Airport Noise Advisory Committee (ANAC) Agenda

Wednesday, September 21, 2022 4:00 P.M.

Board Members

Gil Cabrera (Chair)
Mary Casillas Salas (Vice Chair)
Catherine Blakespear
Paul McNamara
Paul Robinson
Johanna Schiavoni
James Sly
Nora E. Vargas
Marni von Wilpert

Ex-Officio Board Members

Col. Thomas M. Bedell Gustavo Dallarda Gayle Miller

President/CEO

Kimberly J. Becker

This meeting of the Airport Noise Advisory Committee (ANAC) of the Board San Diego County Regional Airport Authority will be conducted pursuant to the provisions of California Assembly Bill 361 which suspends certain requirements of the Ralph M. Brown Act. Previously, the San Diego County Regional Airport Authority Board found that meeting in person presents imminent risks to the health and safety of attendees and that it is in the best interest of the Airport Authority and the public to conduct meetings of the Board and Committees virtually pursuant to AB 361. Recent circumstances require that the ANAC consider making a finding pursuant to AB 361, that it is in the interest of public health that all Committee Members participate in the meeting electronically. If the ANAC makes these findings and in accordance with Assembly Bill 361, there will be no members of the public in attendance at the Meeting. We are providing alternatives to in-person attendance for viewing and participating in the meeting. In lieu of in-person attendance, members of the public may submit their comments in the following manner:

Public Comment during Board/Committee Meetings

If you'd like to speak live during the meeting, please follow these steps to request to speak:

 Step 1: Watch the meeting via YouTube at the following link, https://youtu.be/ZvFBOdprTXM

PLEASE NOTE: There is approximately a 10 second of lag time between the meeting and the YouTube livestream.

- Step 2: When the Facilitator introduces the item you would like to comment on (or indicates it is time for Public Comment) call in to the conference line below, you will be placed in a waiting area. Please do not call until the item you want to comment on is being discussed.
 - Dial 1-669-900-9128. When prompted, input Conference ID: 816 2714 7250#

ANAC Meeting Agenda

Wednesday, September 21, 2022

Step 3: When it is time for public comment on the item you want to comment on (or Non-Agenda Public Comment), Facilitator will invite you into the meeting and ask you to unmute your phone and introduce yourself. Note: There is a delay between the meeting and the YouTube livestream. You must mute the YouTube livestream before speaking.

Written Non-Agenda Public comment and/or Public Comment on agenda items may be submitted to the Authority Clerk at clerk@san.org. Comments received no later than 8:30 a.m. on the day of the meeting will be distributed to the Committee and included in the record.

How to Watch the Meeting

You may view the meeting online at the following link: https://youtu.be/ZvFBOdprTXM

Requests for Accessibility Modifications or Accommodations

As required by the Americans with Disabilities Act (ADA), requests for agenda information to be made available in alternative formats, and any requests for disability-related modifications or accommodations required to facilitate meeting participation, including requests for alternatives to observing meetings and offering public comment as noted above, may be made by contacting the Authority Clerk at (619) 400-2550 or clerk@san.org. The Authority is committed to resolving accessibility requests swiftly in order to maximize accessibility.

This Agenda contains a brief general description of each item to be considered. The indication of a recommended action does not indicate what action (if any) may be taken. *Please note that agenda items may be taken out of order.* If comments are made to the ANAC without prior notice or are not listed on the Agenda, no specific answers or responses should be expected at this meeting pursuant to State law.

Note: Pursuant to Authority Code Section 2.15, all Lobbyists shall register as an Authority Lobbyist with the Authority Clerk within ten (10) days of qualifying as a lobbyist. A qualifying lobbyist is any individual who receives \$100 or more in any calendar month to lobby any Board Member or employee of the Authority for the purpose of influencing any action of the Authority. To obtain Lobbyist Registration Statement Forms, contact the Board Services/Authority Clerk Department.

ANAC Meeting Agenda

Wednesday, September 21, 2022

WELCOME:

ROLL CALL:

ACTION ITEMS:

1. CONSIDERATION OF WHETHER TO CONTINUE VIRTUAL MEETINGS OF THE ANAC PURSUANT TO AB 361:

RECOMMENDATION: Make a finding that it is in the best interest of the ANAC and the public it serves to hold virtual public meetings of the ANAC because meeting in person presents imminent risks to the health and safety of ANAC members and attendees, meeting virtually provides safer and increased public access and participation in the meeting, and it is in the best interest of the ANAC to continue to meet virtually to ensure the safety of ANAC members and the public.

2. APPROVAL OF MEETING SUMMARY:

RECOMMENDATION: Approve the meeting summary of the June 15, 2022

PRESENTATIONS:

- ZZOOO3 Departure 30 Day Update Steve Smith, Ricondo
- Projects Updates: Part 150, EIR Noise Mitigation Measures, Portable Noise Monitoring, Variance Application and Quieter Home Program
 Sjohnna Knack, Airport Authority
- Current Aircraft Noise Trends
 William Hobson, Airport Authority
- Discussion on Future ANAC Meetings

NON-AGENDA PUBLIC COMMENT:

Non-Agenda Public Comment is reserved for members of the public wishing to address the ANAC on matters for which another opportunity to speak **is not provided on the Agenda**, and which is within the jurisdiction of the ANAC. Please submit a completed speaker slip to the Authority Clerk. *Each individual speaker is limited to three (3) minutes.*

Note: Persons wishing to speak on specific items should reserve their comments until the specific item is taken up by the ANAC.

NEXT ANAC MEETING December 21, 2022

ADJOURNMENT



MEETING SUMMARY

Airport Noise Advisory Committee

Date | Time 6/15/2022 4:00 p.m.

Meeting called to order by: Jill Monroe

In Attendance

<u>Name</u>	Affiliation In Af	ttendance		
Community Planning Groups Within the 65 dB contour				
Fred Kosmo	Peninsula Community Planning Board	Yes		
Anthony Ciulla	Ocean Beach Planning Board	Yes		
Judy Holiday	Midway-Pacific Highway Community Planning Group	Yes		
Tania Fragomeno	Downtown Community Planning Council	Yes		
Celestin Fausino	Greater Golden Hill Planning Committee	Yes		
Chris Cole	Uptown Planners	Yes		
Char-Lou Benedict	Community Resident at Large within 65 dB CNEL - East	No*		
Community Planning Groups	s Outside the 65 dB contour			
Deborah Watkins	Mission Beach Precise Planning Board	Yes		
Jonathan Cole	Pacific Beach Planning Group	No		
Matthew Price	La Jolla Community Planning Association	No*		
Michael Herron	Valley De Oro Community Planning Group	Yes		
Aviation Stakeholders				
Olivier Brackett	San Diego County Airports	Yes		
Jorge Rubio	City of San Diego Airports	Yes		
Jim Gruny	MCRD	Yes		
Robert Bates	Airline Pilot (Active)	Yes		
Kallie Glover	Performance Engineer, Delta Air Lines	Yes		
Dave Ryan	NBAA	No		
Ex-Officio Non-Voting Memb				
Eugene Reindel	Acoustical Engineer	Yes		
Korral Taylor	Congress, 53rd District for Rep. Sara Jacobs	No		
Makana Rowan	San Diego City Council, District 2, for Jennifer Campbell	Yes		
Tamara Swann, Joseph Bert	FAA Representatives	Yes		
David Flores	S.D. County Board of Supervisors, District 1	No		
Jason Bercovitch	Congress, 52nd District for Rep. Scott Peters	No		
SDCRAA Staff	E 110 .	.,		
Jill Monroe	Facilitator	Yes		
Sjohnna Knack	QHP/Noise Program Manager Sr. Aircraft Noise Specialist	Yes Yes		
Roman Lanyak William "Billy" Hobson	Aircraft Noise Specialist	Yes		
Angela Shafer-Payne	Chief Development Officer	Yes		
0				

¹³ voting members in attendance.

^{*}Members contacted staff ahead of time and are considered excused.

1. Welcome and Introductions

Jill Monroe, facilitator for the Airport Noise Advisory Committee (ANAC), opened the meeting at 4:00 p.m. with introductions. Ms. Monroe briefly shared the agenda and read applicable provisions of California Assembly Bill 361, which suspends certain requirements of the Ralph M. Brown Act. SDCRAA Board Resolution #2022-0049 finding was also mentioned, stating that it is in the best interest of the Authority and the public that it serves to continue to hold virtual public meetings of the Board and its Committee Procedures to submit public comments were also outlined.

2. Roll Call

Jill Monroe called a committee member roll call for attendance. Attendance is reflected on page 1. Agenda items were reviewed.

3. Presentations

Note: A copy of the information in the presentations can be found via our website using the following link:

https://www.san.org/Airport-Authority/Meetings-Agendas/ANAC?EntryId=13990

Sjohnna Knack started with staff announcements and introduced Billy Hobson, the new Aircraft Noise Specialist. Angela Shafer-Payne was also introduced as the Chief Development Officer the Airport.

a. Update on ZZOOO THREE Departure

Joseph Bert, Team Manager with the FAA, talked about the ZZOOO THREE Departure Procedure, which was submitted to the FAA at the recommendation of ANAC. The procedure includes moving the JETTI way point two miles west further out over the ocean. The procedure is on scheduled to be published on 7/14/2022. Mr. Bert also showed a graphic of what the current ZZOOO TWO and the future ZZOOO THREE would look like. Aircraft actual turns and paths will vary, and the depiction was only a schematic. A previous altitude restriction at JETTI was removed and a new speed and altitude restrictions at ZZOOO waypoint were implemented. This was done to ensure that faster aircraft do not overtake slower planes, on departure.

Public Comment:

Jill Monroe offered an opportunity for the public to call-in with a public comment.

<u>Gary Wonacott</u>, a Mission Beach resident, asked if the departing vector would remain "Direct to" to the waypoint (JETTI) or if there is a possibility to have aircraft turn right, after departure, and then come into the waypoint at an angle?

Questions from ANAC:

<u>Fred Kosmo</u> thanked the former Sr. Aircraft Noise Specialist, Mr. Jim Payne, for all of his work, while at the Noise Office. Mr. Kosmo also thanked Mr. Bert and the FAA for considerations and support regarding the ZZOOO THREE Departure Procedure changes, and was looking towards the implementation on 7/14/2022.

<u>Deborah Watkins</u> thanked Mr. Bert asked to confirm that the waypoint JETTI would be taken two miles farther from its current location into the ocean. Mr. Bert confirmed. Ms. Watkins ask if aircraft would be flying higher. Mr. Bert replied that aircraft should be higher from where they are flying today, in the context of waypoint JETTI relocation. Ms. Watkins also asked to confirm that with the waypoint JETTI relocation, the noise in Mission Beach should be reduced. Mr. Bert was not able to confirm the specifics of noise impact, as he was not privy to environmental studies on this change. Ms. Watkins asked whether the Power Point presentation would be made available on the Airport website. Ms. Knack confirmed that it would be posted, after the meeting.

b. Update on Part 150 and EIR Noise Mitigation Measures

Sjohnna Knack started with Part 150 Update and said that it has been one year since the Study was sent to the FAA. The Airport Authority received the first set of comments back from the FAA in December of 2021, which were addressed in January of 2022. The second set of corrections was received by the Authority in March of 2022, which were addressed and returned back to the FAA in in May of 2022. The FAA sent a letter in which they stated that they would respond with a decision for the Noise Exposure Map (NEM) within 90 days, which would be August of 2022. Following the regulatory process, if the NEM is accepted, it would start the 180-day clock to review the Noise Compatibility Program (NCP). The NCP is where all of the noise mitigation and abatement recommendations are located, such as continuation of the Quieter Home Program, Portable Noise Monitoring Program, Noise Abatement Departure Procedure, etc. The FAA will review each measure, and each measure will be either accepted or denied. Upon completion of the review, the Airport Authority will get a Record of Decision. Ms. Knack also mentioned that the Authority is continuing to work on the Noise Abatement Departure Procedure (NADP) as well as starting a Portable Noise Monitoring Program. The Authority has also retained Mr. Stephen Smith, a consultant with Ricondo, who is working individually with the airlines on NADP.

The new Terminal 1 EIR Noise Mitigation Measures have also been highlighted. The first measure was the expansion of the Sound Insulation Program, which was met with the largest FAA grant of \$26M. The pace of the program has been greatly increased. The additional FAA grant funding also allowed the Authority to increase its Non-residential Insulation Program. A construction start on a first non-residential facility and design for a second facility are currently in the works.

The second measure was to update the Noise Exposure Maps. The Airport Authority is on track and will be updating those in 2026.

The next measure is the Portable Noise Program, and a status of that program will be provided later in the meeting.

The fourth mitigation measure was to assess the findings of the 2018 FAA Reauthorization (specific items on aircraft noise). There are no changes that would impact San Diego International Airport, at this time. It is possible that within one year, findings on the noise & health research, undertaken by the FAA could be released. ANAC will be updated if anything changes.

The fifth and final measure was to use noise curfew fines for the Quieter Home Program. An overview of the past three years of fines was discussed. This fine money is a line item in the Airport's budget, specifically for the QHP.

Public Comment:

Jill Monroe offered an opportunity for the public to call-in with a public comment.

<u>Cathy Ives</u>, a Mission Beach resident, stated that she did not believe any change would be achieved with the new (ZZOOO THREE) procedure. Ms. Ives said that flights are continuous from 6:30 a.m. to 11:20 p.m., and that she lives directly under that flight path. Ms. Ives wanted to know why Mission Beach was not in the QHP especially that most of the flights are over Mission Beach.

<u>Gary Wonacott</u> highlighted a few areas from a twelve-page paper, which was distributed to ANAC members, earlier.

Questions from ANAC:

<u>Chris Cole</u> asked if there are any noise studies, associated with the new Terminal 1 and parking garage construction. Ms. Knack replied that this was reviewed within the EIR, and that she would verify and contact him with the information.

b. Update on Current Aircraft Noise Trends

William Hobson, Aircraft Noise Specialist, provided an overview of current tends with curfew violations, early turns, and missed approaches. Mr. Hobson mentioned two of the most common offenders of curfew, jetBlue and Alaska, moved their late-night departures up on the schedule in order to reduce their curfew violations. Mr. Hobson also reviewed changes in airlines' fleet mix, which was showing a decrease in domestic wide-body aircraft use. Mr. Hobson discussed new and recovered air service to markets in Oakland, Vancouver, Montreal and Toronto. Overall operations at the Airport were reported at about 82% of pre-COVID levels. Passengers' numbers are also steadily increasing and are at 85% of pre-COVID levels.

Public Comment:

Jill Monroe offered an opportunity for the public to call-in with a public comment.

<u>William Shuster</u>, a Mission Beach resident, expressed his opposition against the plan to make a 100% of nighttime departures go over Mission Beach. On the contrary, he offered

to support a new assessment of the original FAA operational nighttime noise abatement procedure that moved all of the 10 p.m. departures over Mission Beach.

Questions from ANAC:

<u>Fred Kosmo</u> offered a comment on the early turns and missed approaches, emphasizing that the total numbers were not going down. Both, the missed approaches and early turns are very disturbing to people and are considered a violation of their space. Mr. Kosmo also stated that it was disingenuous to talk about missed approaches and early turns constituting as only a small number of overall operations, and that further steps should be taken to reduce those infractions.

<u>Tania Fragomeno</u> asked to remind what time the curfew was and whether the airlines were scheduling flights during the curfew time. Ms. Knack stated that the curfew hours were departures between11:30 p.m. and 6:30 a.m. and that airlines are not allowed to schedule any departures during these times. While no airlines have any published departures during this time, sometimes due to various reasons, they depart after 11:30 p.m. Ms. Fragomeno also asked what a wide-body aircraft was and how those might impact noise. Ms. Knack answered that a wide-body aircraft is generally speaking a larger aircraft that has a greater noise footprint versus a smaller narrow-body aircraft.

c. Update on Pilot Program: Portable Noise Monitoring

Roman Lanyak, Sr. Aircraft Noise Specialist, reminded that the Portable Noise Monitoring Program will monitor noise levels at a residence and provide a report of the results. The noise data can also be used for further evaluation and analysis as it will be integrated into the ANOMS system. Mr. Lanyak also outlined the application process and provided information about an agreement, which will need to be signed by the requesting resident. Some of the main site requirements are availability of a secure, fenced area, as well as an electrical power outlet to run the equipment. In most cases, the equipment will be deployed on a Monday, and retrieved two weeks later on a Friday. In order to implement the pilot program, Mr. Lanyak requested ANAC volunteers for the first portable noise measurements. Finally, the results report was reviewed and Mr. Lanyak provided an example of some of the elements and data that will be included in the final report, which, in turn, will be provided to the homeowner and made available to the public, on the Airport's website.

Public Comment:

Jill Monroe offered an opportunity for the public to call-in with a public comment. There was no public comment on this item.

<u>Chris Cole</u> asked what the size of the portable monitor was. Mr. Lanyak replied that monitor is within a Pelican case container about two feet by one foot and the microphone boom will be at a height of about six feet, when installed.

<u>Michael Herron</u> asked what the intention of the "Pilot" Portable Program was and suggested that the noise monitoring procedures and the report creation steps are clearly outlined and are well documented. Mr. Lanyak concurred. Ms. Knack also added that the

Pilot Portable Program was just to run through all of the steps, starting from an initial request, to setup, to the final report, and that ANAC Member volunteers would greatly assist in this effort, before the Program is rolled out to the general public.

Anthony Ciulla asked to clarify whether the data from the Pilot program will be the actual aircraft and ambient noise data, or if the Pilot program was designed to only run through the setup procedures. He also asked if the monitor will be elevated above the ground. Mr. Lanyak clarified that the report would contain the actual (not simulated) data at the resident's location, and that the optimal monitor setup will be determined at the actual site. Ms. Knack also helped to clarify that, even though this Portable Monitor data cannot be used as a regulatory tool or for QHP qualification, the data will help augment our permanent noise monitoring data.

<u>Fred Kosmo</u> stated that he would be interested to volunteer and asked to provide the actual portable monitor dimensions. Ms. Knack confirmed that the portable monitor dimensions will be sent out to all the ANAC Members.

<u>Jim Gruny</u> also thanked Ms. Knack in clarifying the purpose for the Portable Noise Monitoring Program.

<u>Deborah Watkins</u> asked if she could ask people from her community to participate in the Portable Monitoring Program. Ms. Knack replied that, in the future we will ask all ANAC members to invite their communities to apply online if they are interested in portable noise monitoring at their home.

4. Public Comment (non-agenda items)

Jill Monroe offered an opportunity for the public to call-in with a public comment on non-agenda items. There was no public comment on this item

5. Action Items

Jill Monroe offered an opportunity for the public to call-in with a public comment on March 16, 2022 Meeting Summary. There was no public comment on this item

Ms. Monroe moved to the approval of March 16, 2022, Meeting Summary, and asked for a Member of ANAC to make a motion to approve.

<u>Anthony Ciulla</u> made the motion to approve the March 16, 2022, Meeting Summary, and Chris Cole seconded this motion. ANAC members voted and the motion passed.

6. Next Meeting/Adjourn

Sjohnna Knack, discussed ANAC Member's term limits that will be expiring in June of 2022. She indicated that staff will be contacting local community planning groups, both inside and outside of the 65dB CNEL contour, for new ANAC Members. In the next couple of weeks, the updated 2022 Quarterly Noise Report (QNR) will also be distributed. This is the first time, since the pandemic had started, that there is a significant increase in the 65dB

CNEL contour. Reasons for this increase will be outlined in the report, but one of those reasons is a 100% increase in nighttime (10:00 p.m. – 11:30 p.m.) operations. There is also a big increase in wide-body aircraft. In addition, staff has been working on the Airport Variance application, which is submitted every three years.

Next meeting is September 21, 2022.

Meeting was adjourned.





Airport Noise Advisory Committee

September 21, 2022

Agenda

Welcome & Roll Call

ACTION ITEMS:

- 1. Approval of Consideration of Whether to Continue Virtual Meetings of the ANAC pursuant to AB 361
- 2. Approval of Meeting Summary from June 15, 2022

PRESENTATION ITEMS:

- ZZOOO THREE Departure 30 Day update
- Project Updates: Part 150, EIR Noise Mitigation Measures, Portable Noise Monitor, Variance Application, and Quieter Home Program
- Current Aircraft Noise Trends
- Discussion on Future ANAC Meetings
- Adjourn Next Meeting December 21, 2022



Consideration of Whether To Continue Virtual Meetings of the ANAC Pursuant to AB 361



Public Comment on Public Comment on Consideration of Whether to Continue Virtual Meetings of the ANAC Pursuant to AB 361

Please remember to wait to call into the meeting until the Facilitator introduces the item that you would like to comment on.

To provide your public comment on this item:

- Dial <u>1-669-900-9128</u>
- When prompted, input Conference ID: 816 2714 7250#
- You will be let into the meeting and will be unmuted
- Turn off YouTube to avoid feedback
- Before speaking, state your name and begin your comments





Public Comment on June 15, 2022, Meeting Summary

Please remember to wait to call into the meeting until the Facilitator introduces the item that you would like to comment on.

To provide your public comment on this item:

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ZZOOO3 Update

(Presentation Provided at Meeting)

Steve Smith,

Ricondo

Public Comment ZZOOO THREE Departure Update

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Project Updates

Sjohnna Knack

Program Manager



Aircraft Noise Project Updates

- On September 2, 2022, the FAA accepted the Part 150 Noise Exposure Map, they will now begin the 180-day review of the Noise Compatibility Program.
- Work on the EIR Noise Mitigation Measures continues, presentation at the December ANAC on FAA Reauthorization as it relates to noise issues.
- The State of CA has accepted our Variance application as of July 1, 2022. They will review our application for approval.
- Two sites were monitored in the Portable Noise Monitoring program and draft reports were provided. Open to public by the end of October, email will be sent to ANAC members.
- The FAA issued another QHP grant for just over \$14 million.

Public Comment on Noise Project Updates

Please remember to wait to call into the meeting until the Facilitator introduces the item that you would like to comment on.

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Current Aircraft Noise Trends

William Hobson, Aircraft Noise Specialist



Activity Trends

Mercy Flights

Mercy flights after

curfew trending up

New Air Service
New/Recovered

New/Recovered service to markets in Orlando and Provo

Operations

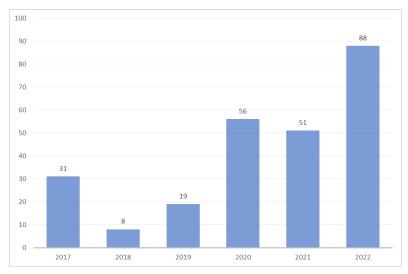
Operations are at 91% of pre-COVID levels

Passengers

Passengers are at 95% of pre-COVID levels

Mercy Flights after Curfew

- Mercy Flights after the curfew increased steadily after the beginning of the pandemic.
- Majority of Mercy flights are associated with UCSD hospital in Hillcrest.
- Operators were contacted regarding the increase in post-curfew departures, and it was explained that new contracts were recently awarded to these carriers and that SAN is the closest and most convenient airport to operate out of.



View our website for monthly updates on more noise statistics and call our office with any questions!

Public Comment on Current Noise Concerns & Trends

Please remember to wait to call into the meeting until the Facilitator introduces the item that you would like to comment on.

To provide your public comment on this item:

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Public Comment on Non-Agenda Items

Please remember to wait to call into the meeting until the Facilitator introduces the item that you would like to comment on.

To provide your public comment on this item:

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- Before speaking, state your name and begin your comments









Portable Noise Monitor Report

Prepared by: Aircraft Noise Office

For: Avoyer Place, La Mesa

September 14, 2022



Portable Noise Monitoring Summary

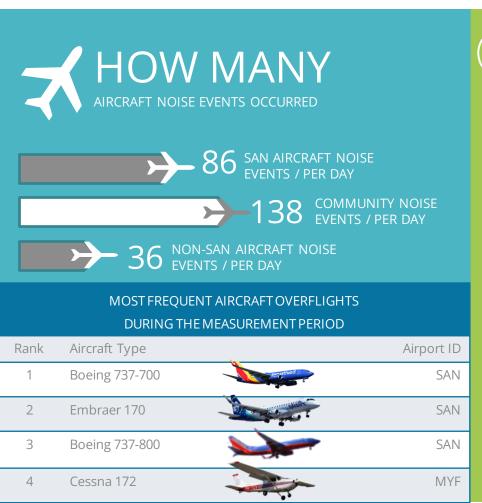


Monday, August 1, 2022, to Thursday, August 11, 2022





Partial Measurement Days for Setup/Takedown





During the nine, full (24-hour) day measurement period, the Community Noise Equivalent Level (CNEL) from aircraft noise* was 46 decibels. (dB), while the CNEL from community noise was 52 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	Community	Total
CNEL	CNEL	CNEL
44	52	53



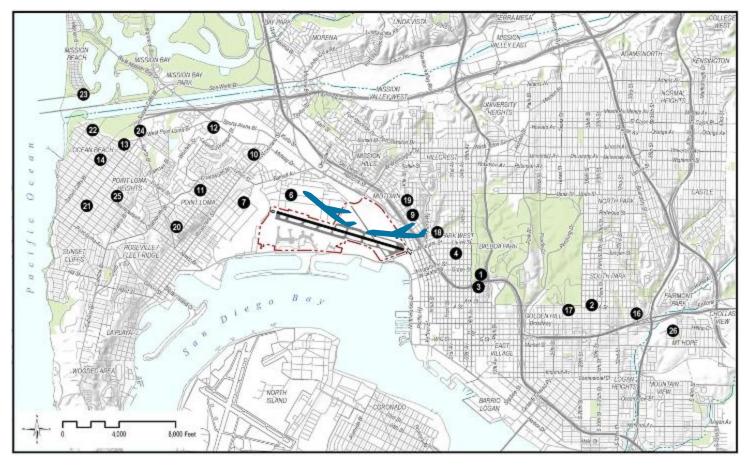
DRAFT

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. The sources include noise events from 23 permanent Noise Monitoring Terminals (NMT's), 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 NMT's. This information augments overall ANOMS data collection.





LET'S GO.

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

DRAFT

Location

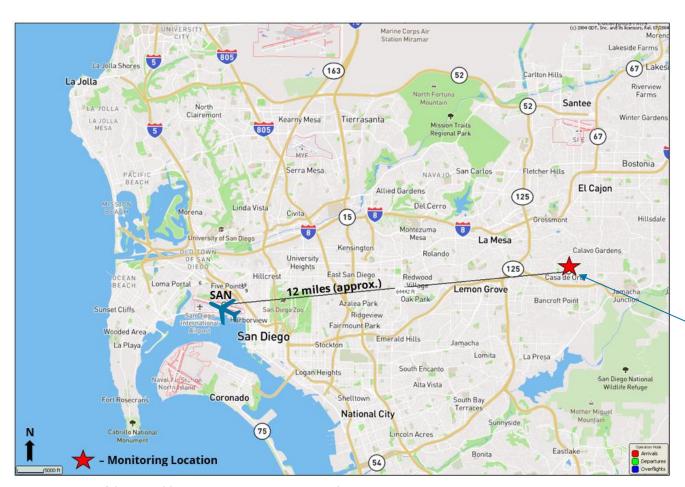


Figure 2. Map of the Portable Noise Monitoring Location during August 1-11, 2022.



Proximity from SAN: The monitor was located approximately

12-miles east of the Airport

On-Site Set Up: The noise monitor was placed in the back yard of a private and secure property. The noise monitor operated continuously during the entire 11-day measurement period. The microphone was positioned approximately six feet above the ground. The local terrain was sloping to the south, providing a wide and open area to conduct unobstructed sound measurements.



Figure 3. Portable Noise Monitor Set Up





Methodology

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

In the absence of a nearby permanent NMT, a commonly used single baseline threshold of 50 dBA for the entire 24-hour period was established. For a sound event to trigger, the Equivalent Continuous Sound Level (LEQ) needed to exceed 50 dBA and last for over five seconds (minimum duration). The maximum duration was 60 seconds (maximum duration), and an event would be discarded beyond that time. 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 4. B&K Class I, 2250 Sound Level Meter and associated field equipment.

* 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





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.

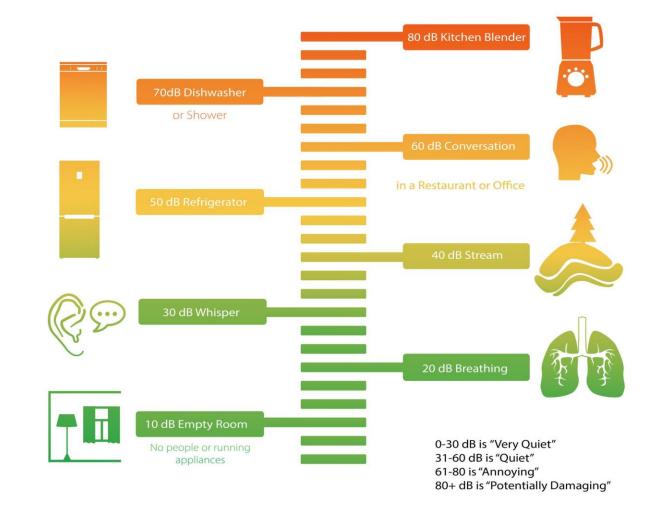




Figure 5. Common Sound Levels, Source: https://www.sylvane.com/blog/how-loud-is-a-decibel/



Noise Definitions (Cont.)

SEL – The most common measure of cumulative noise exposure for a single aircraft flyover is the Sound Exposure Level (SEL). Mathematically, it is the sum of the sound energy over the duration of a noise event – one can think of it as an equivalent noise event with a one-second duration.

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

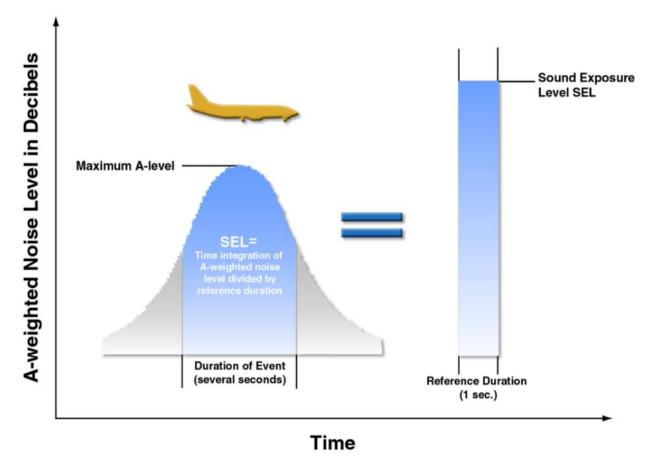


Figure 6. Sound Exposure Level and Maximum Sound Level, Source: Brown-Buntin Associates, Inc.



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 between 7 PM – 10 PM for evening hours, and a penalty of 10 dBA is added for the nighttime hours of 10 PM – 7 AM.

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 65dBA is generally considered a threshold

for land use compatibility.

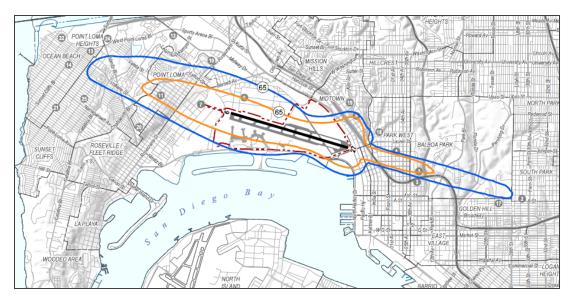


Figure 7. Example of CNEL contour, Source: 1st Quarter 2022, State of California Quarterly Noise Report for SAN.



Aircraft Operations

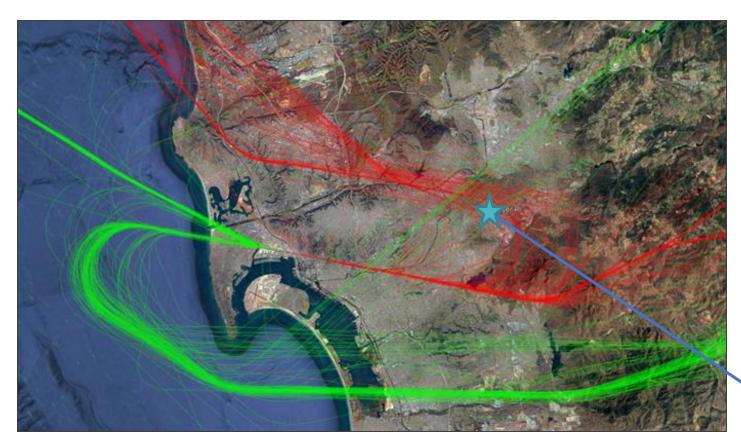


Figure 8: Flight Tracks during an average day in the testing period. Source: ANOMS

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 high wind conditions they will operate in a reverse flow departing to the east and arriving to the west, however "east flow" is infrequent and represents approximately 1.7% of the total annual operations.

During the 11-day measurement period, there were 7,118 total operations: 3,556 Arrivals and 3,562 Departures. The average number of flights per day was 647.

The flight tracks in this figure are a sample of a "typical" day taken from August 5, 2022, and represent 685 flights.

Location: Avoyer Place, La Mesa





Daily Noise Event Data

	SA	N Aircraft		No	n-SAN Airc	raft		Community	
Date	# of Noise Events	AVG SEL	Avg LMAX	#of Noise Events	AVG SEL	Avg LMAX	# of Noise Events	AVG SEL	Avg LMAX
1-Aug	79	70	58	38	71	59	130	99	59
2-Aug	107	70	58	46	70	57	154	70	55
3-Aug	101	69	57	45	69	57	152	68	57
4-Aug	114	70	58	28	68	57	175	72	58
5-Aug	99	69	58	26	70	58	96	72	57
6-Aug	75	72	59	59	75	60	233	76	61
7-Aug	94	67	55	31	70	58	97	68	57
8-Aug	102	69	56	37	70	57	135	66	56
9-Aug	85	69	57	38	70	57	136	73	57
10-Aug	91	69	57	39	70	58	122	74	57
11-Aug	56	67	56	18	70	58	92	69	55



Location: Avoyer Place, La Mesa



Loudest Aircraft Noise Events*

Aircraft	Airline	Event Date / Time	Airport	SEL (dB)	LMAX	Altitude (Ft. AGL)
Robinson Helicopter R44	N/A	8/6/2022 12:50	Montgomery-Gibbs Executive Airport	80	76.5	3,117
Van's Aircraft RV4	N/A	8/6/2022 15:21	Montgomery-Gibbs Executive Airport	79.6	70.3	2,073
Bell 407 Helicopter	N/A	8/2/2022 1:09	Gillespie Field Airport	79.4	67.3	1,588
Bell 407 Helicopter	N/A	8/9/2022 23:14	Gillespie Field Airport	79.3	64.7	1,506
Bell 407 Helicopter	N/A	8/5/2022 17:18	Gillespie Field Airport	78.7	69.5	1,709
Bell 407 Helicopter	N/A	8/7/2022 0:22	Gillespie Field Airport	78.5	65.8	1,598
Boeing 737-800	Southwest Airlines	8/3/2022 7:04	San Diego International Airport	78.5	75.3	5,046
Bell 407 Helicopter	N/A	8/1/2022 15:14	Gillespie Field Airport	78.4	68.9	1,401
Bell 407 Helicopter	N/A	8/6/2022 1:16	Gillespie Field Airport	78.4	66.4	1,499
Bell 407 Helicopter	N/A	8/2/2022 1:19	Gillespie Field Airport	78.1	65.1	1581

Figure 10: Loudest aircraft noise events August 1-11, 2022.

Location: Avoyer Place, La Mesa

*Note: The above graph denotes the 10 loudest aircraft noise events. While collecting data, the 10 loudest noise events were community noise events. Community noise can consist of construction, traffic, animals, etc...





Noise Summary

In general, there are three sources of emitted energy, as it relates to sound measurements. **SAN Aircraft** is sound solely attributed to aircraft operating at SAN.

Non-SAN Aircraft sound is measured for all "other" aircraft that do not operate in or out of SAN. **Community**, also known as Ambient, sound are the sound events from all other sources such as vehicular traffic, landscaping activities, conversations, construction activities, kids playing, etc.

100

Noise Event Brea	akdown
SAN Aircraft	950
Non-SAN Aircraft	406
Community	1,521

Figure 13. Total Noise Events for Avoyer Place, La Mesa, August 1-11

Date	Daily SAN Aircraft CNEL
8/2/2022	44
8/3/2022	44
8/4/2022	46
8/5/2022	44
8/6/2022	45
8/7/2022	43
8/8/2022	44
8/9/2022	42
8/10/2022	44

Figure 11. Daily Aircraft CNEL Levels for Avoyer Place, La Mesa

90 80 70 60 50 40 30 20 10 SAN Aircraft Non-SAN Aircraft Community Avg SEL Avg Lmax

Average Single Event Levels

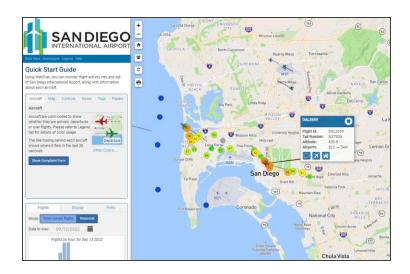
Figure 12. Average Single Event Levels for Avoyer Place, La Mesa





Additional Resources

If you have any additional questions about the information in this report, or any other aircraft noise related concerns, please contact our **Aircraft Noise Office at 619-400-2660** and ask for a Noise 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 nearly real-time flight tracks on our website at:

https://webtrak.emsbk.com/san





Three ways to file a complaint:

- 1. On the web at https://webtrak.emsbk.com/san
- 2. Through the app, which can be found at https://viewpoint-app.emsbk.com/san4/login
- 3. By telephone at 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.

You can find out more information and location on our website here:

San Diego International Airport

> Aircraft Noise > Initiatives





Portable Noise Monitor Report

Prepared by: Aircraft Noise Office

For: Muir Ave. San Diego, CA

September 14, 2022



Portable Noise Monitoring Summary



Monday, July 18, 2022, to Thursday, July 28, 2022



	S	M	т	W	т	F	S
2022		18	19	20	21	22	23
ugust				measur	ements		
July/August	24	25	26	27	28	29	30
J		mea	sureme				

Partial Measurement Days for Setup/Takedown







MOST FREQUENT AIRCRAFT OVERFLIGHTS DURING THE MEASUREMENT PERIOD

Rank	Aircraft Type	Airport ID
1	Boeing 737-800	SAN
2	Boeing 737-700	SAN
3	Airbus A321	SAN
4	Embraer 170	SAN



During the nine, full (24-hour) day measurement period, the Community Noise Equivalent Level (CNEL) from aircraft noise* was 46 decibels. (dB), while the CNEL from community noise was 52 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	Community	Total
CNEL	CNEL	CNEL
63	52	63

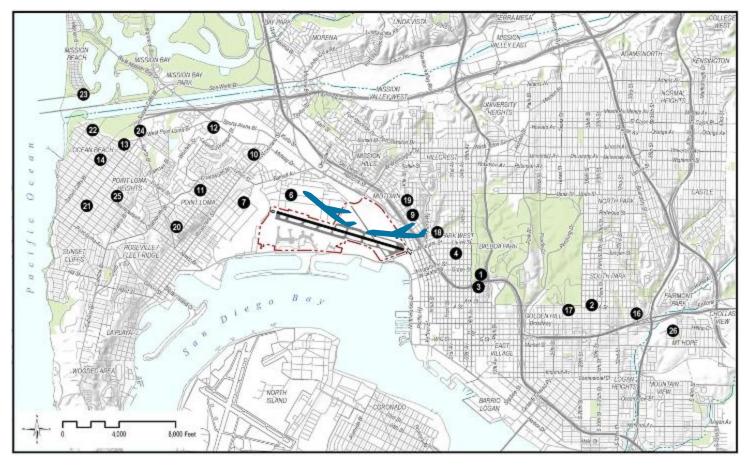


Introduction

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. The sources include noise events from 23 permanent Noise Monitoring Terminals (NMT's), 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 NMT's. This information augments overall ANOMS data collection.







Location

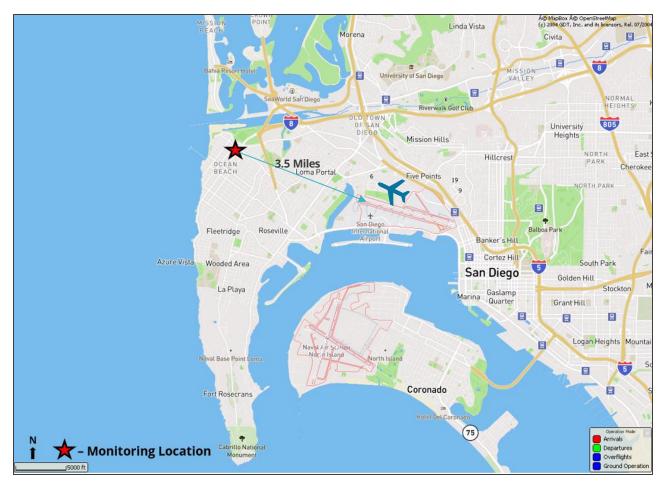


Figure 2. Map of the Portable Noise Monitoring Location during July 18-28, 2022.





Location: Muir Ave., San Diego, CA 92107 **Dates of Monitoring:** July 18-28, 2022

Proximity from SAN: The monitor was located approximately

3.5 miles northwest from the center of the airport

On-Site Set Up: The Noise Monitor was placed in the second-floor balcony of a private and secure property. The noise monitor operated continuously during the entire 11-day measurement period. The microphone was approximately 15 feet above the ground.



Methodology

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

In the absence of a nearby permanent NMT, a commonly used single baseline threshold of 50 dBA for the entire 24-hour period was established. For a sound event to trigger, the Equivalent Continuous Sound Level (LEQ) needed to exceed 50 dBA and last for over five seconds (minimum duration). The maximum duration was 60 seconds (maximum duration), and an event would be discarded beyond that time. 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 3. B&K Class I, 2250 Sound Level Meter and associated field equipment.

* 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





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.

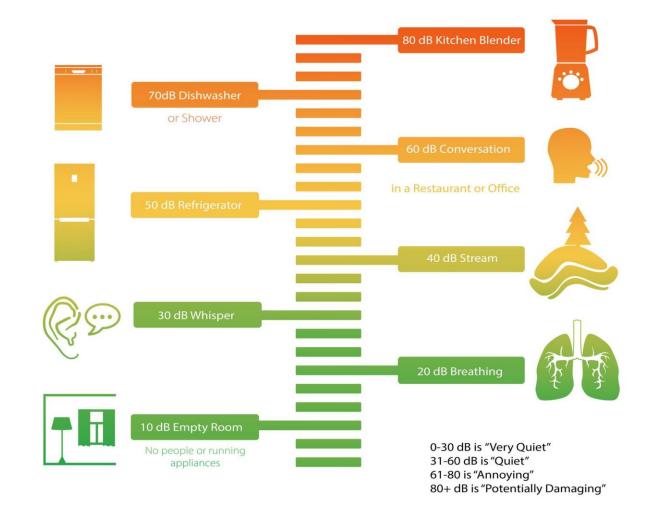




Figure 4. Common Sound Levels, Source: https://www.sylvane.com/blog/how-loud-is-a-decibel/



Noise Definitions (Cont.)

SEL – The most common measure of cumulative noise exposure for a single aircraft flyover is the Sound Exposure Level (SEL). Mathematically, it is the sum of the sound energy over the duration of a noise event – one can think of it as an equivalent noise event with a one-second duration.

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

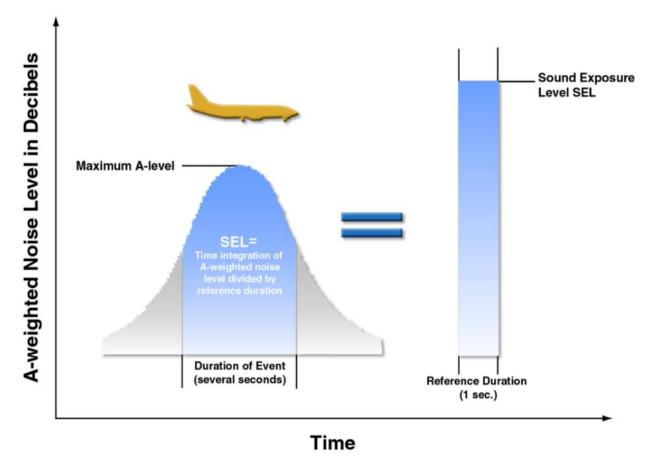


Figure 5. Sound Exposure Level and Maximum Sound Level, Source: Brown-Buntin Associates, Inc.



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 between 7 PM – 10 PM for evening hours, and a penalty of 10 dBA is added for the nighttime hours of 10 PM – 7 AM.

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 65dBA is generally considered a threshold for

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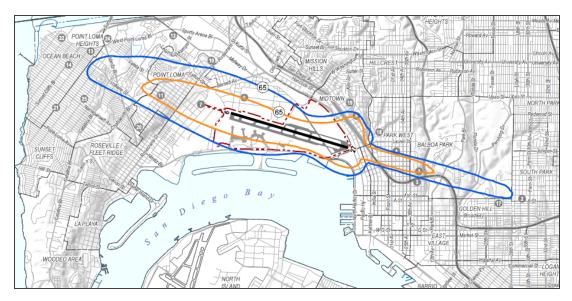


Figure 6. Example of CNEL contour, Source: 1st Quarter 2022, State of California Quarterly Noise Report for SAN.



Aircraft Operations



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 high wind conditions they will operate in a reverse flow departing to the east and arriving to the west, however "east flow" is infrequent and represents approximately 1.7% of the total annual operations.

During the 11-day measurement period, there were 7,163 total operations: 3,586 Arrivals and 3,577 Departures. The average number of flights per day was 651.

The flight tracks in this figure are a sample of a "typical" day taken from July 21, 2022, and represent 702 flights.

Figure 7: Flight Tracks during an average day in the testing period. Source: ANOMS



Location: Muir Ave, San Diego, CA

Daily Noise Event Data



	SAN Aircraft			Non-SAN Aircraft			Community		
Date:	#of Noise Events	AVG SEL	AVG LMAX	#of Noise Events	AVG SEL	AVG LMAX	#of Noise Events	AVG SEL	AVG LMAX
18-July	216	84	75	0	0	0	10	97	78
19-July	205	85	75	0	0	0	2	0	0
20-July	224	84	75	0	0	0	4	87	75
21-July	233	84	75	2	80	71	0	0	0
22-July	262	85	76	0	0	0	0	0	0
23-July	207	86	76	0	0	0	1	77	72
24-July	266	85	75	0	0	0	0	0	0
25-July	245	85	75	0	0	0	2	84	72
26-July	240	85	75	0	0	0	6	83	74
27-July	221	85	75	0	0	0	0	0	0
28-July	134	85	76	0	0	0	0	0	0

Figure 8: The table presents the daily noise event averages. Source: ANOMS



Location: Muir Avenue, San Diego

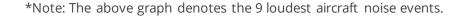


Loudest Aircraft Noise Events*

Aircraft	Airline	Event Date/Time	Airport	SEL (dB)	LMAX	Altitude (ft. AGL)
Boeing 737-900	United Airlines	7/18/2022 21:40	SAN	92.3	85.3	1,711
Airbus A321	jetBlue Airways	7/24/2022 21:29	SAN	91.5	83	2,255
Boeing 767-300	Delta Air Lines	7/23/202213:16	SAN	91.4	84.2	2,071
Airbus A321	jetBlue Airways	7/26/2022 13:01	SAN	91.3	82.2	2,229
Airbus A321	jetBlue Airways	7/22/2022 14:01	SAN	91.0	82.4	2,369
Airbus A321	jetBlue Airways	7/22/2022 12:54	SAN	90.9	82.8	2,044
Airbus A321	jetBlue Airways	7/23/2022 14:31	SAN	90.9	83.3	2,159
Airbus A321	jetBlue Airways	7/22/2022 20:48	SAN	90.9	82.2	2,461
Boeing 737-900	Alaska Airlines	7/22/2022 9:49	SAN	90.8	83.9	1,516

Location: Muir Avenue. San Diego, CA









Noise Summary

In general, there are three sources of emitted energy, as it relates to sound measurements. **SAN Aircraft** is sound solely attributed to aircraft operating at SAN.

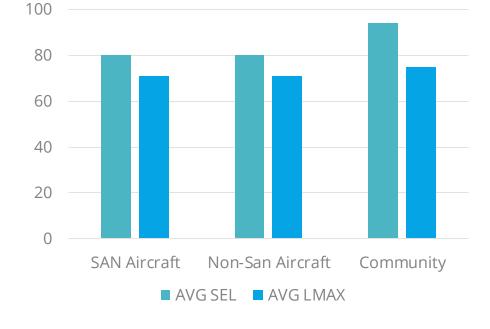
Non-SAN Aircraft sound is measured for all "other" aircraft that do not operate in or out of SAN. **Community**, also known as Ambient, sound are the sound events from all other sources such as vehicular traffic, landscaping activities, conversations, construction activities, kids playing, etc.

Noise Event Break	down
SAN Aircraft:	2431
Non-SAN Aircraft:	2
Community:	23

Figure 11. Total Noise Events for Muir Avenue, San Diego, CA July 18-28, 2022

Date	Daily SAN Aircraft CNEL
7/19/2022	62
7/20/2022	62
7/21/2022	62
7/22/2022	64
7/23/2022	63
7/24/2022	63
7/25/2022	63
7/26/2022	63
7/27/2022	63

Figure 10. Daily Aircraft CNEL Levels for Muir Ave, San Diego



Average Single Event Levels

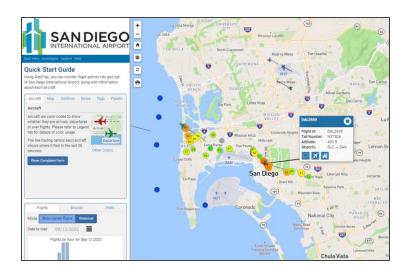
Figure 12. Average Single Event Levels for Muir Avenue, San Diego, CA





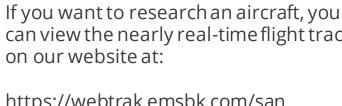
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can view the nearly real-time flight tracks

https://webtrak.emsbk.com/san







Three ways to file a complaint:

- On the web at https://webtrak.emsbk.com/san
- Through the app, which can be found at https://viewpoint- app.emsbk.com/san4/login
- By telephone at 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.

You can find out more information and location on our website here: