

Quarterly Noise Report

For the California Department of Transportation

Fourth Quarter – Calendar Year 2020



SAN DIEGO
INTERNATIONAL AIRPORT

LET'S **GO.**

Aircraft Noise Mitigation

March 1, 2021

Q4 2020 Quarterly Noise Report

October 1 through December 31, 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 \(Mar 1, 2021 13:44 PST\)](#)

Brendan Reed
Director of Planning & Environmental Affairs



[Kimberly J. Becker \(Mar 1, 2021 14:04 PST\)](#)

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 – 0.072 Square Miles (46 Acres)
 - Military Impact Area – 0.062 Square Miles (40 Acres)
2. Estimated number of dwelling units and population within the Noise Impact Area as defined in the Noise Standards:
 - Dwelling Units – 915 (Population – 1,707*)
3. Number of Noise Complaints and Households during the Calendar Quarter:
 - 21,075 Complaints (113 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 (2,912 Operations)
5. Number of Air Carrier Operations during the Calendar Quarter: 25,174
6. Percentage of Air Carrier Operations by aircraft certificated under Federal Aviation Regulation (FAR) Part 36, Stage 3: 100%
7. Number of General Aviation Operations during the Calendar Quarter: 2,007
8. Number of Air Taxi Operations during the Calendar Quarter: 2,664
9. Number of Military Operations during the Calendar Quarter: 261
10. Total number of Airport Operations during the Calendar Quarter: 30,106

* 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	Q4 2020	Q4 2019	Change
Noise Impact Area	0.072	0.660	-0.588
Military Impact Area	0.062	0.142	-0.080

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.

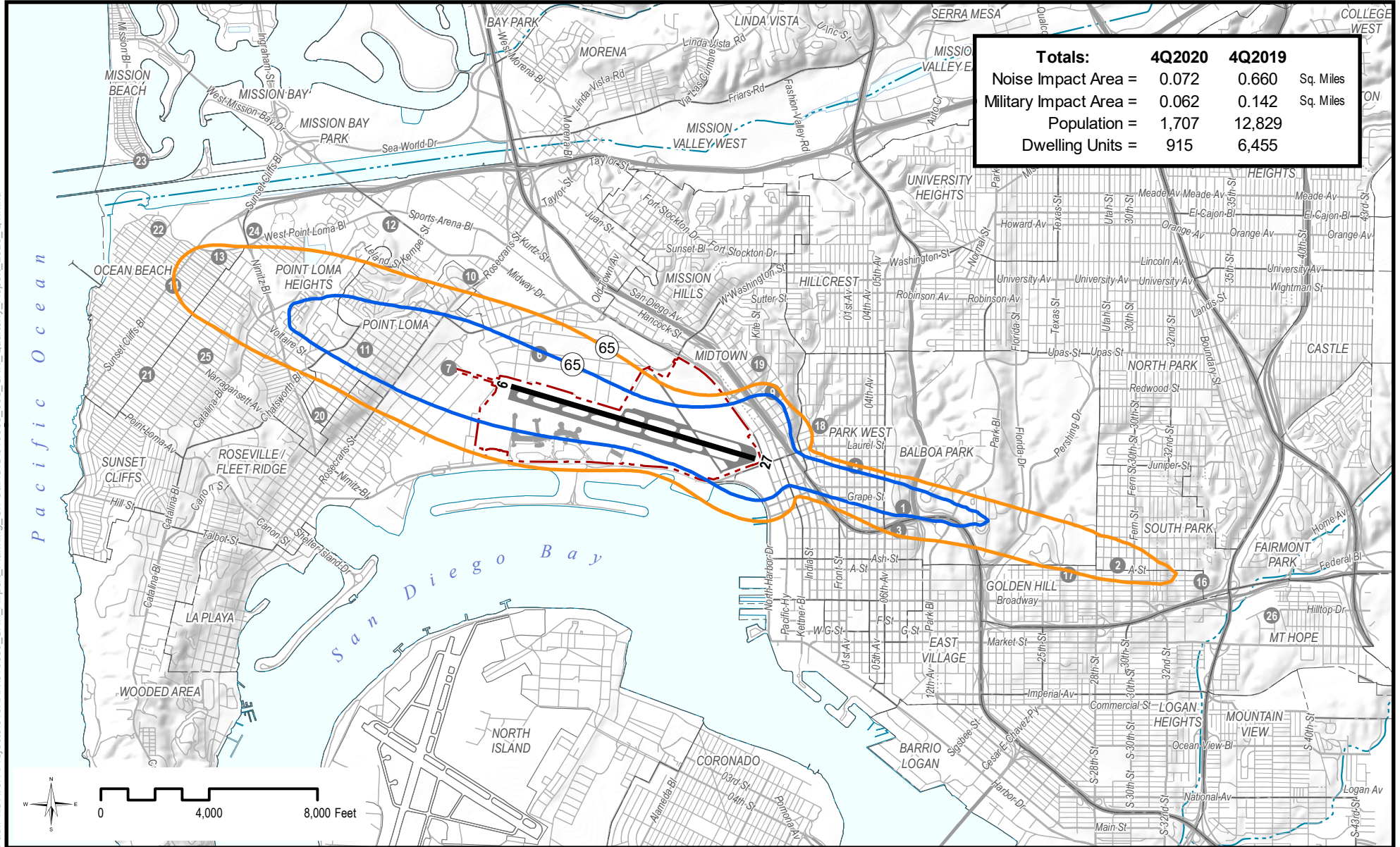
The use of GIS technology allows for direct counting of individual parcels within the Noise Contour. The modeling methodology fulfills the requirements of the State of California, Title 21, California Noise Standards. A review of measured and modeled noise levels indicate good agreement between several key measurement locations.

Key Observations contributing to the contour reduction –

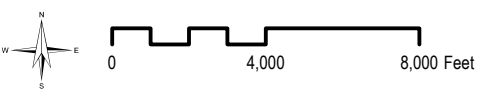
- 48% reduction in Total Operations
- 14% increase in the use of Stage 4 aircraft (double the share of total operations from 2019)
- Lower passenger loads resulting in higher altitudes over communities and lower noise impacts
- Noise Impact Area is reduced due to the contour shrinking down to a greater number of noise compatible properties.

Note: The contour represents a 12-month period.

We expect these conditions to continue until there is a substantial amount of recovery in the level of air service at SDIA.



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- 2020 4th Quarter 65 dB CNEL Contour
- 2019 4th Quarter 65 dB CNEL Contour
- Airport Property
- Runway
- # RMT Site Location
- Roads
- - - River / Stream

Comparison of the 2019 and 2020 Fourth 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 4,444 homes with a current waitlist of 1,249 units.

Aircraft Noise Complaints

During the Quarter, the Aircraft Noise Office received a total of 21,075 complaints from 113 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	4th Quarter 2020	4th Quarter 2019	Net Change	Percent Change
Air Carrier	25,174	52,218	(27,044)	-51.8%
Air Taxi	2,664	3,001	(337)	-11.2%
General Aviation	2,007	2,469	(462)	-18.7%
Military	261	162	99	61.1%
Total	30,106	57,850	(27,744)	-48.0%

Table 2

Note: ATADS data is typically available to the public by the Fourth 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-compliant 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 fourth or any subsequent violations increases from \$10,000 to \$20,000.

During the Quarter there was one (1) curfew violation. Year to Date fines total \$16,000.

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	65.6	66.3
2	61.3	62.5
3	60.3	61.3
4	60.6	62.0
6	65.0	65.8
7	69.3	70.5
9	61.6	62.6
10	58.5	59.9
11	65.9	67.2
12	57.6	58.4
13	60.5	61.7
14	60.7	61.8
16	59.6	60.9
17	59.8	61.0
18	55.5	58.8
19	58.7	59.8
20	56.1	57.3
21	54.0	55.0
22	59.1	60.7
23	57.2	58.9
24	58.2	59.7
25	57.5	58.7
26	58.4	59.7

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.

	Q4 2020	Q4 2019	Change (dB)
Arrivals	94.4	99.0	-4.61
Departures	96.9	93.4	3.49

Table 4

Table 5

Quarterly SENEL Survey – Arrivals (RMT #1)

Date/Time	SENEL (dB)	FLIGHT	ORIGIN	AC TYPE
11/11/20 6:00 AM	100.5	FDX1422	MEM	B763
11/11/20 5:21 PM	96.3	FDX906	MEM	B763
11/12/20 6:24 PM	96.2	UPS2636	SDF	B763
11/12/20 9:06 PM	95.3	DAL793	ATL	B763
11/10/20 5:04 AM	95.3	UPS922	SDF	B763
11/10/20 6:27 PM	94.9	FDX906	MEM	B763
11/10/20 4:15 AM	94.7	FDX1889	OAK	B752
11/11/20 5:24 AM	94.4	UPS922	SDF	B763
11/12/20 10:03 AM	94.4	ABX505	PHX	B763
11/11/20 8:55 PM	94.3	DAL793	ATL	B763
11/10/20 6:16 AM	94.2	FDX1422	MEM	B763
11/12/20 5:34 AM	94.2	UPS922	SDF	B763
11/11/20 5:38 PM	94.1	DAL1012	ATL	B752
11/10/20 8:43 PM	94.0	DAL793	ATL	B763
11/12/20 5:45 AM	94.0	FDX1754	IND	B763
11/11/20 5:36 PM	93.9	UPS2636	SDF	B763
11/10/20 9:50 PM	93.9	UAL418	IAH	B738
11/12/20 5:43 AM	93.9	FDX1422	MEM	B763
11/12/20 11:41 AM	93.8	DAL798	ATL	B753
11/10/20 5:27 PM	93.7	UPS2636	SDF	B763
11/11/20 5:18 PM	93.7	FDX3713	IND	B763
11/12/20 5:05 PM	93.7	FDX69	TIJ	B752
11/11/20 4:24 AM	93.7	FDX1889	OAK	B752
11/12/20 5:26 PM	93.5	FDX906	MEM	B763
11/10/20 11:14 AM	93.4	DAL798	ATL	B753
11/12/20 9:01 PM	93.3	UAL540	DEN	B739
11/10/20 5:57 AM	93.3	FDX1754	IND	B763
11/10/20 5:54 PM	93.2	FDX3713	IND	B763
11/12/20 9:32 PM	93.2	AAL1060	DFW	B738
11/12/20 7:17 PM	93.2	SWA1320	BWI	B738
11/10/20 5:18 PM	93.2	FDX3175	AFW	B752
11/10/20 4:41 AM	93.1	FDX1189	AFW	B752
11/11/20 9:01 AM	93.1	ABX505	PHX	B763
11/11/20 5:35 AM	93.0	FDX1754	IND	B763
11/10/20 12:08 PM	92.9	AAL1845	DFW	B738
11/12/20 4:09 AM	92.8	FDX1889	OAK	B752
11/12/20 5:52 PM	92.8	FDX3713	IND	B763

Table 6

Quarterly SENEL Survey – Departures (RMT #7)

Date/Time	SENEL (dB)	FLIGHT	ORIGIN	AC TYPE
11/10/20 11:27 AM	99.5	AAL2882	CLT	A321
11/10/20 10:50 PM	98.5	AAL2498	MIA	A321
11/11/20 11:23 AM	98.3	AAL2882	CLT	A321
11/12/20 10:56 AM	97.8	UAL2475	ORD	B739
11/11/20 7:56 AM	97.8	PCM8685	IPL	C208
11/12/20 6:32 AM	97.7	AAL1909	CLT	A321
11/11/20 8:54 AM	97.7	UAL546	IAD	B738
11/12/20 10:53 PM	97.6	AAL2498	MIA	A321
11/10/20 11:01 AM	97.6	UAL2475	ORD	B739
11/12/20 11:31 AM	97.0	AAL2882	CLT	A321
11/10/20 8:58 AM	96.8	UAL546	IAD	B738
11/10/20 8:10 AM	96.7	UAL2472	IAH	B739
11/11/20 10:08 AM	96.7	UAL526	DEN	B739
11/11/20 7:24 AM	96.7	ASA829	OGG	B738
11/11/20 11:52 AM	96.7	AAL1925	ORD	B738
11/12/20 1:34 PM	96.6	UAL2100	IAH	B739
11/12/20 10:44 PM	96.6	DAL831	ATL	B763
11/11/20 10:47 PM	96.6	AAL2498	MIA	A321
11/10/20 7:29 AM	96.5	ASA819	LIH	B738
11/10/20 7:30 PM	96.5	FDX1654	IND	B763
11/11/20 7:56 AM	96.5	PCM8685	IPL	C208
11/11/20 8:08 AM	96.5	SWA1375	HNL	B738
11/12/20 8:03 AM	96.4	UAL2472	IAH	B739
11/11/20 9:10 AM	96.4	SWA4775	BWI	B738
11/10/20 7:18 PM	96.4	UPS921	SDF	B763
11/12/20 3:57 PM	96.1	UAL2482	SFO	B739
11/11/20 7:27 PM	95.9	FDX1654	IND	B763
11/12/20 7:25 AM	95.9	ASA819	LIH	B738
11/11/20 2:20 PM	95.9	UAL2460	DEN	B739
11/11/20 12:41 PM	95.9	UAL2163	EWR	B739
11/11/20 10:59 AM	95.8	UAL2475	ORD	B739
11/12/20 11:05 PM	95.8	AAL2078	PHL	A321
11/12/20 7:28 PM	95.8	FDX1654	IND	B763
11/11/20 8:19 AM	95.8	UAL2472	IAH	B738

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	2	0	1	2	0	1	0	0	0	0	0	0	6
A21N	1	1	0	2	0	0	0	0	0	0	0	0	4
A306	0	0	0	0	0	0	0	0	0	0	0	0	0
A319	1	0	0	1	0	0	0	0	0	0	0	0	2
A320	3	1	0	3	0	0	0	0	0	0	0	0	7
A321	11	5	1	12	0	3	0	0	0	0	0	0	32
A332	0	0	0	0	0	0	0	0	0	0	0	0	0
B737	16	9	1	20	2	2	0	0	0	0	0	0	50
B738	26	11	3	32	2	3	0	0	0	0	0	0	77
B739	11	6	1	14	1	1	0	0	0	0	0	0	34
B752	3	0	1	2	1	1	0	0	0	0	0	0	8
B753	1	0	0	1	0	0	0	0	0	0	0	0	2
B762	0	0	0	0	0	0	0	0	0	0	0	0	0
B763	3	1	2	2	2	2	0	0	0	0	0	0	12
B764	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0	0	0	0	0	0	0
CRJ7	0	0	0	0	0	0	0	0	0	0	0	0	0
E170	0	0	0	0	0	0	0	0	0	0	0	0	0
E175	17	5	0	16	3	1	0	0	0	0	0	0	42
Total	98	39	10	110	11	14	0	0	0	0	0	0	282

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.

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 – October 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	64.9	60.6	59.4	59.5	63.6	69.2	60.4	57.2	65.6	54.7	58.6	59.4	58.9	58.9	54.3	58.2	54.0	51.7	57.1	54.9	55.9	55.4	58.6
2	63.8	59.0	57.0	58.9	63.1	70.2	59.4	56.9	66.4	54.9	59.2	61.1	57.7	57.3	56.8	57.0	53.5	51.7	57.6	56.4	56.4	54.7	55.6
3	63.4	59.2	58.6	59.4	62.8	68.7	59.8	56.3	64.9	56.7	58.8	59.7	57.5	58.1	55.3	56.6	53.6	51.0	57.0	54.6	55.5	55.3	55.8
4	63.6	59.2	58.1	58.7	62.5	68.2	59.9	56.1	64.4	53.5	58.7	58.8	57.4	57.7	57.2	57.4	53.9	51.9	57.1	55.2	56.2	55.2	55.7
5	64.7	60.0	59.7	59.3	63.0	68.3	61.8	57.1	64.8	63.4	59.0	58.9	58.0	58.7	55.9	57.3	54.4	51.6	58.1	55.6	56.6	55.2	56.5
6	62.8	58.9	55.9	58.6	62.1	69.7	60.4	55.2	67.0	60.4	58.9	61.4	56.6	57.5	50.5	53.1	54.1	52.5	57.6	54.5	55.9	55.7	55.7
7	63.9	60.4	57.8	59.8	64.6	71.4	61.5	57.5	67.7	59.2	61.0	62.8	58.6	59.2	55.5	57.0	56.1	54.1	59.6	56.5	58.1	57.8	57.7
8	66.5	62.5	59.9	61.3	64.0	69.1	61.2	58.5	66.2	57.1	61.5	61.6	60.6	60.7	57.1	57.9	56.5	55.2	59.9	57.7	58.6	58.9	59.2
9	66.4	62.6	60.3	61.3	63.5	68.5	59.7	57.6	65.6	62.7	60.8	60.5	60.7	61.2	47.0	55.0	56.1	54.1	59.2	56.9	58.5	58.6	59.5
10	64.8	60.7	60.2	59.6	64.0	68.3	60.7	58.3	65.4	56.1	60.9	61.1	58.7	59.1	52.6	55.2	57.1	55.1	59.6	57.6	58.5	58.9	57.5
11	64.6	60.5	58.3	59.6	63.0	68.4	58.0	57.4	65.5	55.7	60.9	60.9	58.3	59.0	45.7	48.6	56.4	54.3	59.4	58.8	58.6	58.3	57.4
12	64.6	60.7	61.2	60.0	63.4	69.2	59.6	57.4	65.7	59.5	60.6	60.2	58.4	61.4	52.9	56.0	55.4	53.5	59.1	56.2	57.4	57.2	58.0
13	65.2	60.8	59.4	59.9	64.4	69.4	58.1	56.7	65.3	59.7	59.6	59.8	59.3	60.1	56.4	57.4	54.4	53.8	58.0	54.9	56.7	56.3	57.7
14	65.2	61.2	58.1	60.2	65.0	69.0	61.3	57.2	65.2	55.4	59.7	59.3	59.6	59.6	54.5	58.2	54.5	53.3	58.3	55.4	57.3	56.4	59.0
15	65.9	60.8	58.8	60.5	65.5	70.0	60.4	58.7	66.2	54.7	60.2	60.3	59.6	59.2	56.8	57.3	55.0	52.3	58.1	55.8	56.9	56.3	57.5
16	65.3	61.0	62.4	62.7	63.3	70.9	62.8	56.3	67.8	54.1	59.7	62.3	59.7	60.1	58.4	56.8	54.3	52.1	57.4	55.0	56.3	55.7	57.4
17	63.6	59.5	60.9	61.0	62.5	69.3	59.7	55.5	66.4	53.2	59.1	61.0	57.6	58.1	53.8	56.6	53.4	51.2	57.2	55.9	56.4	55.3	55.9
18	64.2	60.6	58.7	60.7	62.8	68.0	63.2	56.2	64.9	53.6	59.2	59.3	58.1	58.9	51.6	58.1	54.1	51.8	57.0	55.2	57.1	55.7	57.5
19	65.1	61.0	57.8	59.9	64.3	69.1	61.1	59.4	65.9	56.5	61.7	61.3	58.7	59.6	47.5	52.5	57.9	54.6	59.9	57.7	58.9	57.9	57.8
20	66.5	62.1	58.7	61.4	65.1	69.2	59.8	58.2	66.2	56.0	61.0	60.9	59.8	61.1	49.9	51.7	56.7	54.5	59.3	58.3	58.3	57.9	59.2
21	66.6	61.9	58.4	61.1	64.1	69.1	60.6	58.6	66.3	57.2	61.3	60.9	60.2	60.7	55.4	55.7	56.7	54.4	59.6	64.6	58.7	58.2	58.8
22	66.6	62.5	59.5	61.4	64.3	69.4	60.9	58.6	66.4	57.2	61.7	62.0	60.8	60.8	52.2	58.7	57.9	55.5	60.3	60.0	59.0	58.9	59.6
23	66.5	62.7	60.2	61.6	64.5	68.4	60.4	58.1	65.6	61.6	61.3	60.8	60.7	61.0	51.0	57.3	56.4	54.5	60.1	56.6	58.7	58.2	59.5
24	65.3	61.2	58.0	60.0	63.7	67.6	60.1	58.1	65.0	55.8	60.5	60.1	58.8	59.7	51.5	55.7	55.9	54.0	58.9	56.2	58.1	57.5	57.9
25	65.1	61.4	56.9	59.9	64.6	67.9	60.0	58.2	64.9	55.7	60.5	60.2	59.3	59.9	51.5	57.1	56.0	54.2	59.2	56.2	58.4	57.8	58.2
26	64.5	60.2	58.8	59.4	64.7	68.6	59.1	58.2	65.5	55.8	60.9	60.6	57.9	58.5	49.6	54.4	56.4	54.2	59.1	55.6	57.9	57.9	56.5
27	64.2	60.0	59.7	58.7	63.5	68.4	60.9	56.1	64.6	54.2	57.9	59.2	58.3	58.7	55.3	58.2	55.0	52.4	56.7	52.0	55.1	56.4	56.5
28	64.8	60.8	60.6	59.8	63.2	68.0	61.1	57.0	64.3	55.3	59.0	59.5	58.6	59.4	61.2	56.8	55.3	53.0	57.4	53.4	56.5	56.6	57.5
29	66.1	62.0	60.9	60.6	63.7	68.9	62.6	57.5	65.1	55.6	59.5	60.2	60.2	60.2	57.0	59.4	55.7	53.7	58.1	54.7	57.0	57.1	58.5
30	66.4	61.7	62.2	60.9	64.9	68.7	61.1	58.0	64.8	55.9	59.6	59.5	59.8	60.3	55.5	59.8	55.6	52.9	57.8	54.7	57.4	56.5	58.4
31	63.2	59.1	58.8	57.8	62.6	68.4	61.0	56.6	64.6	54.4	58.7	60.1	57.6	57.6	52.5	58.1	53.8	51.6	56.9	52.5	56.1	55.3	55.5
Month	65.1	60.9	59.5	60.2	63.8	69.0	60.7	57.5	65.7	57.6	60.1	60.6	59.0	59.6	54.9	56.9	55.5	53.4	58.5	56.9	57.5	57.1	57.8

Table 10

Daily/Monthly CNEL Levels – November 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	64.2	60.5	57.6	59.1	63.1	67.7	60.4	56.7	64.2	54.5	59.2	58.7	58.3	59.0	54.5	57.6	54.0	51.1	57.5	54.5	57.0	54.9	56.9
2	64.2	59.9	58.0	60.6	63.1	70.1	60.8	57.2	67.1	55.0	60.3	62.5	58.1	58.1	51.3	57.3	54.8	54.0	60.6	55.3	57.6	57.9	56.6
3	64.3	60.2	58.0	61.0	63.0	69.7	62.2	56.8	66.6	55.5	59.9	62.1	58.3	58.9	52.6	60.1	55.2	53.5	58.2	54.8	57.3	57.1	59.6
4	63.7	60.1	58.4	59.1	64.0	70.9	63.7	56.9	67.3	54.5	60.5	63.1	58.0	58.5	56.3	60.3	55.5	53.7	58.7	55.0	57.4	57.2	58.7
5	66.5	61.0	61.8	62.8	66.3	71.6	63.4	58.9	67.7	56.1	60.6	62.9	60.4	59.4	59.4	61.0	56.2	54.0	60.2	55.2	57.7	57.6	58.7
6	66.9	62.7	59.6	61.6	65.8	70.4	63.1	59.9	67.1	58.0	61.5	62.3	61.4	61.3	60.1	61.2	56.6	54.5	59.8	57.5	59.4	58.4	59.5
7	66.4	62.5	60.8	60.9	65.4	67.3	61.8	59.3	64.4	57.1	60.3	59.5	60.7	61.0	55.7	59.4	56.7	54.5	58.8	59.1	58.3	57.7	59.5
8	67.1	63.5	59.5	61.9	67.2	68.2	62.8	60.9	65.1	58.3	61.4	60.8	61.5	62.0	58.4	59.7	58.3	56.3	60.1	60.2	59.5	59.8	60.6
9	65.5	61.6	61.3	60.0	65.1	69.8	59.1	61.0	66.5	57.9	61.8	61.2	59.7	60.1	47.2	57.9	58.0	56.4	60.3	58.3	59.5	60.2	58.9
10	66.3	62.0	61.2	60.4	64.8	68.9	59.5	59.2	65.1	57.5	59.8	59.5	60.1	60.9	49.4	52.7	56.3	54.1	58.5	55.6	57.8	57.4	58.9
11	67.4	62.1	61.4	60.8	64.8	68.9	64.2	58.0	65.1	56.1	60.1	59.9	60.2	60.3	57.0	61.8	56.5	54.3	58.8	55.9	58.2	57.8	59.1
12	67.3	62.5	61.9	61.5	66.3	69.9	61.5	59.5	66.2	57.8	61.7	61.2	60.6	61.0	51.8	56.8	57.3	55.3	60.1	57.1	59.3	59.1	59.6
13	67.7	63.6	62.2	62.3	65.5	69.6	63.8	59.6	66.5	58.4	61.6	61.1	61.7	61.9	56.9	61.3	57.5	55.2	59.9	61.6	59.5	58.8	60.7
14	66.0	61.9	62.2	60.4	65.1	68.9	57.4	58.7	65.7	58.1	61.0	60.4	59.9	60.3	43.0	49.3	56.8	54.5	59.6	60.8	58.9	58.4	58.8
15	63.8	59.8	59.2	59.0	65.0	69.2	61.6	57.2	65.5	54.9	59.9	59.7	57.9	58.4	60.0	58.9	55.4	52.8	58.3	56.1	57.9	56.6	56.5
16	65.1	59.9	58.7	59.4	65.2	69.2	62.6	59.3	65.9	55.4	59.7	59.8	59.7	58.8	57.9	59.6	55.1	52.1	60.1	58.4	57.5	56.2	56.9
17	65.2	59.6	58.2	59.7	64.9	69.3	61.7	57.5	65.7	55.6	59.6	60.6	58.3	58.0	55.3	59.5	54.3	52.8	58.0	55.1	57.4	55.3	56.3
18	64.9	60.4	58.7	59.8	65.4	70.9	61.4	59.1	67.5	57.3	61.3	62.6	58.3	59.2	57.6	56.5	57.1	55.0	59.9	57.3	58.9	58.8	58.2
19	65.4	61.3	60.6	60.4	65.9	70.8	61.5	59.6	68.1	57.3	62.1	63.2	59.1	59.9	52.1	50.4	58.0	55.5	60.7	58.4	59.8	59.3	58.4
20	67.2	63.1	63.0	62.1	65.0	69.7	62.1	60.2	66.5	57.8	61.3	59.9	61.2	61.8	54.3	57.4	57.6	53.6	59.2	57.9	59.9	58.5	60.8
21	66.5	62.4	61.1	61.1	65.8	70.1	63.5	59.5	67.0	56.8	61.9	64.5	60.6	60.7	57.2	59.3	57.9	54.6	60.3	57.6	59.7	58.5	59.5
22	62.0	57.9	55.0	59.0	65.2	70.7	63.7	59.1	67.9	56.8	61.7	63.1	55.7	56.8	54.9	61.7	57.2	54.8	59.7	56.1	59.2	58.9	54.7
23	68.6	63.3	63.2	64.1	65.8	70.6	62.2	60.4	67.2	58.5	62.8	61.7	62.0	62.3	51.3	60.3	57.7	55.7	61.2	58.5	60.5	59.0	60.6
24	67.9	63.7	62.2	62.4	66.4	70.8	62.7	60.7	67.5	63.2	62.9	62.1	62.1	62.3	55.1	59.8	58.0	56.0	61.6	59.3	60.9	59.6	61.0
25	68.6	64.5	63.8	63.0	66.2	70.9	65.4	60.8	67.7	60.3	63.1	62.5	62.6	62.8	53.0	60.7	58.6	56.3	61.7	59.2	60.7	59.8	61.8
26	61.9	58.4	53.2	57.1	62.3	66.3	58.0	56.7	62.8	54.3	58.7	57.5	56.1	56.9	37.7	54.1	53.7	51.3	57.1	55.2	56.6	54.9	55.7
27	64.3	60.5	60.1	60.4	65.1	68.1	60.9	56.7	64.2	57.8	58.5	58.4	59.3	58.8	55.4	58.5	54.3	52.6	57.3	56.8	56.2	56.6	57.1
28	65.3	60.8	62.2	59.8	65.5	68.1	62.5	57.8	64.3	57.4	60.0	59.2	59.7	59.5	57.3	58.9	55.1	52.5	58.3	55.2	58.1	56.4	57.6
29	65.8	61.8	61.6	61.2	65.8	69.1	61.2	58.2	65.6	55.8	60.5	59.2	60.0	60.5	56.6	58.9	55.9	52.8	58.6	55.2	58.7	56.6	58.7
30	66.3	61.2	62.0	60.7	65.7	69.0	61.4	59.4	65.1	59.5	60.1	58.9	60.3	60.0	58.7	57.8	55.5	52.6	58.3	54.7	58.4	56.0	58.4
Month	66.1	61.7	60.8	61.0	65.3	69.6	62.2	59.0	66.3	57.6	61.0	61.3	60.0	60.3	56.0	59.1	56.6	54.3	59.5	57.5	58.8	58.0	58.9

Table 11

Daily/Monthly CNEL Levels – December 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	65.8	60.7	61.5	59.9	66.1	69.7	61.3	58.9	65.5	58.5	60.4	60.5	59.6	59.5	58.0	60.1	55.6	53.9	58.7	56.4	58.7	56.8	57.6
2	64.4	59.5	60.4	59.1	65.2	67.5	59.7	56.4	63.4	54.8	58.6	58.3	58.9	57.7	58.9	57.2	54.4	51.8	57.5	54.4	56.2	55.2	56.7
3	63.7	59.5	60.8	58.4	63.8	66.7	59.3	56.0	62.8	54.3	58.0	57.6	58.3	57.9	54.4	54.0	52.8	51.0	56.4	53.2	56.1	54.4	56.3
4	65.7	60.2	63.5	59.2	65.0	67.2	60.0	57.2	62.7	55.0	57.3	57.4	59.8	58.7	58.0	55.6	53.2	52.2	55.8	54.0	55.6	53.9	56.5
5	63.3	58.6	61.0	58.3	62.8	65.9	59.1	55.3	61.5	52.9	55.9	55.4	58.5	56.9	54.7	55.5	51.8	49.2	53.9	50.5	54.3	52.4	54.7
6	64.1	60.1	58.2	59.0	63.7	66.9	61.1	56.1	63.2	52.9	57.9	57.2	57.9	58.6	56.6	58.3	53.3	50.4	55.9	52.8	56.2	54.1	56.3
7	63.0	58.9	57.4	58.3	64.7	68.2	61.9	58.4	64.5	59.7	59.7	59.5	57.8	57.0	56.2	60.4	54.5	55.5	58.0	55.0	57.3	56.1	56.0
8	63.9	59.7	58.3	59.6	65.3	67.2	60.0	55.8	63.2	56.8	58.0	58.2	58.2	58.3	55.8	57.7	52.9	51.0	56.6	55.6	56.0	54.9	57.0
9	65.7	61.3	60.7	60.0	64.8	67.8	61.6	57.7	64.0	57.2	59.5	58.9	59.6	59.6	54.0	64.8	55.3	53.6	58.2	57.0	57.4	56.6	58.8
10	66.3	62.1	59.3	61.1	65.5	68.8	60.7	59.9	65.7	58.0	61.1	60.5	60.3	60.5	49.6	60.8	56.7	55.2	59.6	57.8	59.0	58.4	59.4
11	66.4	62.4	61.3	60.9	64.6	69.1	58.9	59.0	66.0	58.0	61.4	61.0	60.8	60.6	51.5	54.0	57.0	55.2	60.1	57.6	59.2	58.7	59.8
12	65.7	61.5	59.3	60.0	64.2	67.7	58.4	58.4	64.9	56.3	60.5	59.9	59.5	60.1	44.4	54.3	55.9	54.0	58.9	56.6	58.3	57.5	58.7
13	64.6	61.0	58.0	59.8	64.8	67.8	58.7	57.8	64.2	55.6	59.5	59.1	58.9	59.4	49.8	54.4	55.2	53.0	58.0	55.8	57.4	56.7	58.1
14	67.2	61.5	64.3	62.3	65.1	68.1	60.9	59.9	65.3	57.0	61.0	60.5	59.4	59.9	52.6	57.5	56.8	55.4	60.4	57.7	58.8	58.6	58.8
15	65.7	60.7	60.6	61.1	64.3	68.2	59.3	58.1	64.8	56.1	59.7	59.9	58.6	59.3	53.9	56.5	56.3	53.8	58.4	57.5	57.3	57.0	58.0
16	64.9	60.2	59.5	59.6	64.1	67.7	61.0	56.9	63.8	55.0	58.7	58.7	58.5	58.8	52.5	60.7	54.1	52.1	57.3	55.3	56.8	55.6	57.0
17	67.2	62.9	60.2	61.5	66.5	70.6	63.8	60.7	67.2	58.3	62.2	61.9	61.5	61.3	57.4	62.4	58.2	56.1	60.8	59.7	60.1	60.1	59.9
18	67.0	62.6	64.1	61.3	67.3	71.6	62.8	61.2	68.0	58.9	62.8	62.3	61.2	61.0	58.7	59.6	58.8	56.3	61.2	59.0	60.6	60.0	60.0
19	65.7	61.7	62.4	60.7	66.7	70.9	61.3	59.6	66.4	61.3	61.0	60.9	60.0	60.2	53.2	60.8	56.6	54.1	59.6	57.0	58.7	57.7	58.5
20	63.4	60.0	60.2	58.9	66.6	69.5	64.1	57.4	65.0	54.0	59.3	59.2	58.6	58.4	58.1	61.1	54.7	52.2	58.2	54.9	57.0	55.8	56.6
21	60.9	57.1	56.2	58.8	66.3	72.4	65.1	59.4	69.1	57.0	61.2	63.7	55.8	55.5	56.2	62.1	55.9	54.8	62.1	56.2	58.7	56.7	54.0
22	66.5	62.3	59.7	62.4	65.9	70.9	64.8	59.5	67.5	57.7	61.5	61.4	60.4	60.5	56.9	62.1	57.1	54.2	59.7	57.9	59.6	57.6	59.1
23	66.4	61.5	62.1	60.9	66.9	71.4	63.9	60.2	67.7	58.0	61.8	61.2	60.0	59.4	54.0	60.6	57.3	54.8	60.1	57.2	59.8	57.8	58.6
24	58.8	57.4	54.0	57.5	63.0	67.9	58.6	53.6	65.0	51.0	57.7	58.8	54.7	55.3	52.6	56.4	51.9	48.5	56.0	53.4	55.0	53.0	53.7
25	61.8	58.8	54.0	57.5	63.1	67.1	60.3	57.0	64.1	54.2	59.1	57.9	56.6	57.5	49.7	57.8	54.0	51.6	57.5	55.5	57.2	55.0	55.6
26	66.4	62.9	59.7	61.6	65.8	69.7	60.7	59.6	66.7	57.7	61.6	60.8	60.3	61.2	49.4	56.5	57.3	54.8	60.0	57.9	59.3	58.3	59.6
27	66.4	62.9	58.5	65.1	66.4	70.6	60.7	60.3	67.3	58.3	62.9	61.8	61.0	61.2	42.7	57.9	58.2	55.8	61.2	59.7	60.9	59.3	60.1
28	68.0	63.9	60.0	62.7	67.4	69.5	63.7	61.1	66.7	61.2	62.8	61.8	62.5	62.3	57.9	61.6	58.7	56.5	61.5	60.3	60.4	59.7	60.9
29	66.8	62.8	62.1	61.3	68.1	71.5	61.3	61.9	68.0	61.7	62.8	63.2	61.1	61.1	55.1	58.1	59.3	57.4	61.5	59.8	60.4	60.6	60.0
30	67.3	62.7	62.7	61.8	67.7	70.3	63.6	60.5	66.1	58.8	60.8	61.1	61.3	61.2	61.2	60.9	57.7	55.5	59.6	56.9	58.5	58.8	59.8
31	65.6	61.7	59.9	60.0	65.1	69.2	65.5	58.9	65.8	56.0	60.7	60.2	60.4	59.9	54.0	64.0	57.1	55.1	59.7	57.8	58.3	58.6	59.0
Month	65.5	61.2	60.6	60.6	65.6	69.3	61.9	58.9	65.7	57.5	60.5	60.3	59.6	59.6	55.6	59.8	56.2	54.2	59.2	57.0	58.4	57.4	58.3

Table 12

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

Aircraft Type	Air Canada Jazz	Air Canada Rouge	Alaska Airlines	Mesa Airlines	Allegiant 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	0	486	0	0	0	0	0	0	0	40	0	0	0	0	0	0	526
A21N	0	0	2	0	0	144	0	0	0	0	155	0	0	0	0	0	0	0	0	0	0	0	0	0	301
A306	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	8
A319	0	0	0	0	0	8	0	30	0	0	0	0	0	0	0	0	0	0	0	139	0	0	0	0	177
A320	0	0	80	0	0	75	0	48	0	98	0	0	0	72	0	0	0	316	0	67	0	0	0	0	756
A321	0	0	0	0	0	1,210	0	1,181	0	101	0	0	0	420	0	0	0	0	0	0	0	0	0	0	2,912
A332	0	0	0	0	0	0	0	0	0	0	37	0	0	0	0	0	0	0	0	0	0	0	0	0	37
B737	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	3,858	0	2	383	0	0	0	0	4,249
B738	0	0	788	0	0	1,085	0	780	0	0	0	0	0	0	0	0	3,521	0	136	586	0	0	0	0	6,896
B739	0	0	1,541	0	0	0	0	256	0	0	0	0	0	0	0	0	0	0	0	1,311	0	0	0	0	3,108
B752	0	0	0	0	0	0	0	393	0	0	0	0	0	0	0	0	0	0	0	0	0	0	408	14	815
B753	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100
B762	0	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	0	142	0	0	0	0	0	0	0	0	0	0	0	2	0	128	507	226	1,005
B764	0	0	0	0	0	0	0	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32
CRJ2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
CRJ7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	4
E170	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
E175	0	0	1,061	14	0	0	0	0	0	0	0	0	0	0	0	2,776	0	0	0	0	0	0	0	0	3,851
Jet	0	0	3,478	26	0	2,522	0	2,962	0	685	192	0	0	492	0	2,781	7,379	356	138	2,488	0	132	923	240	24,794
BE99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	151	151
C208	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	437	0	437
Prop	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	437	151	588
All Ops	0	0	3,478	26	0	2,522	0	2,962	0	685	192	0	0	492	0	2,781	7,379	356	138	2,488	0	132	1,360	391	25,382









Q4 2020 QNR Draft For Signature

Final Audit Report

2021-03-01

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