

QUARTERLY NOISE REPORT

For:
California Department of Transportation

2nd Quarter 2017
April 1– June 30, 2017



SAN DIEGO
INTERNATIONAL AIRPORT

LET'S **GO.**

Airport Noise Mitigation

September 1, 2017



QUARTERLY NOISE REPORT
For the Period
April 1 through June 30, 2017

The California Department of Transportation, Division of Aeronautics, granted a Variance from the requirements of Section 5012, Chapter 2.5, Subchapter 6, Title 21, of the California Administrative Code to the San Diego County Regional Airport Authority for the operation of San Diego International Airport on May 8th, 2012.

This Quarterly Report for the 2nd Quarter of 2017 was prepared by Airport Noise Mitigation at San Diego International Airport, in accordance with the Airport Noise Standards, State of California.

A handwritten signature in blue ink, appearing to read "B. Reed", is written over a horizontal line.

Brendan Reed
Director of Planning & Environmental Affairs

A handwritten signature in black ink, appearing to read "Kimberly J. Becker", is written over a horizontal line.

Kimberly Becker
President / CEO

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Summary of Statistical Information for the 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):
Noise Impact Area = 0.763 sq. miles; Military Noise Impact Area = 0.105 sq. miles

2. Estimated number of dwelling units included in the Noise Impact Area as defined in the Noise Standards:
10,162* (QHP Insulated = 3,453)

3. Estimated number of people residing within the Noise Impact Area as defined in the Noise Standards:
20,265* (QHP Insulated = 8,633)

4. Identification of the aircraft type having the highest takeoff noise level operating at SDIA, together with the estimated number of operations by this aircraft type during the calendar quarter reporting period:
Boeing 777-200: 4

5. Total number of aircraft operations during the calendar quarter:
53,099

6. Number of Air Carrier operations by aircraft certified under Federal Aviation Regulations (FAR) Part 36:
47,917

7. Percentage of Air Carrier operations by aircraft certificated under FAR Part 36, Stage III:
100%

8. Estimated number of operations by Air Taxi aircraft during the calendar quarter:
2,556

9. Estimated number of operations by General Aviation aircraft during the calendar quarter:
2,440

10. Estimated number of operations by Military aircraft during the calendar quarter:
186

Form DOA 617, 10/89

* Population and dwelling unit calculations are based upon 2010 Census Block Boundary Data.

Aircraft Noise Measurements

Using data generated from the Airport Noise and Operations Monitoring System (ANOMS) and Geographic Information System (GIS), Airport Noise Mitigation determined that the Noise Impact Area (N.I.A.) and the Federal Military Impact Area (M.I.A.) within the 65 dB Community Noise Equivalent Level (CNEL) contour for the period between July 1, 2016 to June 30, 2017 to be 0.763 square miles (488.3 acres) and 0.105 square miles (67.2 acres), respectively. As compared to the period between July 1, 2015 to June 30, 2016, the Noise Impact Area increased by 0.040 square miles and the Federal Military Noise Impact Area decreased by 0.006 square miles.

Table 1

Change in N.I.A. and M.I.A.

Impact Area	July 1, 2016 to June 30, 2017	July 1, 2015 to June 30, 2016	Change
N.I.A.	0.763	0.723	0.040
M.I.A.	0.105	0.111	-0.006

A summary of the quarterly and annual CNEL data is shown on the following page within Table 2. Appendix A: Aircraft Noise Monitoring System contains Remote Monitoring Terminals (RMTs) thresholds and Daily/Monthly CNEL Logs.

The contours were prepared using Harris Miller Miller & Hanson Inc.'s (HMMH) RealContours software. The N.I.A. & M.I.A. were determined using GIS analysis. Use of GIS technology allowed direct counting of individual parcels within the N.I.A. The modeling methodology fulfills the requirements of the State of California, Title 21, California Noise Standards. A review of measured and modeled noise levels indicate good agreement between several key measurement locations.

Additionally, the 65 dB Community Noise Equivalent Level (CNEL) contours for the period between July 1, 2016 to June 30, 2017 compared to the period between July 1, 2015 to June 30, 2016 accompanies this report as an attachment.

Table 2**Quarterly and Annual CNEL Data**

RMT #	Annual CNEL (dB)¹	Quarter CNEL (dB)²
1	70.3	71.2
2	66.9	67.5
3	*	*
4	65.5	63.9
6	69.9	70.4
7	75.7	76.1
9	68.0	67.9
10	64.8	64.6
11	72.4	72.3
12	63.2	63.2
13	66.6	67.2
14	65.8	64.5
16	65.3	65.5
17	66.2	66.7
18	62.3	61.8
19	63.7	62.6
20	62.1	62.0
21	59.2	59.1
22	65.3	65.5
23	64.4	65.1
24	64.7	65.7
25	62.5	61.2
26	63.8	64.7

¹ = For the period July 1, 2016 through June 30, 2017

² = For the period April 1, 2017 through June 30, 2017

Note 1: RMTs #5, #8 and #15 are no longer operational since the noise impact boundary has decreased in size.

Note 2: RMT #3 was offline during this time period due to building blockage of the solar panel. Staff is working to connect this site to another electrical source.

Aircraft Operations

The following table contains statistics of aircraft operations based upon the Federal Aviation Administration (FAA) Air Traffic Control Tower (ATCT) counts at San Diego International Airport (SAN).

Table 3

SAN ATCT Counts

Operations	2nd Quarter 2017	2nd Quarter 2016	Increase / Decrease	Percent Change
Air Carrier	47,917	44,165	3,752	8.50%
Air Taxi	2,556	3,069	-513	-16.72%
General Aviation	2,440	2,428	12	0.49%
Military	186	251	-65	-25.90%
Total	53,099	49,913	3,186	6.38%

Quarterly Operations Survey Report

The Quarterly Operations Survey Report for San Diego International Airport (SDIA) encompasses the 2nd Quarter of 2017. The data used to compile this report was gathered during 24-hour periods on May 9-11, 2017.

Table 5, Quarterly Operations Survey - Arrivals, identifies the loudest 25% of the aircraft arriving at SDIA, as measured at Remote Monitoring Terminal (RMT) #1, which is located approximately one (1.0) mile from the arrival end of Runway 27. During the 2nd Quarter 2017 Operations Survey, an average of 266 daily air carrier arrival operations were conducted. Therefore, the loudest 25% of these arrivals totaled approximately 66. These commercial service jet aircraft are listed by Aircraft Type, Single Event Noise Exposure Level (SENEL), Airport Origin, Flight Number and Date/Time. Since RMT #1 was offline during this time period due to mechanical, electrical and/or communication issues, no data is available for Table 5.

Table 6, Quarterly Operations Survey - Departures, identifies the loudest 25% of the aircraft departing from SDIA, as measured at Remote Monitoring Terminal (RMT) #7, which is located approximately one-half (0.5) mile from the departure end of Runway 27. During the 2nd Quarter 2017 Operations Survey, an average of 266 daily air carrier departure operations were conducted. Therefore, the loudest 25% of these departures totaled approximately 66. These commercial service jet aircraft are listed by Aircraft Type, Single Event Noise Exposure Level (SENEL), Airport Destination, Flight Number and Date/Time.

The average Single Event Noise Exposure Level (SENEL) of the loudest 25% of the 2nd Quarter 2017 Operations Survey is as follows:

Table 4

Single Event Noise Exposure Level (SENEL) Comparison

	May 9-11, 2017	May 10-12, 2016	Change (dB)
Departures	100.0	99.9	0.1
Arrivals	-	95.6	-

Note 1: RMT #1 was offline between May 9-11, 2017 due to mechanical, electrical and/or communication issues and therefore there is no arrival data available.

Table 7, Air Carrier Operations Mix by Time of Day and Runway Use, represents the 531 daily operations, which is more than the 456 daily operations recorded during the 2nd Quarter of 2016.

Table 6

Quarterly Operations Survey - Departures (RMT #7 from May 9-11, 2017)

Aircraft Type	SENEL (dB)	Departing To	Flight Number	Date and Time
B772	102.4	EGLL	BAW72A	5/9/2017 8:58 PM
A321	101.6	PHL	AAL654	5/10/2017 10:48 PM
B739	101.6	EWR	UAL1827	5/11/2017 9:32 PM
A332	101.5	PHNL	HAL15	5/10/2017 10:36 AM
DC10	101.4	MEM	FDX1222	5/9/2017 7:23 PM
A321	101.4	PHL	AAL654	5/9/2017 10:52 PM
B763	101.4	EDDF	CFG059	5/11/2017 3:44 PM
B739	101.3	IAD	UAL546	5/10/2017 8:09 AM
B77W	101.3	EGLL	BAW72A	5/11/2017 8:57 PM
A332	101.2	PHNL	HAL15	5/9/2017 10:37 AM
B739	101.1	IAD	UAL546	5/9/2017 8:07 AM
B738	100.9	PHOG	ASA829	5/11/2017 7:42 AM
A321	100.7	CLT	AAL2084	5/9/2017 11:17 AM
A321	100.7	CYYZ	ROU1886	5/9/2017 11:57 AM
A321	100.7	DFW	AAL440	5/10/2017 7:15 AM
B739	100.7	IAD	UAL238	5/11/2017 10:38 PM
A321	100.7	CLT	AAL584	5/11/2017 10:52 PM
A321	100.6	DFW	AAL1763	5/10/2017 9:07 AM
A321	100.6	PHL	AAL654	5/11/2017 10:57 PM
A321	100.5	CYYZ	ROU1886	5/10/2017 12:01 PM
B739	100.4	EWR	UAL751	5/10/2017 6:34 AM
B739	100.4	ORD	UAL307	5/10/2017 7:05 AM
A321	100.3	ORD	AAL156	5/9/2017 11:26 AM
A321	100.3	CLT	AAL584	5/9/2017 10:50 PM
B739	100.2	EWR	UAL1150	5/9/2017 12:01 PM
B738	100.2	PHOG	ASA829	5/10/2017 7:32 AM
A332	100.2	PHNL	HAL15	5/11/2017 10:49 AM
B738	100.1	PHNL	ASA895	5/10/2017 11:56 AM
DC10	100.1	MEM	FDX1222	5/10/2017 7:14 PM
B77W	100.1	EGLL	BAW72A	5/10/2017 8:50 PM
B738	100.1	PHLI	ASA115	5/11/2017 9:20 AM
B738	100.0	EWR	UAL751	5/9/2017 6:41 AM
B739	100.0	IAD	UAL1590	5/9/2017 12:46 PM
B739	100.0	IAD	UAL546	5/11/2017 8:01 AM
DC10	100.0	MEM	FDX1222	5/11/2017 7:20 PM
B739	99.8	ORD	UAL307	5/9/2017 6:59 AM
B738	99.7	PHLI	ASA115	5/9/2017 9:28 AM
B739	99.6	BWI	ASA378	5/11/2017 10:59 PM
A321	99.5	DFW	AAL1691	5/9/2017 2:44 PM

Table 6 Continued

Quarterly Operations Survey - Departures (RMT #7 from May 9-11, 2017)

Aircraft Type	SENEL (dB)	Departing To	Flight Number	Date and Time
B738	99.5	JFK	DAL1798	5/9/2017 9:49 PM
B738	99.5	JFK	AAL94	5/10/2017 8:01 AM
A321	99.5	CLT	AAL584	5/10/2017 10:43 PM
B738	99.5	BOS	ASA798	5/11/2017 8:44 AM
B739	99.4	IAH	UAL1862	5/9/2017 7:12 AM
B753	99.4	ATL	DAL1375	5/9/2017 8:42 AM
A321	99.4	ORD	AAL156	5/10/2017 11:25 AM
B738	99.4	PHNL	ASA895	5/11/2017 11:53 AM
B738	99.3	PHL	AAL1214	5/9/2017 7:14 AM
A321	99.3	DFW	AAL2181	5/9/2017 11:05 AM
A321	99.3	JFK	JBU90	5/11/2017 8:54 PM
B739	99.2	DEN	UAL457	5/10/2017 7:58 AM
B738	99.2	BOS	ASA798	5/10/2017 8:43 AM
B738	99.2	PHL	AAL1214	5/11/2017 7:09 AM
B738	99.1	PHOG	ASA829	5/9/2017 7:33 AM
A321	99.1	DFW	AAL1095	5/9/2017 1:02 PM
A321	99.1	DFW	AAL639	5/9/2017 4:18 PM
B739	99.1	EWR	UAL1827	5/10/2017 9:21 PM
A321	99.1	DFW	AAL1763	5/11/2017 9:13 AM
B738	99.0	PHL	AAL1214	5/10/2017 7:25 AM
B739	99.0	EWR	UAL1150	5/10/2017 11:52 AM
B739	99.0	MMSD	ASA248	5/11/2017 12:31 PM
B739	99.0	SEA	ASA480	5/11/2017 7:11 PM
A321	98.9	DFW	AAL440	5/9/2017 7:16 AM
A321	98.9	DFW	AAL2181	5/10/2017 11:01 AM
B738	98.9	PHKO	ASA185	5/11/2017 7:10 AM
B738	98.9	JFK	AAL94	5/11/2017 8:05 AM

Table 7**Air Carrier Operations Mix by Time of Day and Runway Use**

These numbers are the averages for operations for May 9-11, 2017

Aircraft Type	Runway 27						Runway 09						Total
	Arrivals			Departures			Arrivals			Departures			
	700	1900	2200	700	1900	2200	700	1900	2200	700	1900	2200	
	--	--	--	--	--	--	--	--	--	--	--	--	
	1859	2159	659	1859	2159	659	1859	2159	659	1859	2159	659	
A319	7			7									14
A320+	32	8	13	31	6	12							102
A330+			11	1									12
B712		1		2									3
B733+	100	29	10	110	19	8							276
B752+	6	2	2	8	2	1							21
B762+	3		1	2	2	1							9
B772+	1				1								2
B787+	1			1									2
BE99	1			1									2
C208	4			2		2							8
DH8D	3			2	1								6
E170/175/190	20	4	1	21									46
DC10	1				1								2
MD90+			1	1		5							7
RJ+	5	2	1	6	1	2							17
SW3/4	1				1								2
Total	185	46	40	195	34	31	0	0	0	0	0	0	531

Note 1: The use of a "+" sign after an aircraft model designation means "and all succeeding series aircraft." The designation of "Q" signifies a hush kitted aircraft. RJ+ = All forms/types of Regional Jets operated as "commercial service" flights.

Aircraft Noise Complaints

During the 2nd Quarter of 2017, Airport Noise Mitigation received complaints from a total of 182 households. Where possible, each complaint is correlated with a specific flight and examined for its validity. Those flights that indicate a possible violation of the Airport Use Regulations, Time of Day Restrictions, are investigated and appropriate enforcement action is taken.

Enforcement Actions

The Airport Use Regulations at San Diego International Airport establish Time of Day Restrictions for all operators. Airport Noise Mitigation monitors operator compliance with these Airport Use Regulations. Any infraction is reported to the Curfew Violation Review Panel (Panel), which is a separate body. The Panel examines data and documentation collected regarding alleged violations of the Time of Day (Noise Curfew) Restrictions, and makes recommendations to the Director, Airport Noise Mitigation, for the disposition of incidents.

During the 2nd Quarter of 2017, there were a total of 25 curfew violations. The 25 curfew violations recorded during the 2nd Quarter of 2017 reflects an increase of 13 from the 12 curfew violations recorded during the 2nd Quarter of 2016.

Residential Sound Insulation Program

Per the requirements of San Diego International Airport's Variance agreement, the following figure is provided to serve as an update on the Residential Sound Insulation Program (RSIP), also known as the Quieter Home Program (QHP), the Airport sponsored sound insulation program. To date, the Quieter Home Program has established eight eligibility boundaries. The eight boundaries are the Pilot/Phase 1A Boundary, the Phase 1B Boundary, the Phase 1C Boundary, the Supplemental Expansion Boundaries 1, 2, & 3, the 2014 NEM 68 dB CNEL boundary, and the 2014 NEM 67 dB CNEL boundary. Within each boundary there have been subsets, called phases and groups.

Airport Noise Advisory Committee (ANAC)

The San Diego County Regional Airport Authority recognizes that neighborhoods surrounding San Diego International Airport are affected by noise from aircraft operations. An Airport Noise Advisory Committee (ANAC) (Committee), consisting of individuals from various organizations, residential areas, and professional associations, was formed in 1981 under the San Diego Unified Port District, previous operator of San Diego International Airport. The Airport Noise Advisory Committee is formally adopted as Airport Authority Policy 9.20.

The information regarding the Airport Noise Advisory Committee (ANAC) can be found on the San Diego County Regional Airport Authority's website: <http://www.SAN.org/Airport-Noise/Initiatives>.

Appendix A

Airport Noise Monitoring System

Appendix A1

Remote Noise Monitoring Terminal (RMTs) Thresholds

RMT #	SENEL Day Threshold (dB)	Duration (sec)	SENEL Evening Threshold (dB)	Duration (sec)	SENEL Night Threshold (dB)	Duration (sec)
1	73*	9	73	9	72*	10
2	63	10	60	12	58	14
3	74*	9	73	10	72*	10
4	64*	10	63	12	60*	12
6	68*	8	67	9	65*	10
7	65	12	63	12	62	15
9	68*	8	67	9	65*	10
10	65*	8	62	12	60*	13
11	65*	12	63	13	60*	15
12	64*	10	62	12	60*	14
13	65*	8	62	12	60*	13
14	65*	10	62	12	60*	13
16	67*	8	66	9	65*	10
17	64	9	62	12	58	15
18	65	8	65	8	62	12
19	64*	8	64	8	63*	8
20	62	11	62	11	60	13
21	60	10	58	12	55	18
22	65	8	63	10	60	12
23	65*	8	63	10	60*	12
24	65*	8	65	8	63*	10
25	65*	10	62	10	60*	12
26	65*	10	64	12	62*	14

KEY:

Day	=	From 7:00 a.m. to 6:59 p.m. (* = change occurs at 0500L)
Evening	=	From 7:00 p.m. to 9:59 p.m.
Night	=	From 10:00 p.m. to 6:59 a.m. (* = change occurs at 0500L)

Note 1: RMTs #1 and #3 high threshold levels are due to high freeway and/or construction noise.

Note 2: Noise monitors comply with all applicable settings as specified in the California Noise Standards (Title 21). Noise events must meet both threshold criteria to be considered for further review.

Appendix A2

Daily/Monthly CNEL Levels – April 2017

* Not in Service

Day	RMT 1	RMT 2	RMT 3	RMT 4	RMT 6	RMT 7	RMT 9	RMT 10	RMT 11	RMT 12	RMT 13
1	68.9	66.0	*	65.0	69.1	75.2	69.4	63.3	71.0	61.4	65.7
2	69.7	67.1	*	66.2	70.1	76.1	68.1	64.6	72.2	62.6	67.1
3	69.7	67.4	*	66.1	69.9	75.6	67.4	64.7	71.9	63.1	67.5
4	70.5	67.5	*	66.8	69.8	74.4	66.4	65.0	71.2	64.3	67.3
5	69.5	66.6	*	65.3	69.5	75.3	65.8	64.2	71.5	63.4	66.5
6	69.5	66.7	*	67.5	69.9	76.4	67.7	64.5	73.1	63.9	67.6
7	70.9	68.0	*	66.6	70.3	75.8	68.3	64.6	71.9	63.4	66.7
8	70.2	66.7	*	65.1	69.2	74.7	66.2	63.8	70.8	61.9	66.5
9	70.0	67.5	*	65.8	71.4	75.7	65.2	64.5	71.8	62.8	67.3
10	69.9	66.5	*	65.1	69.8	75.1	67.9	64.5	71.3	62.7	66.9
11	70.5	67.5	*	66.1	70.1	75.2	69.9	65.4	71.5	63.5	66.8
12	71.1	67.8	*	65.8	70.0	74.9	68.0	64.8	71.1	63.1	66.8
13	71.6	68.2	*	65.9	70.5	75.1	66.2	64.9	71.6	63.9	67.4
14	70.8	67.4	*	67.5	70.5	74.9	68.3	65.0	71.2	63.9	67.5
15	68.1	65.2	*	61.8	68.9	74.4	66.9	63.6	70.6	61.5	66.0
16	69.1	66.4	*	65.0	70.1	75.3	68.0	64.4	71.3	62.5	66.5
17	70.2	67.0	*	66.1	69.9	75.5	65.0	64.2	71.7	62.3	66.4
18	70.5	67.4	*	69.7	70.1	75.3	65.8	64.0	71.7	62.4	66.5
19	70.5	67.6	*	67.8	70.3	75.1	66.9	64.4	71.2	62.5	66.9
20	70.6	66.6	*	65.0	69.9	76.4	67.2	64.4	72.8	63.4	67.4
21	69.7	67.1	*	65.1	70.2	76.2	69.2	64.5	72.5	63.3	67.2
22	*	65.7	*	63.9	68.4	75.2	67.1	63.2	71.3	60.8	65.6
23	*	67.1	*	60.8	69.9	75.8	67.7	64.2	72.1	62.4	67.1
24	71.8	66.9	*	62.2	69.8	76.2	68.0	64.8	72.4	63.1	67.8
25	69.8	67.0	*	60.2	70.0	75.7	68.3	64.5	72.2	63.1	67.2
26	70.0	67.4	*	62.4	70.1	75.8	68.5	64.6	72.0	63.0	67.7
27	71.1	68.3	*	59.7	70.6	76.3	67.9	64.7	72.5	63.2	67.2
28	70.0	67.2	*	67.6	70.2	76.6	67.4	65.0	72.9	62.9	67.3
29	66.7	64.1	*	58.2	67.9	73.9	67.0	61.4	69.3	60.3	63.6
30	64.1	65.4	*	62.1	69.0	74.8	67.7	62.7	70.7	61.5	65.0
Month	70.5	67.5	*	65.9	70.4	76.0	68.1	64.8	72.2	63.3	67.3

Appendix A2 Continued

Daily/Monthly CNEL Levels – April 2017

* Not in Service

Day	RMT 14	RMT 16	RMT 17	RMT 18	RMT 19	RMT 20	RMT 21	RMT 22	RMT 23	RMT 24	RMT 25	RMT 26
1	65.0	64.1	65.3	62.7	65.8	61.2	58.3	63.9	63.3	*	62.1	63.5
2	66.0	64.8	66.1	64.4	64.4	61.5	58.7	65.0	64.4	*	63.0	64.0
3	66.4	65.5	66.5	60.3	64.1	61.9	59.4	65.8	65.4	*	63.6	64.4
4	66.0	65.2	66.6	59.1	59.3	61.6	59.8	65.3	65.3	*	63.9	64.9
5	65.6	64.0	65.7	61.3	60.3	62.0	58.7	64.6	63.9	*	63.3	63.3
6	67.1	64.7	65.8	59.8	62.8	62.0	59.0	65.4	65.5	60.5	64.4	63.8
7	64.6	66.0	67.3	58.8	64.4	61.8	57.4	63.9	64.3	61.4	61.7	65.0
8	65.4	64.5	65.9	58.9	59.4	61.2	58.9	64.5	65.2	59.9	62.6	63.7
9	66.2	65.2	66.5	59.3	58.2	62.1	59.5	65.3	65.9	62.0	63.4	64.5
10	65.7	64.5	65.9	63.5	62.8	61.7	59.3	65.2	64.1	61.6	62.9	63.5
11	65.5	65.2	66.6	66.8	65.8	62.0	59.1	64.6	64.8	61.1	63.7	64.5
12	65.7	65.4	67.0	64.4	63.4	61.8	59.7	64.9	64.0	*	63.6	65.1
13	66.1	65.5	67.4	62.4	60.8	62.5	60.1	65.5	64.5	*	64.2	65.4
14	66.1	65.5	66.6	61.7	62.3	62.1	59.6	65.3	65.7	66.8	64.0	64.5
15	65.7	63.2	64.5	60.7	62.0	61.3	58.9	64.1	64.0	63.1	63.1	62.3
16	65.4	63.6	65.8	62.8	62.6	61.6	58.6	64.6	63.8	*	62.7	63.1
17	65.6	64.4	66.4	59.4	57.0	61.6	58.7	68.5	63.7	62.1	67.7	63.8
18	65.4	64.9	66.4	59.0	57.4	61.0	57.9	64.4	63.6	67.0	62.3	64.3
19	65.7	65.2	66.5	62.1	62.0	61.3	58.9	64.9	64.1	64.8	62.7	64.7
20	66.7	65.3	65.9	64.0	63.2	62.8	60.0	65.3	66.9	*	63.8	63.9
21	66.3	65.4	66.2	65.6	66.1	62.4	59.2	65.2	65.8	*	63.4	64.1
22	64.7	63.9	64.8	60.5	63.3	61.8	57.4	63.5	63.5	*	61.7	62.4
23	65.7	65.0	66.0	58.9	65.1	61.6	58.5	64.7	65.1	*	62.8	64.1
24	66.5	65.4	65.6	61.4	63.8	61.8	59.6	67.2	66.4	*	63.3	63.9
25	65.8	64.8	66.5	60.6	64.4	61.8	59.2	65.0	65.9	*	65.0	64.0
26	66.1	65.5	66.3	62.9	66.1	61.7	59.3	65.4	65.4	*	63.8	64.4
27	66.2	66.1	66.9	60.7	64.4	62.1	60.1	65.6	65.2	*	63.2	66.1
28	66.1	65.3	66.2	59.5	63.9	62.3	60.2	65.4	65.4	*	64.0	64.3
29	63.0	61.8	64.0	63.1	63.1	58.5	55.2	61.6	61.3	*	60.2	61.1
30	63.3	63.6	64.7	64.5	65.2	60.0	56.2	62.9	63.2	*	60.7	62.0
Month	66.2	65.4	66.6	62.7	63.9	62.2	59.5	65.6	65.3	62.9	63.9	64.6

Appendix A3

Daily/Monthly CNEL Levels - May 2017

* Not in Service

Day	RMT 1	RMT 2	RMT 3	RMT 4	RMT 6	RMT 7	RMT 9	RMT 10	RMT 11	RMT 12	RMT 13
1	*	66.1	*	61.1	69.8	75.1	67.9	64.1	71.3	62.6	66.2
2	*	66.4	*	46.3	70.0	75.0	66.4	64.0	71.3	62.7	65.9
3	71.3	66.8	*	63.8	69.7	75.0	66.0	64.1	71.6	62.8	66.4
4	70.4	67.4	*	60.8	70.5	76.0	66.8	64.7	72.3	62.9	66.9
5	70.6	67.3	*	*	70.5	75.6	67.1	64.5	71.8	63.5	66.0
6	69.6	66.8	*	61.2	69.1	73.5	66.6	64.0	69.7	61.9	65.6
7	*	66.3	*	66.7	70.8	76.5	66.2	65.8	72.7	64.3	67.9
8	*	67.1	*	61.3	70.3	75.0	64.6	64.5	71.4	63.0	67.3
9	*	67.5	*	*	70.9	75.5	67.8	64.9	71.5	63.8	67.5
10	*	67.1	*	62.2	70.1	74.9	67.0	64.3	71.5	62.6	66.8
11	*	67.8	*	61.5	70.4	75.2	68.2	64.4	71.7	62.9	67.2
12	74.3	67.6	*	62.7	70.0	75.4	67.1	64.0	71.4	62.6	65.6
13	67.0	65.8	*	60.6	68.4	74.1	66.9	62.7	70.4	62.7	65.9
14	*	67.2	*	62.0	69.4	75.1	67.3	63.6	71.4	62.6	67.0
15	*	67.8	*	62.4	70.5	74.1	67.2	65.3	70.5	63.4	66.7
16	*	67.5	*	62.3	70.6	74.2	67.1	65.0	70.7	63.4	66.8
17	72.1	67.5	*	61.2	70.3	75.4	67.9	64.9	71.7	63.3	67.5
18	71.8	67.6	*	61.8	70.1	75.9	67.9	64.5	72.4	63.1	67.8
19	69.5	66.8	*	61.3	69.8	75.8	64.2	63.7	72.1	63.1	66.6
20	*	65.3	*	60.9	68.3	74.0	65.3	61.7	70.1	60.2	64.5
21	*	66.1	*	61.5	69.4	75.3	67.8	63.5	72.0	62.3	66.5
22	*	67.1	*	60.9	69.9	75.5	67.3	63.6	71.6	63.2	66.4
23	*	67.2	*	61.7	70.3	75.5	66.8	64.1	71.5	62.7	65.9
24	*	67.3	*	61.3	70.4	76.2	67.7	64.5	72.1	63.9	66.7
25	72.9	68.2	*	61.0	70.0	75.2	67.4	64.6	71.5	63.4	67.2
26	*	68.2	*	62.0	70.2	75.4	67.9	64.5	71.6	63.6	67.3
27	*	66.1	*	61.4	68.2	73.0	65.4	62.3	69.6	61.5	65.5
28	*	65.6	*	61.2	68.2	74.0	64.7	62.5	70.2	60.6	65.2
29	*	67.2	*	59.3	69.6	75.4	66.9	63.8	71.3	63.8	65.3
30	*	67.4	*	60.1	70.2	75.6	67.2	64.8	72.2	62.9	67.5
31	*	67.2	*	60.0	70.5	75.3	67.2	64.4	71.7	63.6	66.6
Month	71.9	67.6	*	61.9	70.4	75.7	67.4	64.7	71.9	63.4	67.1

Appendix A3 Continued

Daily/Monthly CNEL Log – May 2017

* Not in Service

Day	RMT 14	RMT 16	RMT 17	RMT 18	RMT 19	RMT 20	RMT 21	RMT 22	RMT 23	RMT 24	RMT 25	RMT 26
1	64.8	64.2	65.3	60.4	64.6	61.1	57.9	65.6	63.5	0.0	61.7	63.1
2	65.2	64.4	65.6	58.5	62.1	60.7	57.8	63.6	63.2	0.0	60.7	63.1
3	65.7	64.6	65.8	59.6	61.5	61.6	58.7	64.4	68.1	0.0	59.8	63.8
4	65.6	65.1	66.5	58.5	60.1	62.0	58.7	64.8	64.3	0.0	59.6	64.3
5	64.7	65.7	66.3	61.1	62.7	61.1	56.8	63.4	64.3	0.0	57.6	64.6
6	65.1	65.0	65.7	63.1	62.9	60.8	58.9	63.6	66.6	0.0	59.2	63.7
7	66.3	65.6	66.8	62.6	62.5	63.0	60.6	65.9	67.7	0.0	61.0	64.8
8	66.1	64.6	66.3	59.9	59.5	62.5	60.3	66.1	64.9	72.3	61.0	64.4
9	66.4	66.3	66.9	62.2	63.9	61.6	59.9	65.1	65.0	65.6	59.6	64.6
10	65.7	64.9	66.5	62.0	63.1	61.3	58.8	64.8	64.0	65.1	59.2	64.2
11	66.2	65.3	67.1	61.9	60.7	62.4	59.6	65.0	64.6	65.7	60.2	65.5
12	64.5	65.4	66.7	61.1	*	61.0	56.9	62.9	62.7	67.8	57.5	64.6
13	65.1	63.6	64.9	60.5	*	60.4	58.3	63.9	64.3	64.4	58.0	62.7
14	65.6	65.6	65.9	60.4	*	61.2	59.1	65.0	65.0	65.3	58.2	64.2
15	65.8	66.0	67.0	63.7	*	61.6	60.0	67.7	65.1	65.3	59.5	65.3
16	65.6	65.9	66.7	62.3	*	61.6	59.4	64.8	64.2	65.4	59.1	64.9
17	66.7	65.6	66.6	61.4	*	61.8	60.1	65.5	66.4	65.6	59.9	64.7
18	66.6	65.3	66.7	59.6	*	62.9	59.9	65.8	68.2	66.1	60.1	65.3
19	66.4	64.7	66.6	59.5	*	62.3	59.0	64.8	64.0	64.7	58.4	64.1
20	*	63.1	64.8	61.6	*	59.8	57.2	62.8	62.4	62.8	56.7	63.1
21	*	63.9	65.3	59.7	*	61.3	57.9	64.1	63.9	64.8	58.0	63.6
22	65.1	64.3	66.2	60.3	*	60.6	56.8	66.6	63.2	64.5	56.9	64.5
23	64.8	64.7	66.3	60.0	*	60.7	58.4	63.5	63.6	64.2	57.8	64.3
24	66.3	64.9	66.1	60.9	*	61.6	58.2	64.4	64.6	65.0	60.8	64.3
25	66.1	66.3	67.1	60.9	*	62.2	59.9	65.0	69.7	65.3	60.2	66.0
26	66.3	66.0	67.4	61.1	*	62.0	59.5	65.2	66.8	65.6	59.7	65.9
27	64.7	63.8	65.1	58.6	*	60.5	59.7	63.4	62.5	63.8	58.6	64.3
28	64.4	63.9	65.3	58.2	*	60.5	57.7	62.7	62.6	63.1	57.3	63.1
29	*	65.1	66.5	59.9	*	60.3	55.1	62.2	62.2	64.0	56.3	62.7
30	*	65.8	66.5	61.7	*	61.8	59.0	67.5	64.2	65.7	58.6	66.1
31	*	65.8	66.0	61.2	*	61.6	58.5	64.1	63.1	65.1	58.8	65.7
Month	65.5	65.6	66.8	61.4	62.9	62.0	59.3	65.4	65.6	66.3	59.7	65.0

Appendix A4

Daily/Monthly CNEL Levels – June 2017

* Not in Service

Day	RMT 1	RMT 2	RMT 3	RMT 4	RMT 6	RMT 7	RMT 9	RMT 10	RMT 11	RMT 12	RMT 13
1	*	67.6	*	62.0	70.9	75.1	67.2	64.1	71.7	64.0	67.0
2	*	68.0	*	63.4	69.8	75.1	66.8	63.6	71.1	61.8	65.1
3	*	65.9	*	56.6	69.1	75.5	66.7	62.6	71.1	59.8	64.1
4	*	67.1	*	65.5	70.1	75.9	67.2	63.5	71.4	61.0	64.6
5	*	66.7	*	60.4	70.1	76.2	67.4	63.4	71.8	61.1	65.3
6	*	67.5	*	58.8	69.9	75.1	67.0	63.9	71.5	62.2	66.2
7	*	67.8	*	61.0	70.3	75.5	67.0	64.9	72.0	62.8	66.9
8	*	67.4	*	60.7	70.4	75.7	67.4	64.6	72.1	62.8	67.2
9	*	68.0	*	61.9	70.5	75.5	67.5	64.6	71.7	64.5	67.0
10	*	66.9	*	60.9	69.6	75.2	67.0	64.4	71.7	62.2	66.5
11	*	67.1	*	60.5	70.1	75.6	68.3	64.9	71.7	63.1	67.4
12	*	67.4	*	60.5	69.7	75.8	67.8	64.4	72.2	65.1	*
13	*	67.5	*	60.9	70.1	76.0	69.2	64.7	72.3	65.7	*
14	*	67.4	*	61.8	69.9	76.1	68.6	63.9	72.2	62.6	*
15	*	67.4	*	61.3	70.8	77.2	68.7	64.1	73.2	62.5	*
16	*	64.7	*	59.8	69.2	77.1	67.3	62.4	73.3	61.4	*
17	*	66.5	*	61.2	69.1	76.7	68.0	63.0	73.0	61.4	*
18	*	66.7	*	62.3	69.6	76.5	66.9	63.5	72.6	61.6	*
19	*	66.5	*	61.1	70.0	76.2	68.3	63.7	72.1	61.3	*
20	*	64.3	*	61.7	69.8	78.1	67.7	62.8	74.6	60.7	*
21	*	63.4	*	*	69.7	77.8	68.2	61.6	74.0	60.2	*
22	*	66.7	*	67.0	70.2	77.4	68.5	63.9	73.0	61.7	*
23	*	67.7	*	66.4	69.8	76.3	67.9	63.6	72.1	61.7	*
24	*	66.6	*	62.2	69.1	75.2	66.6	62.3	71.2	60.2	*
25	*	66.7	*	65.4	69.8	75.8	66.9	62.9	71.8	61.1	*
26	*	66.6	*	*	69.6	76.2	67.3	63.6	71.9	61.5	*
27	*	67.1	*	*	69.9	75.9	67.9	63.8	72.3	63.7	*
28	*	67.5	*	*	70.4	76.1	68.2	64.5	72.0	62.3	*
29	*	68.7	*	*	70.7	76.6	68.5	64.8	72.7	62.9	68.4
30	*	68.1	*	*	70.2	76.5	68.0	64.4	72.6	63.0	67.4
Month	*	67.5	*	62.8	70.5	76.7	68.2	64.3	72.8	62.9	67.1

Appendix A4 Continued

Daily/Monthly CNEL Log – June 2017

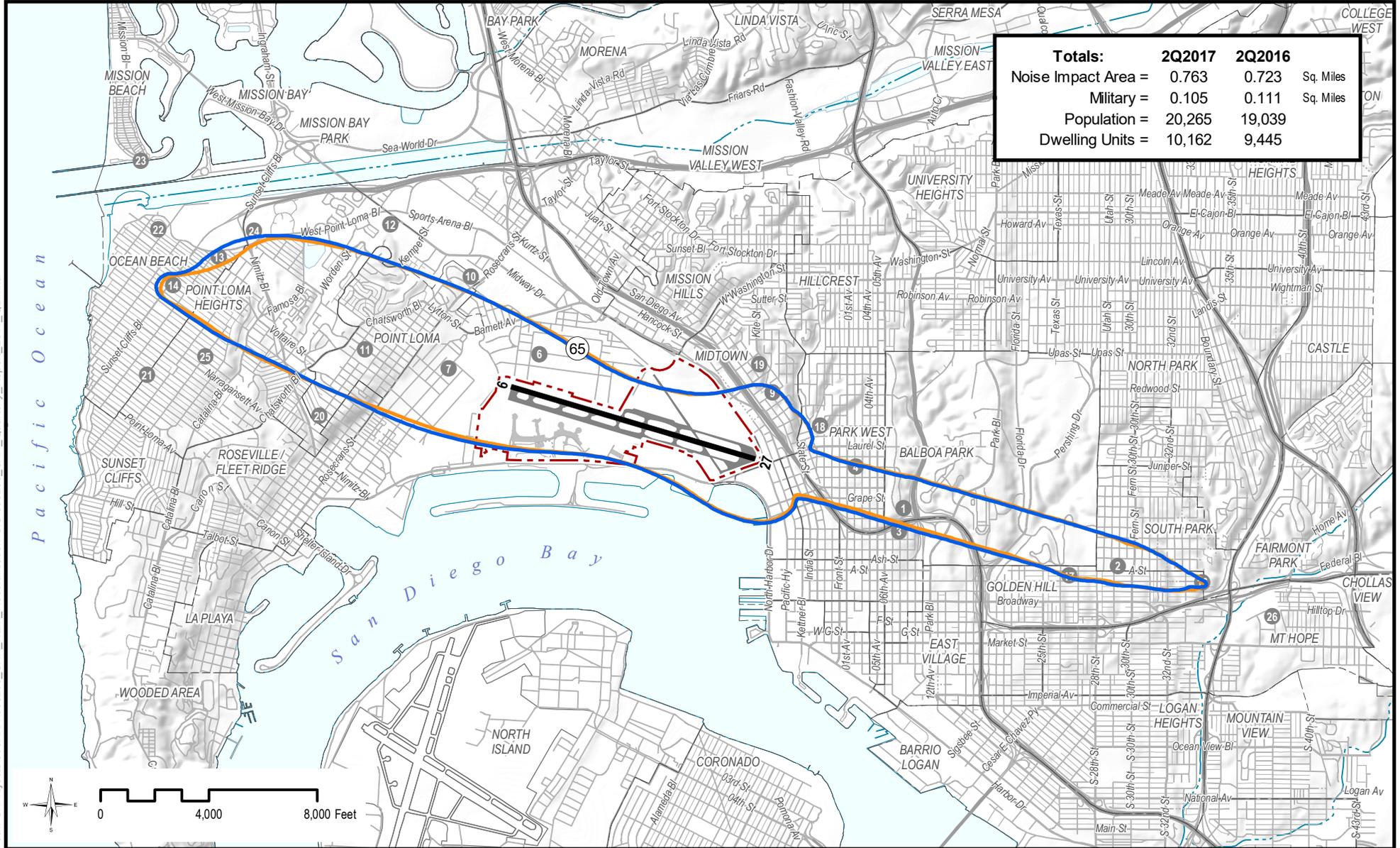
* Not in Service

Day	RMT 14	RMT 16	RMT 17	RMT 18	RMT 19	RMT 20	RMT 21	RMT 22	RMT 23	RMT 24	RMT 25	RMT 26
1	65.0	65.2	67.0	62.9	*	62.0	59.0	64.9	64.2	65.2	58.4	66.8
2	64.3	65.1	66.6	60.2	*	60.6	57.4	62.4	62.2	64.3	55.8	65.1
3	63.4	63.5	64.9	60.1	*	58.8	53.2	61.8	62.0	62.4	54.0	62.6
4	63.5	64.2	66.4	61.0	*	59.2	53.5	62.0	62.8	63.0	54.2	64.4
5	64.7	64.8	65.9	48.5	*	60.3	55.3	67.0	62.8	74.8	54.9	64.6
6	*	65.6	66.4	*	*	60.9	57.8	63.7	63.3	64.5	58.7	64.1
7	*	65.8	66.6	62.7	*	61.5	59.2	64.3	64.0	65.4	58.7	66.3
8	*	64.9	66.5	61.5	*	61.9	58.8	65.0	63.9	65.3	58.4	64.2
9	*	66.6	67.1	62.2	*	61.9	59.7	64.9	64.2	65.0	58.4	65.1
10	*	65.1	66.4	60.4	*	61.3	57.7	64.0	63.7	*	57.7	64.4
11	*	65.1	66.3	62.0	*	61.7	59.3	65.3	64.7	*	58.8	64.6
12	*	65.0	66.3	62.6	*	62.3	60.1	67.3	64.3	*	59.5	64.5
13	*	65.2	66.8	60.8	*	62.2	59.7	65.4	64.1	*	58.7	64.5
14	*	65.4	66.4	61.2	*	61.9	59.5	65.4	64.0	*	57.1	64.3
15	*	65.2	66.3	60.6	*	62.1	60.3	65.7	64.0	65.8	57.7	63.8
16	*	62.7	63.8	58.5	*	59.7	57.8	63.4	63.2	63.8	54.8	61.8
17	*	64.4	65.2	59.2	*	61.4	58.1	64.4	64.0	*	55.9	62.8
18	*	64.0	66.0	59.0	*	61.4	57.0	64.5	64.4	*	56.9	62.7
19	*	63.8	65.8	60.1	*	61.4	58.7	68.0	64.9	*	57.7	64.4
20	*	61.4	63.4	58.9	*	61.2	55.8	63.9	63.5	*	56.2	60.5
21	*	61.5	62.8	62.7	*	58.9	56.1	63.0	63.4	*	56.2	60.4
22	*	64.5	65.8	60.1	*	60.3	56.8	64.1	64.3	*	56.6	62.8
23	*	67.9	66.8	60.6	*	61.0	60.4	64.5	65.0	*	57.6	64.9
24	*	64.2	66.0	61.1	*	59.1	55.4	62.1	63.6	*	54.0	63.5
25	*	64.1	65.8	59.0	*	60.9	56.4	63.5	62.9	*	56.0	62.8
26	*	64.9	66.0	50.7	*	60.9	57.7	69.7	62.5	*	56.0	62.9
27	*	64.6	66.4	*	*	61.7	57.2	63.9	63.3	*	55.4	63.5
28	*	65.5	66.5	62.0	*	61.4	57.8	64.8	64.0	*	56.8	64.3
29	*	66.2	67.0	62.0	60.4	62.0	58.3	64.5	63.9	66.8	57.1	64.7
30	*	65.6	67.1	60.4	59.6	61.9	57.9	64.7	64.0	65.5	57.0	64.7
Month	58.3	65.4	66.6	61.2	60.5	61.7	58.6	65.5	64.3	67.0	57.6	64.6

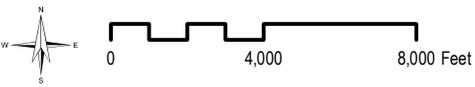
Appendix B

ANOMS Commercial Flight Operations Mix - 2nd Quarter 2017

Aircraft Type	Air Canada Rouge	Alaska	Allegiant	American	British Airways	Condor Flugdienst	Delta Air Lines	Edelweiss Air	Frontier	Hawaiian	Japan	jetBlue	SkyWest	Southwest	Spirit	Sun Country	United	Virgin America	WestJet	Atlas	FedEx	UPS	Total Arrivals	Total Operations	
A319	6		80	77			75		128						109		273	59					807	1614	
A320				2			276		213			370		1	383		433	429					2107	4214	
A321	85			1414					72			67			62								1700	3400	
A332										91													91	182	
A343								7															7	14	
B712							149																149	298	
B733														288									288	576	
B734		31																					31	62	
B737		113		1										7090	5	44	61		33				7347	14694	
B738		889		752			275							1729	44		570		47				4306	8612	
B739		791					273							1			995	2					2062	4124	
B752				59			501										5				69		634	1268	
B753							97																97	194	
B762																				66			66	132	
B763						19	33			2											181	112	347	694	
B764							1																1	2	
B772					2																		2	4	
B77W					88																		88	176	
B788											91												91	182	
CRJ2													16				1						17	34	
CRJ7													237	1									238	476	
CRJ9													242										242	484	
DC10																					63		63	126	
E170								10															10	20	
E175								791					1571										2362	4724	
MD80+			39				3																42	84	
MD90+							194											1					195	390	
Total	91	1824	119	2305	90	19	1877	801	7	413	93	91	437	2066	9110	559	88	2338	491	80	66	313	112	23390	46780
BE99																				75			75	150	
C208																					215		215	430	
DH8D		237																					237	474	
SW3/4																						63	63	126	
Total	91	2061	119	2305	90	19	1877	801	7	413	93	91	437	2066	9110	559	88	2338	491	80	141	528	175	590	1180



Path: G:\Projects\308\XXX\308200_SAN_NEM_Recertification\GIS\308200_SAN_Quarterly_Report_2017_Q2.mxd



-  2017 2nd Quarter 65 dB CNEL Contour
-  2016 2nd Quarter 65 dB CNEL Contour
-  Airport Property
-  Runway
-  RMT Site Location
-  Roads
-  River / Stream

Comparison of the 2016 and 2017 Second Quarter 65 dB Community Noise Equivalent Level (CNEL) Contours