SAN DIEGO
INTERNATIONAL AIRPORT

Portable Noise Monitor Report

Prepared By: SAN Aircraft Noise Office

Date Prepared: January 15, 2026

Monitoring Location: Caminito Pajarito, San Diego, CA

Community Represented: Peninsula

Introduction

Aircraft noise at the San Diego International Airport (SAN) has been monitored since the 1970s.

The Airport Noise and Operations Monitoring System (ANOMS) collects, analyzes, and processes data from several sources of information.

These sources include noise events from 23 permanent Remote Monitoring Terminals (RMTs), Federal Aviation Administration (FAA) radar data, weather data, and noise complaints.

The purpose of the Portable Noise Monitoring program is to provide additional aircraft noise information beyond the Airport Authority's 23 RMTs.

This information augments the overall ANOMS data collection.

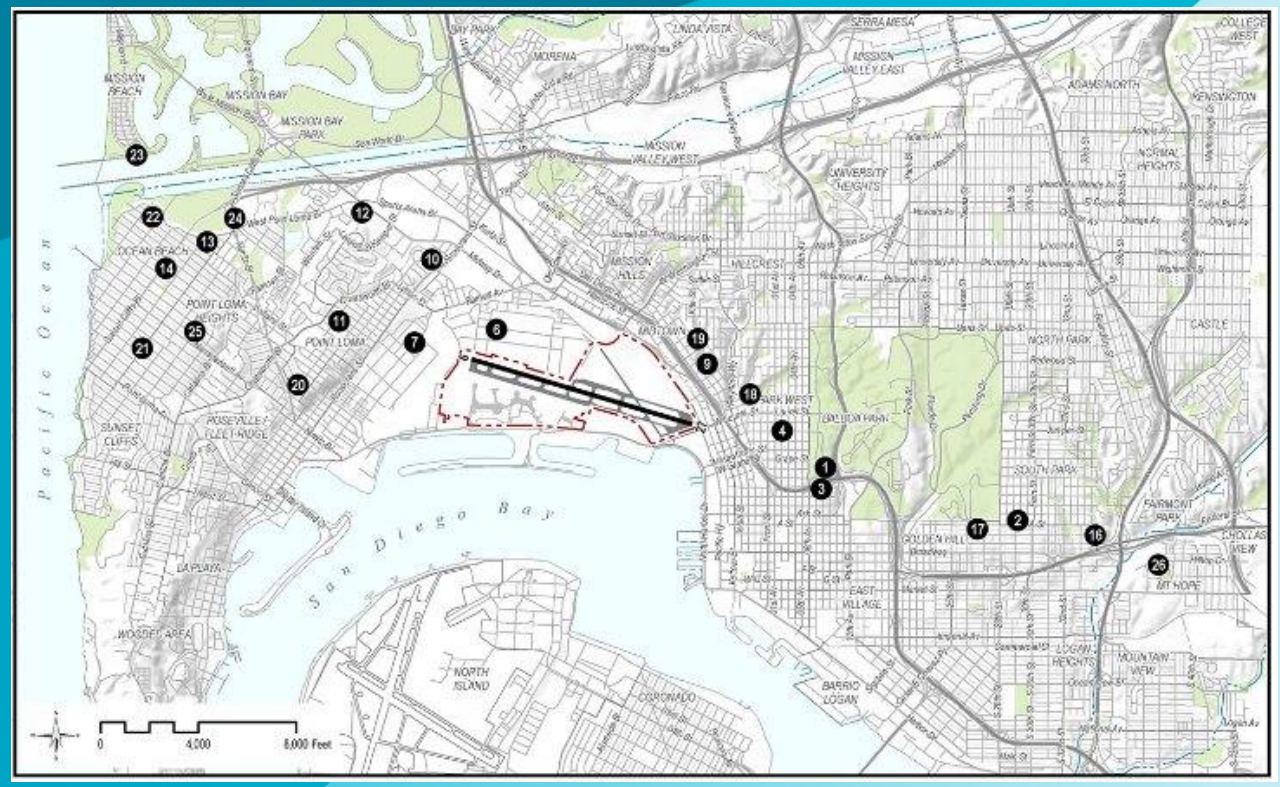

Figure 1. Map of the 23 permanent RMT locations at SAN, San Diego, CA.

Metrics

The FAA and other federal agencies have established land use compatibility guidelines based on the Community Noise Equivalent Level (CNEL).
CNEL is a weighted average of noise level over a 24–hour period.
For CNEL calculation, a penalty of 5 dBA is added for evening hours between 7:00 p.m. – 10:00 p.m.
A penalty of 10 dBA is added for the nighttime hours of 10:00 p.m. – 7:00 a.m.

The logic behind these applied penalties is that residents are usually more sensitive to noise at night and during evening hours.
CNEL is frequently used in regulations of airport noise impact on the surrounding community.
A CNEL (for aircraft noise) exceeding 65 dBA is generally considered a threshold for land use compatibility.

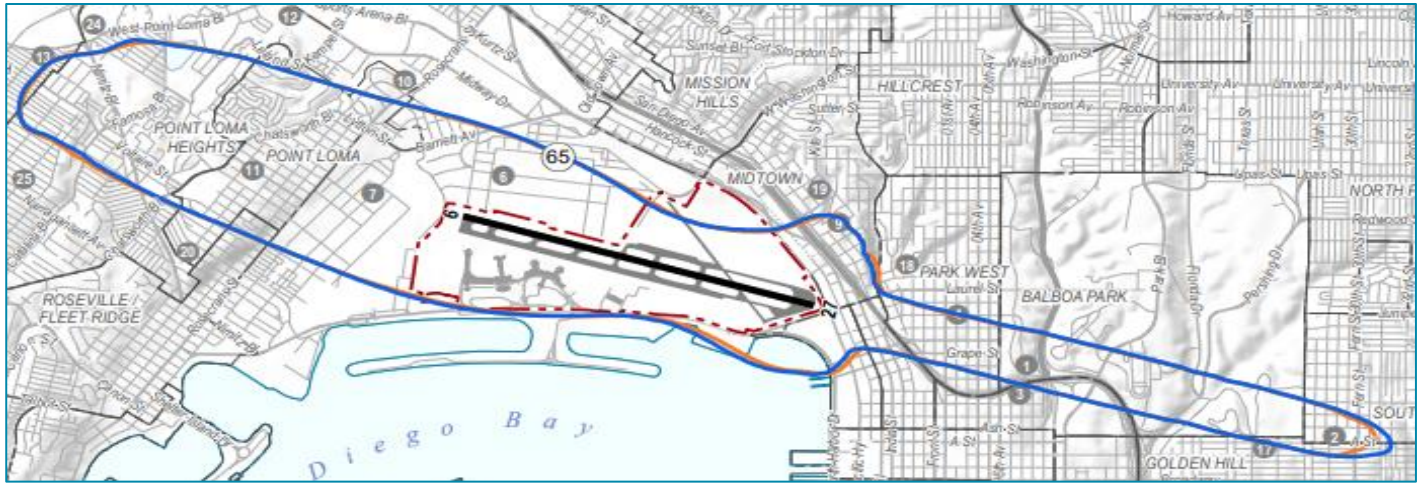

Figure 2. Example of CNEL contour
Source: 2nd Quarter 2025, State of California Quarterly Noise Report for SAN.

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Noise Definitions

Noise, by definition, is unwanted sound. There are many ways to describe noise (metrics). However, the most commonly relied-on metric is the decibel (dB).

A–weighting (dBA) is used to adjust (filter) for frequency range of human hearing.

A number of factors affect sound, including weather, ground effects, as well as human reaction to the noise source.

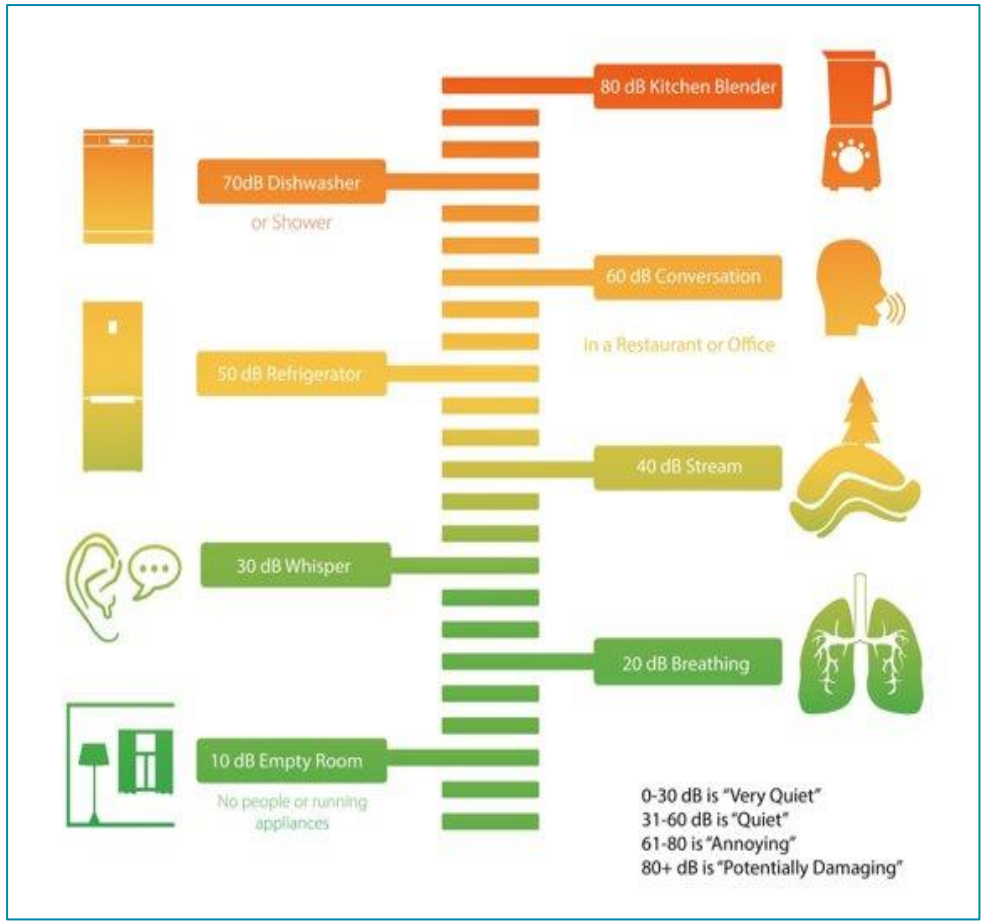

Figure 3. Common Sound Levels
Source: https://www.sylvane.com/blog/how-loud-is-a-decibel

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Noise Definitions - Continued

SEL – most common measure of cumulative noise exposure for a single aircraft flyover is the Sound Exposure Level (SEL).

Mathematically, it represents the sum of sound energy over the duration of a noise event.

Conceptually, it equates to an equivalent noise event with a one–second duration.

Lmax – Maximum Sound Level is a measurement of the peak level of a sound event.

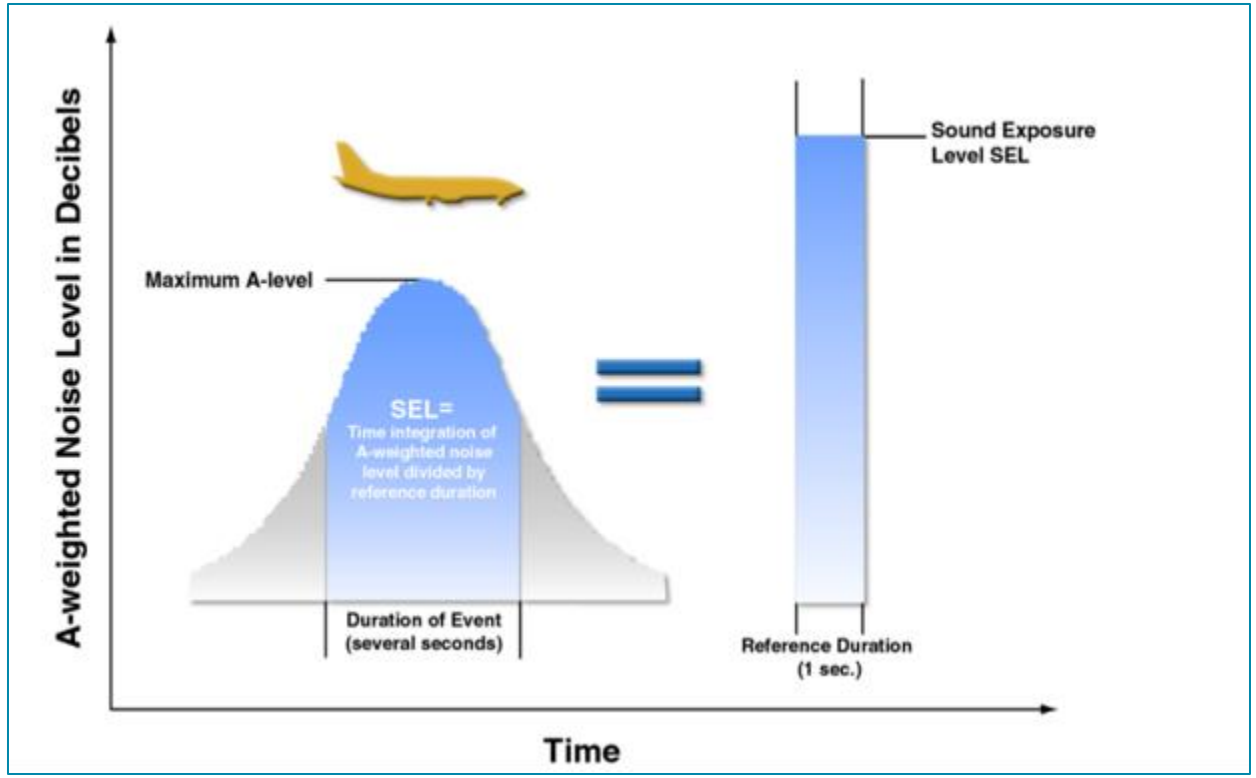

Figure 4. Sound Exposure Level and Maximum Sound Level.
Source: Brown–Buntin Associates, Inc.

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Location

Location: Caminito Pajarito, San Diego, CA 92107

Monitoring Dates: December 16, 2025 – December 30, 2025

Distance from SAN: The monitor was located approximately 2.4 miles west from the center of the Airport.

On–Site Set Up: The noise monitor was placed on the patio of a private and secure property. The monitor operated continuously during the entire 15–day measurement period. The first and last days were partial measurement days, used for set–up and take–down.

The monitor was placed on a dry, solid surface, and the microphone was approximately six feet above the surface and was obstruction free.

Figure 6. Portable Monitor

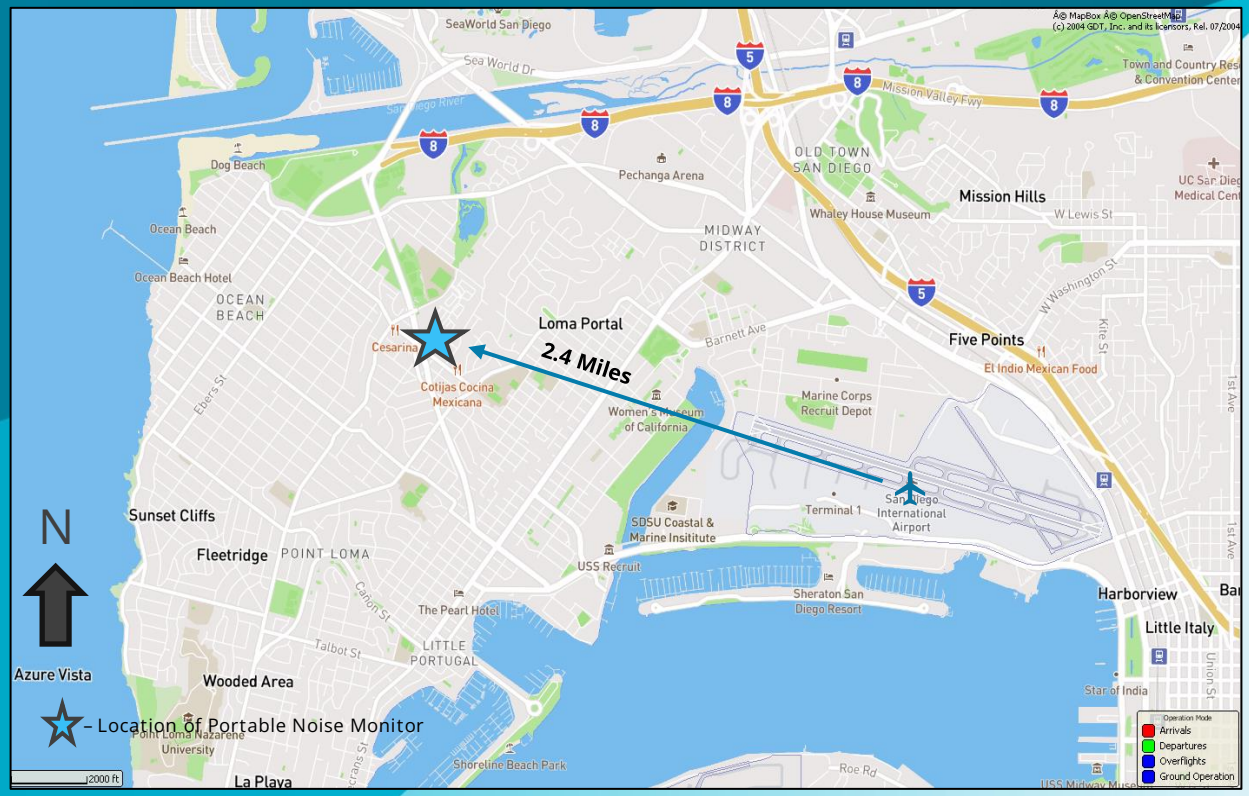

Figure 5. Map of the Portable Noise Monitoring location during December 16 – December 30, 2025

Methodology

Measurements were taken using a B&K Class I, 2250 Sound Level Meter.*
The meter is a 'precision' grade analyzer, which was calibrated prior to the test.

The following baseline thresholds were established:

65 dBA for Daytime (5:00 a.m. – 7:00 p.m.)
63 dBA for Evening (7:00 p.m. – 10:00 p.m.)
60 dBA for Nighttime (10:00 p.m. – 5:00 a.m.)

Baseline threshold levels were established to match the nearest permanent NMT. For a sound event to register, the Equivalent Continuous Sound Level (LEQ) needs to exceed the corresponding threshold, and last for a predetermined minimum duration of time:

12 seconds for Daytime (5:00 a.m. – 7:00 p.m.)
13 seconds for Evening (7:00 p.m. – 10:00 p.m.)
13 seconds for Nighttime (10:00 p.m. – 5:00 a.m.)

The maximum duration was 66 seconds for daytime.
The maximum duration was 70 seconds for evening and nighttime.
An event would be discarded beyond those times.

For consistency, the portable monitor clock was synchronized to the same source used by ANOMS. The sound level meter recorded the following information about each noise event: date, time, duration, and noise levels.

Figure 7. B&K Class I, 2250 Sound Level Meter and associated field equipment.

Note: https://www.bksv.com/en/instruments/handheld/sound-level-meters/2250-series/type-2250-l
This meter meets Class I American National Institute Standards, Inc. (ANSI) S1.4:2014*

Portable Noise Monitoring Summary

WHEN
WAS NOISE MEASURED

15 Days

December 16 – December 30, 2025

December 2025

S	M	T	W	T	F	S
		16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

Partial measurement (setup / takedown) days.

Full (24–hour) measurement days.

HOW MANY
NOISE EVENTS OCCURRED

3,906 SAN AIRCRAFT NOISE EVENTS

0 NON–SAN AIRCRAFT NOISE EVENTS

37 COMMUNITY NOISE EVENTS

MOST FREQUENT AIRCRAFT FLIGHTS
DURING THE MEASUREMENT PERIOD

Rank	Aircraft Type	Airport ID
1	B737 	SAN
2	E75L 	SAN
3	A321 	SAN
4	B763 	SAN

CONCLUSION

During the full (24-hour) 13 day measurement period, the Community Noise Equivalent Level (CNEL) from aircraft noise* was 66.3 decibels (dB), while the CNEL from community noise was 56.0 dB.

The FAA and State of California's threshold for land use compatibility is an aircraft CNEL of 65 dB.

*Aircraft CNEL only includes operations from SAN.

Aircraft CNEL	Community CNEL	Total CNEL
66	56	67

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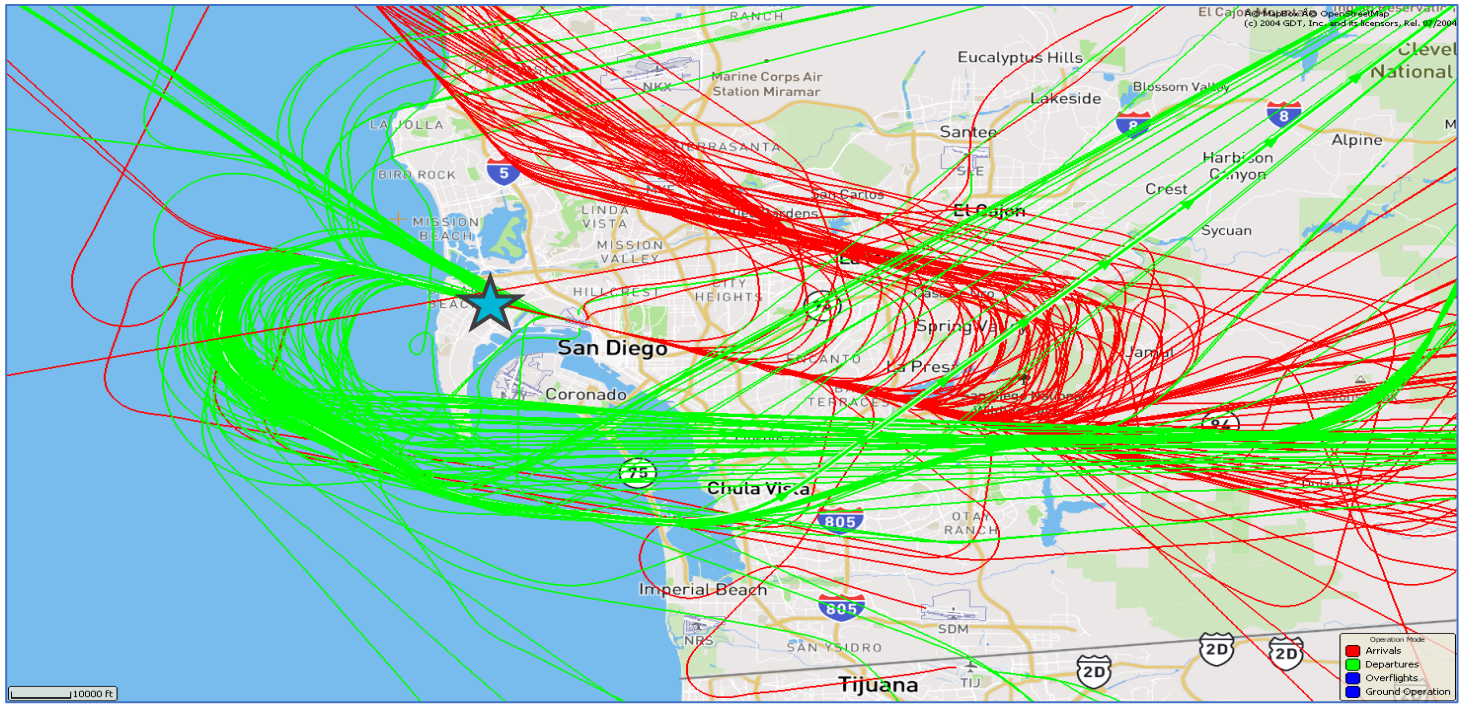
Aircraft Operations



N

– Approximate location of the Monitor

Figure 8. Flight Tracks during an average day in the testing period.
Location: Caminito Pajarito, San Diego, CA.
Source: ANOMS.

Aircraft at SAN typically operate in a "west flow" pattern, where they arrive from the east and depart to the west.

During inclement weather or certain wind conditions, aircraft might operate in a reverse flow. Departing to the east and arriving from the west. This "east flow" pattern is infrequent and represents 3.5% of total operations between 2021 to 2025.

During the full thirteen–day measurement period, there were 8,534 total SAN operations: 4,266 Arrivals, and 4,263 Departures. Five aircraft operated as "Touch & Go's." The average number of flights per day was 656 (rounded down to nearest whole number).

Flight tracks in Figure 8 are a sample of a "typical" day taken from December 18, 2025, and represent 659 flights.

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Daily Noise Event Data

	SAN Aircraft			Community Events		
Date	Number of Noise Events	Average SEL (dB)	Average Lmax (dB)	Number of Noise Events	Average SEL (dB)	Average Lmax (dB)
12/17/2025	284	87	79	9	86	77
12/18/2025	318	86	78	1	91	77
12/19/2025	271	87	78	0	0	0
12/20/2025	302	87	78	0	0	0
12/21/2025	330	86	78	1	87	80
12/22/2025	323	86	78	1	81	71
12/23/2025	323	88	80	8	91	77
12/24/2025	279	91	84	8	92	82
12/25/2025	250	86	78	2	87	78
12/26/2025	330	87	78	3	90	76
12/27/2025	304	87	78	3	81	70
12/28/2025	305	86	77	0	0	0
12/29/2025	287	85	77	1	81	71

Figure 9. Daily Noise Events Averages.
Location: Caminito Pajarito, San Diego, CA.
Source: ANOMS.

Note: Partial measurement (setup / takedown) days are not shown.

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Daily Noise Event Chart

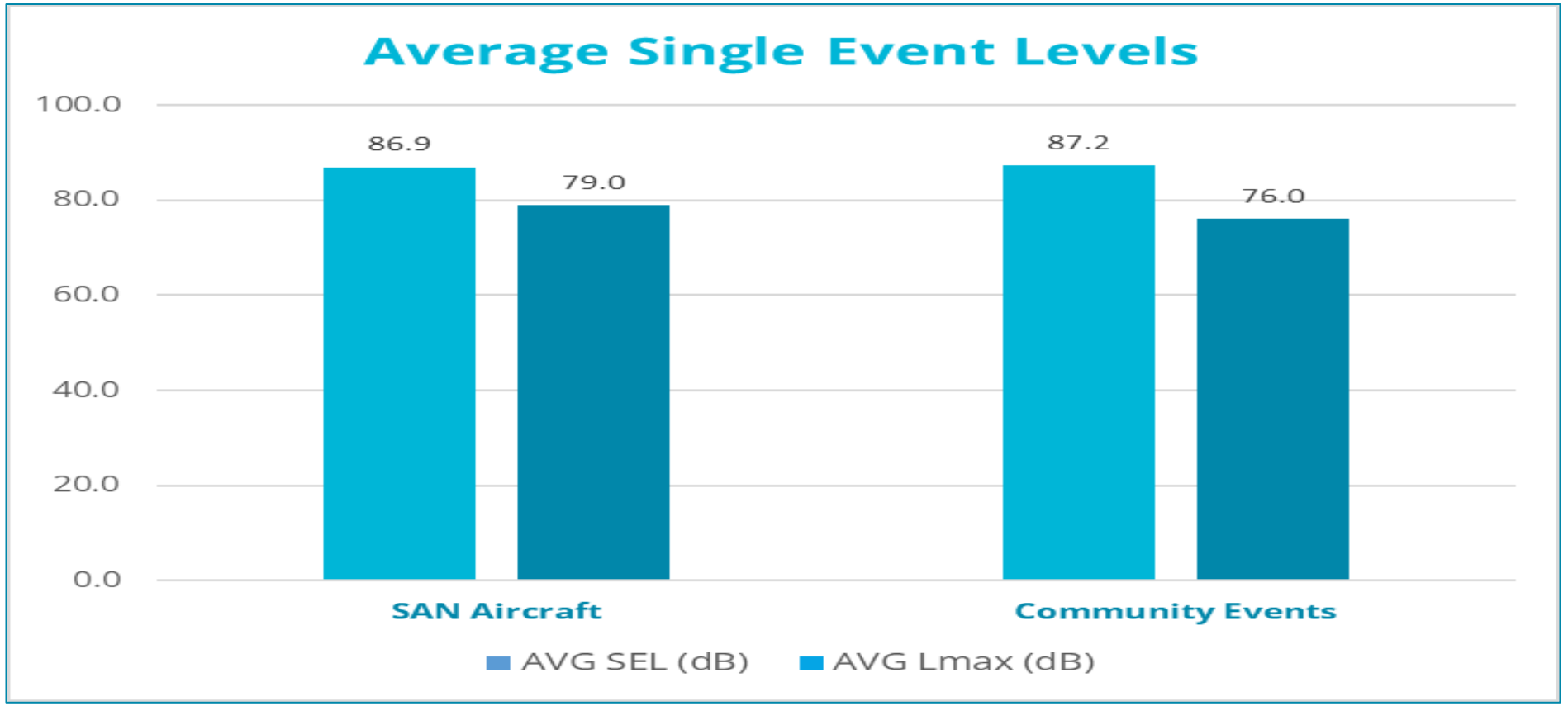

Figure 10. Daily Noise Events Chart.
Location: Caminito Pajarito, San Diego, CA.
Source: ANOMS.

Note: Partial measurement (setup / takedown) days are not shown.

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Loudest Aircraft Noise Events

Aircraft Type	Airline	Event Date / Time	Airport	SEL (dB)	Lmax (dB)	Altitude[1] at Lmax (Feet MSL[2])
B763	UPS Airlines	12/24/25 5:50 PM	San Diego International Airport	102.9	101.0	491
B763	DHL Airlines	12/24/25 12:23 PM	San Diego International Airport	96.8	92.5	530
B763	FedEx Express	12/20/25 5:38 AM	San Diego International Airport	96.3	92.2	533
A332	Alaska Airlines	12/23/25 9:54 AM	San Diego International Airport	96.1	87.2	1,438
B738	Southwest Airlines	12/24/25 5:00 PM	San Diego International Airport	94.4	87.1	466
B739	United Airlines	12/24/25 6:51 PM	San Diego International Airport	94.4	87.3	471
B737	Southwest Airlines	12/24/25 3:47 PM	San Diego International Airport	94.3	87.4	512
B738	United Airlines	12/24/25 4:00 PM	San Diego International Airport	94.3	87.9	509
A332	Alaska Airlines	12/26/25 8:32 AM	San Diego International Airport	94.3	85.7	1,630
A332	Alaska Airlines	12/27/25 8:26 AM	San Diego International Airport	94.2	86.5	1,487

Figure 13. Loudest Aircraft Noise Events.
Location: Caminito Pajarito, San Diego, CA.
Source: ANOMS.

**Alaska Airlines* & *Hawaiian Airlines* have merged.
Aircraft formerly belonging to *Hawaiian Airlines* [such as Airbus A330–200 (A332)] now operate under *Alaska Airlines*.

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Noise Summary

Date	Daily SAN Aircraft CNEL (dB)
12/17/2025	66
12/18/2025	66
12/19/2025	65
12/20/2025	67
12/21/2025	67
12/22/2025	67
12/23/2025	67
12/24/2025	69
12/25/2025	65
12/26/2025	67
12/27/2025	66
12/28/2025	65
12/29/2025	64

Figure 14. Daily CNEL Average, SAN Aircraft.
Location: Caminito Pajarito, San Diego, CA.
Source: ANOMS.

Noise Event Breakdown	
SAN Aircraft	3,906
Community Events	37

Figure 15. Noise Event Breakdown.
Location: Caminito Pajarito, San Diego, CA.
Source: ANOMS.

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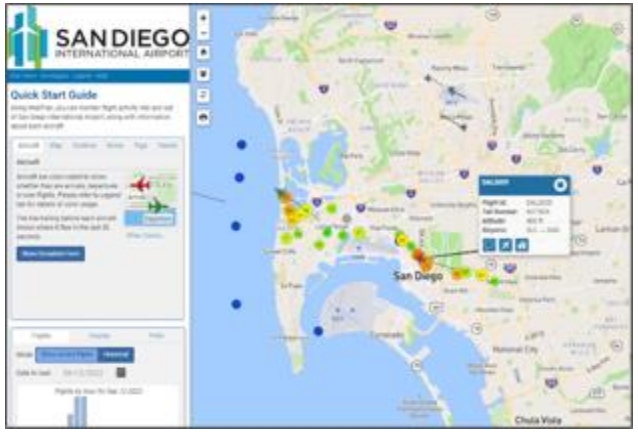
Additional Resources

If you have additional questions about the information in this report, or any other aircraft noise related concerns, please contact our Noise Abatement Office at (619) 400 – 2660 and ask for a *Noise Abatement Specialist*.

For additional information you can review aircraft flight tracks, file a noise complaint, or attend an Airport Noise Advisory Committee (ANAC) meeting.



If you want to research an aircraft, you can view the near-real time flight tracks on our website:

https://webtrak.emsbk.com/san

Three ways to file a complaint:

1. On the Web: https://webtrak.emsbk.com/san
2. Through the Mobile App
3. By Telephone: (619) 400 – 2799

Learn more about what efforts have been done to reduce aircraft noise in the community or voice a concern about aircraft noise by attending a quarterly Airport Noise Advisory Committee meeting.

More information can be found on our website:

https://www.san.org/meetings-and-agendas/

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Thank you
for participating!

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