

QUARTERLY NOISE REPORT

For:
California Department of Transportation

2nd Quarter 2016
April 1 – June 30, 2016



SAN DIEGO
INTERNATIONAL AIRPORT

LET'S **GO.**

Airport Noise Mitigation

August 12, 2016



QUARTERLY NOISE REPORT
For the Period
April 1 through June 30, 2016

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 2016 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 black ink, appearing to read "Keith Wilschetz", written over a horizontal line.

Keith Wilschetz
Director, Airport Planning & Noise Mitigation

A handwritten signature in black ink, appearing to read "Thelma F. Bowens", written over a horizontal line.

Thelma F. Bowens
President / CEO

TABLE OF CONTENTS

Summary of Statistical Information for the California Department of Transportation	1
Aircraft Noise Measurements	2
Table 1: Change in N.I.A. and M.I.A.	2
Table 2: Quarterly and Annual CNEL Data.	3
Airport Operations	4
Table 3: SAN ATCT Counts.....	4
Quarterly Operations Survey Report	5
Table 4: Single Event Noise Exposure Level (SENEL) Comparison.....	5
Table 5: Quarterly Operations Survey – Arrivals.....	6
Table 6: Quarterly Operations Survey – Departures.....	8
Table 7: Air Carrier Operations Mix by Time of Day and Runway Use	10
Aircraft Noise Complaints	11
Enforcement Actions	11
Residential Sound Insulation Program	11
Airport Noise Advisory Committee (ANAC).....	11
Appendix A - Aircraft Noise Monitoring System	
Appendix A1	Remote Noise Monitoring Terminal (RMTs) Thresholds
Appendix A2	Daily/Monthly CNEL Levels – April 2016
Appendix A3	Daily/Monthly CNEL Levels – May 2016
Appendix A4	Daily/Monthly CNEL Levels – June 2016
Appendix B – ANOMS Commercial Flight Operations Mix- 2 nd Quarter 2016	
Attachment: Comparison of the 2015 and 2016 2 nd Quarter 65 dB CNEL Contours	

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 = 0.723 sq. miles; Military Noise Impact Area = 0.111 sq. miles

2. Estimated number of dwelling units included in the Noise Impact Area as defined in the Noise Standards:
9,445* (QHP Insulated = 3,412)

3. Estimated number of people residing within the Noise Impact Area as defined in the Noise Standards:
19,039* (QHP Insulated = 8,530)

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:
McDonnell-Douglas MD-80 Series (Stage 3): 66

5. Total number of aircraft operations during the calendar quarter:
49,913

6. Number of Air Carrier operations by aircraft certified under Federal Aviation Regulations (FAR) Part 36:
44,165

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

8. Estimated number of operations by Commuter aircraft during the calendar quarter:
3,069

9. Estimated number of operations by General Aviation aircraft during the calendar quarter:
2,428

10. Estimated number of operations by Military aircraft during the calendar quarter:
251

Form DOA 617, 10/89

* Population and dwelling unit calculations are based upon 2010 Census Block Boundary Data, which is an update to the calculations done since the publication of the 2nd Quarter 2015 Report that are based upon 2000 Census Tract 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, 2015 to June 30, 2016 to be 0.723 square miles (462.7 acres) and 0.111 square miles (71.0 acres), respectively. As compared to the period between July 1, 2014 to June 30, 2015, the Noise Impact Area increased by 0.248 square miles and the Federal Military Noise Impact Area decreased by 0.085 square miles.

Table 1

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

July 1, 2015 to June 30, 2016	July 1, 2014 to June 30, 2015	Change
0.723	0.475	0.248
0.111	0.196	-0.085

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, 2015 to June 30, 2016 compared to the period between July 1, 2014 to June 30, 2015 accompanies this report as an attachment.

Table 2**Quarterly and Annual CNEL Data**

RMT #	Annual CNEL (dB)¹	Quarter CNEL (dB)²
1	71.0	71.2
2	66.6	67.2
3	*	*
4	66.5	66.5
6	68.9	69.6
7	75.2	75.1
9	68.0	68.4
10	63.8	64.4
11	71.7	72.3
12	62.3	63.2
13	64.6	66.8
14	65.5	65.9
16	65.0	65.4
17	65.2	65.7
18	61.2	59.5
19	62.5	63.2
20	61.6	61.7
21	58.2	58.3
22	65.0	65.8
23	63.8	64.2
24	64.4	64.9
25	62.8	63.4
26	64.7	63.3

¹ = For the period July 1, 2015 through June 30, 2016

² = For the period April 1, 2016 through June 30, 2016

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 mechanical, electrical and/or communication issues.

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 2016	2nd Quarter 2015	Increase / Decrease	Percent Change
Air Carrier	44,165	42,036	2,129	5.06%
Air Taxi	3,069	5,165	-2,096	-40.58%
General Aviation	2,428	2,492	-64	-2.57%
Military	251	191	60	31.41%
Total	49,913	49,884	29	0.06%

For questions on how the FAA ATCT conducts their air traffic counts, please visit the following website: <http://www.FAA.gov/DocumentLibrary/Media/Order/FAC.pdf> and see "Chapter 9".

Quarterly Operations Survey Report

The Quarterly Operations Survey Report for San Diego International Airport (SDIA) encompasses the 2nd Quarter of 2016. The data used to compile this report was gathered during 24-hour periods on May 10-12, 2016.

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 2016 Operations Survey, an average of 228 daily air carrier arrival operations was conducted. Therefore, the loudest 25% of these arrivals totaled approximately 57. 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 2nd Quarter 2016 Operations Survey, an average of 228 daily air carrier departure operations was conducted. Therefore, the loudest 25% of these departures totaled approximately 57. 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 2016 Operations Survey is as follows:

Table 4

Single Event Noise Exposure Level (SENEL) Comparison

	May 10-12, 2016	May 12-14, 2015	Change (dB)
Departures	99.9	100.2	-0.3
Arrivals	95.6	95.8	-0.2

Table 7, Air Carrier Operations Mix by Time of Day and Runway Use, represents the 456 daily operations, which is greater than the 448 daily operations recorded during the 2nd Quarter of 2015.

Table 5

Quarterly Operations Survey - Arrivals (RMT #1 from May 10-12, 2016)

* = Missed Approach

Aircraft Type	SENEL (dB)	Arriving From	Flight Number	Date and Time
DC10	102.2	IND	FDX1754	5/10/2016 5:50 AM
B744	102.0	EGLL	BAW44N	5/11/2016 6:26 PM
DC10	101.3	IND	FDX1754	5/11/2016 5:11 AM
DC10	100.7	IND	FDX3713	5/10/2016 4:52 PM
B744	100.0	EGLL	BAW44N	5/10/2016 6:30 PM
DC10	99.5	MEM	FDX1422	5/10/2016 6:33 AM
DC10	98.6	IND	FDX3713	5/11/2016 5:19 PM
DC10	98.5	MEM	FDX1422	5/11/2016 5:27 AM
B763	97.5	ATL	DAL1631	5/11/2016 6:14 PM
B753	96.9	ATL	DAL2267	5/10/2016 12:35 PM
MD83	96.2	IWA	AAY8001	5/11/2016 9:14 AM
B752	96.1	ATL	DAL1567	5/11/2016 8:42 PM
A306	95.9	MEM	FDX906	5/10/2016 8:45 PM
B752	95.8	DFW	AAL1445	5/11/2016 1:29 PM
B733	95.7	DEN	SWA569	5/10/2016 9:20 PM
B753	95.7	JFK	DAL2788	5/11/2016 11:15 AM
B763	95.6	DTW	DAL2333	5/11/2016 9:40 PM
B763	95.5	SDF	UPS2922	5/10/2016 5:50 PM
B733	95.5	SJC	SWA252	5/10/2016 8:22 PM
B738	95.5	DEN	SWA1207	5/11/2016 1:24 PM
B733	95.4	SFO	SWA2095	5/11/2016 4:50 PM
B733	95.3	SFO	SWA2023	5/10/2016 10:32 AM
B752	95.3	ONT	FDX3858	5/10/2016 5:04 PM
B734	95.3	PDX	ASA552	5/11/2016 9:10 PM
B733	95.0	PHX	SWA359	5/10/2016 2:06 PM
B734	95.0	SEA	ASA478	5/11/2016 11:17 AM
B763	94.8	SDF	UPS922	5/10/2016 4:49 AM
B733	94.8	DEN	SWA3723	5/10/2016 3:10 PM
A306	94.8	MEM	FDX906	5/11/2016 5:03 PM
B753	94.7	ATL	DAL2267	5/11/2016 12:30 PM
B763	94.7	SDF	UPS2922	5/11/2016 5:27 PM
A306	94.6	LAX	FDX1386	5/10/2016 7:36 PM
B763	94.6	SDF	UPS922	5/11/2016 5:03 AM
B739	94.5	SFO	UAL1900	5/10/2016 12:15 PM
B737	94.5	MSY	SWA3787	5/10/2016 5:02 PM
B738	94.5	DEN	UAL710	5/11/2016 4:48 PM
B752	94.4	ATL	DAL1692	5/10/2016 10:09 AM
B738	94.4	EWR	UAL394	5/11/2016 11:04 AM
B733	94.4	DEN	SWA3723	5/11/2016 3:09 PM

Table 5 Continued

Quarterly Operations Survey - Arrivals (RMT #1 from May 10-12, 2016)

Aircraft Type	SENEL (dB)	Arriving From	Flight Number	Date and Time
B738	94.4	PHOG	ASA806	5/11/2016 7:32 PM
B752	94.3	OAK	FDX1889	5/11/2016 3:59 AM
B733	94.3	SJC	SWA252	5/11/2016 8:29 PM
B738	94.2	BOS	ASA769	5/10/2016 9:31 PM
B734	94.2	PDX	ASA582	5/11/2016 9:04 AM
B738	94.2	DEN	SWA2761	5/11/2016 10:01 AM
B738	94.2	SMF	SWA3637	5/11/2016 11:48 AM
B738	94.1	DEN	SWA1207	5/10/2016 1:36 PM
B733	94.1	SFO	SWA2032	5/10/2016 3:01 PM
B733	94.1	PHX	SWA359	5/11/2016 2:29 PM
B738	94.1	IAD	UAL1574	5/11/2016 6:01 PM
B738	94.0	ORD	AAL156	5/11/2016 9:38 AM
B738	94.0	PDX	ASA572	5/11/2016 2:09 PM
B733	93.9	SJC	SWA2505	5/11/2016 8:46 AM
B752	93.9	ATL	DAL1692	5/11/2016 9:50 AM
B738	93.8	SFO	UAL497	5/11/2016 2:22 PM
B733	93.7	LAS	SWA243	5/10/2016 11:17 AM
B733	93.7	ABQ	SWA3060	5/11/2016 5:22 PM

Table 6

Quarterly Operations Survey - Departures (RMT #7 from May 10-12, 2016)

Aircraft Type	SENEL (dB)	Departing To	Flight Number	Date and Time
B744	106.5	EGLL	BAW72A	5/11/2016 9:43 PM
B744	106.4	EGLL	BAW72A	5/10/2016 9:37 PM
B744	105.6	EGLL	BAW72A	5/10/2016 2:13 AM
MD83	104.3	GPT	AAY8002	5/11/2016 10:50 AM
DC10	102.2	IND	FDX3613	5/10/2016 7:26 AM
B763	101.2	ATL	DAL1792	5/11/2016 11:09 PM
DC10	101.1	IND	FDX3613	5/11/2016 7:20 AM
B739	100.8	ATL	DAL1792	5/10/2016 11:12 PM
A321	100.8	PHL	AAL754	5/11/2016 8:59 AM
DC10	100.7	MEM	FDX821	5/10/2016 8:09 AM
DC10	100.6	MEM	FDX821	5/11/2016 7:19 AM
B739	100.4	DTW	DAL2268	5/10/2016 10:58 PM
B738	100.3	JFK	DAL2404	5/11/2016 6:57 AM
A332	100.3	PHNL	HAL15	5/11/2016 10:40 AM
DC10	100.2	IND	FDX1654	5/11/2016 7:41 PM
A321	100.1	PHX	AAL567	5/10/2016 6:57 AM
B739	100.1	IAD	UAL238	5/10/2016 10:29 PM
B739	100.0	JFK	DAL2182	5/10/2016 9:44 PM
B738	99.9	IAD	UAL546	5/11/2016 7:07 AM
DC10	99.8	IND	FDX1654	5/10/2016 7:38 PM
A321	99.8	CLT	AAL579	5/11/2016 10:49 PM
B738	99.6	PHOG	ASA829	5/11/2016 7:52 AM
B739	99.6	IAD	UAL965	5/11/2016 1:14 PM
B739	99.6	JFK	DAL2182	5/11/2016 9:38 PM
B739	99.5	EWR	UAL1964	5/10/2016 6:32 AM
A321	99.5	PHL	AAL754	5/10/2016 9:15 AM
A321	99.5	PHL	AAL648	5/10/2016 10:12 PM
B739	99.5	EWR	UAL1964	5/11/2016 6:51 AM
B738	99.5	BOS	ASA798	5/11/2016 8:39 AM
B739	99.4	ATL	DAL1592	5/11/2016 7:08 AM
B739	99.4	IAH	UAL1475	5/11/2016 9:01 AM
A321	99.4	CLT	AAL487	5/11/2016 11:25 AM
A321	99.4	PHL	AAL648	5/11/2016 10:13 PM
B763	99.4	DTW	DAL2268	5/11/2016 10:52 PM
B738	99.2	PHNL	ASA895	5/11/2016 11:40 AM
B739	99.1	ATL	DAL1592	5/10/2016 6:31 AM
A332	99.1	PHNL	HAL15	5/10/2016 10:37 AM
B739	99.1	ORD	UAL555	5/11/2016 9:21 AM
B739	99	IAD	UAL965	5/10/2016 1:01 PM

Table 6 Continued

Quarterly Operations Survey - Departures (RMT #7 from May 10-12, 2016)

Aircraft Type	SENEL (dB)	Departing To	Flight Number	Date and Time
B738	98.9	PHOG	ASA829	5/10/2016 7:50 AM
A321	98.9	CLT	AAL487	5/10/2016 11:19 AM
B738	98.8	JFK	DAL2404	5/10/2016 6:54 AM
B738	98.7	JFK	AAL94	5/10/2016 7:55 AM
A321	98.7	DFW	AAL606	5/10/2016 1:04 PM
B739	98.7	ORD	UAL240	5/10/2016 10:39 PM
B739	98.6	IAD	UAL546	5/10/2016 7:03 AM
B739	98.5	ORD	UAL307	5/10/2016 6:42 AM
A321	98.5	DFW	AAL2205	5/11/2016 6:56 AM
B739	98.4	ORD	UAL555	5/10/2016 9:24 AM
A321	98.4	DFW	AAL1445	5/10/2016 2:56 PM
B738	98.4	EWR	UAL1150	5/11/2016 12:28 PM
B739	98.3	ORD	UAL1613	5/10/2016 1:51 PM
A321	98.3	DFW	AAL1063	5/11/2016 7:14 AM
B738	98.3	JFK	AAL94	5/11/2016 7:59 AM
B739	98.3	ORD	UAL1613	5/11/2016 1:57 PM
B763	98.3	SDF	UPS921	5/11/2016 7:53 PM
B739	98.3	IAD	UAL238	5/11/2016 10:44 PM

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

These numbers are the averages for operations for May 10-12, 2016

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	9	1	2	9	2	1							24
A320+	21	7	3	24	2	3							60
A330+			1	1									2
B712			1			1							2
B737+	93	27	18	106	18	15							277
B757+	4	1	2	5	1	1							14
B767+	2		1	1	1	1							6
B777+	1				1								2
B787+	1			1									2
DH8D	2			2									4
DC10	1		1	2	1								5
E170/175/190	13	4	1	13	2	2							35
MD10			1		1								2
MD90				1		1							1
RJ+	8	1	1	8	2								20
Total	156	41	31	172	32	25	0	0	0	0	0	0	457

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; Includes CRJ2/7/9, E120/35/40/45

Aircraft Noise Complaints

During the 2nd Quarter of 2016, Airport Noise Mitigation received a total of 9,481 complaints. 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 9,481 complaints recorded during the 2nd Quarter of 2016 reflects an increase of 9,451 from the 30 recorded during the 2nd Quarter of 2015.

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 2016, there were a total of 12 curfew violations. The 12 curfew violations recorded during the 2nd Quarter of 2016 reflects an increase of 1 from the 11 curfew violations recorded during the 2nd Quarter of 2015.

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 2016

* 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	71.6	67.1	*	*	69.2	75.2	68.6	64.4	71.9	62.0	66.7
2	70.3	66.3	*	*	67.8	74.4	68.9	62.9	71.1	62.1	65.8
3	70.1	66.0	*	*	68.3	74.7	67.7	62.7	71.0	56.2	65.7
4	69.5	65.8	*	*	68.7	74.9	67.5	62.9	71.2	*	65.8
5	68.9	65.2	*	*	68.5	76.0	67.7	62.7	72.6	*	65.7
6	69.8	65.6	*	*	69.5	76.4	66.5	64.4	73.1	*	66.8
7	71.6	67.2	*	*	69.4	75.8	69.0	64.1	72.5	59.6	66.9
8	71.2	67.5	*	*	69.8	76.3	67.8	66.1	72.6	63.3	66.8
9	70.2	66.4	*	*	68.3	75.3	67.6	63.1	71.9	60.6	66.6
10	70.0	66.0	*	*	69.5	75.8	69.1	64.6	72.4	63.9	67.0
11	70.4	66.3	*	*	69.2	75.1	71.0	65.0	71.9	63.0	66.7
12	71.4	67.2	*	*	69.4	74.2	65.3	64.5	71.0	63.3	66.4
13	71.6	67.2	*	*	69.3	74.9	67.6	64.4	71.4	62.8	66.5
14	72.5	68.5	*	*	69.3	75.1	67.5	64.2	71.8	62.8	66.6
15	71.3	67.2	*	*	69.0	75.2	69.1	64.3	72.2	62.9	66.9
16	67.5	63.2	*	*	67.4	73.9	66.7	61.7	70.1	61.9	63.8
17	66.6	64.1	*	*	68.1	74.8	65.5	62.5	71.2	*	65.1
18	65.0	63.6	*	*	67.7	73.7	66.0	62.2	70.2	*	64.0
19	67.5	64.9	*	*	67.6	73.5	65.5	62.3	69.6	*	63.6
20	69.7	66.1	*	*	68.1	74.0	66.0	63.1	70.1	*	64.4
21	71.1	66.9	*	*	69.0	75.4	69.2	63.9	72.0	*	66.2
22	72.3	67.6	*	*	65.3	70.5	66.9	63.7	71.1	*	65.7
23	70.0	65.8	*	*	68.1	73.9	65.8	63.2	70.4	*	65.4
24	70.5	66.4	*	*	69.1	75.1	70.0	64.5	71.6	*	66.6
25	71.2	66.9	*	*	69.6	73.9	67.3	65.2	70.6	*	66.1
26	70.8	66.8	*	*	68.9	75.3	68.2	64.4	71.1	*	66.1
27	72.0	67.9	*	*	69.7	75.1	70.7	65.1	71.3	*	66.4
28	67.4	65.1	*	*	65.6	70.2	64.9	60.6	66.9	*	*
29	71.6	67.4	*	*	69.4	75.4	68.4	64.6	71.7	*	67.0
30	69.4	65.3	*	*	68.2	75.3	68.0	63.5	71.7	*	65.0
Month	70.9	66.9	*	*	69.2	75.3	68.4	64.3	71.9	62.7	66.4

Appendix A2 Continued

Daily/Monthly CNEL Levels – April 2016

* 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	66.3	65.8	65.6	58.8	66.1	61.5	58.4	65.6	64.5	65.0	63.3	64.2
2	65.6	64.9	65.0	60.7	63.3	60.6	57.3	64.6	63.3	63.8	62.1	63.5
3	64.9	64.0	65.0	58.8	60.5	60.8	56.2	64.7	62.9	61.6	61.3	62.8
4	65.3	64.3	64.9	60.8	61.3	60.3	57.3	65.1	63.5	63.6	61.5	62.9
5	66.0	63.7	63.9	61.1	63.7	60.0	55.6	64.6	62.6	63.5	61.4	62.0
6	67.6	64.2	64.4	59.7	60.4	61.0	57.0	65.8	63.3	64.7	62.0	63.1
7	66.8	65.4	66.0	59.9	62.8	61.9	58.5	65.7	64.6	65.0	63.6	64.3
8	66.7	66.1	65.7	58.0	61.7	61.3	58.1	65.5	64.1	65.2	62.7	64.2
9	66.4	64.8	64.4	61.7	63.5	60.8	57.7	65.4	64.1	64.6	62.8	63.5
10	66.6	65.0	64.7	58.6	65.9	61.4	58.4	65.8	64.5	65.3	63.0	64.0
11	66.6	64.3	65.4	57.8	66.5	61.4	59.2	65.5	63.8	64.8	63.1	63.5
12	65.7	65.2	65.9	58.3	59.1	61.2	58.3	65.2	63.7	64.6	63.2	64.1
13	66.5	65.1	65.6	58.9	59.4	61.2	59.0	65.4	64.4	64.6	63.3	64.0
14	66.8	66.1	66.2	59.7	63.2	61.7	58.8	65.3	64.9	64.9	63.5	65.2
15	66.4	65.9	65.7	58.3	65.9	62.0	58.7	66.3	65.1	64.8	63.3	64.9
16	64.5	61.3	62.3	62.2	62.5	59.3	55.2	62.9	61.6	61.4	61.3	59.9
17	65.2	62.4	63.1	60.5	61.3	60.3	56.2	64.0	62.6	62.9	61.1	61.8
18	64.1	62.0	62.8	55.9	60.4	58.8	55.8	62.6	61.7	61.9	61.4	60.5
19	64.0	63.8	63.6	58.5	60.7	58.8	55.2	62.7	62.3	61.9	61.2	62.1
20	64.2	64.1	65.1	57.1	59.1	60.2	56.2	63.4	61.9	62.7	61.3	63.3
21	65.6	64.9	65.7	59.8	63.3	61.6	57.7	65.1	63.2	64.4	62.2	63.7
22	68.4	65.7	64.1	56.0	57.4	61.3	58.1	64.7	63.4	64.0	62.9	65.2
23	65.7	63.7	63.7	57.6	60.0	60.9	58.1	64.5	63.2	63.5	62.6	62.6
24	66.5	65.4	64.8	55.3	66.6	61.1	58.3	65.4	65.5	65.0	62.7	63.7
25	66.1	65.3	66.4	60.4	63.2	62.0	59.2	65.4	66.1	64.9	63.2	64.0
26	65.7	65.2	65.3	57.2	63.4	61.1	58.6	64.9	63.6	64.3	63.0	64.0
27	66.7	67.0	65.8	59.9	68.3	63.2	58.8	65.5	64.4	64.9	63.8	65.0
28	63.1	62.2	61.1	60.2	60.7	57.8	56.8	61.4	59.8	*	59.9	60.6
29	66.4	65.6	65.5	58.6	62.8	61.4	55.0	65.4	64.3	*	63.1	64.3
30	66.1	64.1	63.6	60.6	63.0	60.7	58.0	64.9	63.5	*	62.2	62.3
Month	66.5	65.3	65.4	59.8	63.8	61.5	58.2	65.4	64.2	64.5	63.0	64.0

Appendix A3

Daily/Monthly CNEL Levels - May 2016

* 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	70.3	66.4	*	*	68.9	75.5	68.3	64.3	72.0	*	66.8
2	70.3	65.9	*	*	69.0	75.6	66.0	64.3	72.0	62.6	66.8
3	71.2	67.0	*	67.5	68.8	74.2	66.6	64.3	71.0	62.3	65.8
4	71.2	67.4	*	66.2	69.4	74.7	67.5	64.6	71.6	64.9	66.6
5	72.0	67.5	*	67.2	69.9	75.3	68.3	65.9	71.6	63.4	67.1
6	72.6	68.1	*	67.7	69.7	75.5	68.3	64.9	72.3	63.9	66.8
7	69.8	65.3	*	64.6	67.8	74.5	67.4	62.9	71.4	62.9	65.8
8	70.0	65.9	*	65.4	69.3	75.0	66.4	63.9	71.7	62.7	66.7
9	71.5	66.9	*	68.2	69.4	74.4	68.3	64.3	71.1	62.8	66.5
10	71.5	66.9	*	66.3	69.4	75.8	67.7	64.4	72.2	63.0	67.1
11	72.0	67.8	*	67.4	68.9	74.9	66.5	63.8	71.4	62.7	65.3
12	72.4	67.8	*	67.6	69.7	76.0	67.5	64.3	72.1	62.1	65.8
13	71.6	67.7	*	66.7	69.5	75.1	67.5	64.1	71.7	63.5	66.4
14	69.9	66.8	*	65.1	68.5	74.8	67.3	63.0	71.2	63.4	65.8
15	70.6	66.6	*	66.5	69.4	75.9	68.2	64.1	72.5	62.6	67.1
16	70.9	66.9	*	66.3	69.5	75.2	67.9	63.9	71.8	62.6	67.0
17	71.6	67.2	*	66.1	69.3	75.8	68.3	64.2	72.4	62.5	67.5
18	71.2	67.0	*	66.7	69.1	75.0	66.7	64.0	71.5	63.2	65.6
19	71.6	67.3	*	66.9	70.1	75.7	68.2	64.8	72.3	63.6	66.4
20	71.5	67.6	*	66.9	69.6	75.5	68.3	64.7	71.9	64.0	67.0
21	70.3	66.1	*	65.6	68.4	73.8	67.1	63.6	70.4	63.4	66.0
22	71.0	66.5	*	65.7	68.7	75.2	67.3	64.0	71.6	62.7	66.7
23	70.3	66.2	*	66.0	70.3	76.0	70.5	65.0	72.3	63.5	67.5
24	71.4	67.6	*	66.6	69.6	74.8	68.1	64.6	71.0	62.8	66.3
25	71.8	67.6	*	66.7	69.7	75.6	68.3	64.8	71.7	63.6	66.6
26	71.7	67.5	*	66.9	69.4	75.5	68.2	64.7	72.0	63.3	66.8
27	72.1	68.4	*	67.6	70.9	75.4	68.3	64.3	72.0	63.1	66.9
28	69.6	65.4	*	64.6	67.9	74.7	67.2	63.3	71.1	63.1	65.0
29	68.9	64.8	*	64.8	67.8	74.6	66.9	62.5	71.4	61.6	65.9
30	70.5	66.3	*	65.9	69.3	75.8	68.3	64.1	72.4	62.6	67.4
31	70.4	66.3	*	65.7	69.0	75.3	68.0	64.1	71.7	62.8	66.1
Month	71.6	67.4	*	67.0	69.8	75.7	68.3	64.7	72.2	63.6	67.0

Appendix A3 Continued

Daily/Monthly CNEL Log – May 2016

* 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	66.5	64.6	65.3	56.6	63.4	61.4	58.3	65.7	64.7	65.0	62.9	63.4
2	66.6	64.0	64.9	63.5	58.0	61.9	59.1	68.7	64.2	65.0	63.1	63.1
3	65.8	64.9	65.4	54.1	58.9	60.8	57.4	64.5	63.2	64.0	62.2	64.2
4	66.0	65.5	65.3	57.2	63.2	61.3	58.1	65.5	63.9	64.7	63.0	64.8
5	66.7	66.0	66.1	58.8	64.1	61.7	58.8	65.8	64.9	65.6	63.3	65.0
6	66.4	67.0	66.8	57.6	64.0	62.0	58.6	65.6	64.4	65.3	63.0	65.2
7	66.3	63.5	63.9	53.9	63.6	60.7	57.7	64.7	62.6	63.8	62.9	62.2
8	66.6	64.2	65.2	55.2	59.2	61.6	58.6	65.5	63.6	64.6	63.2	63.2
9	66.0	64.8	65.9	57.6	61.1	61.3	58.2	67.7	63.5	64.7	63.0	63.8
10	66.6	64.8	65.5	56.2	60.8	61.9	58.4	66.2	64.2	65.1	64.6	64.1
11	67.0	65.1	66.2	59.7	59.3	61.0	56.4	63.9	61.8	63.7	62.0	64.9
12	66.5	65.4	66.2	56.6	60.4	61.0	56.0	64.4	64.9	64.4	61.2	64.7
13	66.1	66.0	65.8	56.1	61.2	61.7	57.4	65.2	64.0	64.7	62.5	64.6
14	65.7	64.6	64.4	55.9	63.0	60.9	57.0	64.3	63.0	63.8	62.0	62.7
15	66.6	64.9	65.4	58.4	63.7	61.6	58.3	66.0	64.7	65.3	62.7	64.9
16	66.0	65.6	65.4	57.9	63.4	61.0	58.6	67.9	65.0	65.3	62.7	64.0
17	66.5	65.1	65.5	57.8	63.4	61.7	58.7	66.1	64.4	65.4	62.9	62.3
18	64.3	65.1	65.9	58.2	61.1	61.0	56.0	63.7	61.7	63.9	61.7	64.5
19	63.9	65.7	65.7	59.9	64.0	61.7	56.9	64.8	63.5	64.9	62.2	64.2
20	64.6	66.3	65.8	58.6	63.9	61.8	58.7	65.9	65.5	65.6	63.2	63.9
21	65.8	64.5	64.5	59.9	62.9	61.0	58.4	64.5	63.2	63.6	62.5	62.4
22	66.3	64.5	65.6	58.9	62.1	62.0	58.2	65.8	64.0	64.8	63.2	61.7
23	64.7	64.9	65.0	58.2	65.8	62.3	58.9	67.5	65.3	65.6	63.9	58.3
24	64.2	65.4	65.9	61.1	63.3	61.3	58.6	65.3	63.6	64.8	63.3	59.6
25	66.4	65.6	66.3	58.6	62.5	62.1	58.6	65.7	64.1	65.0	63.3	58.9
26	64.4	65.5	66.0	58.3	63.1	61.6	58.2	65.8	63.8	65.1	62.6	55.3
27	64.3	66.4	66.5	58.2	61.9	61.7	57.6	65.2	63.5	65.0	63.1	57.0
28	62.6	63.5	63.8	55.4	62.9	60.3	56.3	63.2	62.2	62.8	61.6	43.5
29	63.4	62.7	63.7	55.6	60.7	60.4	56.7	64.8	63.4	63.4	61.7	44.2
30	64.0	64.3	65.1	59.1	60.5	61.7	58.6	66.1	64.4	65.3	63.0	44.5
31	64.1	64.9	65.0	54.5	63.0	61.2	57.0	66.6	63.0	64.3	62.4	44.0
Month	66.2	65.6	66.0	58.7	63.0	61.9	58.5	66.2	64.4	65.2	63.3	63.2

Appendix A4

Daily/Monthly CNEL Levels – June 2016

* 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	71.0	67.3	*	66.6	69.2	75.6	67.9	63.9	72.0	62.4	65.9
2	71.5	66.3	*	67.0	70.3	76.1	68.1	63.0	72.6	61.5	65.9
3	69.5	64.8	*	65.7	69.3	76.8	68.6	62.4	73.2	60.9	65.8
4	68.7	64.6	*	64.3	68.1	75.8	67.7	62.1	72.2	62.5	64.7
5	69.5	65.5	*	66.2	68.8	75.6	67.4	62.7	71.5	60.9	65.4
6	70.7	66.8	*	66.4	69.1	75.2	67.6	64.1	72.0	62.5	67.0
7	71.3	67.7	*	66.6	68.9	75.0	67.8	63.6	71.5	62.3	66.1
8	72.2	68.1	*	56.5	69.3	75.6	68.3	63.9	71.9	62.5	65.6
9	71.6	67.7	*	64.8	69.5	76.7	68.7	63.9	73.2	62.0	66.6
10	72.3	67.6	*	66.8	69.9	*	68.4	64.1	72.4	63.2	66.4
11	70.5	66.5	*	54.4	69.4	*	68.4	64.1	73.0	62.9	67.7
12	70.1	66.0	*	*	69.8	*	68.0	64.5	72.3	63.4	67.6
13	70.7	66.7	*	64.9	70.0	*	68.1	64.5	71.7	63.2	66.8
14	71.9	67.6	*	67.1	70.1	*	68.3	64.8	72.1	64.0	67.4
15	71.8	68.1	*	67.1	69.6	*	68.3	64.5	72.1	63.5	66.7
16	71.7	67.3	*	66.7	69.3	*	68.0	64.4	72.2	62.6	66.7
17	71.6	67.4	*	66.9	69.3	*	66.3	63.5	71.5	62.5	66.0
18	69.5	65.5	*	65.9	68.5	*	67.2	62.5	71.3	62.0	65.5
19	67.7	65.2	*	65.5	70.3	*	66.2	62.1	70.6	60.6	63.3
20	68.6	65.5	*	65.6	69.3	*	67.6	63.7	71.8	63.4	65.2
21	69.8	65.8	*	64.9	69.4	72.8	68.1	63.2	72.4	62.2	66.0
22	70.7	67.3	*	58.0	69.1	75.4	67.6	63.7	72.1	63.0	66.2
23	71.0	67.1	*	*	70.0	76.2	68.3	64.0	72.4	62.4	66.6
24	71.6	67.5	*	65.2	70.0	76.5	68.8	64.0	72.7	64.5	67.1
25	70.3	66.3	*	66.0	68.6	75.5	67.9	63.4	71.8	63.6	66.5
26	69.3	65.7	*	65.4	69.0	76.0	68.4	63.8	72.6	64.2	67.3
27	69.7	66.2	*	65.9	69.1	76.0	67.9	63.4	72.5	63.7	67.3
28	71.6	65.9	*	67.2	68.6	75.8	67.5	63.0	72.5	62.3	66.3
29	70.9	66.6	*	66.8	69.2	75.8	67.9	63.6	72.1	62.6	66.2
30	70.4	66.7	*	66.3	70.0	76.4	68.4	63.8	72.4	61.7	65.7
Month	71.2	67.2	*	65.9	69.9	74.3	68.5	64.2	72.7	63.2	66.8

Appendix A4 Continued

Daily/Monthly CNEL Log – June 2016

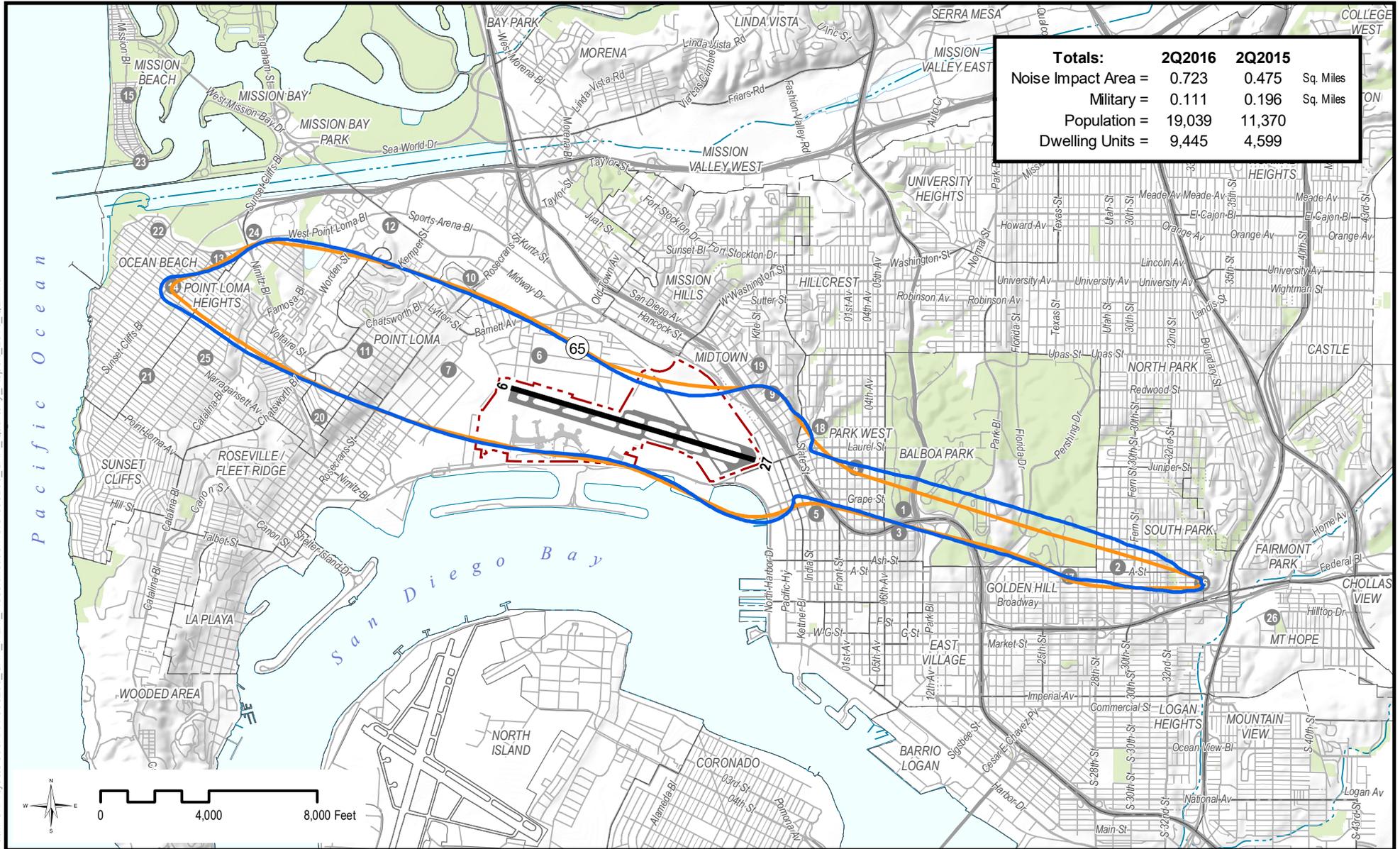
* Not in Service

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	64.9	65.3	65.5	57.3	63.9	60.8	56.7	64.5	63.0	64.2	62.0	43.5
2	65.0	64.2	64.8	59.3	60.6	61.1	56.2	64.6	63.3	63.8	61.8	36.4
3	67.3	63.5	63.8	59.4	61.6	60.5	55.6	64.3	63.0	63.4	59.9	51.1
4	65.5	62.8	63.3	60.6	59.8	59.0	53.1	63.6	61.2	62.6	59.4	*
5	64.0	63.5	64.4	59.4	59.6	59.6	54.2	64.2	62.8	63.3	59.3	29.0
6	64.5	64.8	65.8	58.0	59.9	61.6	58.1	67.2	64.5	64.8	65.2	39.8
7	64.5	65.4	65.6	59.9	63.0	61.3	57.2	64.6	62.6	64.2	63.6	33.9
8	62.8	65.9	65.9	60.0	64.0	60.9	55.4	64.1	61.9	64.0	61.9	44.7
9	64.3	65.9	65.7	58.3	64.0	61.1	56.4	65.2	62.8	64.2	63.9	44.6
10	64.2	66.1	65.4	60.9	63.8	61.3	56.8	64.7	63.2	64.7	64.4	62.7
11	63.4	65.5	64.7	60.0	63.6	61.4	58.3	66.3	65.0	65.6	63.0	64.0
12	64.3	64.5	64.7	60.8	63.9	61.7	58.5	66.5	64.8	65.6	62.9	63.9
13	65.1	64.5	65.8	60.3	60.9	61.9	59.4	67.4	64.4	64.9	63.5	63.9
14	63.9	65.9	65.8	59.5	63.4	61.8	58.3	66.0	64.6	65.6	63.4	64.7
15	66.6	66.3	65.9	59.2	62.9	61.3	58.5	65.8	64.4	65.0	64.0	64.8
16	64.8	65.2	66.1	57.5	59.6	61.8	58.7	65.6	64.0	64.7	66.8	64.2
17	64.2	65.5	66.3	57.8	55.3	61.9	58.2	65.0	63.5	63.7	64.4	63.7
18	63.7	63.4	64.2	56.7	57.7	61.5	57.4	64.7	62.5	63.1	62.1	62.4
19	61.3	62.6	64.5	55.9	58.5	60.7	55.2	62.4	60.6	61.0	59.9	63.9
20	63.3	64.3	64.4	60.6	62.6	60.3	55.8	66.0	62.6	63.6	64.4	62.8
21	*	64.1	64.3	59.6	63.1	60.4	57.6	64.7	63.1	64.2	66.8	62.6
22	*	65.4	65.8	60.1	62.1	61.3	63.3	64.9	63.3	64.2	64.7	64.5
23	*	65.1	65.4	60.0	63.6	62.2	58.6	65.2	63.9	64.6	64.8	63.6
24	*	65.9	65.9	60.0	63.5	61.5	57.0	65.5	64.2	65.2	64.5	64.3
25	*	64.9	64.8	58.6	62.0	60.8	59.5	65.0	64.1	64.8	62.3	63.1
26	*	63.9	64.3	58.2	61.1	61.4	58.0	66.1	64.4	65.1	62.5	62.7
27	*	64.5	65.0	58.3	62.6	61.2	58.1	67.8	65.7	65.6	64.9	63.6
28	*	64.1	64.8	58.6	60.4	60.8	54.3	65.2	63.1	63.9	63.0	63.4
29	*	64.8	65.2	59.8	62.4	60.9	57.7	65.2	63.4	64.4	63.8	64.0
30	*	65.0	65.1	60.3	63.8	60.6	55.5	64.1	63.2	63.9	61.9	63.3
Month	65.1	65.4	65.7	59.8	62.7	61.6	58.2	65.9	64.1	64.9	64.1	62.6

Appendix B

ANOMS Commercial Flight Operations Mix - 2nd Quarter 2016

Aircraft Type	Air Canada	Alaska	Allegiant	American	British Airways	Delta Air Lines	Frontier	Hawaiian	Japan	jetBlue	SkyWest	Southwest	Spirit	Sun Country	United	Virgin America	Volaris	WestJet	Airborne/Atlas	FedEx	UPS	Total Arrivals	Total Operations
A306																				50		50	100
A310																						0	0
A319	40		39	10		61	140						115		177	66	3					651	1302
A320				141		238	104			313			379		414	426	19					2034	4068
A321				1192						42			102									1336	2672
A330+								90														90	180
B712						117																117	234
B733												1440										1440	2880
B734		195																				195	390
B735												3										3	6
B736																		2				2	4
B737		60										5524		66	45			10				5705	11410
B738		838		980		375						1613		12	533			21				4372	8744
B739		542				305									901							1748	3496
B744					32																	32	64
B752				36		369														103		508	1016
B753						41																41	82
B762																			63			63	126
B763						107														20	99	226	452
B777+																						0	0
B787+								52														52	104
CRJ2											331											331	662
CRJ7											497											497	994
CRJ9											103											103	206
DC10																						171	342
E175						982					512											1494	2988
MD10																						0	0
MD11																				1		1	2
MD80+			30	3																		33	66
MD90						246																246	492
Total	40	1635	69	2362	32	2841	244	90	52	355	1443	8580	596	78	2070	492	22	33	63	345	99	21541	43082
BE99																			67			67	134
C208																				232		232	464
DH8D		267																				267	534
SW3/4																					56	56	112
Total	40	1902	69	2362	32	2841	244	90	52	355	1443	8580	596	78	2070	492	22	33	130	577	155	622	1244



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 2016 2nd Quarter 65 dB CNEL Contour

 2015 2nd Quarter 65 dB CNEL Contour

 Airport Property

 Runway

 RMT Site Location

 Roads

 River / Stream

Comparison of the 2015 and 2016 Second Quarter 65 dB Community Noise Equivalent Level (CNEL) Contours