

Quarterly Noise Report

For:
California Department of Transportation

3rd Quarter 2017
July 1, 2017 – September 30, 2017



SAN DIEGO
INTERNATIONAL AIRPORT

LET'S **GO.**

Airport Noise Mitigation

November 9, 2017



**Quarterly Noise Report
For the Period
July 1, 2017 through September 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 3rd Quarter of 2017 was prepared by Airport Noise Mitigation at San Diego International Airport, in accordance with the Airport Noise Standards, State of California.

Brendan Reed
Director of Planning & Environmental Affairs

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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 = 0.742 sq. miles; Military Noise Impact Area = 0.106 sq. miles

2. Estimated number of dwelling units included in the Noise Impact Area as defined in the Noise Standards:
10,111* (QHP Insulated = 3,453)

3. Estimated number of people residing within the Noise Impact Area as defined in the Noise Standards:
20,169* (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 757-200: 1,232

5. Total number of aircraft operations during the calendar quarter:
56,263

6. Number of Air Carrier operations by aircraft certified under Federal Aviation Regulations (FAR) Part 36:
50,604

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:
2,864

9. Estimated number of operations by General Aviation aircraft during the calendar quarter:
2,619

10. Estimated number of operations by Military aircraft during the calendar quarter:
176

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 October 1, 2016 to September 30, 2017 to be 0.742 square miles (474.9 acres) and 0.106 square miles (67.8 acres), respectively. As compared to the period between October 1, 2015 to September 30, 2016, the Noise Impact Area increased by 0.008 square miles and the Federal Military Noise Impact Area decreased by 0.002 square miles.

Table 1

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

Impact Area	October 1, 2016 to September 30, 2017	October 1, 2015 to September 30, 2016	Change
N.I.A.	0.742	0.734	0.008
M.I.A.	0.106	0.108	-0.002

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 October 1, 2016 to September 30, 2017 compared to the period between October 1, 2015 to September 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	69.9	69.5
2	67.1	67.4
3	*	*
4	65.6	65.9
6	69.9	70.0
7	75.9	76.3
9	67.9	67.7
10	64.5	64.0
11	72.4	72.5
12	63.0	62.6
13	66.9	67.4
14	65.6	65.3
16	65.4	65.2
17	66.4	66.4
18	62.3	61.1
19	63.4	61.4
20	62.1	61.8
21	59.3	58.8
22	65.3	65.3
23	64.7	65.1
24	64.9	65.3
25	61.5	57.8
26	63.9	64.0

¹ = For the period October 1, 2016 through September 30, 2017

² = For the period July 1, 2017 through September 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 powering the equipment. Staff is working to connect this site to another electrical source.

Note 3: Jan1/5/18 - January 5, 2018 - RMT #6 & RMT #10 data on this page was updated. It does not change the overall contour values.

1/5/2018 - RMT #6 & RMT #10 data on this page was updated.
The update does not change the overall contour values.

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	3rd Quarter 2017	3rd Quarter 2016	Increase / Decrease	Percent Change
Air Carrier	50,604	44,774	5,830	13.02%
Air Taxi	2,864	4,434	-1,570	-35.41%
General Aviation	2,619	2,804	-185	-6.60%
Military	176	245	-69	-28.16%
Total	56,263	49,913	4,006	8.03%

Quarterly Operations Survey Report

The Quarterly Operations Survey Report for San Diego International Airport (SDIA) encompasses the 3rd Quarter of 2017. The data used to compile this report was gathered during 24-hour periods on August 15-17, 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 3rd Quarter 2017 Operations Survey, an average of 191 daily air carrier arrival operations were conducted. Therefore, the loudest 25% of these arrivals totaled approximately 48. These commercial service jet aircraft are listed by Aircraft Type, Single Event Noise Exposure Level (SENEL), Airport Origin, Flight Number and Date/Time.

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 3rd Quarter 2017 Operations Survey, an average of 191 daily air carrier departure operations were conducted. Therefore, the loudest 25% of these departures totaled approximately 48. 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 3rd Quarter 2017 Operations Survey is as follows:

Table 4

Single Event Noise Exposure Level (SENEL) Comparison

	August 15-17, 2017	August 16-18, 2016	Change (dB)
Departures	100.7	99.8	0.9
Arrivals	94.9	94.9	0.0

Table 7, Air Carrier Operations Mix by Time of Day and Runway Use, represents the 381 daily operations, which is less than the 511 daily operations recorded during the 3rd Quarter of 2016.

Table 5**Quarterly Operations Survey - Arrivals (RMT #1 from August 15-17, 2017)**

* = Missed Approach

Aircraft Type	SENEL (dB)	Arriving From	Flight Number	Date and Time
B738	101.8	LAS	SWA5954	8/16/2017 7:47 PM
E75L	101.2	SEA	SKW4742	8/15/2017 9:10 PM
AS50	100.6	-	-	8/16/2017 7:58 PM
B738	100.2	SMF	SWA656	8/15/2017 7:40 PM
B738	99.8	MDW	SWA1543	8/17/2017 1:19 PM
A321	98.7	CLT	AAL870	8/17/2017 6:45 PM
B737	97.6	OAK	SWA1118	8/15/2017 7:46 PM
A321	96.1	DFW	AAL468	8/15/2017 1:20 PM
A320	96.1	SFO	VRD964	8/17/2017 10:57 PM
B738	95.7	BWI	SWA1267	8/15/2017 12:29 AM
A321	95.6	CLE	FFT1361	8/16/2017 4:27 PM
B752	95.4	JFK	DAL2288	8/15/2017 11:10 AM
DH8D	95.1	MRY	QXE2437	8/16/2017 9:01 AM
B737	95.0	TUS	SWA1873	8/17/2017 3:11 PM
CRJ9	94.9	LAS	SKW3560	8/16/2017 9:50 PM
B738	94.7	STL	SWA6537	8/15/2017 10:44 AM
A320	94.6	SFO	UAL1900	8/16/2017 1:11 PM
B739	94.6	ORD	UAL2381	8/16/2017 2:29 PM
E75L	94.5	PDX	SKW3476	8/17/2017 12:56 PM
A320	94.3	CVG	FFT1961	8/15/2017 8:03 AM
GLF4	94.3	SLC	N620JH	8/16/2017 12:00 PM
B737	94.3	SAT	SWA1528	8/17/2017 1:12 PM
B762	94.2	PHX	GTI505	8/15/2017 8:01 AM
A321	94.2	DFW	AAL2337	8/16/2017 7:42 PM
B738	94.1	DEN	SWA1591	8/17/2017 12:03 AM
CRJ7	94.0	LAX	SKW5415	8/16/2017 1:16 PM
A321	94.0	YYZ	ROU1887	8/17/2017 12:23 PM
B739	94.0	HNL	ASA892	8/17/2017 11:04 PM
MD90	93.9	MSP	DAL1728	8/15/2017 12:42 PM
B763	93.8	IND	FDX1754	8/16/2017 4:59 AM
E75L	93.8	SMF	SKW3343	8/16/2017 3:49 PM
B737	93.7	IND	SWA1574	8/16/2017 8:15 AM
B739	93.7	ORD	UAL2381	8/17/2017 2:35 PM
B739	93.6	IAD	UAL240	8/16/2017 7:45 PM
A321	93.6	DFW	AAL1763	8/17/2017 9:15 AM
C208	93.5	IPL	PCM7684	8/15/2017 6:21 PM
B738	93.5	PHX	SWA1064	8/17/2017 2:32 PM
CRJ9	93.4	LAS	SKW4567	8/16/2017 4:02 PM
A320	93.3	BOS	JBU619	8/16/2017 10:32 AM

Table 5 Continued**Quarterly Operations Survey - Arrivals (RMT #1 from August 15-17, 2017)**

* = Missed Approach

Aircraft Type	SENEL (dB)	Departing To	Flight Number	Date and Time
A321	93.3	DFW	AAL1081	8/16/2017 11:42 AM
B738	93.3	JFK	AAL95	8/16/2017 8:52 PM
B738	93.3	OAK	SWA1137	8/17/2017 9:21 PM
B739	93.2	ATL	DAL1567	8/15/2017 8:31 PM
B738	93.2	JFK	AAL95	8/15/2017 8:38 PM
B738	93.2	ATL	SWA1622	8/17/2017 11:38 AM
A321	93.1	CLT	AAL487	8/15/2017 9:23 AM
B738	93.1	OAK	SWA2007	8/15/2017 12:44 PM
AS50	93.1	-	-	8/17/2017 11:27 AM

Table 6

Quarterly Operations Survey - Departures (RMT #7 from August 15-17, 2017)

Aircraft Type	SENEL (dB)	Departing To	Flight Number	Date and Time
B752	106.8	JFK	DAL403A	8/16/2017 2:08 PM
B737	105.6	SJC	SWA1706	8/15/2017 7:45 AM
B737	102.3	PDX	SWA1528	8/16/2017 10:24 AM
B738	101.6	LIH	ASA115	8/16/2017 9:41 AM
B738	101.6	AUS	SWA1685	8/17/2017 6:48 AM
B738	101.5	OAK	SWA5954	8/16/2017 8:31 PM
A321	101.5	CLT	AAL2050	8/17/2017 7:27 AM
MD83	101.3	SCK	AAY535	8/15/2017 2:05 PM
E75L	101.3	LAX	CPZ5688	8/16/2017 4:38 PM
B739	101.2	EWR	UAL751	8/16/2017 6:32 AM
B739	101.2	ATL	DAL1430	8/17/2017 2:22 PM
B739	101.0	IAD	UAL546	8/16/2017 8:31 AM
B737	101.0	SMF	SWA1566	8/16/2017 5:52 PM
MD83	101.0	ELP	AAY421	8/17/2017 1:46 PM
A332	100.9	HNL	HAL15	8/15/2017 10:38 AM
MD90	100.9	MSP	DAL1728	8/15/2017 2:03 PM
B739	100.9	IAD	UAL546	8/17/2017 8:33 AM
CL60	100.9	KOA	N78SD	8/17/2017 4:22 PM
B77W	100.9	LHR	BAW72A	8/17/2017 8:53 PM
B739	100.8	SFO	UAL1714	8/16/2017 9:36 AM
B737	100.8	LAS	SWA1480	8/17/2017 8:35 AM
B739	100.7	EWR	UAL751	8/15/2017 6:33 AM
B739	100.6	IAD	UAL238	8/16/2017 10:43 PM
B739	100.6	ATL	DAL1592	8/17/2017 6:42 AM
B738	100.6	DEN	SWA5721	8/17/2017 3:51 PM
B739	100.6	IAD	UAL238	8/17/2017 10:49 PM
B77W	100.5	EGLL	BAW72A	8/15/2017 8:51 PM
A321	100.5	CLT	AAL584	8/16/2017 10:52 PM
A321	100.5	PHL	AAL529	8/17/2017 6:53 AM
B739	100.3	ATL	DAL1592	8/15/2017 6:34 AM
A321	100.3	CLT	AAL584	8/15/2017 10:41 PM
B737	100.3	PHX	SWA116	8/16/2017 9:58 AM
A321	100.3	PHL	AAL654	8/16/2017 10:49 PM
B739	100.2	DTW	DAL653	8/15/2017 7:12 AM
B738	100.2	BWI	SWA5788	8/15/2017 1:39 PM
E75L	100.2	LAX	SKW4650	8/16/2017 6:50 AM
DC10	100.2	MEM	FDX1222	8/17/2017 7:20 PM
B739	100.1	DTW	DAL653	8/17/2017 7:11 AM
A332	100.1	HNL	HAL15	8/17/2017 10:40 AM

Table 6 Continued

Quarterly Operations Survey - Departures (RMT #7 from August 15-17, 2017)

Aircraft Type	SENEL (dB)	Departing To	Flight Number	Date and Time
B739	100.0	BOS	ASA798	8/15/2017 8:30 AM
A321	100.0	MIA	AAL1042	8/15/2017 10:08 PM
B739	100.0	DTW	DAL653	8/16/2017 7:14 AM
A321	100.0	ORD	AAL156	8/17/2017 12:06 PM
B763	100.0	FRA	CFG059	8/17/2017 3:33 PM
A321	99.9	CLT	AAL2050	8/15/2017 7:55 AM
B739	99.9	ATL	DAL1592	8/16/2017 6:58 AM
A321	99.9	PHL	AAL529	8/16/2017 7:03 AM
B737	99.9	SMF	SWA6254	8/16/2017 9:14 AM

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

These numbers are the averages for operations for August 15-17, 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+	5	2	0	5	1	1	0	0	0	0	0	0	14
A320+	17	4	2	0	3	4	0	0	0	0	0	0	30
A321+	15	4	3	0	2	5	0	0	0	0	0	0	29
A330+	0	0	1	1	0	0	0	0	0	0	0	0	2
B737+	115	33	25	3	23	22	0	0	0	0	0	0	221
B757+	3	2	2	0	2	0	0	0	0	0	0	0	9
B767+	5	0	3	4	2	2	0	0	0	0	0	0	16
B777+	1	0	0	0	1	0	0	0	0	0	0	0	2
B787+	1	0	0	1	0	0	0	0	0	0	0	0	2
CRJ+	7	0	1	4	0	0	0	0	0	0	0	0	12
DC10	1	0	0	0	1	0	0	0	0	0	0	0	2
DH8D	2	0	0	2	0	0	0	0	0	0	0	0	4
E175	18	6	1	0	3	4	0	0	0	0	0	0	32
MD80+	1	0	0	1	0	0	0	0	0	0	0	0	2
MD90+	2	0	0	2	0	0	0	0	0	0	0	0	4
Total	193	51	38	23	38	38	0	0	0	0	0	0	381

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 3rd Quarter of 2017, Airport Noise Mitigation received a total of 26,227 complaints from 230 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.

The 26,227 complaints from 230 households recorded during the 3rd Quarter of 2017 reflects an increase of 18,713 from the 7,514 recorded during the 3rd Quarter of 2016.

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 Program Manager, Airport Noise Mitigation, for the disposition of incidents.

During the 3rd Quarter of 2017, there were a total of 14 curfew violations. The 14 curfew violations recorded during the 3rd Quarter of 2017 reflects a decrease of 15 from the 29 curfew violations recorded during the 3rd 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 – July 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	*	67.7	*	*	69.4	76.3	67.3	63.7	72.2	62.1	66.8
2	*	66.5	*	*	69.3	75.5	66.6	63.7	71.8	62.2	67.2
3	*	66.0	*	*	69.1	74.8	68.9	63.0	70.9	62.9	66.5
4	*	65.8	*	*	68.6	74.5	65.9	62.5	70.8	61.0	65.8
5	*	66.7	*	*	69.2	75.9	67.7	64.0	72.3	62.4	66.8
6	*	67.0	*	*	70.1	75.7	67.4	63.6	71.8	62.0	66.9
7	*	66.8	*	69.6	69.6	75.9	67.9	63.6	72.3	64.0	66.9
8	*	67.0	*	65.9	69.4	76.2	67.3	63.6	72.3	63.4	66.7
9	*	66.7	*	64.9	69.2	76.3	67.1	63.5	72.5	62.0	67.5
10	*	67.2	*	66.1	69.1	75.8	66.7	62.8	72.2	61.3	66.7
11	*	67.1	*	65.9	69.7	75.6	67.2	63.5	71.8	61.7	66.7
12	*	67.3	*	66.3	69.8	75.5	66.9	63.9	71.8	62.1	67.3
13	*	68.7	*	66.2	69.8	75.9	67.8	63.6	72.0	61.4	66.9
14	*	67.8	*	67.4	69.7	75.9	67.7	63.4	71.7	61.7	66.2
15	*	67.0	*	65.6	69.3	76.1	67.4	63.3	72.1	61.6	67.3
16	*	66.9	*	65.7	69.3	76.7	68.0	63.6	72.5	61.5	67.2
17	*	66.7	*	65.1	69.2	76.3	67.1	63.6	72.7	63.2	67.7
18	*	67.4	*	66.4	69.6	75.6	67.6	63.9	72.1	62.4	67.5
19	*	67.4	*	67.2	69.6	75.9	67.2	63.8	72.3	62.3	67.4
20	*	68.0	*	66.3	69.8	75.9	67.5	63.9	72.1	62.0	67.5
21	*	67.7	*	66.2	70.0	76.7	67.9	64.2	72.9	63.0	67.9
22	*	67.1	*	65.4	69.3	76.0	67.2	63.4	72.1	61.5	67.1
23	*	66.9	*	65.3	69.5	76.4	67.6	63.4	72.6	61.9	67.8
24	*	67.8	*	64.3	69.7	76.4	67.8	64.2	72.4	62.9	67.9
25	*	67.8	*	68.2	70.1	76.7	67.8	64.1	72.6	62.1	67.8
26	*	67.6	*	66.8	69.9	75.4	67.3	63.8	71.2	62.0	65.9
27	*	67.6	*	66.9	69.7	75.8	66.8	63.1	71.7	61.1	66.4
28	*	67.7	*	66.3	70.1	76.4	67.6	63.9	72.5	63.1	67.6
29	*	66.4	*	64.8	69.5	75.8	66.5	63.2	71.6	61.0	66.7
30	*	67.2	*	65.8	69.6	75.8	68.1	63.9	71.8	61.8	66.9
31	*	67.1	*	64.7	69.6	76.1	67.1	63.7	71.9	61.4	66.6
Month	*	67.7	*	66.8	70.1	76.5	67.9	64.1	72.6	62.7	67.6

1/5/2018 - RMT #6 & RMT #10 data on this page was updated.
The update does not change the overall contour values.

Appendix A2 Continued

Daily/Monthly CNEL Levels – July 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	*	65.6	66.4	61.8	60.4	61.2	56.7	63.7	63.2	64.8	55.6	64.7
2	*	64.4	65.6	60.3	60.4	61.6	58.8	64.9	64.0	65.1	57.7	64.0
3	*	63.2	65.1	58.6	58.1	60.5	57.3	65.2	63.3	64.7	55.5	62.3
4	*	63.5	64.9	51.4	56.9	60.4	57.5	63.5	62.8	64.1	55.8	63.0
5	*	64.8	65.8	*	58.7	61.9	58.6	64.1	62.9	64.9	57.8	63.5
6	*	64.5	66.2	59.9	57.3	61.2	58.8	64.2	63.2	65.6	57.3	63.6
7	*	64.5	66.1	58.5	61.2	61.2	58.4	64.4	63.8	65.1	56.8	63.5
8	*	64.9	66.0	61.1	63.2	61.5	58.7	64.1	64.1	64.8	56.0	65.2
9	*	64.3	65.4	59.3	62.2	61.3	58.0	64.9	65.1	65.4	56.2	63.5
10	*	64.8	66.2	59.2	61.0	60.6	57.9	66.4	63.1	65.8	57.6	64.7
11	*	64.5	66.2	49.3	60.2	61.1	57.7	64.3	64.4	65.0	58.0	63.6
12	*	64.6	66.6	*	59.3	61.6	59.1	64.9	64.2	65.6	59.1	64.2
13	*	65.2	66.5	62.7	60.9	61.4	57.3	64.2	63.9	66.3	57.0	64.0
14	*	65.4	67.2	60.6	59.6	61.1	57.2	63.7	63.3	64.6	56.6	64.5
15	*	64.7	65.9	60.2	62.2	61.7	58.6	64.7	64.2	65.2	57.9	63.6
16	*	64.4	65.6	60.7	62.8	61.0	57.6	64.9	64.6	65.2	56.9	63.0
17	*	64.8	65.7	58.3	60.8	61.6	58.5	70.0	64.1	63.6	57.5	64.2
18	*	64.8	66.3	60.7	59.8	61.6	59.2	65.2	64.6	*	58.1	64.0
19	63.4	65.3	66.4	61.3	61.2	61.5	58.2	64.8	63.9	*	57.5	64.8
20	66.2	65.7	67.0	53.2	62.3	61.5	59.1	65.1	64.8	*	57.6	64.3
21	66.8	65.3	66.5	*	62.7	62.1	59.7	65.6	64.9	*	58.7	64.9
22	65.6	64.9	66.1	68.7	62.2	61.5	57.8	64.5	64.4	*	56.8	63.7
23	66.5	64.8	65.8	59.3	61.9	61.7	58.7	65.4	64.9	*	57.4	64.2
24	*	65.4	66.8	61.7	62.4	62.0	59.5	68.4	64.5	67.9	58.0	65.5
25	*	64.8	66.7	62.2	61.3	61.5	57.5	65.2	64.2	65.6	57.0	64.9
26	64.8	64.8	66.5	62.2	59.3	60.7	56.1	63.0	62.1	64.1	56.1	65.1
27	65.1	65.0	66.9	60.8	59.2	60.6	56.7	64.1	63.0	62.1	55.7	64.5
28	66.4	65.7	66.7	62.0	60.5	61.6	58.5	64.8	64.5	65.7	57.8	64.4
29	65.8	64.2	65.5	58.8	60.7	61.0	57.3	64.3	63.9	64.7	56.4	62.8
30	66.0	64.7	66.3	47.9	61.3	61.6	57.7	64.5	63.6	62.8	57.0	63.7
31	65.3	64.4	66.3	62.2	59.5	61.1	56.8	67.4	63.3	*	55.8	60.9
Month	61.9	65.3	66.7	61.5	61.4	61.8	58.6	65.8	64.5	65.6	57.7	64.6

Appendix A3

Daily/Monthly CNEL Levels - August 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	63.9	67.2	*	67.1	69.4	75.6	67.0	64.0	71.8	63.8	67.3
2	53.1	66.5	*	62.6	68.8	75.7	67.0	62.9	72.3	61.2	66.8
3	*	66.7	*	66.6	69.8	77.4	67.5	63.3	73.7	62.0	67.5
4	*	67.8	*	67.9	69.5	76.3	67.8	63.9	72.5	63.1	67.4
5	*	67.4	*	65.9	68.9	75.6	66.5	63.1	71.4	61.1	66.6
6	*	67.0	*	65.4	69.7	76.1	67.1	63.9	72.4	62.2	68.0
7	*	66.9	*	67.1	71.7	76.5	67.2	63.8	72.4	63.2	67.4
8	*	67.8	*	*	69.7	75.3	67.0	63.7	71.6	61.4	66.4
9	*	67.6	*	64.5	69.4	75.5	66.6	63.6	71.9	61.8	67.0
10	*	68.7	*	66.5	69.9	76.1	68.0	63.7	72.0	61.8	67.3
11	*	67.3	*	65.8	70.5	76.4	67.9	63.7	72.5	62.6	67.2
12	*	67.7	*	65.6	69.3	75.9	69.0	63.1	71.9	62.2	66.6
13	*	67.1	*	65.2	69.9	76.4	67.3	64.2	72.4	61.9	67.3
14	*	67.4	*	65.6	69.5	76.2	67.9	64.2	72.5	63.0	67.7
15	*	67.5	*	65.5	70.1	75.8	67.1	64.5	72.0	62.5	67.2
16	*	67.1	*	65.2	69.6	75.8	66.8	63.9	72.1	62.2	67.3
17	*	68.0	*	66.1	70.1	75.9	68.2	64.0	72.4	62.3	67.7
18	*	67.4	*	65.9	69.9	76.4	66.9	64.8	72.5	62.9	68.0
19	*	66.4	*	64.8	69.0	75.4	66.6	63.4	71.9	61.6	66.3
20	*	66.6	*	64.8	69.8	76.2	67.6	64.1	72.2	62.6	68.0
21	*	67.1	*	65.1	69.4	75.9	67.4	63.8	72.1	62.2	67.9
22	*	67.4	*	66.0	70.0	75.3	66.2	63.3	71.4	62.5	65.6
23	70.4	67.6	*	65.7	69.4	75.5	67.8	63.7	71.8	61.3	65.4
24	*	67.6	*	62.9	71.7	75.2	67.7	64.2	72.9	62.3	67.4
25	*	67.0	*	67.0	70.0	76.5	67.3	64.0	72.3	64.4	67.0
26	*	65.3	*	64.0	68.4	74.6	65.8	61.5	70.1	59.1	64.4
27	*	66.4	*	65.6	68.7	75.1	65.9	62.1	70.6	59.4	64.8
28	70.6	66.0	*	63.9	69.4	74.6	66.9	63.2	72.2	63.2	66.8
29	*	65.2	*	64.5	68.6	76.0	67.8	62.3	72.3	60.7	65.4
30	*	66.0	*	64.8	68.7	75.8	67.1	62.9	72.2	60.9	66.1
31	67.7	63.8	*	63.4	70.1	78.0	67.6	63.3	74.2	62.1	67.0
Month	68.4	67.5	*	66.0	70.2	76.5	67.8	64.1	72.7	62.7	67.5

1/5/2018 - RMT #6 & RMT #10 data on this page was updated.
The update does not change the overall contour values.

Appendix A3 Continued

Daily/Monthly CNEL Log – August 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	66.1	65.0	66.2	60.1	61.1	61.5	59.0	64.8	64.3	66.7	57.2	64.9
2	65.7	63.8	65.8	61.3	60.4	61.1	57.9	64.6	63.6	64.0	56.7	62.9
3	*	64.6	65.8	61.5	62.2	61.5	57.5	65.0	64.3	62.6	57.3	63.3
4	*	65.6	66.6	60.3	62.0	61.5	58.5	64.8	64.5	65.6	59.2	64.3
5	65.5	64.7	66.4	53.6	61.5	60.4	56.8	64.1	64.0	64.8	58.1	63.7
6	66.9	64.5	66.0	60.7	60.8	62.2	59.4	65.8	65.0	65.9	60.3	59.4
7	66.5	64.3	66.0	59.5	58.2	62.1	59.2	69.3	63.5	65.3	59.6	64.3
8	65.0	65.0	67.0	60.1	57.7	61.2	57.4	63.9	63.1	64.6	57.1	64.1
9	65.6	64.9	66.8	62.9	59.4	61.5	58.0	64.5	63.3	65.2	58.3	64.2
10	65.8	65.8	67.1	61.2	61.5	61.4	57.9	64.7	63.9	*	57.6	64.4
11	66.2	65.6	66.3	60.9	61.2	61.5	58.0	64.5	63.8	*	58.7	63.9
12	65.3	66.0	66.7	59.8	61.7	60.9	57.0	64.0	63.7	*	57.4	63.7
13	66.3	65.6	66.0	50.2	62.5	61.5	57.6	64.7	64.3	*	57.2	63.1
14	66.5	66.0	66.4	62.4	63.3	62.6	58.9	66.7	64.1	*	58.6	64.1
15	66.0	66.4	66.5	60.0	61.7	61.7	58.7	64.6	63.6	67.2	57.8	64.4
16	66.7	64.7	66.2	61.1	58.9	62.2	59.7	65.1	64.0	65.3	58.9	64.0
17	67.1	66.3	67.1	60.3	61.9	62.2	59.7	65.5	64.5	65.7	58.9	64.9
18	66.6	65.4	66.7	59.6	57.6	62.4	59.3	65.6	65.0	*	58.5	64.0
19	65.4	64.9	65.9	59.2	60.6	61.4	57.2	63.8	63.3	*	57.1	62.8
20	66.8	65.8	65.7	60.8	62.5	62.0	59.4	65.4	65.1	*	58.3	63.1
21	67.1	65.4	66.2	59.0	58.2	62.0	60.1	65.7	64.7	*	58.7	64.4
22	64.8	64.7	66.7	60.0	57.5	61.0	57.0	62.6	61.3	*	56.9	63.7
23	64.2	65.6	66.8	60.4	61.0	60.9	55.2	62.2	60.8	*	56.2	63.9
24	66.5	66.0	66.8	60.7	60.4	62.2	58.3	64.7	63.2	*	58.8	63.9
25	65.8	65.8	66.1	60.3	61.7	61.4	58.0	64.2	63.6	*	57.3	64.0
26	63.6	63.7	64.3	57.8	56.3	58.8	55.1	61.8	61.1	*	54.0	61.7
27	64.2	65.0	65.8	61.1	57.4	59.5	55.4	62.2	61.4	*	54.9	62.9
28	66.3	64.6	64.9	58.6	57.5	62.3	58.3	66.5	62.7	*	59.3	62.2
29	65.8	62.6	64.2	61.3	62.0	62.7	59.0	62.6	62.3	*	56.2	61.2
30	65.1	63.7	65.1	62.6	62.0	60.7	56.5	63.3	62.8	*	55.7	62.4
31	68.2	61.9	63.2	60.0	62.0	61.3	57.8	64.4	63.6	65.6	56.7	60.3
Month	66.2	65.6	66.6	60.9	61.3	62.0	58.7	65.3	64.1	65.6	58.4	64.0

Appendix A4

Daily/Monthly CNEL Levels – September 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	70.1	66.2	*	65.1	68.4	76.5	67.5	62.4	72.6	61.7	65.8
2	66.7	63.7	*	62.2	68.8	76.4	66.4	62.5	72.4	62.0	66.2
3	67.7	64.8	*	62.8	68.0	75.2	66.2	61.6	71.4	59.7	65.6
4	70.1	66.2	*	64.4	69.1	76.3	67.3	64.0	72.2	62.2	67.3
5	69.1	65.9	*	64.0	68.8	75.6	64.7	63.2	71.3	61.5	65.6
6	70.2	67.0	*	64.8	68.8	74.6	65.0	62.9	70.9	61.2	66.0
7	70.2	66.3	*	64.4	69.4	74.7	66.1	63.5	71.5	63.4	66.5
8	70.2	66.8	*	67.2	70.2	75.2	66.6	63.9	71.9	63.8	67.6
9	69.3	65.7	*	64.1	67.8	75.0	66.2	62.2	71.2	60.0	65.8
10	68.7	66.0	*	63.6	68.5	74.7	66.2	62.5	71.3	60.8	66.5
11	68.2	65.4	*	63.5	68.9	74.7	67.3	63.1	71.4	61.4	66.7
12	69.5	66.2	*	63.7	69.1	74.6	65.4	62.8	71.3	60.9	65.7
13	70.7	66.9	*	65.2	68.8	74.6	65.0	62.8	70.6	61.1	66.1
14	71.1	67.5	*	64.9	69.9	75.4	66.9	63.9	71.7	62.0	67.3
15	70.3	66.6	*	64.0	69.5	75.6	66.8	63.6	72.0	62.4	67.3
16	68.9	65.8	*	61.6	68.3	75.0	65.8	62.9	71.4	60.8	66.5
17	70.4	66.9	*	*	69.7	75.8	66.8	63.8	72.0	62.0	67.4
18	70.7	66.9	*	*	69.1	75.4	66.7	63.5	71.7	62.4	67.2
19	69.7	66.6	*	65.5	69.5	75.1	65.8	63.4	71.7	61.8	66.8
20	70.2	66.9	*	64.5	70.3	75.2	67.1	64.1	71.4	62.5	66.9
21	71.2	67.7	*	61.9	70.5	75.5	67.4	64.4	72.0	63.0	67.4
22	71.2	67.2	*	*	70.2	76.0	67.8	64.3	72.3	63.1	67.5
23	69.6	65.8	*	*	68.5	75.1	65.4	62.9	71.3	61.4	66.7
24	69.9	66.2	*	*	68.8	75.8	66.9	63.2	71.8	61.5	66.7
25	68.6	63.9	*	*	69.4	75.0	67.5	63.0	71.0	62.4	65.8
26	69.7	66.7	*	*	69.4	75.1	68.8	63.1	71.4	61.4	66.1
27	69.7	66.3	*	*	69.2	74.9	69.8	63.2	71.1	61.9	66.0
28	70.1	66.3	*	66.7	69.2	75.9	67.9	63.4	72.5	61.4	66.6
29	69.4	65.7	*	64.3	68.7	75.6	67.3	62.3	71.9	61.5	66.0
30	69.2	65.7	*	63.4	68.0	74.9	65.8	61.8	71.0	61.6	65.4
Month	70.3	66.8	*	64.7	69.6	75.8	67.3	63.7	72.1	62.4	67.0

1/5/2018 - RMT #6 & RMT #10 data on this page was updated.
The update does not change the overall contour values.

Appendix A4 Continued

Daily/Monthly CNEL Log – September 2017

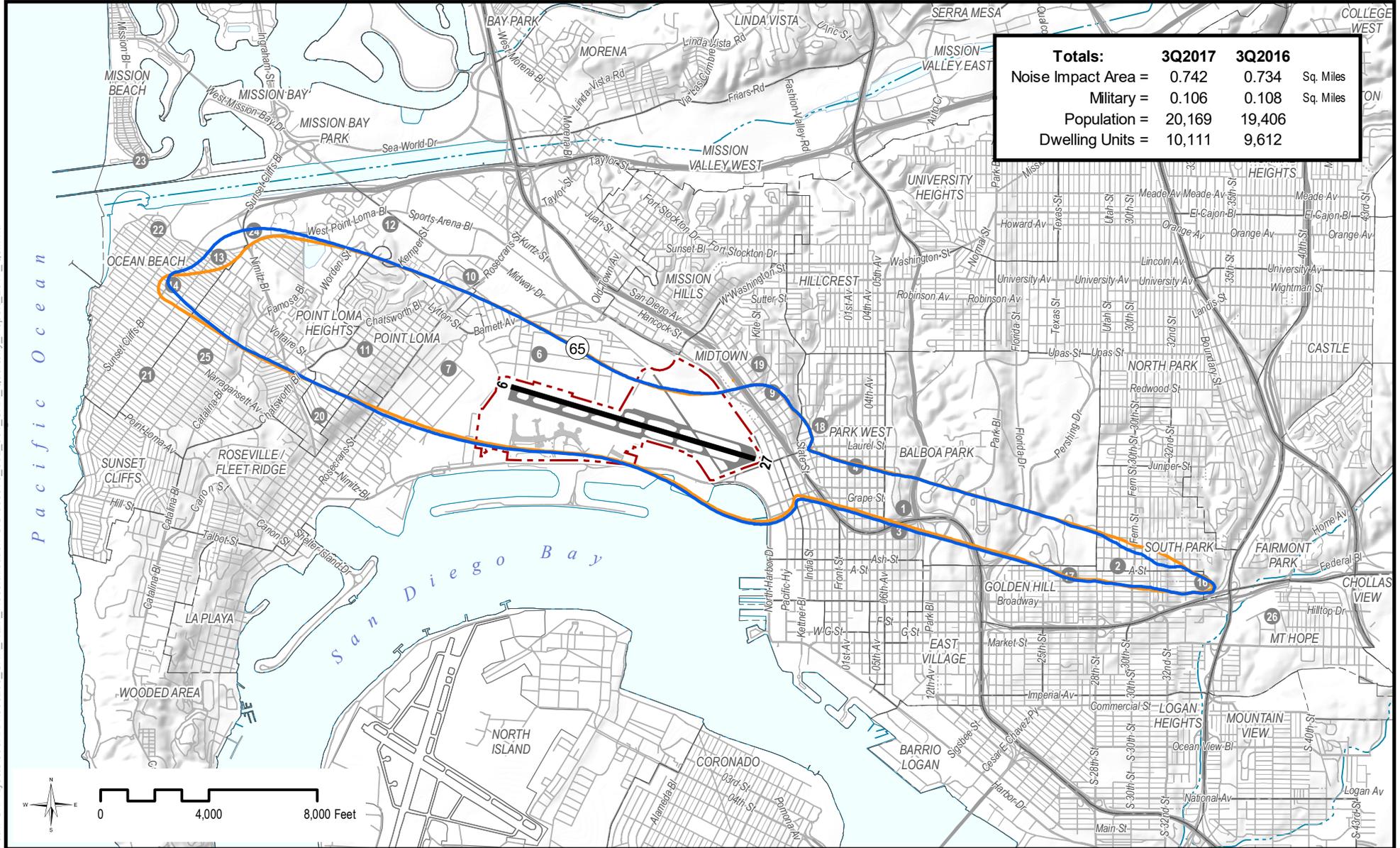
* = Not in Service

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	66.0	63.9	65.7	64.4	62.4	60.6	56.8	63.5	62.6	63.2	55.4	62.5
2	65.6	61.5	63.1	59.1	60.9	59.8	56.8	63.9	62.4	63.4	55.4	59.9
3	64.8	62.7	63.7	59.5	61.0	59.5	56.8	62.8	62.8	63.3	54.9	61.0
4	66.5	64.1	65.4	59.6	61.2	61.5	58.7	64.7	63.9	64.9	57.8	62.6
5	64.7	63.7	65.2	58.1	54.2	60.6	57.1	65.0	62.0	63.2	55.7	62.9
6	65.6	64.9	66.1	58.2	54.8	61.2	58.6	63.5	64.2	63.7	57.4	63.6
7	65.6	64.1	65.3	59.9	57.3	61.4	58.2	63.9	62.9	64.3	56.5	63.0
8	65.8	64.3	65.8	60.2	59.8	61.5	58.9	64.9	64.4	65.7	56.2	63.7
9	65.5	62.9	64.8	58.8	55.9	60.8	57.5	63.2	62.0	63.1	55.9	61.9
10	66.7	63.2	65.2	58.2	57.0	61.1	57.8	64.0	62.9	64.1	56.6	62.9
11	65.7	62.9	64.6	59.8	62.2	60.5	58.0	66.1	75.2	64.0	55.9	62.0
12	65.8	64.4	65.3	58.2	56.7	60.6	57.9	63.3	67.6	63.2	56.9	62.7
13	65.6	64.4	66.0	61.4	58.4	61.1	58.7	63.6	69.6	63.6	57.2	63.5
14	66.3	65.0	66.4	60.8	61.7	61.7	59.4	64.8	66.3	64.8	57.5	64.4
15	66.5	64.3	65.7	58.7	60.1	61.6	59.7	65.0	65.6	65.0	58.1	61.0
16	65.7	63.5	65.2	58.9	60.9	60.5	58.3	64.0	63.2	64.2	57.3	63.3
17	66.0	64.0	66.2	59.6	60.8	61.6	58.5	64.8	64.0	65.2	56.2	63.6
18	66.3	64.1	66.1	60.0	58.7	61.9	59.5	66.1	64.8	64.3	57.3	63.5
19	66.3	64.3	65.5	57.7	60.9	61.2	58.9	64.3	64.9	64.4	57.0	63.2
20	65.9	65.9	65.9	62.3	62.5	61.2	59.1	64.5	68.7	64.7	56.8	64.6
21	66.8	66.0	66.6	61.7	62.2	62.1	59.8	65.0	64.7	65.1	57.5	64.4
22	66.7	65.3	66.3	60.1	64.8	62.1	59.8	65.2	64.8	65.8	57.4	63.8
23	66.3	63.6	64.9	56.4	60.6	61.3	59.1	64.5	63.2	64.4	57.4	62.2
24	66.3	63.6	65.8	60.1	62.1	62.0	59.0	64.5	63.2	64.3	57.6	62.5
25	65.3	63.8	64.5	64.6	62.5	61.1	58.1	66.5	62.1	63.6	55.9	61.6
26	65.5	64.5	65.9	63.6	63.6	60.5	58.4	63.5	62.7	64.1	55.8	63.0
27	65.3	64.8	65.5	61.6	64.3	61.0	58.1	63.6	62.4	63.9	56.4	62.8
28	66.6	64.3	65.6	62.7	62.3	61.1	59.4	64.2	62.6	64.1	57.3	62.8
29	66.2	63.6	65.0	58.5	59.3	60.3	57.5	63.3	62.9	63.9	55.4	62.4
30	65.4	63.5	64.5	57.0	60.7	59.2	57.4	62.6	62.0	63.2	54.3	61.9
Month	66.4	64.6	66.0	61.0	61.5	61.6	59.0	64.9	66.3	64.7	57.2	63.4

Appendix B

ANOMS Commercial Flight Operations Mix - 3rd Quarter 2017

Aircraft Type	Air Canada Rouge	Alaska	Allegiant	American	British Airways	Compass	Condor	Delta Air Lines	Edelweiss Air	Frontier	Hawaiian	Japan	Jazz	jetBlue	SkyWest	Southwest	Spirit	Sun Country	United	Virgin America	WestJet	Atlas	FedEx	UPS	Total Arrivals	Total Operations	
A306																							3		3	6	
A319	5		80	53				1		7							90		360	126					722	1444	
A320			2					179		438				288			453		272	398					2030	4060	
A321	85			1509				11		84				136			88								1913	3826	
A332											91														91	182	
A343									23																23	46	
B733				7												171									178	356	
B734		18																							18	36	
B736																					14				14	28	
B737		53														7114	6	75	25		39				7312	14624	
B738		779		798				262								2132		35	811		34				4851	9702	
B739		1001						788											1048						2837	5674	
B752				82				470															64		616	1232	
B753								31											1						32	64	
B762																						64			64	128	
B763							36	79															180	116	411	822	
B77W					91																				91	182	
B788											91															91	182
CRJ2															85											85	170
CRJ7															332											332	664
CRJ9													182		255											437	874
DC10																							61		61	122	
E175		26				646									1792											2464	4928
MD80+			27					8																		35	70
MD90+								111																		111	222
Total	90	1877	109	2449	91	646	36	1940	23	529	91	91	182	424	2464	9417	637	110	2517	524	87	64	308	116	24822	49644	
BE99																										76	152
C208																							217			217	434
DH8D		220																								220	440
SW3/4																								62		62	124
Total	90	2097	109	2449	91	646	36	1940	23	529	91	91	182	424	2464	9417	637	110	2517	524	87	140	525	178	575	1150	



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- 2017 3rd Quarter 65 dB CNEL Contour
- 2016 3rd Quarter 65 dB CNEL Contour
- Airport Property
- Runway
- # RMT Site Location
- Roads
- - - River / Stream

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