.8	67.9	40.9	57.2
9	67.7	67.0	66.5	60.4	59.2	60.6	57.3	68.0	41.4	56.8
10	68.7	67.9	67.1	61.0	61.0	61.5	58.3	68.9	47.0	58.2
11	68.4	67.2	66.9	61.0	60.1	60.5	58.1	68.3	47.1	57.6
12	67.2	65.5	65.1	59.4	58.7	59.2	56.6	66.3	46.9	55.8
13	68.3	67.0	66.4	60.5	60.1	60.8	57.7	68.0	47.1	57.0
14	68.0	66.4	67.1	60.7	59.6	61.9	57.0	69.2	47.5	58.3
15	68.6	67.0	66.6	61.8	60.1	61.1	58.2	68.6	39.2	58.4
16	68.7	67.0	66.6	61.4	59.8	60.4	58.2	69.3	*#N/A	59.1
17	68.8	68.2	67.0	60.8	61.3	61.4	58.7	69.8	*#N/A	58.8
18	69.1	67.4	67.7	61.1	61.4	62.0	58.7	69.1	43.6	58.1
19	66.9	65.8	65.8	58.7	59.0	59.5	55.8	65.4	36.8	54.4
20	67.6	66.2	66.2	58.9	59.8	60.0	57.0	68.6	44.6	57.8
21	67.6	67.1	67.2	58.2	59.0	61.7	56.8	68.4	46.4	56.5
22	55.7	53.1	65.7	38.4	45.5	61.8	31.9	62.1	38.3	*#N/A
23	66.7	66.2	65.2	58.3	58.7	58.8	55.6	67.5	36.4	55.4
24	68.2	66.6	67.0	60.3	59.4	60.6	56.9	67.2	35.9	54.7
25	67.7	66.3	66.6	58.8	59.3	60.5	56.3	66.6	37.7	53.4
26	60.9	60.2	62.5	52.4	52.7	57.5	50.2	64.4	*#N/A	49.4
27	67.4	66.5	66.4	58.9	59.2	60.0	55.9	67.5	44.0	55.3
28	68.4	67.4	66.7	59.8	59.6	60.1	56.6	68.0	40.6	56.9
29	67.7	66.6	66.2	60.1	59.5	60.1	56.2	67.8	36.7	56.8
30	68.4	67.6	66.8	61.0	60.2	61.2	57.9	68.2	44.2	57.3
31	69.0	68.2	67.7	61.6	61.6	61.9	58.7	69.1	45.0	58.4
Days	31	31	31	31	31	31	31	31	28	29
En. Avg	67.7	66.6	66.5	59.9	59.5	60.7	57.0	67.9	43.4	57.1

#N/A indicates insufficient data.

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

TABLE 4
DAILY CNEL VALUES AT EACH MONITOR STATION
February 2019

Date	NMS Site									
	1S	2S	3S	4S	5S	6S	7S	8N	9N	10N
1	69.2	67.6	67.6	62.2	61.4	62.1	59.0	68.9	44.7	58.5
2	65.5	62.9	63.9	57.5	57.1	58.2	54.5	67.8	40.0	57.8
3	67.6	66.6	65.9	60.3	60.0	60.1	57.6	68.6	48.6	58.3
4	69.0	67.5	67.3	61.9	61.3	61.7	59.5	69.8	*#N/A	59.9
5	67.8	67.6	66.4	60.0	60.9	60.7	58.2	68.8	31.7	58.4
6	67.5	66.6	66.0	59.5	59.5	60.1	57.3	67.9	41.2	57.1
7	68.6	67.0	67.0	60.3	60.4	60.7	57.8	68.4	47.6	56.8
8	68.6	67.5	67.0	60.5	61.0	61.0	58.3	69.5	40.5	58.9
9	66.4	65.2	64.8	59.0	59.2	59.3	56.5	66.5	53.3	56.1
10	68.1	67.5	66.5	60.2	60.8	61.3	58.5	69.3	41.7	58.8
11	68.3	67.3	66.8	60.7	60.6	61.0	58.1	68.0	42.2	57.1
12	68.0	65.3	65.3	58.6	57.8	58.2	53.7	67.4	40.1	55.5
13	68.9	66.8	66.7	61.5	59.6	61.0	57.5	70.1	47.5	59.8
14	68.4	67.4	66.5	60.2	60.9	60.9	58.2	70.3	37.8	59.5
15	68.7	68.0	67.7	61.6	61.7	61.9	59.3	69.9	37.7	59.2
16	66.5	65.6	64.8	58.1	58.3	59.1	56.6	67.4	35.2	56.5
17	66.4	66.7	65.1	58.4	55.2	59.7	58.1	68.8	33.7	58.4
18	68.0	66.9	67.1	59.8	60.2	60.6	57.3	68.4	43.7	56.4
19	67.6	64.2	66.4	60.1	60.0	60.5	57.7	67.9	37.9	57.3
20	68.0	66.6	66.3	60.7	60.5	61.2	58.8	69.4	47.5	59.4
21	66.8	65.9	69.3	58.1	59.1	64.5	55.8	66.3	47.0	53.6
22	68.2	67.4	66.8	60.2	60.1	60.0	57.4	68.9	45.5	57.9
23	66.5	65.6	65.0	58.6	58.4	58.4	55.5	66.6	44.6	56.3
24	67.9	67.1	66.7	59.6	60.0	60.3	57.2	68.0	49.7	56.4
25	68.7	67.5	67.1	61.1	60.3	60.9	57.4	68.5	49.6	57.3
26	67.4	66.9	66.6	60.7	60.4	60.9	57.8	68.2	43.5	57.9
27	67.9	66.9	66.5	60.5	60.2	60.9	57.9	68.0	36.6	57.5
28	68.7	67.1	66.9	60.3	60.3	61.2	57.9	68.9	35.5	57.4
Days	28	28	28	28	28	28	28	28	27	28
En. Avg	67.9	66.7	66.6	60.2	60.0	60.8	57.7	68.6	45.4	57.9

#N/A indicates insufficient data.

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

TABLE 5
DAILY CNEL VALUES AT EACH MONITOR STATION
March 2019

Date	NMS Site									
	1S	2S	3S	4S	5S	6S	7S	8N	9N	10N
1	68.7	67.8	67.8	60.9	60.6	61.4	57.5	68.6	30.9	57.7
2	67.3	65.5	64.9	59.5	58.6	58.6	55.9	67.8	39.7	56.7
3	68.2	67.6	67.1	61.0	61.2	61.3	58.5	69.0	31.9	58.7
4	68.5	67.6	67.1	61.1	60.9	61.5	58.4	68.7	42.0	58.8
5	68.3	67.2	66.9	60.8	59.8	60.6	56.6	68.5	38.4	57.9
6	68.1	66.7	66.2	60.9	59.9	60.3	57.4	69.9	43.3	59.1
7	68.4	67.7	67.1	60.7	61.2	61.5	58.2	69.8	41.5	59.6
8	68.9	68.5	67.8	61.1	60.2	61.7	58.9	69.9	39.6	59.8
9	67.1	65.6	65.8	59.8	59.1	59.9	56.8	67.3	43.6	57.2
10	68.7	67.8	67.4	61.2	61.1	61.6	58.7	69.8	46.5	59.2
11	67.9	66.8	67.7	60.2	60.4	61.8	57.8	68.6	50.6	57.3
12	68.4	67.5	66.6	60.6	60.8	60.9	57.9	70.1	39.8	58.8
13	68.7	67.6	67.3	61.2	60.9	61.4	57.8	68.6	46.1	57.8
14	58.5	55.7	67.4	45.2	50.7	64.3	27.8	63.7	46.1	38.6
15	63.6	62.7	67.5	53.7	55.0	63.5	51.1	64.9	41.6	44.8
16	63.8	62.9	63.4	55.3	55.6	58.3	52.3	65.8	42.7	53.0
17	67.5	66.3	66.4	59.3	59.1	59.8	56.4	67.8	*#N/A	56.2
18	67.7	66.8	66.4	60.1	59.4	60.7	57.5	68.4	46.8	57.3
19	68.1	67.0	66.5	61.0	59.6	60.8	57.4	69.2	37.3	58.4
20	67.4	67.8	67.0	60.8	60.5	61.5	58.0	69.1	44.1	58.2
21	#N/A	68.2	67.5	61.4	61.2	61.8	58.8	69.1	47.3	58.9
22	70.1	67.8	67.5	61.3	61.4	62.0	59.0	69.4	29.4	58.9
23	66.6	66.2	65.9	59.3	59.3	60.2	55.9	67.3	*#N/A	56.7
24	68.1	67.5	66.6	60.3	60.1	60.8	57.8	69.0	39.5	57.7
25	68.6	67.9	67.5	60.4	60.5	61.6	58.0	68.3	41.7	57.5
26	68.2	67.2	67.0	60.5	60.0	60.8	57.3	68.5	46.2	57.3
27	68.2	67.2	67.1	60.5	60.7	61.4	58.2	68.9	44.8	58.3
28	68.6	67.4	67.4	60.9	60.7	61.7	58.8	69.0	44.2	58.0
29	68.6	67.3	67.3	61.0	60.3	61.6	58.1	68.8	44.5	57.2
30	67.2	65.4	66.0	58.8	58.6	59.0	56.6	66.3	*#N/A	55.1
31	68.1	67.2	66.7	59.3	58.9	59.9	56.3	67.6	38.4	55.7
Days	30	31	31	31	31	31	31	31	28	31
En. Avg	67.9	66.9	66.9	60.2	59.9	61.2	57.4	68.5	43.8	57.6

#N/A indicates insufficient data.

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

TABLE 6
MEASURED AVERAGE SINGLE EVENT NOISE EXPOSURE LEVELS
Commercial Class A
January - March 2019

Carrier	AC Type	# Deps		NMS Site									
				1S	2S	3S	4S	5S	6S	7S	8N	9N	10N
Alaska Air	A320	607	Average Count	95.7 (546)	94.9 (534)	94.5 (560)	88.1 (557)	86.8 (536)	87.3 (551)	84.7 (554)	90.4 (35)	79.7 (3)	82.2 (4)
	B737	33	Average Count	95.3 (28)	94.8 (31)	94.1 (31)	89.0 (31)	89.2 (30)	89.3 (31)	84.8 (30)	91.8 (2)	#N/A (0)	#N/A (0)
	B738	473	Average Count	98.0 (401)	96.6 (379)	95.3 (417)	89.2 (419)	89.6 (396)	89.9 (416)	86.8 (415)	92.6 (46)	84.3 (9)	81.8 (11)
American	A320	94	Average Count	94.4 (80)	93.5 (80)	92.5 (86)	86.5 (83)	86.0 (81)	86.6 (78)	83.9 (80)	88.7 (6)	77.8 (1)	#N/A (0)
	A321	1	Average Count	98.5 (1)	98.3 (1)	94.4 (1)	#N/A (0)	87.7 (1)	88.3 (1)	86.4 (1)	#N/A (0)	#N/A (0)	#N/A (0)
	B738	1332	Average Count	99.0 (1155)	97.7 (1118)	97.3 (1202)	89.9 (1195)	89.8 (1149)	90.1 (1187)	87.0 (1194)	93.5 (96)	85.3 (25)	81.6 (31)
Compass	E175	333	Average Count	95.8 (293)	95.0 (285)	96.1 (308)	89.7 (304)	89.4 (291)	89.5 (299)	85.5 (299)	92.5 (21)	81.6 (1)	83.7 (1)
Delta	A319	230	Average Count	96.4 (174)	95.4 (163)	95.2 (180)	88.8 (178)	88.4 (170)	88.6 (173)	84.6 (172)	93.1 (47)	86.9 (24)	82.6 (7)
	B712	86	Average Count	93.2 (73)	93.2 (64)	89.8 (77)	81.1 (71)	80.9 (72)	82.2 (74)	79.8 (69)	86.5 (6)	#N/A (0)	#N/A (0)
	B737	4	Average Count	96.0 (3)	95.4 (3)	92.8 (3)	86.8 (3)	87.2 (3)	88.4 (3)	84.6 (3)	88.6 (1)	#N/A (0)	#N/A (0)
	B738	4	Average Count	95.5 (4)	94.9 (4)	93.8 (4)	89.3 (4)	90.0 (4)	90.5 (4)	87.5 (4)	#N/A (0)	#N/A (0)	#N/A (0)
	B752	335	Average Count	96.4 (275)	95.8 (269)	96.0 (288)	88.9 (276)	88.4 (265)	88.4 (280)	84.8 (281)	93.3 (43)	86.1 (20)	81.6 (15)
FedEx	A306	63	Average Count	97.3 (56)	96.9 (60)	94.6 (58)	88.9 (60)	88.9 (58)	89.5 (60)	86.3 (60)	92.7 (3)	80.2 (1)	#N/A (0)
Frontier Airlines	A20N	72	Average Count	89.9 (63)	89.2 (62)	88.7 (63)	82.6 (62)	81.6 (47)	83.2 (57)	79.8 (44)	85.9 (7)	82.5 (1)	#N/A (0)
	A319	49	Average Count	94.6 (46)	93.8 (46)	93.1 (46)	87.2 (46)	86.8 (43)	87.7 (45)	85.1 (47)	91.6 (2)	#N/A (0)	81.4 (1)
	A320	58	Average Count	95.7 (49)	95.1 (46)	93.8 (54)	87.3 (52)	86.6 (54)	87.6 (55)	85.8 (53)	90.0 (3)	#N/A (0)	#N/A (0)
Horizon Air	E175	174	Average Count	92.4 (155)	91.6 (153)	89.8 (160)	85.7 (159)	85.3 (147)	86.4 (157)	83.9 (157)	89.7 (13)	#N/A (0)	79.6 (2)
Southwest	B38M	1	Average Count	90.0 (1)	88.3 (1)	88.6 (1)	83.1 (1)	#N/A (0)	83.4 (1)	79.4 (1)	#N/A (0)	#N/A (0)	#N/A (0)
	B737	1509	Average Count	93.0 (1304)	92.5 (1274)	90.7 (1350)	85.6 (1361)	86.1 (1324)	86.2 (1359)	84.4 (1311)	92.4 (110)	81.3 (10)	81.3 (21)
	B738	17	Average Count	91.9 (15)	91.9 (15)	89.0 (16)	83.8 (16)	85.2 (14)	84.6 (15)	82.8 (15)	89.1 (1)	#N/A (0)	#N/A (0)
United	A320	458	Average Count	94.6 (387)	93.9 (365)	92.9 (412)	86.8 (407)	86.5 (387)	88.0 (404)	85.7 (401)	91.3 (34)	86.5 (7)	80.1 (2)
	B737	297	Average Count	97.0 (253)	95.5 (250)	96.4 (264)	90.3 (267)	90.8 (256)	90.9 (262)	86.9 (254)	92.9 (24)	84.2 (6)	80.2 (7)
	B738	777	Average Count	98.5 (665)	97.0 (628)	96.5 (680)	89.9 (673)	90.3 (661)	90.7 (675)	87.3 (664)	93.6 (78)	86.7 (22)	81.9 (18)
UPS	B752	51	Average Count	95.8 (44)	95.5 (48)	94.0 (46)	86.8 (48)	86.9 (46)	87.1 (46)	82.7 (45)	87.9 (3)	#N/A (0)	#N/A (0)
WestJet	B736	6	Average Count	94.4 (6)	93.1 (6)	93.8 (6)	87.8 (6)	87.6 (6)	87.5 (6)	82.8 (6)	#N/A (0)	#N/A (0)	#N/A (0)
	B737	71	Average Count	95.9 (63)	94.7 (61)	95.2 (65)	89.8 (64)	90.0 (61)	90.5 (64)	85.9 (62)	91.0 (5)	77.3 (1)	#N/A (0)

TABLE 7
MEASURED AVERAGE SINGLE EVENT NOISE EXPOSURE LEVELS
Commercial Class E
January - March 2019

Carrier	AC Type	# Deps		NMS Site									
				1S	2S	3S	4S	5S	6S	7S	8N	9N	10N
Delta	B712	331	Average Count	91.9 (290)	92.1 (284)	88.1 (301)	80.6 (243)	81.0 (263)	82.0 (301)	79.7 (246)	85.9 (22)	80.3 (1)	#N/A (0)
Horizon Air	DH8D	6	Average Count	84.6 (5)	85.0 (5)	85.5 (5)	80.2 (2)	78.6 (1)	80.3 (3)	#N/A (0)	78.1 (1)	#N/A (0)	#N/A (0)
	E175	335	Average Count	91.4 (294)	90.9 (285)	89.4 (303)	85.8 (297)	85.2 (286)	86.1 (290)	84.0 (289)	90.4 (25)	78.7 (3)	80.4 (4)
SkyWest Coml.	E175	855	Average Count	90.6 (755)	90.4 (719)	89.3 (788)	85.7 (783)	85.1 (722)	85.8 (770)	83.8 (753)	88.6 (51)	#N/A (0)	#N/A (0)
Southwest	B38M	4	Average Count	89.8 (4)	89.1 (4)	87.6 (4)	81.0 (4)	81.6 (4)	83.6 (1)	79.5 (3)	#N/A (0)	#N/A (0)	#N/A (0)
	B737	2315	Average Count	92.0 (2015)	91.7 (1975)	89.9 (2083)	85.2 (2097)	85.5 (2005)	85.7 (2109)	84.0 (2021)	91.5 (166)	80.8 (19)	81.0 (20)

TABLE 8
MEASURED AVERAGE SINGLE EVENT NOISE EXPOSURE LEVELS
Commuter
January - March 2019

Carrier	AC Type	# Deps		NMS Site									
				1S	2S	3S	4S	5S	6S	7S	8N	9N	10N
Delux Public Charters	E135	505	Average Count	85.8 (443)	86.0 (420)	86.6 (461)	80.7 (427)	79.6 (250)	80.5 (392)	77.9 (23)	84.0 (34)	#N/A (0)	#N/A (0)
SkyWest	CRJ7	76	Average Count	88.3 (69)	88.8 (71)	87.6 (72)	80.0 (46)	81.9 (58)	81.9 (69)	80.4 (62)	88.5 (3)	#N/A (0)	#N/A (0)

TABLE 8-GA
MEASURED AVERAGE SINGLE EVENT NOISE EXPOSURE LEVELS
General Aviation
January - March 2019

Carrier	AC Type	# Deps		NMS Site									
				1S	2S	3S	4S	5S	6S	7S	8N	9N	10N
General Aviation	Jet	4326	Average Count	88.5 (3654)	88.0 (3486)	89.3 (3768)	83.3 (2352)	83.3 (1961)	84.0 (2530)	82.5 (1040)	85.9 (282)	80.8 (20)	77.5 (3)

TABLE 9
AIR CARRIER OPERATIONAL HISTORY

Carrier	AC Type	Year					
		2015	2016	2017	2018	2019	
Alaska Air	AS	A319				64	80
		A320				262	1,142
		B734	80	76	24		
		B737	2,666	3,258	1,233	384	66
		B738	4,590	4,439	6,420	8,260	946
American	AA	A319	42	178	332	722	184
		A320	344	868	266	78	4
		A321	326	563	56	4	2
		B738	9,090	10,538	11,556	11,457	2,664
		B752	22	74	4	4	
Compass	CP	E170		152	78		
		E175		1,669	2,726	3,188	666
Delta	DL	A319	3,352	3,444	2,053	1,979	460
		A320	162	160	94	12	
		B712			3,267	3,379	834
		B737			146	188	8
		B738	4		40	18	8
		B739	2			2	
		B752	2,130	2,128	2,137	2,889	670
		MD90				2	
FedEx	FM	A306	508	510	506	508	126
Frontier Airlines	F9	A20N*				600	144
		A319	1,497	646	356	190	98
		A320	154	740	628	654	116
		A321		2			
		A32N*		12	438		
Horizon Air	QX	DH8D		1,156	1,456	728	12
		E175			339	2,716	1,024
SkyWest Coml.	SC	CRJ9	1,922	1,899	1,440	6	
		E175		3,554	4,761	6,960	1,714
Southwest	WN	B38M			2	14	10
		B737	37,101	41,806	35,971	32,380	7,652
		B738	2,586	1,144	58	64	34
United	UA	A319	1,393	1,999	1,470	999	271
		A320	3,207	2,670	3,957	3,927	646
		B737	4,523	5,246	4,044	2,987	596
		B738	1,853	1,252	3,302	5,154	1,551
		B752	44		2	4	
UPS	5X	A306	52	52	45	22	
		B752	366	370	369	394	102
US Airways	AW	A319	240				
		A320	1,476				
		A321	740				
		B752	98				
WestJet	WS	B736		32	30	10	12
		B737	718	642	644	666	142
Total			81,288	91,279	90,250	91,875	21,984

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

TABLE 10
AIRCRAFT OPERATIONAL HISTORY

Aircraft	Year				
	2015	2016	2017	2018	2019
A20N*				600	144
A306	560	562	551	530	126
A319	6,524	6,267	4,211	3,954	1,093
A320	5,343	4,438	4,945	4,933	1,908
A321	1,066	565	56	4	2
A32N*		12	438		
B38M			2	14	10
B712			3,267	3,379	834
B734	80	76	24		
B736		32	30	10	12
B737	45,008	50,952	42,038	36,605	8,464
B738	18,123	17,373	21,376	24,953	5,203
B739	2			2	
B752	2,660	2,572	2,512	3,291	772
CRJ9	1,922	1,899	1,440	6	
DH8D		1,156	1,456	728	12
E170		152	78		
E175		5,223	7,826	12,864	3,404
MD90				2	
Total	81,288	91,279	90,250	91,875	21,984

*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					
		2015	2016	2017	2018	2019	
Alaska Air	AS	A319				.088	.110
		A320				.359	1.564
		B734	.110	.104	.033		
		B737	3.652	4.451	1.693	.526	.090
		B738	6.288	6.066	8.789	11.315	1.296
American	AA	A319	.058	.243	.455	.989	.252
		A320	.471	1.186	.364	.107	.005
		A321	.447	.770	.077	.005	.003
		B738	12.452	14.402	15.827	15.696	3.649
		B752	.030	.101	.005	.005	
Compass	CP	E170		.208	.107		
		E175		2.279	3.734	4.367	.912
Delta	DL	A319	4.592	4.705	2.811	2.712	.630
		A320	.222	.219	.129	.016	
		B712			4.471	4.627	1.142
		B737			.200	.258	.011
		B738	.005		.055	.025	.011
		B739	.003			.003	
		B752	2.918	2.910	2.926	3.959	.918
		MD90				.003	
FedEx	FM	A306	.696	.697	.693	.696	.173
Frontier Airlines	F9	A20N*				.822	.197
		A319	2.052	.883	.488	.260	.134
		A320	.211	1.011	.860	.896	.159
		A321		.003			
		A32N*		.016	.600		
Horizon Air	QX	DH8D		1.579	1.995	.997	.016
		E175			.466	3.721	1.403
SkyWest Coml.	SC	CRJ9	2.633	2.593	1.975	.008	
		E175		4.855	6.523	9.534	2.348
Southwest	WN	B38M			.003	.019	.014
		B737	50.819	57.104	49.274	44.351	10.482
		B738	3.542	1.563	.079	.088	.047
United	UA	A319	1.910	2.730	2.014	1.373	.370
		A320	4.395	3.648	5.422	5.375	.885
		B737	6.195	7.169	5.534	4.093	.814
		B738	2.537	1.710	4.526	7.058	2.129
		B752	.060		.003	.005	
UPS	5X	A306	.071	.071	.060	.030	
		B752	.501	.505	.507	.540	.140
US Airways	AW	A319	.329				
		A320	2.022				
		A321	1.014				
		B752	.134				
WestJet	WS	B736		.044	.041	.014	.016
		B737	.984	.877	.882	.912	.195
Total			111.351	124.699	123.622	125.852	30.115

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

TABLE 12
AIRCRAFT Glossary

AC Type	Make	Model/Series
A20N	Airbus	320-200 Neo
A306	Airbus	300-600
A310	Airbus	310-200
A320	Airbus	320
A32N	Airbus	320-200 Neo
B38M	Boeing	737-800 Max
B712	Boeing	717-200
B733	Boeing	737-300
B734	Boeing	737-400
B736	Boeing	737-600
B737	Boeing	737-700
B738	Boeing	737-800
B739	Boeing	737-900
B752	Boeing	757-200
CRJ7	Canadair Regional Jet	700
CRJ9	Canadair Regional Jet	900
DH8D	Bombardier	Dash 8
E135	Embraer	135
E170	Embraer	170
E175	Embraer	175
MD90	McDonnell Douglas	90

QUARTERLY NOISE MEETING

Date: March 20, 2019

Time: 2:00 PM

Place: Airport Commission Room

ITEMS DISCUSSED

Nikolas Gaskins provided an update on the release of the JWA Quarterly Noise Report for the 4th Quarter of 2018. A summary of the JWA airport statistics for the month of January 2019 was provided by Bonnie Frisch.

Louie Ilustrisimo presented an overview of the soon-to-be released JWA noise complaint management system supported by Bruel & Kjaer called Viewpoint. The presentation highlighted the automation of noise complaints at JWA through Viewpoint, which will be readily accessible to the community via a mobile app, desktop version, and telephone tree when it is released in late spring.

Tony Cangey presented a flight track analysis comparing the reverse flow operational procedures with respect to pre- and post-FAA SoCal Metroplex implementation at JWA, and discussed other factors relating to reverse flow.

Tom Meng of Newport Beach and member of the Newport Beach Aviation Committee inquired as to how noise complaints are currently being received by the airport and whether staff will continue to investigate complaints after Viewpoint is implemented. Mr. Gaskins explained that over the past several months the John Wayne Airport Access & Noise Office has received over 30,000 complaints via a subscription complaint service that is also referred to as a “noise button” or “clicker.” Mr. Gaskins emphasized that Viewpoint will assist staff by increasing efficiency and accuracy in how complaints are entered into the database, and staff will continue to monitor and investigate complaints when received.

Steve Byers of Newport Beach and member of the Newport Beach Aviation Committee asked if the volume of noise complaints increases during reverse flow. Mr. Cangey affirmed that complaints do increase as a result of residents not being familiar with the reverse flow flight paths.

Mr. Byers asked how Viewpoint will be made accessible to the public. Mr. Gaskins explained that the implementation of Viewpoint at JWA will occur in three phases: First, the mobile app will be accessible to the public, followed by the desktop version, then concluded by the release of the telephone tree approximately 1 ½ months after the initial release date of Viewpoint. Mr. Gaskins emphasized that the airport will have information available to the public on the airport website prior to the release date of Viewpoint, and the airport may conduct presentations to the community.

Mr. Byers inquired as to how the airport is managing the 30,000 noise complaints that it has recently received. Mr. Gaskins explained the “noise button” is currently being used by approximately 50 residents, and the technology has made it easier for residents to submit complaints. Mr. Gaskins emphasized that the large amount of noise complaints the airport has received over the past several months, as a result of the “noise button,” was a factor in the airport considering remedies to effectively manage noise complaints in the future.

QUARTERLY NOISE MEETING

Newport Beach resident Dr. Jim Mosher asked if the email address to the noise office that is currently being used for noise complaints will be discontinued, and whether noise complaints being sent through the “clicker” will be rejected once Viewpoint is released. Mr. Gaskins advised that once the Viewpoint mobile app and desktop versions are released to the public, the noise office email address will continue to be active for an undetermined period of time while providing an autoreply message referring the complainant to the Viewpoint application website to register and submit a noise complaint. Mr. Gaskins explained that noise complaints submitted through the “clicker” are currently and will continue to be automatically registered into the database.

Dr. Mosher inquired if noise complaints prompt the issuance of curfew violations at the airport. Mr. Gaskins explained that there are several systems and checks conducted by the noise office to ensure curfew regulations are strictly enforced, whether or not complaints about such flights are received.

Dr. Mosher asked for an update on the detailed noise reports that will be made available to the public. Mr. Gaskins advised that within the next couple of months the detailed noise reports will be made available to public on a monthly basis once that particular month has been flight-matched by staff. Mr. Gaskins explained that the detailed noise reports will be similar to the platform used by Reagan National Airport in an effort to be as transparent as possible with respect to noise data.

Mel Beale of Newport Beach and member of Airport Working Group (AWG) asked if the subscription complaint form service gets a copy of the email with the details of the complaint. Mr. Gaskins explained he was not aware of whether the service administrator receives an email for each complaint. Mr. Beale also asked if the increase in complaints from the subscription service has affected the workload of the noise office. Mr. Gaskins explained that if the noise office did not utilize a system such as Viewpoint, staff would have to manually enter each complaint into the database, which would take staff away from completing other daily tasks in a timely manner.

QUARTERLY NOISE MEETING ROSTER

March 20, 2019

<u>NAME</u>	<u>ORGANIZATION</u>
Steve Byers	Resident - Newport Beach/Aviation Committee
Jim Mosher	Resident – Newport Beach
Mel Beale	Resident – Airport Working Group
Tom Meng	Resident - Newport Beach/Aviation Committee
Nikolas Gaskins	John Wayne Airport
Bonnie Frisch	John Wayne Airport
Anthony Cangey	John Wayne Airport
Beatrice Siercke	John Wayne Airport
Louie Ilustrisimo	John Wayne Airport
Cristina Magaña	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
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)
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 - 6,702 ops (Arrivals + Departures)
5. Total number of aircraft operations during the calendar quarter:

77,687
6. Number of Air Carrier operations during the calendar quarter:
(Not mandatory)

23,851
7. 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)

53,655
9. Estimated number of operations by Military aircraft during the calendar quarter:
(Not mandatory)

181