# **Quarterly Noise Report**

# For the California Department of Transportation

Second Quarter – Calendar Year 2021



**Aircraft Noise Mitigation** 

November 29, 2021

## Q2 2021 Quarterly Noise Report

April 1 through June 30, 2021

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 (Airport Authority) for the operation of San Diego International Airport (SAN) on September 2, 2019.

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

Brendari Reed (Dec 6, 2021 12:28 PST)

Brendan J. Reed breed@san.org Director of Planning & Environmental Affairs

ker (Dec 6, 2021 13:40 PST)

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# Summary of Statistical Information for the California Department of Transportation

- 1. Size of Noise Impact Area as defined in the Noise Standards for the Quarter (California Code of Regulations, Title 21, Chapter 2.5, Subchapter 6).
  - Noise Impact Area (N.I.A) 0.060 Square Miles (38.4 Acres)
  - Federal Military Impact Area (F.M.I.A.) 0.067 Square Miles (42.88 Acres)
- 2. Estimated number of dwelling units and population within the Noise Impact Area as defined in the Noise Standards: Dwelling Units 738\* (Population 1,372\*)
- 3. There were 18,106 Noise Complaints from 129 Households during the Calendar Quarter.
- 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 reporting period:
  - Airbus A321 (4,003 Operations)
- 5. Number of Air Carrier Operations during the Calendar Quarter: 33,707
- 6. 100% of all Air Carrier Operations were certificated under Federal Aviation Regulation (FAR) Part 36 as Stage 3 or better.
- 7. Number of General Aviation Operations during the Calendar Quarter:2,797
- 8. Number of Air Taxi Operations during the Calendar Quarter: 3,440
- 9. Number of Military Operations during the Calendar Quarter: 289
- 10. Total number of Airport Operations during the Calendar Quarter: 40,233

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

**Note:** Airport Operation counts are taken from the FAA Air Traffic Activity Data System (ATADS) <u>https://aspm.faa.gov/opsnet/sys/Airport.asp</u>

### **Noise Impact Areas**

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

Impact Area	Q2 2021	Q2 2020	Change
N.I.A.	0.060	0.317	-0.257
F.M.I.A.	0.067	0.104	-0.037

### Table 1

### Noise Contour

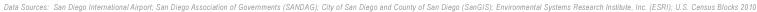
The Noise Contour on the subsequent page is prepared for the Airport Authority by their consultant HMMH Inc. using their RealContours for Aviation Environmental Design Tool (AEDT) software. AEDT is a state of the art software system that models aircraft performance in space and time to estimate fuel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

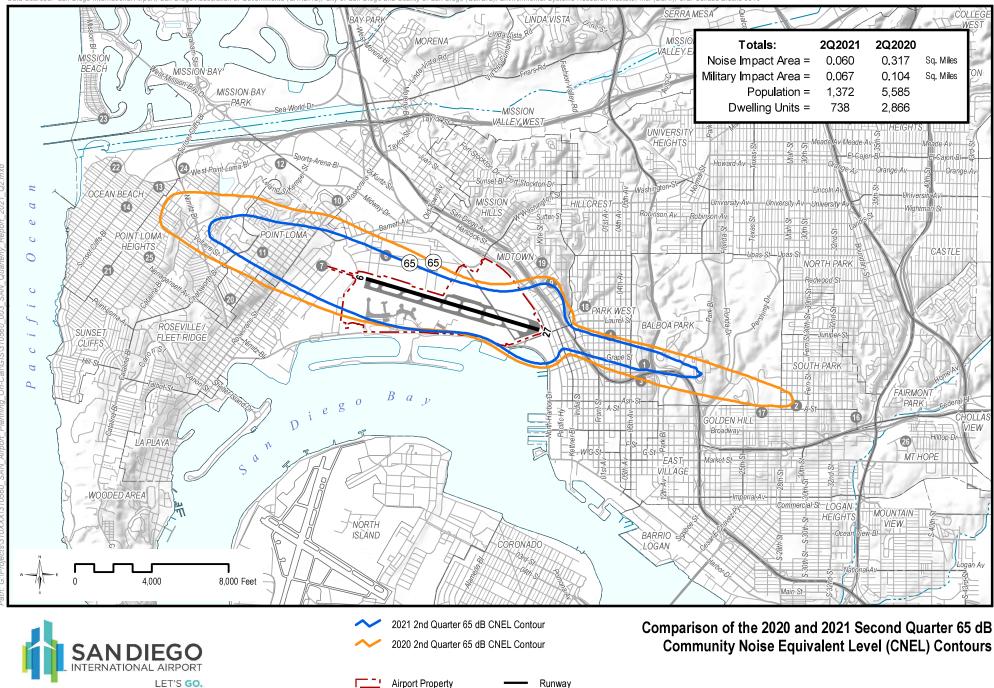
The use of GIS technology allows for direct counting of individual parcels within the Noise Contour. The modeling methodology fulfills the requirements of the State of California, Title 21, California Noise Standards. A review of measured and modeled noise levels indicate good agreement between several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

Key observations contributing to the contour reduction compared with the same one year period from last year –

- This quarter (Q2 2021) represents the first period of recovery from the COVID flight reductions.
- Total Airport Operations are up 115% from the Second Quarter in 2020, however, operations are down 30% from the same period in 2019 (pre-COVID).
- Stage 4 Air Carrier aircraft use is up sharply from 15% of the operations pre-COVID to 24% of the operations in Q2 2021.
- The contour also reflects updated modeling within AEDT (Version 3d). Changes include new aircraft, improved flight profile modeling and updated weather data.
- Evening and Nighttime operations remain down significantly (-35%) also reducing the size of the contour due to a reduction in flights that incur the evening and night penalties.

We expect smaller contours until air service returns to higher than 2019 pre-COVID levels (due to the increased rate in the utilization of quieter, Stage 4 aircraft).





Airport Property
Airport Property
RMT Site Location
Roads

River / Stream



## **Residential Sound Insulation Program (RSIP)**

Per the requirements of the Airport's Variance agreement, the Airport Authority 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 4,544 homes with a current waitlist of 1,117 units.

## Aircraft Noise Complaints

During the Quarter, the Aircraft Noise Office received a total of 18,106 complaints from 129 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/SANQH P

## **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	2nd Quarter 2021	2nd Quarter 2020	Net Change	Percent Change
Air Carrier	33,707	15,537	18,170	116.9%
Air Taxi	3,440	1,651	1,789	108.4%
General Aviation	2,797	1,299	1,498	115.3%
Military	289	233	56	24.0%
Total	40,233	18,720	21,513	114.9%

### Table 2

**Note:** ATADS data is typically available to the public by the third week of the following month: <u>https://aspm.faa.gov/opsnet/sys/Airport.asp</u>

### **Airport Use Regulations**

Airport Authority Code 9.40, Airport Use Regulations, defines Time of Day Use Restrictions (Curfew) for all Airport operators at SAN. 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. Medical Evacuation/Lifeguard departures are exempt from the Restrictions.

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 fourteen (14) curfew violations. Nine (9) violations were fined for a total of \$30,000. There are eleven (11) violation pending review in August.

## **Airport Noise Advisory Committee (ANAC)**

The Airport Authority recognizes that neighborhoods surrounding SAN are affected by noise from aircraft operations. An Airport 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 (SDUPD), the previous proprietor of SAN. ANAC is formally adopted as Airport Authority Policy 9.20.

Further information regarding the 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)	Annual CNEL (dB)
1	68.0	66.4
2	64.1	62.4
3	63.5	61.4
4	63.3	61.6
6	66.9	65.4
7	72.2	70.1
9	64.4	62.3
10	61.2	59.5
11	68.7	66.8
12	58.9	57.6
13	63.5	61.4
14	62.9	61.3
16	62.1	60.5
17	62.5	60.8
18	56.1	55.1
19	60.1	58.6
20	58.8	57.1
21	55.8	54.5
22	61.9	60.0
23	59.9	57.9
24	61.5	59.2
25	59.4	58.1
26	61.1	59.5

### 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 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.

	Q2 2021	Q2 2020	Change (dB)
Departures	98.4	95.7	2.70
Arrivals	94.3	95.0	-0.70

Table	4
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Quarterly SENEL Survey – Arrivals (RMT #1) – May 11-13, 2021

Date/Time	SENEL (dB)	FLIGHT	ORIGIN	ΑС ТҮРЕ
5/11/21 9:51 AM	96.7	DAL428	JFK	B763
5/12/21 10:15 AM	96.6	DAL2219	DTW	A332
5/11/21 5:28 AM	96.3	UPS922	SDF	B763
5/12/21 6:17 PM	95.5	DAL1600	ATL	B764
5/11/21 6:31 PM	95.4	DAL1600	ATL	B764
5/13/21 5:14 AM	95.3	FDX1754	IND	B763
5/13/21 5:55 PM	95.2	FDX979	РНХ	A306
5/13/21 10:54 PM	95.0	SWA2182	DEN	B738
5/11/21 11:37 AM	94.9	UAL541	ORD	B738
5/11/21 7:22 AM	94.8	FDX1422	MEM	B763
5/12/21 5:23 AM	94.7	UPS922	SDF	B763
5/12/21 6:32 AM	94.7	FDX1422	MEM	B763
5/11/21 4:34 PM	94.5	SWA4038	DEN	B738
5/11/21 5:49 PM	94.4	UPS2636	SDF	B763
5/12/21 9:58 PM	94.4	DAL2136	ATL	B763
5/13/21 9:38 AM	94.3	DAL428	JFK	B763
5/13/21 5:07 AM	94.3	UPS922	SDF	B763
5/12/21 4:02 PM	94.3	UAL1870	IAH	B738
5/11/21 12:40 PM	94.2	SWA3881	RNO	B738
5/13/21 6:38 PM	94.2	ASA1178	SEA	B739
5/13/21 10:02 PM	94.1	AAL2674	MIA	B738
5/13/21 2:14 PM	94.0	SWA682	РНХ	B738
5/12/21 12:03 PM	94.0	DAL455	ATL	B763
5/12/21 5:25 PM	93.9	UPS2636	SDF	B763
5/13/21 6:09 AM	93.8	FDX1422	MEM	B763
5/11/21 6:14 PM	93.8	FDX906	MEM	B763
5/13/21 5:05 AM	93.8	FDX1889	OAK	B752
5/13/21 10:12 AM	93.7	DAL2219	DTW	A332
5/12/21 2:42 PM	93.7	SWA4065	SMF	B738
5/13/21 9:49 PM	93.6	DAL2136	ATL	B763
5/12/21 5:08 AM	93.5	FDX1889	OAK	B752
5/13/21 6:08 PM	93.4	DAL1600	ATL	B764
5/11/21 5:21 AM	93.4	FDX1754	IND	B763
5/13/21 1:10 PM	93.4	AAL2142	CLT	A321
5/12/21 5:20 AM	93.4	FDX1754	IND	B763
5/13/21 5:59 PM	93.4	SWA1575	SMF	B738
5/13/21 10:10 PM	93.4	SWA2265	HNL	B738
5/12/21 5:15 PM	93.4	FDX979	MEM	A306
5/12/21 12:05 PM	93.4	SWA3626	MDW	B738
5/13/21 7:42 PM	93.4	SWA1377	BWI	B738
5/12/21 12:36 PM	93.3	UAL1108	DEN	B738
5/11/21 4:19 PM	93.3	FDX979	MEM	A306
5/12/21 8:55 PM	93.3	UAL540	DEN	B738
5/11/21 4:26 PM	93.2	SWA3427	LAS	B738

Quarterly SENEL Survey – Departures (RMT #7) – May 11-13, 2021

Date/Time	SENEL (dB)	FLIGHT	ORIGIN	ΑС ТҮРЕ
5/13/21 7:54 AM	100.4	AAL1651	CLT	A321
5/12/21 11:50 AM	100.3	AAL2308	PHL	A321
5/11/21 7:49 AM	99.6	AAL1651	CLT	A321
5/12/21 8:21 AM	99.4	AAL1651	CLT	A321
5/12/21 9:28 AM	99.4	HAL15	HNL	A332
5/13/21 10:35 PM	99.2	AAL596	CLT	A321
5/11/21 9:40 AM	99.2	HAL15	HNL	A332
5/11/21 11:27 PM	99.1	AAL596	CLT	A321
5/13/21 11:56 AM	99.0	AAL2308	PHL	A321
5/12/21 11:43 AM	99.0	AAL1954	CLT	A321
5/11/21 11:57 AM	98.7	AAL2308	PHL	A321
5/12/21 6:45 AM	98.6	AAL2535	DFW	A321
5/12/21 9:42 AM	98.5	ASA276	PVR	B739
5/11/21 7:28 AM	98.5	UAL1747	ORD	B739
5/13/21 9:08 AM	98.4	ASA760	MCO	B739
5/12/21 10:35 AM	98.4	ASA239	КОА	B738
5/11/21 11:25 AM	98.4	AAL1954	CLT	A321
5/12/21 8:51 AM	98.4	ASA772	EWR	B738
5/12/21 8:55 AM	98.3	AAL1947	DFW	A321
5/12/21 10:40 PM	98.3	AAL596	CLT	A321
5/12/21 10:18 AM	98.3	ASA895	HNL	B738
5/12/21 8:42 AM	98.2	UAL546	IAD	B738
5/13/21 9:44 AM	98.2	HAL15	HNL	A332
5/12/21 7:25 AM	98.2	UAL1747	ORD	B739
5/11/21 11:00 PM	98.2	AAL1209	MIA	B738
5/13/21 10:43 PM	98.1	DAL831	ATL	B764
5/11/21 8:30 AM	98.1	SWA1816	HNL	B738
5/12/21 10:31 PM	98.1	DAL831	ATL	B764
5/13/21 11:49 AM	98.0	AAL1954	CLT	A321
5/13/21 8:08 AM	98.0	UAL2472	IAH	B739
5/11/21 10:17 AM	98.0	ASA895	HNL	B738
5/12/21 8:13 AM	98.0	UAL2472	IAH	B739
5/12/21 12:22 PM	97.9	DAL806	DTW	A332
5/13/21 12:23 PM	97.9	DAL806	DTW	A332
5/13/21 8:18 AM	97.9	SWA1816	HNL	B738
5/12/21 11:15 AM	97.8	AAL2743	DFW	A321
5/11/21 10:41 PM	97.8	DAL831	ATL	B764
5/13/21 6:36 AM	97.8	AAL518	ORD	B738
5/13/21 7:48 AM	97.7	DAL820	ATL	B763
5/12/21 11:00 AM	97.7	UAL614	ORD	B739
5/12/21 11:01 AM	97.6	SWA1816	HNL	B738
5/13/21 7:36 AM	97.6	UAL1747	ORD	B739
5/13/21 8:40 AM	97.5	UAL546	IAD	B738
5/13/21 7:42 AM	97.5	AAL1055	DFW	A321
5/11/21 2:58 PM	97.5	AAL1955	DFW	A321
5/12/21 10:48 PM	97.5	AAL1209	MIA	B738

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

			Runw	yay 27					Runv	vay 9			
Aircraft		Arrivals		D	eparture	S		Arrivals		C	Departure	es	Tatal
Туре	7:00	19:00	22:00	7:00	19:00	22:00	7:00	19:00	22:00	7:00	19:00	22:00	Total
	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	1	1	3	0	1	0	0	0	0	0	0	8
A21N	0	1	0	1	0	0	0	0	0	0	0	0	2
A319	4	1	0	4	1	0	0	0	0	0	0	0	10
A320	8	1	0	8	1	1	0	0	0	0	0	0	19
A321	14	6	2	16	1	4	0	0	0	0	0	0	43
A332	0	1	0	1	0	0	0	0	0	0	0	0	2
A343	0	0	0	0	0	0	0	0	0	0	0	0	0
B38M	3	1	1	4	1	1	0	0	0	0	0	0	11
B39M	2	1	0	2	1	0	0	0	0	0	0	0	6
B737	14	5	3	17	4	3	1	0	0	0	0	0	47
B738	28	11	6	36	5	5	1	0	0	1	0	0	93
B739	8	4	1	12	2	1	0	0	0	0	0	0	28
B752	2	0	1	1	1	1	0	0	0	0	0	0	6
B753	0	0	0	0	0	0	0	0	0	0	0	0	0
B763	3	0	2	3	2	1	0	0	0	0	0	0	11
B764	1	0	0	1	0	1	0	0	0	0	0	0	3
B788	1	0	0	1	0	0	0	0	0	0	0	0	2
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
CRJ9	0	0	0	0	0	0	0	0	0	0	0	0	0
E75L	21	5	3	22	5	3	1	0	0	1	0	0	61
P31	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	114	38	20	135	24	22	3	0	0	2	0	0	358

## 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.

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.

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

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

Daily/Monthly CNEL Levels – April 2021

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	64.6	60.7	58.0	60.6	65.3	72.5	63.1	59.1	69.7	55.5	60.8	63.5	58.7	58.9	56.1	58.6	55.8	52.6	59.1	55.8	58.5	56.2	57.2
2	66.5	62.2	61.9	61.1	65.6	71.0	63.3	60.4	68.2	57.5	61.9	61.9	60.4	60.6	52.5	59.9	57.8	55.5	60.7	56.3	59.2	59.0	59.0
3	66.2	62.0	63.9	61.8	65.3	70.3	63.5	58.9	66.2	55.2	60.1	60.5	59.8	60.6	51.7	54.1	55.5	51.4	57.8	54.9	57.5	57.0	58.7
4	66.6	62.4	62.4	62.1	65.4	71.0	64.1	58.6	67.4	54.3	60.5	60.9	60.2	60.9	55.8	56.6	56.5	53.0	58.6	55.6	57.8	56.7	58.8
5	66.9	63.1	60.4	61.9	66.3	71.3	63.8	61.6	68.3	58.8	63.1	62.5	61.4	61.6	55.0	60.6	59.1	55.5	61.6	58.8	60.9	59.4	61.1
6	67.4	63.6	62.6	62.4	66.0	70.8	63.7	61.0	68.0	58.8	63.0	63.0	61.6	61.9	50.0	59.5	59.4	56.7	61.4	59.5	60.7	59.8	60.8
7	67.7	63.5	62.5	63.0	66.3	71.2	64.8	61.0	68.2	58.6	62.9	62.5	61.6	61.7	59.1	61.2	59.4	56.2	61.3	58.6	60.7	59.7	60.5
8	66.8	62.9	60.4	61.7	66.3	72.5	66.3	61.1	69.1	58.8	63.6	64.1	61.2	61.0	54.0	61.6	58.5	56.5	61.9	59.6	61.7	60.1	60.2
9	68.5	64.3	65.2	65.6	66.6	72.3	62.9	61.4	68.8	59.2	63.5	62.9	62.7	62.7	54.8	56.5	59.0	56.3	62.1	61.3	61.5	59.8	60.9
10	66.5	63.0	60.9	61.8	65.8	71.3	63.4	59.9	68.0	58.0	62.7	62.4	61.2	61.4	52.6	58.9	58.0	55.5	61.0	58.4	60.2	59.4	59.8
11	67.0	63.2	59.0	61.8	65.9	71.9	62.6	60.9	68.6	58.6	63.0	62.2	61.2	61.5	52.2	57.8	58.7	55.3	61.2	59.0	60.9	59.1	60.3
12	67.2	63.6	59.6	63.4	66.7	71.7	64.2	61.8	68.4	58.7	63.7	62.4	61.7	61.8	55.5	61.0	58.6	55.8	62.3	59.8	61.7	59.4	60.6
13	66.7	62.9	58.8	61.8	65.7	70.0	61.9	60.1	67.1	61.0	62.5	62.0	61.5	61.2	54.9	59.3	58.0	59.6	60.9	58.7	60.5	59.1	60.0
14	66.8	63.1	61.3	63.3	66.1	70.0	63.2	60.6	66.9	57.7	62.2	62.1	61.3	61.7	57.8	60.7	57.9	55.9	60.8	58.4	60.0	59.2	60.2
15	68.5	64.5	64.6	62.8	66.6	71.4	62.7	62.0	68.1	58.6	63.3	62.5	62.4	62.7	53.4	54.3	59.0	56.6	61.9	59.6	61.4	60.1	61.7
16	68.1	64.1	69.8	63.0	66.4	70.7	63.3	61.5	67.5	58.7	62.4	61.2	61.9	62.5	53.3	57.4	58.6	55.0	60.3	58.2	60.6	58.4	61.1
17	66.4	62.5	63.1	61.3	65.5	70.3	62.8	59.9	66.9	57.4	62.5	62.0	60.3	60.8	50.1	55.2	58.0	55.6	60.9	58.2	60.2	59.3	59.4
18	67.2	63.2	65.2	62.1	65.7	71.0	59.9	59.9	67.1	56.6	61.8	61.3	60.8	62.0	52.0	50.6	57.9	54.4	60.2	58.2	59.7	58.1	59.8
19	66.9	62.7	61.8	61.5	65.9	70.3	63.3	61.0	66.6	57.3	61.1	60.1	60.5	61.0	55.9	60.1	57.1	53.1	59.4	56.6	59.2	56.7	59.1
20	67.5	63.4	60.4	62.4	66.5	70.9	63.5	60.7	67.6	58.0	62.3	62.0	62.2	61.7	53.6	60.2	57.7	54.8	62.3	59.0	60.3	58.4	60.3
21	67.1	63.1	58.7	61.6	66.3	70.2	62.9	60.6	66.9	58.8	62.5	61.7	61.7	61.3	56.9	60.0	57.6	55.5	61.0	59.3	60.6	58.9	60.3
22	68.1	64.3	62.6	63.6	67.3	71.1	63.5	62.0	68.2	59.4	63.2	62.4	62.2	62.6	55.3	60.0	59.1	56.1	61.7	59.4	61.2	59.7	61.1
23	68.3	64.3	64.7	63.0	66.5	71.1	64.0	60.9	67.9	58.5	63.0	62.5	62.2	62.6	53.4	58.3	59.1	56.2	61.7	59.4	60.8	59.9	61.7
24	67.0	62.9	64.0	61.6	66.3	69.9	62.3	60.0	66.6	57.4	62.1	62.0	60.5	61.3	51.4	53.5	58.0	55.6	60.7	59.0	59.9	59.2	59.9
25	67.1	63.5	61.6	62.1	66.0	70.8	63.5	60.4	67.3	58.0	63.1	62.1	61.3	61.9	55.5	59.3	58.5	55.9	61.5	59.9	61.0	59.2	60.6
26	67.1	63.2	60.8	62.9	66.6	70.3	63.1	60.8	67.0	58.1	62.7	62.7	61.3	61.9	58.0	59.6	57.9	59.1	62.1	58.9	60.8	58.9	60.7
27	67.2	63.1	63.3	61.8	65.6	69.9	61.2	59.9	66.7	59.2	62.1	61.2	61.0	61.7	51.1	54.4	57.8	55.5	60.7	57.5	59.9	58.8	60.4
28	66.9	62.7	62.7	61.5	66.2	71.0	62.8	60.2	67.7	57.8	62.1	62.3	61.0	61.0	59.1	57.6	58.5	55.7	60.7	58.1	59.7	58.9	59.9
29	67.7	62.8	63.7	61.7	66.2	71.6	63.4	60.5	67.6	59.1	61.7	61.3	61.3	61.5	58.9	59.4	57.9	55.4	60.3	57.6	59.7	58.0	59.7
30	67.4	62.9	64.1	62.6	66.7	71.3	64.3	60.3	67.5	57.4	60.6	60.4	61.1	61.4	61.5	60.9	58.6	53.5	59.2	56.8	58.9	60.8	59.9
Month	67.2	63.2	63.0	62.4	66.1	71.0	63.4	60.6	67.7	58.2	62.4	62.1	61.3	61.6	55.7	58.9	58.2	55.8	61.0	58.6	60.3	59.0	60.2

Daily/Monthly CNEL Levels – May 2021

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	66.6	62.8	60.2	61.2	65.9	71.1	63.1	60.0	67.5	57.3	62.0	61.3	61.2	61.0	53.7	60.1	57.7	53.7	60.3	58.3	60.2	57.7	59.6
2	67.2	62.9	63.5	66.3	67.0	72.0	63.8	60.8	68.7	57.9	62.3	62.5	61.6	61.9	61.7	60.7	57.3	53.0	60.5	59.5	60.5	56.3	59.9
3	66.4	62.7	59.5	61.4	66.0	71.2	63.0	60.4	68.0	57.7	63.3	62.8	60.6	61.2	51.6	59.2	58.6	55.7	64.0	60.3	61.2	59.3	60.6
4	66.8	62.7	61.1	61.8	65.6	71.3	62.9	59.4	67.9	57.0	62.1	61.7	60.7	61.1	50.6	55.8	57.5	54.0	60.5	59.1	59.9	57.9	59.4
5	66.8	62.8	64.7	63.8	65.5	71.6	63.0	59.0	68.0	56.8	61.8	62.1	61.0	61.4	56.5	58.2	56.7	53.5	60.0	57.2	59.7	57.4	59.8
6	67.5	64.0	61.7	62.4	66.4	72.7	64.5	60.9	69.3	59.7	63.2	63.2	62.5	62.0	53.3	61.2	58.6	55.1	61.3	58.3	61.1	58.6	60.8
7	68.2	64.5	64.2	63.1	66.6	71.4	63.4	60.7	68.2	59.0	63.8	62.6	62.7	62.5	55.9	59.7	59.0	55.8	62.0	60.6	61.8	59.7	61.6
8	66.8	63.3	60.1	61.5	65.6	70.9	62.7	59.9	67.5	58.3	63.1	62.4	61.2	61.1	49.9	59.0	57.9	55.9	61.4	59.5	61.0	60.1	59.9
9	68.0	64.3	60.9	64.4	66.4	72.0	63.8	61.0	68.5	58.9	63.8	62.4	62.4	62.7	53.8	60.9	58.8	54.8	61.7	59.5	62.0	59.1	61.3
10	67.8	63.7	60.3	62.6	67.4	72.1	64.2	61.8	69.0	59.5	64.6	63.6	62.1	62.2	55.5	61.5	59.3	57.0	63.1	61.3	62.5	61.1	60.7
11	67.6	63.6	61.6	62.7	65.8	70.6	63.3	60.1	67.5	58.9	62.7	62.1	61.7	62.0	54.2	59.4	58.0	55.1	61.1	60.4	60.7	59.1	60.9
12	67.9	63.8	62.7	63.2	65.9	70.8	62.6	60.1	67.4	57.5	61.7	61.0	61.6	62.1	52.9	56.6	57.9	54.2	59.9	57.4	59.8	57.8	60.9
13	69.1	65.0	64.9	63.9	67.3	71.8	63.5	61.6	68.4	59.4	63.6	62.6	64.8	63.5	53.9	55.3	59.3	55.9	61.9	61.2	61.6	59.7	62.1
14	69.0	65.2	64.1	63.8	67.2	71.9	64.6	61.8	68.7	59.7	64.0	62.9	64.3	63.4	54.9	59.0	59.3	55.8	61.7	59.5	62.0	59.8	62.1
15	67.2	64.0	60.9	62.0	65.5	70.5	62.5	60.3	67.2	58.0	62.9	62.6	61.3	61.6	53.9	59.8	58.4	56.2	61.3	59.2	60.8	59.4	60.2
16	68.4	64.6	62.0	64.3	68.2	72.9	64.9	62.2	69.5	59.9	65.0	63.7	62.2	63.0	58.4	62.2	59.9	56.8	63.4	61.5	63.2	60.6	61.4
17	68.7	64.6	63.4	63.2	67.3	72.2	64.8	62.7	68.8	59.8	63.7	63.6	62.3	63.1	56.8	60.5	59.4	57.3	63.9	61.9	62.7	60.6	61.6
18	67.4	63.8	62.0	63.0	66.2	70.9	64.0	60.7	68.1	59.3	63.2	62.8	61.4	61.8	52.5	59.3	58.6	55.6	61.6	59.3	61.3	59.5	60.8
19	67.5	64.0	60.0	62.5	66.2	71.7	63.3	60.5	68.4	57.9	62.7	61.8	62.0	62.0	57.2	60.6	58.7	53.8	60.9	58.6	60.8	58.4	61.1
20	69.2	65.2	62.3	63.9	67.7	72.6	65.0	62.4	69.2	60.3	64.9	63.9	63.8	63.5	57.4	62.2	59.6	57.1	63.2	61.8	63.1	60.7	62.2
21	69.3	65.8	66.3	63.8	68.6	71.6	64.9	62.5	68.5	60.8	64.5	63.4	63.6	63.4	56.2	61.3	59.8	57.1	63.0	61.6	62.7	60.9	62.7
22	67.8	63.8	64.9	63.0	65.6	70.4	63.9	60.4	67.6	58.6	63.2	62.2	61.6	61.9	55.2	60.0	58.1	55.6	61.5	59.8	61.1	59.2	60.8
23	68.6	64.9	64.0	63.5	67.2	73.1	66.1	61.5	69.5	59.8	64.6	63.4	62.2	63.4	56.7	60.7	60.0	56.7	62.9	60.8	62.7	60.6	62.3
24	68.1	64.6	62.8	63.0	66.9	72.9	64.1	60.9	69.6	59.0	64.4	63.5	62.4	62.9	53.1	59.4	59.6	56.6	65.3	60.4	62.4	60.4	61.3
25	68.0	64.1	61.1	64.5	65.8	71.8	64.6	59.9	68.4	57.9	62.6	61.6	62.1	62.1	58.4	61.9	57.7	54.6	60.5	58.7	60.6	58.6	60.6
26	68.2	65.7	62.5	63.4	66.2	71.9	64.7	61.0	68.3	58.6	63.0	62.3	62.7	62.7	55.5	61.4	57.8	54.7	61.2	59.3	61.2	58.6	62.5
27	69.2	65.7	64.2	64.0	67.6	73.3	65.8	62.4	69.7	59.9	65.1	64.4	63.2	63.6	56.3	62.3	60.2	57.5	63.4	62.0	63.2	61.2	62.2
28	69.4	65.6	66.0	64.1	67.2	73.1	65.0	61.8	69.3	59.8	64.7	63.5	63.5	63.9	54.5	61.6	59.7	56.0	62.8	62.3	62.9	59.8	62.6
29	67.5	63.7	63.9	62.1	65.6	70.7	63.0	60.2	67.3	57.8	62.9	61.9	61.8	61.8	54.2	59.6	58.8	57.2	61.1	59.8	61.0	58.4	60.7
30	67.5	63.9	61.9	62.3	66.9	72.7	64.3	61.7	69.4	59.6	64.6	63.7	62.1	62.2	55.0	61.3	59.6	56.4	63.2	61.0	62.8	60.4	61.1
31	68.1	64.6	61.6	63.2	66.9	72.8	64.9	61.5	69.1	59.4	64.0	62.8	62.5	62.9	55.0	61.2	58.7	55.3	61.7	60.8	62.3	58.8	61.6
Month	68.0	64.3	62.9	63.3	66.7	71.9	64.1	61.1	68.5	59.0	63.6	62.8	62.3	62.5	55.7	60.4	58.8	55.8	62.1	60.2	61.7	59.5	61.2

Daily/Monthly CNEL Levels – June 2021

Day	RMT 1	RMT 2	RMT 3	RMT 4	RMT 6	RMT 7	RMT 9	RMT 10	<b>RMT 11</b>	<b>RMT 12</b>	RMT 13	RMT 14	RMT 16	<b>RMT 17</b>	<b>RMT 18</b>	RMT 19	RMT 20	RMT 21	RMT 22	RMT 23	RMT 24	RMT 25	RMT 26
1	68.9	64.4	63.1	63.6	66.8	72.4	64.7	60.9	68.9	58.2	63.1	62.2	62.2	62.8	52.8	58.1	58.6	53.6	61.4	59.2	61.4	58.1	61.6
2	67.0	63.3	61.5	63.2	66.6	72.9	64.7	59.6	69.1	57.0	61.5	63.9	61.1	61.6	55.2	59.9	56.0	51.2	59.5	57.4	59.7	55.5	59.9
3	69.3	65.4	63.4	64.0	67.4	73.4	65.2	62.0	69.6	59.3	64.1	63.2	63.4	63.6	55.2	61.8	59.3	55.1	62.1	60.1	62.2	59.4	62.1
4	68.9	65.1	65.5	63.9	67.2	73.1	65.0	61.8	69.3	59.9	64.2	63.0	63.3	63.5	57.1	61.5	59.3	55.6	62.5	60.6	62.4	59.4	62.0
5	67.5	63.8	61.7	62.4	65.9	71.7	63.9	60.5	68.3	58.5	63.1	62.5	61.8	61.9	53.9	59.8	58.6	55.1	61.2	59.1	61.0	59.2	60.7
6	68.8	64.9	61.0	63.4	67.8	73.1	65.2	62.3	69.5	59.9	65.0	63.7	63.0	63.1	55.3	62.7	59.6	56.7	63.2	62.2	63.1	60.6	62.0
7	68.6	65.0	60.9	63.5	68.3	73.0	66.1	62.9	69.6	60.3	65.0	64.1	63.4	63.3	58.0	61.9	59.9	57.3	63.5	61.5	63.2	60.8	62.2
8	68.5	64.5	64.2	63.3	66.9	71.5	64.0	62.0	68.5	60.9	64.0	63.0	62.3	62.8	53.5	59.0	58.6	56.7	62.5	60.3	62.0	60.3	61.7
9	69.0	65.1	64.2	63.8	67.5	71.8	65.0	61.5	68.4	59.1	64.2	63.7	62.6	63.2	57.9	59.0	59.1	56.6	62.6	60.1	61.9	60.2	61.9
10	69.5	65.4	66.0	64.1	68.1	73.2	65.8	63.4	68.0	60.3	64.9	64.4	63.0	64.0	57.4	61.3	60.5	58.1	63.4	60.8	62.9	61.7	62.4
11	69.7	65.4	66.9	64.5	68.2	73.3	67.3	62.3	69.7	60.5	64.9	64.3	63.3	63.9	55.8	63.1	60.0	57.3	63.4	60.7	62.9	61.2	62.3
12	68.1	64.3	66.1	62.9	67.0	73.1	65.8	62.4	69.3	61.2	64.8	63.3	62.5	62.4	57.7	63.3	59.1	56.4	62.9	61.0	62.5	60.1	61.1
13	68.8	65.2	64.6	63.9	67.7	73.4	65.1	61.8	69.5	59.3	64.7	63.6	62.6	63.7	52.4	56.1	60.0	56.5	62.7	61.2	62.3	60.8	61.8
14	68.5	65.0	63.5	63.8	67.6	73.6	65.5	61.8	70.2	59.5	64.9	63.1	62.7	63.3	53.5	58.7	60.1	56.4	63.5	60.0	62.5	60.4	61.7
15	68.1	63.7	62.4	64.0	67.2	73.3	64.8	61.6	69.8	58.8	64.0	64.1	61.7	61.9	56.1	59.1	59.7	56.1	61.5	59.2	61.6	60.0	60.7
16	67.1	62.5	62.3	63.0	67.1	74.0	65.5	60.3	70.4	58.6	63.8	65.3	60.9	60.7	59.6	62.5	58.0	56.5	62.4	60.3	61.8	60.0	59.3
17	68.2	64.1	63.7	64.7	67.6	74.3	65.5	60.3	70.0	57.5	63.5	64.3	61.6	62.4	57.4	62.5	57.2	54.3	61.4	59.7	61.2	58.5	60.0
18	68.6	64.9	65.6	65.6	68.3	74.8	66.3	62.5	70.8	58.8	63.8	64.2	62.7	63.4	59.8	63.0	58.5	53.3	61.7	59.8	62.0	57.8	60.8
19	68.7	64.5	66.5	63.8	67.0	73.3	65.3	61.2	69.3	58.6	63.9	63.0	62.3	62.8	54.0	59.2	58.9	55.0	61.8	59.4	61.9	59.1	61.2
20	68.4	64.7	62.9	63.6	68.1	73.7	65.4	61.8	69.5	58.5	64.3	63.1	62.4	63.0	55.7	60.2	59.0	55.2	62.4	61.2	62.6	59.4	61.4
21	69.2	65.5	64.3	64.4	68.4	74.0	66.1	62.5	70.2	59.9	64.9	63.5	63.1	63.9	55.7	61.4	60.2	56.1	63.3	61.8	63.1	60.1	62.3
22	68.8	64.7	64.7	63.7	67.4	72.3	64.3	61.4	68.9	59.3	64.1	62.6	62.4	63.3	55.8	57.8	58.9	55.6	62.0	60.3	62.2	59.3	61.9
23	69.0	65.0	64.4	64.4	67.9	73.1	64.8	62.2	69.4	60.1	65.2	63.6	62.7	63.4	57.4	59.0	59.9	57.0	63.1	61.2	63.0	60.7	62.4
24	69.9	65.7	65.9	64.6	68.5	73.8	66.1	62.6	70.2	60.7	65.6	64.4	63.3	64.0	57.3	57.6	60.9	57.6	63.8	61.8	63.8	61.4	64.0
25	69.1	65.7	67.4	64.3	69.1	73.8	65.8	62.6	69.9	60.4	65.0	63.6	63.2	63.9	61.3	58.0	60.5	56.6	63.2	61.5	63.4	60.3	63.5
26	68.3	64.5	64.5	63.4	67.5	73.5	66.3	61.6	69.7	59.4	65.3	63.8	62.3	62.6	55.4	60.7	60.0	57.0	63.5	62.4	63.2	60.3	60.9
27	68.7	64.8	62.8	63.9	67.2	74.1	65.6	60.9	69.8	57.7	64.0	63.0	62.5	62.8	54.2	61.1	58.2	54.5	62.0	60.5	62.3	59.1	61.1
28	69.0	65.1	63.3	65.7	68.1	74.2	66.1	61.5	70.1	58.7	63.9	63.6	62.9	63.9	59.7	62.0	57.7	54.5	62.4	60.5	62.1	57.8	60.7
29	68.9	64.7	62.3	63.9	67.2	73.7	65.2	61.0	69.6	58.1	62.7	62.7	62.7	64.7	56.2	62.1	57.7	53.7	60.7	58.3	60.5	57.8	60.8
30	69.0	65.3	62.6	64.0	67.3	73.6	65.0	61.5	69.6	59.1	63.4	62.3	63.2	63.7	57.2	61.1	58.5	54.0	61.6	60.2	61.6	58.0	61.5
Month	68.7	64.8	64.3	64.0	67.6	73.4	65.4	61.8	69.5	59.4	64.3	63.6	62.6	63.2	56.8	60.8	59.2	55.9	62.5	60.5	62.3	59.8	61.6

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

Aircraft Type	Air Canada Jazz	Air Canada Rouge	Alaska Airlines	Allegiant Air	American Airlines	British Airways	Compass Airlines	Delta Air Lines	Edelweiss	Frontier Airlines	Hawaiian Airlines	Horizon Air	Japan Airlines	jetBlue Airways	Lufthansa	SkyWest Airlines	Southwest Airlines	Spirit Airlines	Sun Country Airlines	<b>United Airlines</b>	Westlet Airlines	Airborne Express	FedEx Express	<b>UPS Airlines</b>	Total Operations
A20N	0	0	0	0	0	0	0	0	0	573	0	0	0	0	0	0	0	138	0	0	0	0	0	0	711
A21N	0	0	0	0	22	0	0	0	0	0	221	0	0	10	0	0	0	0	0	0	0	0	0	0	253
A306	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	68	0	68
A319	0	0	0	213	4	0	0	266	0	45	0	0	0	0	0	0	0	64	0	356	0	0	0	0	948
A320	0	0	501	70	107	0	0	396	0	140	0	0	0	110	0	0	0	124	0	396	0	0	0	0	1,844
A321	0	0	0	0	2,436	0	0	827	0	92	0	0	0	640	0	0	0	8	0	0	0	0	0	0	4,003
A332	0	0	0	0	0	0	0	85	0	0	136	0	0	0	0	0	0	0	0	0	0	0	0	0	221
A333	0	0	0	0	0	0	0	88	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	88
B38M	0	0	0	0	44	0	0	0	0	0	0	0	0	0	0	0	934	0	0	0	0	0	0	0	978
B39M	0	0	293	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	257	0	0	0	0	550
B737	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	4,307	0	0	44	0	0	0	0	4,357
B738	0	0	1,472	0	1,183	0	0	415	0	0	0	0	0	0	0	0	4,274	0	114	1,057	0	0	0	0	8,515
B739	0	0	1,391	0	0	0	0	378	0	0	0	0	0	0	0	0	0	0	0	837	0	0	0	0	2,606
B752	0	0	0	0	0	0	0	163	0	0	0	0	0	0	0	0	0	0	0	64	0	0	353	2	582
B753	0	0	0	0	0	0	0	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	208	236
B762	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6
B763	0	0	0	0	0	0	0	342	0	0	0	0	0	0	0	0	0	0	0	0	0	124	421	0	887
B764	0	0	0	0	0	0	0	238	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	238
B788	0	0	0	0	0	0	0	0	0	0	0	0	139	0	0	0	0	0	0	0	0	0	0	0	139
CRJ7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	51	0	0	0	0	0	0	0	0	51
E175	0	0	0	0	0	0	0	0	0	0	0	1,436	0	0	0	4,050	0	0	0	0	0	0	0	0	5,486
Jet	0	0	3,663	283	3,796	0	0	3,226	0	850	357	1,436	139	760	0	4,101	9,515	334	114	3,011	0	130	842	210	32,767
BE99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	153	153
C208	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	439	0	439
PA31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Prop	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	439	153	592
All Ops	0	0	3,663	283	3,796	0	0	3,226	0	850	357	1,436	139	760	0	4,101	9,515	334	114	3,011	0	130	1,281	363	33,359