

Quarterly Noise Report

For the California Department of Transportation

Third Quarter – Calendar Year 2020



SAN DIEGO
INTERNATIONAL AIRPORT

LET'S **GO.**

Aircraft Noise Mitigation

November 5, 2020

Q3 2020 Quarterly Noise Report

July 1 through September 30, 2020

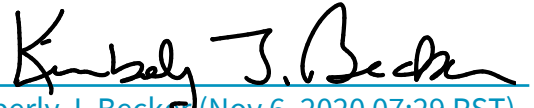
The California Department of Transportation, Division of Aeronautics, granted a Variance from the requirements of Section 5012, Chapter 2.5, Subchapter 6, Title 21, of the California Administrative Code to the San Diego County Regional Airport Authority for the operation of San Diego International Airport (SDIA) on September 2, 2019.

This Quarterly Report was prepared by Aircraft Noise Staff at SDIA, in accordance with the Aircraft Noise Standards, State of California.



Brendan Reed (Nov 6, 2020 06:51 PST)

Brendan Reed
Director of Planning & Environmental Affairs



Kimberly J. Becker (Nov 6, 2020 07:29 PST)

Kimberly J. Becker
President/CEO

Summary of Statistical Information for the California Department of Transportation

1. Size of Noise Impact Area as defined in the Noise Standards for the Quarter (California Code of Regulations, Title 21, Chapter 2.5, Subchapter 6).
 - Noise Impact Area – 0.175 Square Miles (112 Acres)
 - Military Impact Area – 0.081 Square Miles (51.8 Acres)
2. Estimated number of dwelling units and population within the Noise Impact Area as defined in the Noise Standards:
 - Dwelling Units – 1,520 (Population – 2,960*)
3. Number of Noise Complaints and Households during the Calendar Quarter:
 - 24,185 Complaints (167 Households)
4. Aircraft type having the greatest takeoff noise level operating at this airport together with the estimated number of operations by this aircraft type during the Calendar Quarter period:
 - Airbus A321 (3,013 Operations)
5. Number of Air Carrier Operations during the Calendar Quarter: 25,552
6. Percentage of Air Carrier Operations by aircraft certificated under Federal Aviation Regulation (FAR) Part 36, Stage III: 100%
7. Number of General Aviation Operations during the Calendar Quarter: 2,080
8. Number of Air Taxi Operations during the Calendar Quarter: 2,983
9. Number of Military Operations during the Calendar Quarter: 254
10. Total number of Airport Operations during the Calendar Quarter: 30,869

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

Noise Impact Areas

Using data generated from the Aircraft Noise and Operations Monitoring System (ANOMS) and Geographic Information System (GIS), the Aircraft Noise consultant Harris, Miller, Miller & Hanson Inc.'s (HMMH) developed the Noise Contour and determined the current Noise Impact Area and the Military Impact Area. Table 1 below contains square mile area for the Quarter compared to the same period last year.

Impact Area	Q3 2020	Q3 2019	Change
Noise Impact Area	0.175	0.684	-0.509
Military Impact Area	0.081	0.149	-0.068

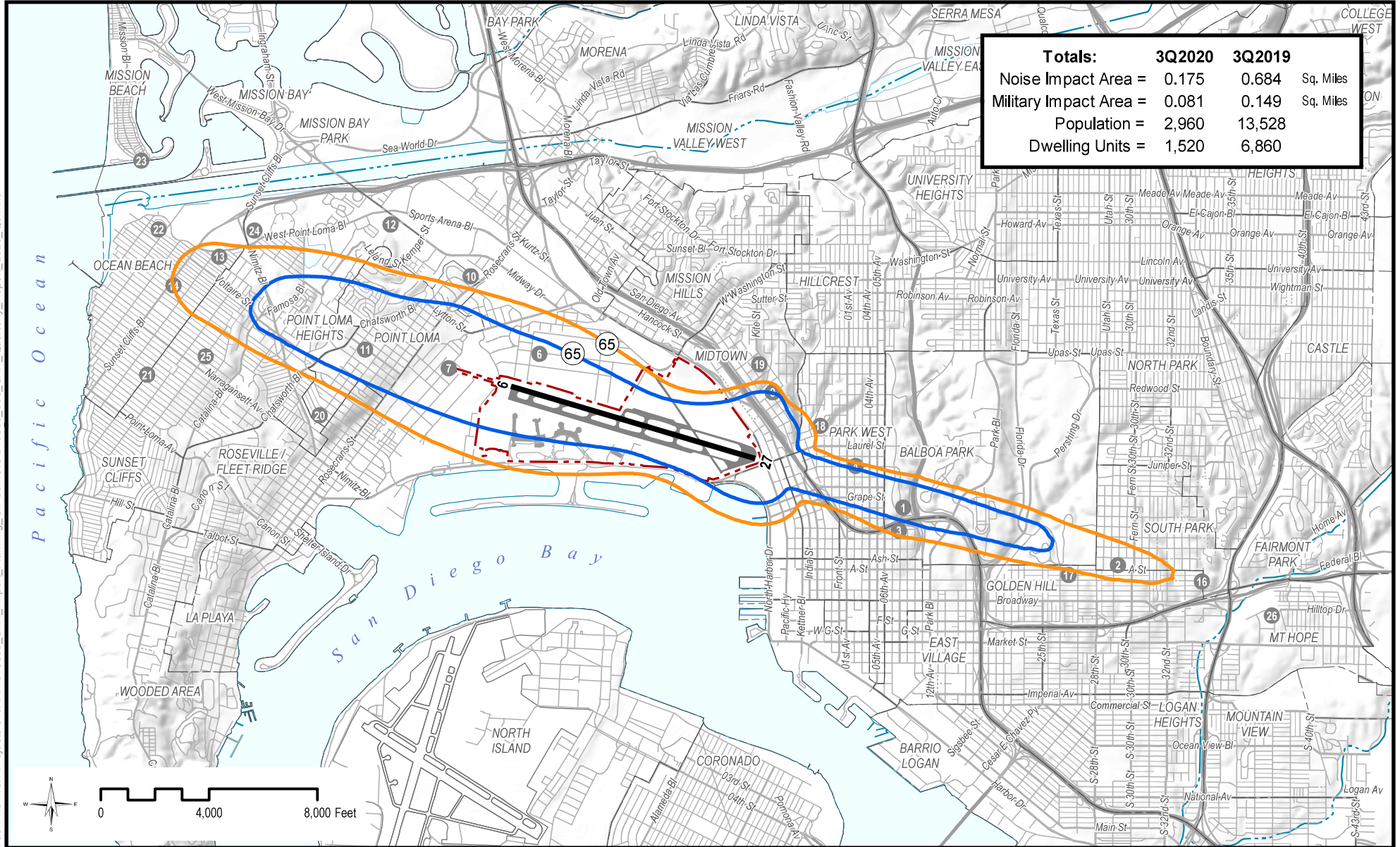
Table 1

Noise Contour

The Noise Contour on the subsequent page is prepared for the Airport Authority by their consultant HMMH Inc. using their RealContours for Aviation Environmental Design Tool (AEDT) software. AEDT is a state of the art software system that models aircraft performance in space and time to estimate fuel consumption, emissions, noise, and air quality consequences.

The use of GIS technology allows for direct counting of individual parcels within the Noise Contour. 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.

The significant reduction in the size of the Noise Impact Area compared to the same period last year is due to the impacts of the COVID-19 travel restrictions. We expect this condition to continue until there is a substantial amount of recovery in the level of air service at the airport.



Totals:	3Q2020	3Q2019	
Noise Impact Area =	0.175	0.684	Sq. Miles
Military Impact Area =	0.081	0.149	Sq. Miles
Population =	2,960	13,528	
Dwelling Units =	1,520	6,860	

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- 2020 3rd Quarter 65 dB CNEL Contour
- 2019 3rd Quarter 65 dB CNEL Contour
- Airport Property
- Runway
- # RMT Site Location
- Roads
- - - River / Stream

Comparison of the 2019 and 2020 Third Quarter 65 dB Community Noise Equivalent Level (CNEL) Contours



Residential Sound Insulation Program (RSIP)

Per the requirements of the Airport’s Variance agreement, the SDIA Diego County Regional Airport Authority (SDCRAA) is the sponsor to an active Residential Sound Insulation Program (RSIP), also known as the Quieter Home Program (QHP). Funding for the program is provided by grants awarded from the Airport Improvement Plan (AIP) component of the FAA’s Airport and Airway Trust Fund (AATF), Airport Operating Revenues, and fines issued for non-compliance with Airport Authority Code 9.40, Airport Use Regulations.

To date, the RSIP/QHP has completed 4,395 homes with a current waitlist of 691 units.

Aircraft Noise Complaints

During the Quarter, the Aircraft Noise Office received a total of 24,185 complaints from 167 households. Where possible, complaints are correlated with a specific flight and examined for validity. Complaints are tabulated and reported on the Authority website on a monthly basis. This information can be retrieved by visiting the following website:

<https://public.tableau.com/profile/noise.disclosure#!/vizhome/SANQHPDashboard/SANQHP>

Quarterly Airport Operations Statistics

The Federal Aviation Administration captures and makes available to the public Air Traffic Control Tower Counts on a monthly basis in its Air Traffic Activity Data System (ATADS) database. Table 2 below contains statistics of itinerant aircraft operations by FAA category for the Calendar Year Quarter compared to the same period last year.

Operations	3rd Quarter 2020	3rd Quarter 2019	Net Change	Percent Change
Air Carrier	25,552	55,182	(29,630)	-53.7%
Air Taxi	2,983	3,431	(448)	-13.1%
General Aviation	2,080	2,473	(393)	-15.9%
Military	254	219	35	16.0%
Total	30,869	61,305	(30,436)	-49.6%

Table 2

Note: ATADS data is typically available to the public by the third week of the following month. Current and historical operations data can be extracted at the following website:

<https://aspm.faa.gov/opsnet/sys/Airport.asp>

Airport Use Regulations

Airport Authority Code 9.40, Airport Use Regulations, defines Time of Day Use Restrictions (Curfew) for all Airport operators. The Regulations restrict daily departures between the hours of 11:30 p.m. and 6:30 a.m. the following morning for Stage 3 (or better) compliant aircraft, and between 10:00 p.m. and 7:00 a.m. for non-complaint aircraft. Additionally, Air Carriers are only permitted to publish scheduled gate departure times between the hours 6:15 a.m. and 11:15 p.m. daily. Mercy/Emergency Flights are exempt from the Curfew.

Curfew violations are reported to the Curfew Violation Review Panel (CVRP) comprised of three (3) staff members appointed by the Executive Leadership Team of the Authority. The membership includes one (1) representative from each of the following Divisions: Airport Operations, Airport Development, and Finance. The Panel examines data and documentation collected during an investigation of alleged violations, and makes recommendations to the Program Manager, Aircraft Noise, for the disposition of the violation.

Fine levels associated with the Airport Use Regulations are based on the number of violations in the two evaluation periods (January through June and July through December each year). The fines are subject to a multiplier for each penalized violation in the previous evaluation period. The base fines are \$2,000 for the first penalized violation, \$6,000 for the second penalized violation, and \$10,000 for each subsequent violation in the given evaluation period. If a carrier has a fined violation in the previous evaluation period, the base fine is multiplied by the number of penalized violations in the previous evaluation period.

Example:

An operator has two (2) fined violations in the January through June period. If they have a violation between July and December, the base fine level of \$2,000 would increase to \$4,000, a second violation increases from \$6,000 to \$12,000 and a third or any subsequent violations increases from \$10,000 to \$20,000

During the Quarter there were a total of two (2) curfew violations. Year to Date fines total \$12,000 with one (1) violation pending review at the December CVRP meeting.

Aircraft Noise Advisory Committee

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

Further information regarding ANAC can be found at the following website:

<https://www.san.org/Airport-Noise/Initiatives>

Quarterly and Annual CNEL Data

A summary of the Quarterly and Annual CNEL data is shown in Table 3 below. The levels are calculated utilizing the data found in the Aircraft Noise Monitoring System section which captures the Remote Monitoring Terminals (RMT) thresholds and Daily/Monthly CNEL Logs.

RMT #	Quarter CNEL (dB) ₂	Annual CNEL (dB) ₁
1	69.0	67.2
2	65.3	63.8
3	65.0	62.6
4	65.0	63.4
6	68.7	67.0
7	73.8	72.2
9	66.0	64.1
10	63.1	61.2
11	70.4	68.7
12	61.6	59.6
13	64.9	63.1
14	64.8	62.9
16	64.0	62.3
17	64.0	62.3
18	63.8	60.1
19	63.8	61.6
20	60.4	58.6
21	57.9	55.9
22	64.1	62.0
23	62.8	60.5
24	63.3	61.3
25	61.6	59.7
26	62.7	61.0

Table 3

Notes:

- Annual CNEL data is a rolling 12-month period.
- RMTs #5, #8 and #15 are no longer operational as the noise impact boundary has decreased in size.

Single Event Noise Exposure Level (SENEL) Comparison

The average Single Event Noise Exposure Level (SENEL) of the loudest 25% of the Operations Survey is shown in Table 4 below. For each Quarter, the data used to compile this section of the report is captured on Tuesday through Thursday during the second full week of February, May, August and November (Quarterly midpoint). The supporting data is listed in Tables 5 through 7 on subsequent pages. Tables 5 and 6 show the top 25% of operations during the capture period. Table 7 contains the average daily operations by runway, time of day, operation type, and aircraft type.

	Q3 2020	Q3 2019	Change (dB)
Arrivals	93.0	93.2	-0.21
Departures	96.9	99.3	-2.41

Table 4

Table 5

Quarterly SENEL Survey – Arrivals (RMT #1)

Date/Time	SENEL (dB)	FLIGHT	ORIGIN	AC TYPE
8/12/20 1:55 PM	94.9	DAL894	ATL	B752
8/11/20 4:50 AM	94.8	UPS922	SDF	B763
8/11/20 5:44 PM	94.7	FDX3713	IND	B763
8/11/20 4:07 AM	94.6	FDX1889	OAK	B752
8/12/20 4:03 AM	94.4	FDX1889	OAK	B752
8/11/20 6:26 AM	94.3	FDX1422	MEM	B763
8/11/20 6:04 AM	94.0	FDX1754	IND	B763
8/11/20 6:16 PM	93.7	UPS2636	SDF	B763
8/11/20 6:06 PM	93.5	FDX906	MEM	B763
8/12/20 5:45 PM	93.4	FDX906	MEM	B763
8/12/20 4:33 AM	93.4	UPS922	SDF	B763
8/11/20 10:59 AM	93.3	DAL628	JFK	B752
8/11/20 12:16 PM	93.2	AAL1553	ORD	B738
8/12/20 5:34 PM	92.9	FDX3713	IND	B763
8/11/20 5:57 PM	92.8	ASA656	SEA	B738
8/12/20 11:20 AM	92.8	AAL2671	PHX	B738
8/11/20 3:53 PM	92.5	DAL2221	SLC	B738
8/11/20 8:59 AM	92.5	ABX505	PHX	B763
8/11/20 1:10 PM	92.4	AAL1621	PHL	B738
8/11/20 5:03 PM	92.3	FDX69	TIJ	B752
8/11/20 12:36 PM	92.3	DAL894	ATL	B752
8/11/20 10:41 AM	92.2	SWA1021	PHX	B737
8/11/20 3:10 PM	92.2	SWA1622	MDW	B738
8/12/20 12:54 PM	92.2	SWA6789	BNA	B737
8/12/20 1:30 PM	92.0	AAL1229	DFW	B738
8/12/20 5:11 PM	92.0	FDX69	TIJ	B752
8/11/20 6:00 PM	91.9	AAL1740	CLT	A321
8/11/20 12:21 PM	91.9	UAL412	EWR	B739
8/12/20 5:19 PM	91.9	UPS2636	SDF	B763
8/12/20 1:00 PM	91.9	SWA1687	DEN	B738
8/11/20 10:27 PM	91.9	DAL1277	SLC	B738
8/12/20 9:45 AM	91.8	UAL371	SFO	B739
8/11/20 2:23 PM	91.7	SWA6303	DAL	B738
8/11/20 5:22 PM	91.7	ASA1291	SJD	B739
8/11/20 5:06 PM	91.6	SWA100	LAS	B737

Table 6

Quarterly SENEL Survey – Departures (RMT #7)

Date/Time	SENEL (dB)	FLIGHT	ORIGIN	AC TYPE
8/12/20 7:51 AM	99.4	AAL1651	CLT	A321
8/11/20 7:41 AM	98.8	AAL1651	CLT	A321
8/13/20 7:53 AM	98.7	AAL1651	CLT	A321
8/13/20 6:37 AM	98.6	UPS2921	SDF	B763
8/11/20 9:22 AM	97.7	AAL639	CLT	A321
8/11/20 6:37 AM	97.2	UPS2921	SDF	B763
8/13/20 8:39 AM	97.0	AAL2439	DFW	A321
8/12/20 11:00 AM	97.0	AAL1064	DFW	A321
8/13/20 6:49 AM	96.9	DAL898	ATL	A321
8/12/20 6:39 AM	96.8	UPS2921	SDF	B763
8/13/20 11:07 AM	96.8	AAL639	CLT	A321
8/13/20 7:30 AM	96.8	FDX821	MEM	B763
8/13/20 10:37 PM	96.7	DAL962	ATL	A321
8/12/20 11:08 AM	96.5	UAL2475	ORD	B739
8/12/20 9:19 AM	96.5	AAL639	CLT	A321
8/11/20 6:55 AM	96.5	DAL898	ATL	A321
8/13/20 11:24 AM	96.5	AAL2219	ORD	A321
8/13/20 6:32 AM	96.4	AAL1458	ORD	B738
8/12/20 7:27 PM	96.4	FDX1654	IND	B763
8/12/20 2:19 PM	96.4	JBU620	BOS	A321
8/11/20 7:26 PM	96.4	FDX1654	IND	B763
8/11/20 7:55 AM	96.4	FDX821	MEM	B763
8/12/20 7:15 PM	96.2	UPS921	SDF	B763
8/12/20 9:13 PM	96.2	UAL2078	EWR	B739
8/13/20 7:55 AM	96.1	ASA895	HNL	B738
8/13/20 8:01 AM	96.1	AAL433	PHL	B738
8/12/20 8:19 AM	96.1	UAL624	EWR	B739
8/12/20 7:56 AM	96.0	FDX821	MEM	B763
8/13/20 12:53 PM	95.9	AAL679	DFW	A321
8/12/20 7:21 PM	95.9	FDX1222	MEM	B763
8/11/20 9:18 PM	95.9	UAL2078	EWR	B739
8/12/20 11:31 AM	95.8	AAL2219	ORD	A321
8/13/20 8:51 PM	95.8	UPS921	SDF	B763
8/13/20 11:01 AM	95.8	UAL2475	ORD	B739
9/25/20 7:36 AM	99.8	AAL1651	CLT	A321

Table 7

Average Daily Operations by Runway, Operation Type, Time of Day and Aircraft Type

Aircraft Type	Runway 27						Runway 9						Total
	Arrivals			Departures			Arrivals			Departures			
	7:00	19:00	22:00	7:00	19:00	22:00	7:00	19:00	22:00	7:00	19:00	22:00	
	18:59	21:59	6:59	18:59	21:59	6:59	18:59	21:59	6:59	18:59	21:59	6:59	
A20N	1	0	1	1	1	1	0	0	0	0	0	0	5
A21N	0	1	0	1	0	0	0	0	0	0	0	0	2
A319	5	1	0	5	0	1	0	0	0	0	0	0	12
A320	4	3	1	5	1	1	0	0	0	0	0	0	15
A321	12	4	0	13	0	2	0	0	0	0	0	0	31
A332	0	0	0	0	0	0	0	0	0	0	0	0	0
B737	21	7	1	24	3	2	0	0	0	0	0	0	58
B738	28	7	2	31	4	3	1	0	0	1	0	0	77
B739	4	2	1	4	2	1	0	0	0	0	0	0	14
B752	2	0	1	2	1	0	0	0	0	0	0	0	6
B753	1	0	0	1	0	0	0	0	0	0	0	0	2
B763	2	0	2	2	2	1	0	0	0	0	0	0	9
BE99	1	0	0	1	0	0	0	0	0	0	0	0	2
C208	2	0	0	2	0	0	0	0	0	0	0	0	4
CRJ2	2	0	0	2	0	0	0	0	0	0	0	0	4
E75L	15	4	1	17	2	0	0	0	0	0	0	0	39
Total	100	29	10	111	16	12	1	0	0	1	0	0	280

Aircraft Noise Monitoring System (ANOMS)

The following tables capture the Remote Monitoring Terminal (RMT) data associated with this report. Table 8 provides the RMT thresholds, Tables 9 through 11 capture the Daily and Monthly CNEL levels for each month in the Quarter and Table 12 captures the Air Carrier Operations by Aircraft Type.

There are variances in Table 12 between the ANOMS data and the FAA ATADS data reported in the summary and Quarterly Airport Operation due to the way aircraft operating at the airport are categorized between Air Carrier and Air Taxi Operations. The prop/turboprop operations are typically captured in the FAA's Air Taxi category due to their capacity and/or weight classification. The Air Taxi data captured by the FAA ATADS system also includes fractional ownership operations (Business Jets) and small Regional Jets operated by the Air Carrier's Regional Airline partners. If a Regional Jet meets the payload weight limitation of 18,000 pounds or less, then the seating configuration (60 seat boundary) can alter the category that the operation falls into.

The FAA operator categories are defined as follows:

- **Air Carrier (AC):** Aircraft with seating capacity of more than 60 seats or a maximum payload capacity of more than 18,000 pounds, carrying passengers or cargo for hire or compensation. This includes US and foreign-flagged carriers.
- **Air Taxi (AT):** Aircraft designed to have a maximum seating capacity of 60 seats or less or a maximum payload capacity of 18,000 pounds or less, carrying passengers or cargo for hire or compensation.
- **General Aviation (GA):** Takeoffs and landings of all civil aircraft, except those classified as air carriers or air taxis.
- **Military:** All classes of military takeoffs and landings at FAA and FTC facilities.

Table 8

Remote 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

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

Table 9

Daily/Monthly CNEL Levels – July 2020

Day	RMT 1	RMT 2	RMT 3	RMT 4	RMT 6	RMT 7	RMT 9	RMT 10	RMT 11	RMT 12	RMT 13	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	65.2	61.7	57.7	60.9	64.1	68.3	60.3	58.3	65.4	56.6	60.4	60.5	59.6	59.9	54.5	57.2	56.0	54.0	58.9	57.1	58.0	57.5	58.7
2	65.6	62.0	59.1	61.2	64.1	68.3	59.8	58.1	65.4	56.4	60.8	61.1	59.8	60.0	51.4	58.8	56.6	55.4	59.1	56.9	58.1	58.3	58.8
3	66.5	62.1	60.2	61.8	64.4	68.6	58.9	58.1	65.0	56.2	60.2	60.7	59.7	60.3	48.0	50.8	55.7	54.0	58.8	57.4	57.7	57.7	59.1
4	61.5	58.4	55.9	65.5	61.9	66.2	56.7	55.8	62.9	56.9	57.7	58.2	56.3	57.0	43.7	46.0	54.1	52.7	56.2	54.8	54.6	55.7	55.3
5	63.0	60.0	56.7	59.1	63.1	68.3	60.9	56.8	64.6	56.5	58.9	59.0	57.8	58.3	50.5	52.8	56.5	52.1	57.3	56.9	56.3	56.1	56.9
6	63.3	60.2	53.7	58.8	64.3	69.5	61.1	60.1	65.7	54.9	59.4	60.0	58.6	58.2	47.5	57.2	54.7	53.4	58.8	55.4	57.1	55.7	56.8
7	65.9	62.0	59.4	61.3	64.0	69.1	60.9	58.3	65.8	56.6	60.6	60.5	59.8	60.4	53.3	58.2	55.8	54.4	59.1	56.9	58.7	57.5	58.6
8	65.6	62.2	58.3	61.6	64.6	69.6	60.7	58.9	66.1	57.8	61.1	60.8	60.0	60.2	48.9	58.3	56.5	54.1	59.7	59.8	58.9	57.9	58.9
9	66.3	62.7	59.4	61.4	64.3	69.2	59.5	59.0	66.1	58.2	60.8	60.9	60.5	60.7	47.9	54.8	56.4	53.4	59.1	58.8	58.3	57.6	59.2
10	65.8	62.2	60.1	61.3	64.9	69.3	60.7	58.3	66.0	56.9	60.0	60.7	59.9	60.2	47.3	49.1	55.8	53.3	58.6	54.3	57.3	57.2	58.9
11	63.6	60.4	57.3	59.2	63.7	68.3	58.5	57.1	64.6	60.3	58.1	58.5	57.9	58.7	45.5	48.4	54.7	51.1	56.1	51.5	56.5	55.3	56.8
12	62.9	60.2	56.1	58.9	64.0	68.5	59.6	58.0	65.3	56.0	59.0	59.0	57.8	58.3	47.0	52.8	55.1	51.7	57.1	54.7	56.0	56.1	57.3
13	64.7	61.4	56.2	60.1	65.2	69.1	60.6	60.8	65.8	57.8	61.0	60.5	59.3	59.6	48.0	57.5	58.2	53.8	63.9	55.5	58.4	57.3	58.1
14	65.1	61.7	57.3	60.5	64.6	68.6	60.7	58.8	65.8	57.0	60.9	61.2	59.4	59.9	50.5	56.8	56.3	54.2	59.6	56.3	58.6	58.4	59.0
15	65.7	62.3	59.5	61.3	65.0	68.4	60.5	58.7	65.5	56.7	61.0	61.4	59.6	60.5	54.0	54.4	57.0	55.2	59.6	56.7	58.6	58.9	59.3
16	66.3	62.6	60.0	61.3	65.0	69.5	61.5	59.1	66.1	56.9	61.4	62.1	60.2	60.9	49.4	53.4	57.4	55.9	60.2	57.2	59.0	59.4	59.5
17	65.8	62.1	61.2	60.9	64.7	69.2	60.2	58.5	66.2	56.2	60.8	61.4	59.7	60.2	46.8	49.9	56.9	54.3	59.4	56.6	58.4	61.3	59.3
18	65.1	61.2	59.4	60.1	64.3	68.2	58.9	58.1	64.9	56.6	59.5	59.9	58.6	59.5	52.7	46.9	55.8	53.1	57.9	54.9	57.2	57.2	58.9
19	64.2	60.7	59.0	59.6	64.4	68.4	58.8	57.4	64.8	55.9	59.2	59.3	58.1	58.9	47.5	47.3	55.5	51.5	57.4	59.2	57.0	55.9	58.7
20	65.5	61.6	58.2	60.5	65.6	68.8	60.3	60.6	65.8	57.0	61.0	60.8	59.8	60.0	50.5	52.4	56.9	54.2	63.6	57.0	58.7	57.9	58.8
21	65.8	62.0	58.9	61.2	64.6	68.6	60.4	58.6	65.6	56.0	60.2	60.3	59.6	60.3	46.7	53.7	56.1	53.3	58.7	56.7	58.3	57.6	58.9
22	65.5	62.0	57.8	61.0	64.0	69.4	60.0	58.6	65.0	56.1	59.6	59.4	60.2	60.2	53.0	54.9	55.6	52.3	57.5	55.1	57.9	56.7	58.9
23	66.3	62.9	59.5	61.6	65.1	69.2	61.2	59.2	66.3	56.8	61.6	61.8	60.9	61.0	51.1	56.3	57.6	55.6	60.5	57.8	59.6	59.6	59.8
24	66.0	62.5	59.8	61.2	65.3	68.8	60.2	59.1	66.0	56.7	61.2	61.1	60.5	60.7	45.0	56.7	57.4	55.0	59.5	61.0	58.8	59.3	59.6
25	64.9	61.0	59.7	60.2	64.6	68.2	60.1	58.2	65.3	56.0	60.5	60.9	59.3	59.2	45.2	51.6	56.5	54.0	58.9	56.0	58.0	58.5	58.0
26	64.7	60.6	57.5	59.9	64.4	68.7	58.0	58.2	65.1	55.0	59.8	60.2	58.2	59.0	48.3	50.5	55.9	53.0	58.2	57.2	57.6	56.9	57.7
27	64.7	61.0	58.1	60.1	64.4	69.1	59.1	60.3	65.5	55.8	59.9	60.0	58.7	59.4	47.8	50.7	56.1	52.7	58.5	54.8	58.5	56.6	57.5
28	66.3	61.9	59.1	61.2	64.3	68.3	59.3	57.7	64.5	56.1	58.4	58.4	59.9	60.3	47.2	51.8	54.2	51.8	56.8	54.7	56.1	55.4	58.7
29	65.3	61.6	59.3	61.1	64.4	69.0	59.4	57.9	65.7	54.9	59.5	60.0	60.3	59.7	54.8	50.4	55.1	52.6	57.8	54.7	56.6	56.1	59.7
30	64.2	60.7	58.6	60.2	64.2	70.4	58.7	56.6	66.6	53.5	58.5	61.6	58.1	59.3	48.7	48.1	54.3	51.7	56.6	52.2	55.7	55.5	57.4
31	65.9	61.9	60.1	62.7	65.4	69.2	58.5	57.9	65.6	55.1	58.2	59.0	60.8	60.7	45.9	44.3	56.6	52.0	56.4	52.0	55.5	57.0	58.5
Month	65.2	61.6	58.7	61.0	64.5	68.8	59.9	58.6	65.5	56.6	60.1	60.4	59.4	59.8	50.0	54.2	56.2	53.6	59.1	56.6	57.8	57.6	58.5

Table 10

Daily/Monthly CNEL Levels – August 2020

Day	RMT 1	RMT 2	RMT 3	RMT 4	RMT 6	RMT 7	RMT 9	RMT 10	RMT 11	RMT 12	RMT 13	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	62.1	58.8	60.1	63.0	63.8	70.5	61.6	56.9	68.1	53.8	59.2	63.2	56.9	57.8	58.8	55.7	54.5	51.9	56.9	54.3	55.2	56.0	54.9
2	64.8	61.0	60.1	63.0	64.0	67.8	60.4	55.6	65.2	53.1	59.0	60.3	58.7	59.6	56.8	57.0	52.8	50.6	56.9	57.1	56.8	55.0	57.2
3	65.1	61.2	57.4	60.1	64.5	69.3	60.5	57.6	65.9	58.1	60.3	61.0	59.0	59.5	43.9	55.5	55.2	52.8	61.0	54.4	57.7	57.3	58.1
4	64.6	61.0	59.3	62.4	64.9	69.8	61.1	57.7	66.6	58.5	58.8	61.9	59.0	59.4	56.0	57.6	53.6	51.1	57.0	55.2	56.1	55.6	58.7
5	66.6	62.2	59.2	61.1	64.9	69.2	61.3	59.0	66.3	58.8	60.5	60.7	60.3	60.5	51.2	58.2	56.6	53.9	58.9	55.3	57.9	57.9	60.0
6	66.9	62.8	59.9	62.3	65.1	69.8	62.1	59.6	66.9	57.2	61.8	64.3	60.8	61.0	51.3	58.4	57.7	56.0	60.4	57.1	59.2	59.5	60.0
7	66.5	62.4	62.2	61.6	66.0	69.2	59.7	59.3	66.2	57.5	61.2	61.5	60.3	60.9	48.4	50.1	57.2	54.9	59.7	56.9	58.9	58.8	59.5
8	65.3	61.5	61.1	60.5	64.5	68.5	59.3	58.2	65.3	57.1	60.7	60.7	59.2	59.7	44.4	47.7	56.5	54.2	59.1	56.7	59.0	58.0	58.3
9	65.2	61.1	59.6	60.3	64.9	69.2	59.3	58.8	66.3	56.0	60.7	60.6	59.0	59.6	46.2	48.7	56.8	53.4	59.0	55.8	58.4	57.6	58.2
10	65.6	61.5	58.4	60.9	65.0	69.1	59.2	59.0	65.7	58.7	60.3	60.4	59.5	59.8	47.1	48.3	56.6	53.2	60.4	55.2	58.0	57.1	58.8
11	66.3	62.3	60.5	61.6	64.6	68.0	59.8	58.1	65.2	58.9	60.4	62.4	60.0	61.0	46.6	50.2	54.9	54.1	57.7	55.0	56.9	56.7	59.4
12	64.9	61.3	58.8	60.6	64.6	69.1	60.1	57.9	66.0	56.0	59.3	60.6	59.1	59.7	50.9	52.5	54.9	52.1	57.7	54.8	57.4	56.2	58.4
13	66.1	62.4	59.8	61.6	65.0	69.7	61.3	58.5	66.0	57.1	59.5	60.2	59.9	60.9	47.7	54.1	56.7	53.6	58.0	65.8	56.7	57.5	58.7
14	66.4	62.4	61.4	61.4	66.0	69.0	61.8	58.0	66.4	56.2	59.2	59.5	60.3	61.0	55.9	57.5	55.6	52.7	57.7	54.2	56.4	56.5	59.0
15	65.2	61.7	60.7	60.6	64.0	69.3	58.8	57.7	65.8	53.9	59.7	60.3	59.8	60.2	47.1	54.2	56.2	55.1	58.4	55.7	57.0	57.8	58.4
16	65.6	61.6	59.5	60.7	62.1	67.2	58.8	56.1	64.0	54.1	58.7	57.9	60.0	60.3	49.5	56.1	53.7	50.2	57.0	56.6	56.8	54.4	58.5
17	65.6	61.8	57.6	60.7	64.4	69.2	60.2	59.1	66.1	55.6	60.5	60.7	59.6	60.0	47.5	56.2	56.2	54.1	59.0	56.1	58.0	57.8	58.8
18	66.1	62.1	59.2	60.9	64.6	69.4	60.9	58.2	66.0	58.7	59.8	60.4	59.8	60.6	47.6	56.2	56.1	53.0	58.3	55.9	57.6	57.3	58.8
19	65.6	62.2	58.5	61.3	64.4	69.2	61.6	58.1	65.7	55.2	60.0	60.3	60.0	60.4	52.9	56.8	55.9	53.6	58.3	55.6	57.5	57.5	59.8
20	66.8	63.1	60.1	62.0	65.0	70.7	62.4	59.2	67.0	56.6	61.5	61.7	61.1	61.0	50.0	55.8	57.3	56.8	59.9	57.7	59.0	59.0	59.3
21	66.3	62.7	60.9	61.7	64.9	69.4	61.2	58.0	66.2	58.9	60.5	60.5	60.6	60.7	46.5	57.7	55.6	53.7	58.9	57.1	58.0	57.3	60.0
22	64.7	61.6	59.7	59.9	64.0	69.1	61.9	57.7	66.1	54.7	60.5	61.2	59.2	59.4	48.0	58.7	55.3	54.0	59.0	56.8	57.8	57.1	57.9
23	65.6	61.7	59.8	60.8	64.1	69.3	61.3	58.3	66.2	55.8	61.1	61.0	59.1	60.0	49.1	53.6	56.0	53.8	59.3	56.5	58.4	57.6	58.4
24	65.6	62.1	59.0	60.8	64.4	69.3	58.1	58.5	65.2	54.2	59.3	58.7	59.5	61.1	46.5	47.6	54.6	49.9	61.0	52.8	55.6	54.5	58.8
25	66.2	62.4	58.9	61.3	64.5	68.1	59.1	57.3	63.7	57.5	58.1	58.3	59.7	61.7	48.5	43.1	54.1	51.3	56.7	53.1	55.5	55.5	58.8
26	65.6	61.7	59.7	61.5	64.1	68.8	58.4	56.1	64.9	54.6	58.3	59.6	59.2	61.1	54.7	49.7	53.5	50.4	56.6	53.6	55.7	55.1	58.4
27	65.4	61.9	60.7	61.4	64.5	70.5	60.6	63.0	67.4	56.6	60.3	61.8	59.5	60.2	48.6	51.3	55.9	54.4	58.8	56.8	58.1	57.4	58.7
28	66.7	62.4	63.3	67.0	64.9	69.8	61.1	57.8	66.2	57.8	59.5	61.0	59.9	61.7	50.0	51.8	55.9	53.5	57.8	56.1	56.5	56.9	59.3
29	65.2	61.5	62.0	60.1	64.5	68.6	59.5	58.3	65.8	56.8	60.2	60.9	59.3	59.8	46.6	51.1	56.2	55.1	58.6	56.1	57.8	57.8	58.7
30	66.3	62.4	60.5	61.2	64.5	68.9	60.4	59.0	65.9	56.4	61.5	61.4	60.1	60.9	47.2	54.8	57.2	55.0	60.0	59.2	59.2	58.6	59.5
31	65.1	62.0	58.3	60.9	65.0	68.8	60.6	59.4	65.8	59.8	60.3	60.4	59.8	61.1	46.6	52.2	56.8	54.2	59.8	56.2	58.1	58.6	59.3
Month	65.7	61.9	60.1	61.6	64.6	69.2	60.5	58.5	66.0	56.9	60.1	60.9	59.7	60.4	51.3	54.9	55.8	53.6	58.8	57.1	57.6	57.3	58.8

Table 11

Daily/Monthly CNEL Levels – September 2020

Day	RMT 1	RMT 2	RMT 3	RMT 4	RMT 6	RMT 7	RMT 9	RMT 10	RMT 11	RMT 12	RMT 13	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	62.2	60.3	61.2	64.7	68.5	60.2	58.6	65.3	58.0	60.4	60.8	59.9	60.5	49.6	52.0	56.7	54.5	58.9	56.3	58.3	58.5	59.9
2	66.3	62.4	59.6	61.6	64.7	69.0	59.3	58.8	65.8	56.4	60.6	61.1	60.3	60.9	47.9	51.3	56.9	54.5	59.0	55.2	57.8	59.6	59.4
3	66.8	62.8	60.4	61.9	64.8	70.1	61.1	59.1	66.9	56.9	61.5	62.0	60.3	61.3	49.6	53.3	57.3	54.4	59.8	56.1	58.7	58.6	59.5
4	66.7	62.6	61.6	61.8	65.0	70.1	60.6	58.5	66.7	57.5	60.8	61.0	60.3	61.2	47.1	51.6	57.1	54.7	59.0	55.8	58.2	57.9	58.9
5	64.4	60.4	59.6	59.8	63.7	68.5	61.1	56.8	65.0	57.5	58.8	59.2	57.9	58.8	54.1	56.4	55.5	52.1	57.5	54.2	55.9	55.9	56.7
6	62.9	59.2	54.8	58.1	61.9	67.6	60.1	54.3	63.9	52.3	57.6	57.2	57.3	57.3	53.5	57.1	52.1	49.2	56.0	54.4	55.2	52.9	55.4
7	64.1	60.6	58.2	62.7	63.3	69.1	60.5	55.8	66.6	53.0	59.7	61.3	58.5	59.0	57.1	57.8	52.9	51.7	58.1	56.1	57.2	55.2	56.7
8	63.8	59.9	55.3	59.1	63.2	69.0	61.1	57.3	65.9	55.0	60.7	60.5	58.4	58.1	50.0	57.4	55.6	53.9	59.1	56.2	58.2	57.1	57.0
9	66.6	62.2	61.4	62.3	63.6	69.5	61.7	58.2	66.1	55.7	60.6	61.2	59.8	60.4	57.5	57.8	56.2	54.3	59.3	56.7	58.1	58.3	58.8
10	64.8	60.6	59.2	61.3	63.7	70.1	61.7	57.2	66.8	55.9	59.4	61.8	58.2	59.0	56.9	55.5	55.4	53.0	58.0	53.9	56.4	56.9	57.2
11	66.4	61.9	61.1	61.0	63.1	68.6	63.1	56.4	64.5	54.3	58.7	58.9	59.3	60.6	57.9	59.7	55.1	52.9	57.0	55.3	56.2	56.6	58.0
12	63.6	60.0	59.1	59.2	63.1	68.3	61.8	56.7	64.5	54.1	58.6	59.2	57.8	58.5	57.5	58.1	54.8	51.9	56.9	54.6	56.2	56.3	56.7
13	64.0	60.3	57.8	59.3	62.7	68.4	56.8	56.6	64.9	54.1	59.1	59.7	57.8	58.6	46.0	47.2	55.4	52.6	57.5	55.4	56.5	56.8	56.7
14	63.7	59.8	57.3	61.0	63.6	68.8	61.9	59.3	65.7	55.8	60.0	61.1	58.1	58.2	52.8	58.2	54.9	53.0	58.4	55.9	57.5	56.9	56.8
15	65.6	61.0	59.6	60.2	62.4	67.2	57.7	55.7	63.9	55.2	58.4	59.0	58.8	59.5	51.3	47.6	54.3	52.0	57.2	54.5	56.0	55.7	57.6
16	65.6	61.0	60.3	60.6	64.0	68.5	61.9	56.3	64.2	55.6	58.2	59.0	58.8	59.6	57.4	58.3	54.7	51.9	56.8	52.4	55.2	56.4	57.4
17	65.2	60.8	59.8	60.6	63.4	68.0	62.4	57.6	63.7	57.1	57.4	58.3	58.6	59.4	57.3	58.6	53.8	51.7	55.9	52.4	54.3	55.6	56.5
18	66.1	61.2	61.7	61.2	63.5	68.3	61.3	55.8	64.4	54.1	58.2	58.3	59.5	59.8	57.1	57.3	54.3	50.8	56.6	54.3	55.5	54.8	57.7
19	63.4	60.0	57.2	58.8	62.8	67.7	60.2	56.5	64.2	53.9	58.3	58.6	57.8	58.3	53.2	53.0	54.8	52.0	56.7	54.2	56.1	55.7	56.4
20	64.5	60.3	58.8	60.0	62.7	68.1	59.9	57.0	64.9	54.2	60.0	60.0	58.1	58.7	49.2	51.3	55.6	52.9	58.1	55.3	57.3	56.8	57.1
21	64.4	60.7	57.5	59.5	63.3	68.7	61.3	57.7	65.8	55.5	60.4	60.0	58.5	58.8	48.5	54.5	56.2	52.9	58.7	55.1	57.7	57.2	57.4
22	64.8	61.2	58.5	60.8	63.0	67.5	59.4	56.8	64.5	54.4	59.4	59.2	59.1	59.4	48.5	48.8	55.0	52.1	57.8	54.8	57.1	55.9	57.7
23	67.0	61.2	60.2	63.3	63.2	69.5	59.3	56.6	65.9	53.9	59.5	61.6	59.1	59.3	55.0	53.2	55.3	53.6	58.4	54.6	56.9	57.3	58.0
24	65.5	61.5	57.9	60.6	63.6	69.6	62.4	57.7	65.9	55.7	60.0	60.7	59.8	59.7	50.9	59.0	55.6	53.4	58.6	55.8	57.7	57.5	58.3
25	65.9	61.7	59.5	60.7	64.6	69.7	60.8	57.5	66.2	54.6	60.0	61.3	59.8	59.9	49.6	57.7	55.3	52.3	58.4	57.7	57.7	56.5	58.2
26	64.1	60.3	56.5	58.8	62.6	68.4	59.5	56.9	64.8	53.7	59.0	59.2	58.5	58.7	48.1	56.3	54.3	51.3	57.4	56.1	56.5	55.6	56.8
27	64.9	60.9	58.1	59.8	63.4	68.4	60.1	57.4	65.3	54.6	59.3	59.5	58.7	59.1	47.4	54.3	55.3	51.9	57.5	55.5	56.9	55.9	57.6
28	63.5	59.9	57.5	59.0	63.1	68.7	58.3	58.8	65.4	60.3	59.9	60.2	57.8	58.3	43.2	49.6	55.6	53.0	58.4	56.1	57.4	56.9	57.0
29	63.7	59.2	58.1	59.3	63.5	70.1	58.3	56.0	66.3	54.7	58.7	61.6	56.8	59.0	44.6	50.4	55.3	52.0	56.9	55.3	55.2	55.7	55.7
30	64.4	60.0	59.5	59.3	64.4	69.4	63.4	56.9	64.7	53.6	57.9	59.5	58.6	58.6	59.4	60.3	53.7	52.2	56.8	54.2	54.9	55.9	56.8
Month	65.1	61.0	59.2	60.6	63.6	68.9	60.8	57.3	65.4	55.6	59.5	60.2	58.8	59.4	54.0	56.1	55.3	52.8	57.9	55.3	56.9	56.7	57.6

Table 12

Air Carrier Operations by Aircraft Type captured by the Noise Monitoring System.

Aircraft Type	Air Canada Jazz	Air Canada Rouge	Alaska Airlines	Alliant Air	American	British Airways	Delta Air Lines	Edelweiss	Frontier Airlines	Hawaiian	Horizon Air	Japan Airlines	jetBlue	Lufthansa	SkyWest Airlines	Southwest Airlines	Spirit Airlines	Sun Country Airlines	United Airlines	Westjet	Airborne Express	FedEx Express	UPS Airlines	Total Operations
A20N	0	0	0	0	0	0	0	0	452	0	0	0	0	0	0	0	27	0	0	0	0	0	0	479
A21N	0	0	60	0	48	0	0	0	0	153	0	0	0	0	0	0	0	0	0	0	0	0	0	261
A319	0	0	0	257	8	0	148	0	0	0	0	0	0	0	0	0	270	0	507	0	0	0	0	1,190
A320	0	0	2	4	110	0	2	0	79	0	0	0	70	0	0	0	539	0	491	0	0	0	0	1,297
A321	0	0	0	0	1,448	0	1,123	0	30	0	0	0	410	0	0	0	2	0	0	0	0	0	0	3,013
B737	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5,060	0	0	255	0	0	0	0	5,315
B738	0	0	314	0	937	0	758	0	0	0	0	0	0	0	0	4,693	0	122	174	0	0	0	0	6,998
B739	0	0	923	0	0	0	124	0	0	0	0	0	0	0	0	0	0	0	188	0	0	0	0	1,235
B752	0	0	0	0	0	0	379	0	0	0	0	0	0	0	0	0	0	0	2	0	0	296	0	677
B753	0	0	0	0	0	0	178	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	178
B762	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4
B763	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	128	495	209	842
B764	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
CRJ2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	328	0	0	0	0	0	0	0	0	328
CRJ7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3,257	0	0	0	0	0	0	0	0	3,257
E175	0	0	455	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	455
Jet	0	0	1,754	261	2,551	0	2,724	0	561	153	0	0	480	0	3,585	9,753	838	122	1,617	0	132	791	209	25,531
BE99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	144	144
C208	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	427	0	427
PA31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
Prop	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	427	146	573
All Ops	0	0	1,754	261	2,551	0	2,724	0	561	153	0	0	480	0	3,585	9,753	838	122	1,617	0	132	1,218	355	26,104