

Airport Noise Advisory Committee (ANAC) Agenda

Wednesday, February 15, 2023
4:00 P.M.

Board Members

Gil Cabrera (Chair)
Mary Casillas Salas (Vice Chair)
Nathan Fletcher
Lidia S. Martinez
Paul McNamara
Rafael Perez
Esther C. Sanchez
James Sly
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/QowCCw8Y5hQ>

PLEASE NOTE: There is approximately 10 seconds 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: 823 2729 8027#**

ANAC Meeting Agenda

Wednesday, February 15, 2023

- **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/QowCCw8Y5hQ>

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, February 15, 2023

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 ANAC meeting summary from *December 21, 2022*

PRESENTATIONS:

- **2022 Year In Review:**
 - Curfew Violations** - Billy Hobson & Sjohnna Knack, Airport Authority
 - Noise Complaints & Statistics** - Tyler Reince, Airport Authority
 - Quieter Home Program** - Joshua Covell, Airport Authority
- **Project Updates: Part 150, EIR Noise Mitigation Measures, CA Variance Application & Quieter Home Program** – Joshua Covell, Airport Authority
- **Fly Quiet Program** - Roman Lanyak, Airport Authority

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: May 17, 2023 (In-Person, Location TBD)

ADJOURNMENT

MEETING SUMMARY

Airport Noise Advisory Committee

Date | Time 12/21/2022 4:00 p.m.

Meeting called to order by: Jill Monroe

In Attendance

<u>Name</u>	<u>Affiliation</u>	<u>In Attendance</u>
Community Planning Groups Within the 65 dB contour		
Paul Webb	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	No*
Celestin Fausino	Greater Golden Hill Planning Committee	Yes
Chris Cole	Uptown Planners	Yes
Peter Shearer	Community Resident at Large within 65 dB CNEL - East	Yes
Community Planning Groups Outside the 65 dB contour		
Gloria Henson	Mission Beach Precise Planning Board	Yes
(No representative selected)	Pacific Beach Planning Group	N/A
Matthew Price	La Jolla Community Planning Association	No*
Lauren Cazares	East County (La Mesa)	Yes
Aviation Stakeholders		
Olivier Brackett	San Diego County Airports	Yes
Jorge Rubio	City of San Diego Airports	No*
Jim Gruny	MCRD	Yes
Robert Bates	Airline Pilot (Active)	Yes
Kallie Glover	Performance Engineer, Delta Air Lines	No*
Dave Ryan	NBAA	No
Ex-Officio Non-Voting Members		
Tim Middleton	Acoustical Engineer	Yes
Korral Taylor	Congress, 53rd District for Rep. Sara Jacobs	No
Randy Reyes	San Diego City Council, District 2, for Jennifer Campbell	Yes
Carlette Young, Larry Frelow	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		
Jill Monroe	Facilitator	Yes
Sjohnna Knack	Program Manager	Yes
Roman Lanyak	Sr. Aircraft Noise Specialist	Yes
William "Billy" Hobson	Aircraft Noise Specialist	Yes
Tyler Reince	Aircraft Noise Specialist	Yes

11 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.

2. Roll Call

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

3. Continuance of Virtual Meetings

Jill Monroe asked ANAC for consideration to continue today's meeting virtually pursuant to California Assembly Bill 361. It was noted that discussion on the status of future meetings would be at the end of the meeting, and this was strictly to continue today's meeting.

Chris Cole made the motion to continue the current meeting virtually and Gloria Henson seconded this motion. ANAC members that voted to approve the continuation of this virtual meeting were Paul Webb, Anthony Ciulla, Judy Holiday, Celestin Faustino, Chris Cole, Gloria Henson, Lauren Cazares, Olivier Brackett, Jim Gruny, Robert Bates, and Peter Shearer.

Sjohnna Knack informed the ANAC Committee that the next meeting would more than likely meet in person. *Note: The February 2023 Meeting will be the last virtual meeting.*

4. Action Item: Approval of meeting previous meeting summary

September 21, 2022 Meeting Summary

Judy Holiday made a motion to approve the meeting summary from the September 2022 meeting, it was seconded by Gloria Henson; the motion was passed, with Robert Bates abstaining.

5. 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=15066>

a. FAA Reauthorization Related to Aircraft Noise

Tim Middleton provided an update on the FAA Reauthorization (2018) Initiatives. This included three topics: FAA Reauthorization, FAA Noise & Research Development update, and the status of the FAA Noise Policy review. He explained the various sections of the FAA's Reauthorization that dealt with aircraft noise and noise issues, as well as noise related research the FAA was asked to conduct and report to Congress. He mentioned that every five years Congress reauthorizes the FAA and provides updates, part of this included updating policies. He also noted that the reauthorization is up for renewal in 2023.

Tim went over Section 187 – Aircraft Noise Exposure. The FAA Neighborhood Environmental Survey was published in 2021, receiving over 4,000 comments. The study's takeaway showed more people “highly annoyed” at lower DNL levels than the Schultz Curve displayed. With this, the FAA is looking at how they can update their noise policy to affect future changes in legislation.

Tim stated that as part of this, the FAA is working with and continues to fund research for the *Center of Excellence for Alternative Jet Fuels and Environment*, also known as the *Aviation Sustainability Center (ASCENT)*. ASCENT is a group among different federal government departments to push technology, manufactures, and operators of aircraft to develop alternate fuels as well as engine technologies that are better for the environment.

Lastly, Tim mentioned the FAA was currently undergoing a Noise Policy Review (NPR). As part of that, in 2023, the FAA planned to have more discussions with airports and community groups to discuss noise policies. This included addressing how engagement with stakeholders would occur. The FAA is looking to address the results of the neighborhood environmental survey, Stage III operations, and how noise policy could be updated to reflect the current environment.

Public Comment:

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

[There were no public comments]

Questions from ANAC:

Judy Holiday asked if the FAA Reauthorization was every five years and included funding. Tim confirmed that, on average, it has been every five years and that the FAA will sometimes do a continuing resolution, where they take existing legislation and go three or six months forward with an update, which also includes funding.

Judy Holiday then wanted to clarify if it was the Transportation Committee. Tim answered there was an equal Transportation Committee in both the House and Senate and that he could collect that information after the meeting. She wanted to know if the studies' metrics were already reported in 2020 for the 2023 report. Tim answered that it was published in 2020 because that was the deadline provided in the 2018 reauthorization. The 2023 date is when the five-year term of the reauthorization ends, but in the 2018 legislation there were

some dates that they were to provide the reports by. Some of those had 2020 dates, and one had a 2021 day.

Judy Holiday asked if the reauthorization addressed environmental pollution. Tim replied that the FAA Reauthorization reauthorizes almost all the elements associated with Title 14 and the actual funding and operation of the FAA. Tim explained the 2012 reauthorization had a lot about NextGen and funding for technologies for advanced navigation and avionics. Every five years, different initiatives come through, allowing funding for the FAA to operate safely and efficiently. Tim noted one could find more info online at the Government Accountability Office (GAO).

Robert Bates asked if aircraft noise was the same as pollution and wanted to know if ANAC should not be thought of as a noise advisory committee, but a pollution advisory committee. Also, if the committee rebranding the mission could include looking at other pollutants from the aircraft besides noise. Tim answered that noise itself is a very specific phenomenon and would not be a good thing to change. Noise is unwanted sound, and the committee is specifically looking at unwanted sound.

Paul Webb responded that Robert could mention other environmental concerns with the Peninsula Community Planning Board.

b. Update on Projects

Sjohnna Knack started by mentioning the FAA is currently under its 180-day review period for the Part 150 Noise Compatibility Study that was submitted on September 2, 2022, this review period will end in February of 2023. She mentioned a record of decision, if available, could be presented at the next meeting. EIR Noise Mitigation Measures, a presentation was just given on one of the measures by Tim Middleton, and the Airport Noise Office will continue to update them as time moves forward. The state of California has accepted the Title 21 variance that was submitted with no additional current action items. The Quieter Home Program (QHP) just completed its 5,000th home milestone, QHP has started (and almost finished) its first preschool and church, which are non-residential projects.

Public Comment:

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

[There were no public comments]

Questions from ANAC:

[There were no questions]

c. Update on Current Aircraft Noise Trends

Roman Lanyak, Senior Aircraft Noise Specialist, provided an update on aircraft noise trends at the Airport over the last few months. He went over the operation and passenger counts compared to October, 2019 (pre-COVID) levels. Roman also provided an analysis of evening and nighttime operations.

Roman also provided a fleet update in heavy aircraft operations (which includes Airbus A300, A330, A350, and Boeing 787). On a quarterly basis, the overall operations of the A350 have

increased to over 450 flights, serving Heathrow and Munich International Airports. This was compared to zero operations by this aircraft the same time the previous year. The A320 / A321 Neo aircraft usage has increased by 89%. The combined usage of Airbus A320 family of aircraft has increased by 49%.

Lastly, Roman mentioned the Portable Noise Monitoring Program (PNMP) had successfully completed one measurement near Point Loma Nazarene University. The next PNMP measurements are being conducted near Point Loma Heights.

Public Comment:

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

[There were no public comments]

Questions from ANAC:

Paul Webb asked why there was such an increase in nighttime operations. Roman stated that it was an increase in overall operations between 10:00 p.m. - 11:30 p.m., before the noise curfew begins. He further mentioned the evening and nighttime operations have more impact on the contour. When looking at the quarterly contours, the nighttime operations affect the contour increase, by a large amount. Paul requested if a further breakdown on who is flying what during those hours. Roman said more information was in the Quarterly Noise Report. He also clarified that this comparison was between operations during COVID, when a lot less airplanes flew, and current operations. This is why the 67% increase in nighttime operations is so significant.

Anthony Ciulla asked that since FedEx had a decrease in their operations but was utilizing larger aircraft, what was the net-effect on noise and the effect on the community? Roman responded that the noise impacts of a single aircraft are not normally studied. A single larger aircraft may have a larger Maximum Noise (Lmax) level, but overall CNEL level may not be as significant. Anthony asked would it be possible to incentivize cargo aircraft to do the same through the Fly Quiet Program? Sjohnna Knack clarified that cargo carriers are looked at in the Fly Quiet Program. The results of the Fly Quiet Report will be presented at the next meeting. Sjohnna further stated that it was not uncommon for larger cargo aircraft to arrive during the holidays as well.

Sjohnna Knack then, directing to Paul Webb's earlier point, acknowledged the 67% increase in nighttime operations. This was a third quarter in a row with an increase in noise contour. We are still in a recovery period and not quite at the same levels as before COVID. She also suggested in 2023 to start looking at 2022 numbers, instead of pre-COVID and post-COVID comparisons. Lastly, Sjohnna mentioned some older aircraft have been replaced. British Airways no longer flies the Boeing 747, and instead they fly an Airbus A330. Japan Airlines is operating the quieter Boeing 787 Dreamliner. A much more diverse fleet can be expected at the next Fly Quiet Awards meeting.

Gloria Henson asked if the approval for the Variance was automatically given and if the airport would shut down if not. Sjohnna explained how the Airport Authority must apply with the state of California (Caltrans) for review, during which current variance (12th variance)

stands until the new variance is approved. Gloria replied that within the quarterly report it showed that the contour grew. The community she represents, Mission Beach, has people complaining about how the noise contours have increased since COVID. Gloria wanted to confirm the noise contours were still smaller than the pre-COVID size contours. Sjohnna confirmed that the contours are smaller than they were in April 2019.

Peter Shearer asked for a comparison of the increase of nighttime vs early morning operations. Roman Lanyak stated that most of the increase was at nighttime, 10:00 p.m. - 7:00 a.m. If we have a curfew violation, then that would be included. Most of the flights, however, were from 10:00 p.m. - 11:30 p.m. Peter clarified further that in the nighttime hour rhetoric it captures the first 30 minutes in the morning and wanted to know if there was a further breakdown between the p.m. and the a.m. operations. Roman stated that there was no such breakdown analysis.

Peter Shearer inquired about the late-night flights being the last ones to come back. He asked if it was reasonable to infer from that statement that those are less desirable for the carriers themselves. That the carriers flying at night flew during the day when there was a time of availability for them. Sjohnna responded she could conduct further research, but she would not assume it is more desirable. Peter concluded that it was unfortunate the heavier, louder, bigger aircraft tend to fly early in the morning and late at night. If there was any way to get the newer and quieter jets during the nighttime hours, then the residents would appreciate that.

6. 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 were no public comments]

7. Next Meeting/Adjourn

Jill Monroe mentioned the ANAC meeting dates of 2/15/23, 5/17/23, 9/20/23, and 11/15/23 for the following year. They have shifted off our traditional ANAC meeting months to avoid August and December meetings. The next ANAC meeting will be February 15, 2023, and we would more than likely meet in-person and that more clarity would be provided by the clerk.

Next meeting is February 15, 2023.

The meeting was adjourned.

Airport Noise Advisory Committee

February 15, 2023



Meeting will start at 4:00 p.m.

Agenda

Welcome & Roll Call

ACTION ITEMS:

- Approval of Consideration of Whether to Continue Virtual Meetings of the ANAC pursuant to AB 361
- Approval of Meeting Summary from December 21, 2022

PRESENTATION ITEMS:

- 2022 Year in Review:
 - Curfew Violations - Billy Hobson & Sjohnna Knack, Airport Authority
 - Noise Complaints & Statistics - Tyler Reince, Airport Authority
 - Quieter Home Program - Joshua Covell, Airport Authority
- Project Updates - Joshua Covell, Airport Authority
 - Part 150, EIR Noise Mitigation Measures, CA Variance Application, Quieter Home Program
- Fly Quiet Program - Roman Lanyak, Airport Authority
- Adjourn - Next Meeting May 17, 2023 (In-Person, Location TBD)



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

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.

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- Before speaking, state your name and begin your comments



Approval of December 21, 2022 Meeting Summary

Public Comment on December 21, 2022, Meeting Summary

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2022 Year in Review

Curfew Violations: Billy Hobson - Aircraft Noise Specialist
Sjohnna Knack - Interim Director

Noise Complaints & Statistics: Tyler Reince - Aircraft Noise Specialist
Quieter Home Program: Josh Covell - Interim Project Manager

2022 Year In Review: Curfew Violations

Summary of Violations Fined

Year	# of Violations	Flights Fined	Percent Fined	Total Fines
2016	84	58	71%	\$564,000
2019	46	28	61 %	\$132,000
2022	89	48	54%	\$804,000

Summary of Violations Waived & Medevacs

Year	Mechanical	Local Weather	Operational /Security	MEDEVAC*
2016	8	16	2	21
2019	14	1	3	19
2022	31	8	2	120

*Medevac flights are required by state of CA law to operate and are not included in the Curfew Violation totals

2017 ANAC Subcommittee Curfew Recommendation:

“Increase the amount of fines assessed on the airlines for curfew violations commensurate with the increase in cost of living. Continue to maintain multiplier.”

HISTORY:

- Did not recommend increasing penalties based on a low quantity of violations due to Runway closures.
- If the quantity of violations reaches close to 2016, Airport Authority would re-engage efforts to review curfew penalties.

CURRENTLY:

- Quantity of curfew violations in 2022 (89) is higher than in 2016 (85).
- 2022 was a continued recovery year. In 2023, Airport Authority will be meeting with airlines to inform them of the importance of the curfew.
- If curfew violations don't decrease in 2023, we will need to review increasing penalty amounts.

2022 Year In Review: Noise Complaints & Statistics

Downward trend with complaints has continued since 2019, even as operations have been increasing since Covid.

Last Three Years of Noise Complaints and Operational Statistics

Year	Noise Complaints	Number of Households	Total Operations	Missed Approaches (% of total arrivals)	Early Turns
2020	97,893	302	129,451	508 (0.7%)	321
2021	77,100	272	158,133	470 (0.6%)	329
2022	76,549	239	206,196	668 (0.6%)	504

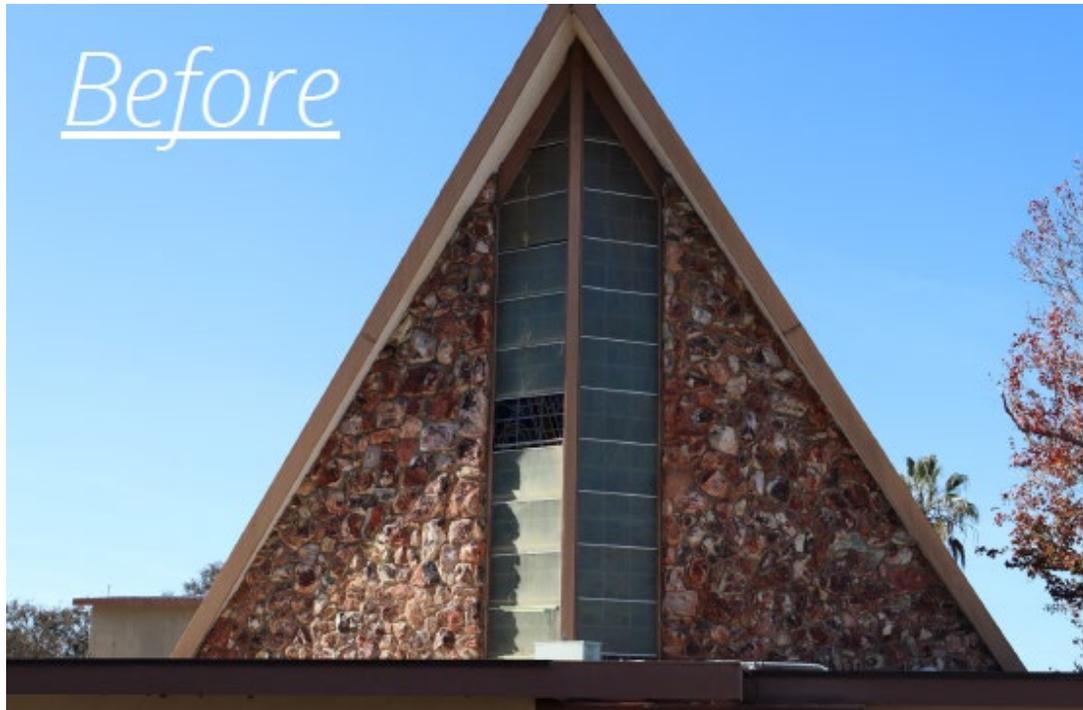
2022 Year In Review: Quieter Home Program

Last Three Years of Quieter Home Program Statistics

Year	Total Homes Treated	Single-Family Homes	Multi-Family Homes	Non-Residential	Spending
2020	252	134	118	0	\$14,189,197
2021	221	171	50	0	\$16,932,292
2022	482	111	371	1	\$20,535,810

2022 Year In Review: Quieter Home Program

Seventh Day Adventist Church & Pre-School



Public Comment on 2022 Year in Review

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Questions?



Project Updates

Joshua Covell - Interim Project Manager



Aircraft Noise Project Updates

- On January 11, 2023, the FAA approved 16 of 17 recommendations in the Part 150 Noise Compatibility Program.
- Work on the EIR Noise Mitigation Measures continues.
- The State of CA has accepted our Variance application as of July 1, 2022. They will review our application for approval.
- Completed sound insulation construction on the first non-residential facility, preschool and church. Second non-residential facility designs are in process.

Public Comment on Aircraft Noise Project Updates

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Questions?



Fly Quiet Program

Roman Lanyak - Senior Aircraft Noise Specialist

Fly Quiet Program

Scoring Elements



Fleet Quality
Index



Noise Exceedance



Curfew
Compliance

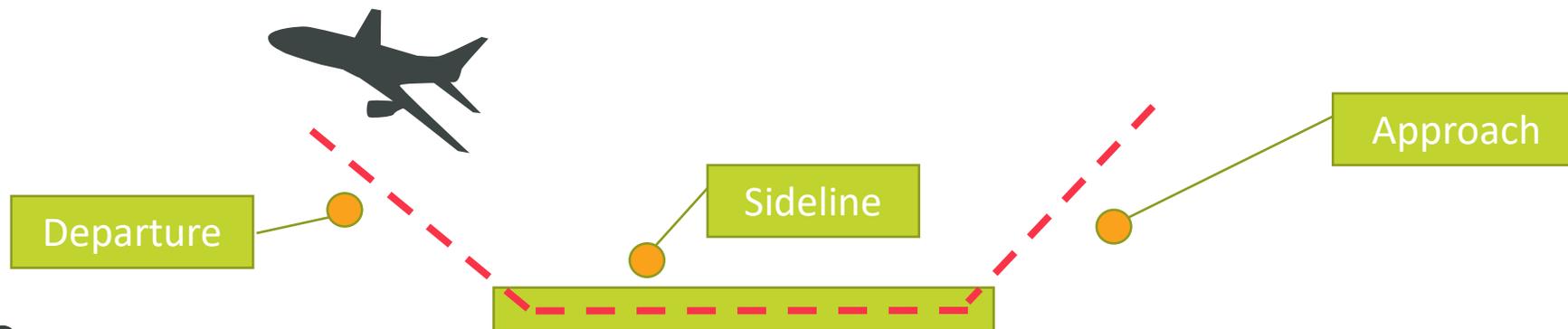
The Fly Quiet Program was introduced in 2017 as a scoring system based on specific metrics to encourage operators at San Diego International Airport to fly as quietly as possible.

Fly Quiet Program

Scoring Elements



- Evaluates Noise Contribution
- Uses *Approach*, *Sideline* and *Departure* noise
- Based on FAA Certified Noise Levels (CFR Part 36)
- Operators receive a higher rating if they fly new generation aircraft.



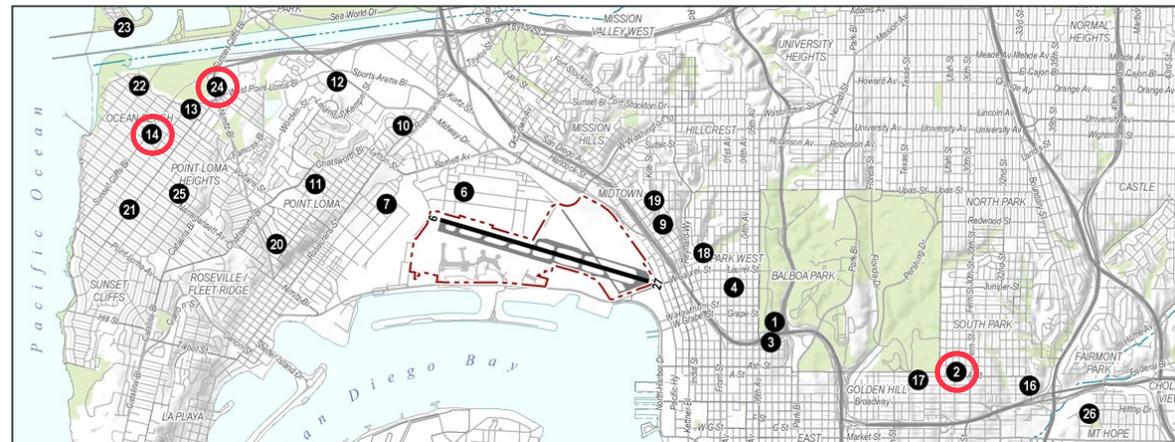
Fly Quiet Program

Scoring Elements



Noise Exceedance

- Exceedances adjusted to operations
- Noise Monitors: #2, #14, #24
- Thresholds:
 - Day: 90dB
 - Evening: 85dB
 - Night: 80dB



Remote Monitoring Locations
Sources: SANDAG; SanGIS; ESRI

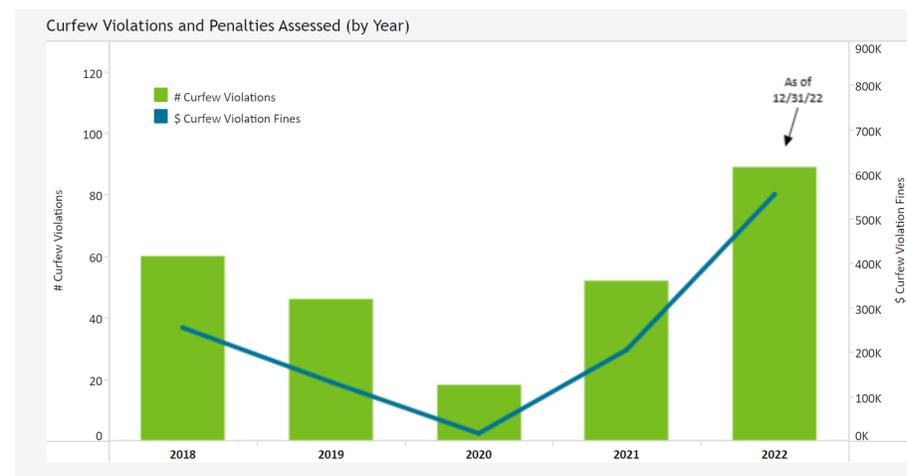
Fly Quiet Program

Scoring Elements



Curfew
Compliance

- Noise Curfew since 1976
- 10 points - No Curfew Departures
- -1 pt. Departure penalty
- -1 pt. Imposed Fine penalty



Sources: SAN Tableau

2022 Fly Quiet Results

- Large Carrier - More than 10% of Passengers
 - Southwest Airlines
- Small Carrier - Less than 10% of Passengers
 - Spirit Airlines
- Cargo Carrier
 - iAero Airways (operates DHL)
- International
 - Lufthansa

Southwest 



Lufthansa

Fly Quiet Program Large Domestic Carrier Award Winner

Southwest Airlines

Award Winning Because:

- Use of Stage 4 aircraft
- 72% more Boeing 737 MAX (2022)
- 737 MAX is 13% of all Southwest Operations out of SAN



Fly Quiet Program Small Domestic Carrier Award Winner

Spirit Airlines

Award Winning Because:

- High percentage of Stage 4 use (54% of flights)
- Only 1 Curfew Violation in 2022



Source: Planespotters.net

Fly Quiet Program Air Cargo Award Winner

iAero Airways (operates DHL)

Award Winning Because:

- Mostly B737-800 operations (63%)
- Daytime operating schedule
- No Curfew Violations



Fly Quiet Program International Award Winner

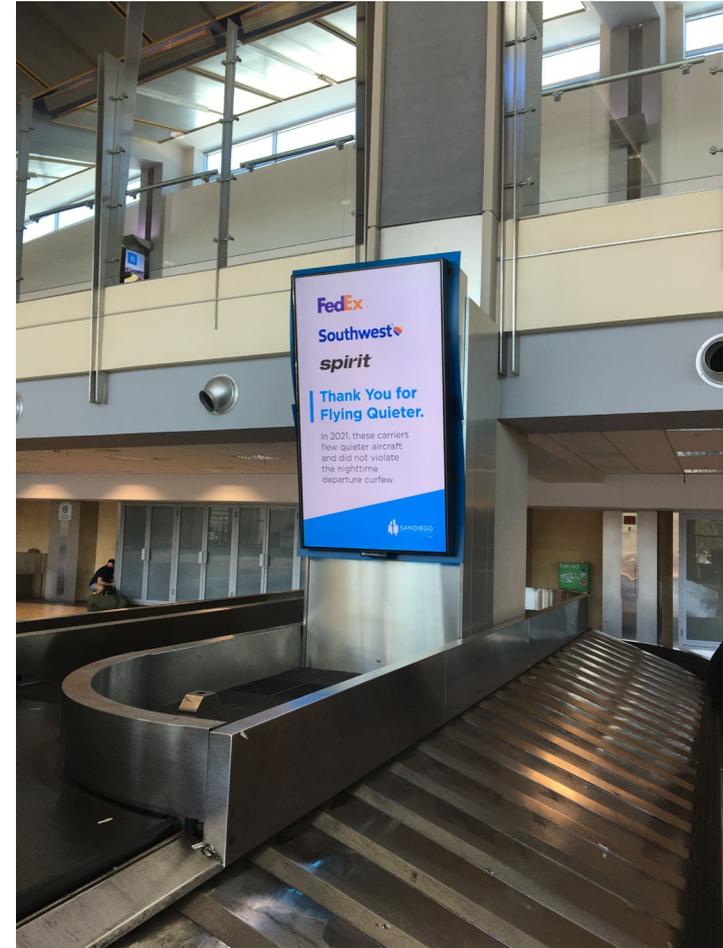
Lufthansa

Award Winning Because:

- All A350-900 Stage 5 operations
- 98% of departures between 2 p.m.-7 p.m.
- Very little chance of Curfew violation



Fly Quiet Program Recognition



Public Comment on *Fly Quiet Program*

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Questions?

Public Comment on Non-Agenda Items

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Meeting Dates For 2023

**All future meetings will be held in person
(Location TBD)**

May 17, 2023

September 20, 2023

November 15, 2023



Adjourn

Next Meeting: May 17, 2023 (In-Person, Location TBD)



February 7, 2023

Fly Quiet Report

Calendar Year 2022

Prepared by:

Roman Lanyak
Senior Aircraft Noise Specialist
Planning & Environmental Affairs
San Diego County Regional Airport Authority

1.0 Summary of the 2022 Report

Planning & Environmental Affairs (Aircraft Noise Office) publishes an annual report that outlines trends on how quietly each operator flies in and out of San Diego International Airport (SDIA). This is a summary of the Fly Quiet Report for 2022.

To better align with ANAC reporting periods, we have adjusted the program evaluation period to a Calendar Year. This will allow for facilitation of the awards approval by ANAC in February, and award coordination and Board presentation to the carriers in April of each year.

Observations for 2022:

- Stage 4 aircraft use has expanded significantly, improving fleet quality scores.
- Lufthansa and British Airways began to use Stage 5 aircraft for their San Diego International Airport operations.
- Noise Curfew Compliance impacts have been significant in 2022, causing four airlines to have negative Curfew Compliance component scores.

This year's winners:

- Large Domestic Carrier – Southwest Airlines
- Small Domestic Carrier – Spirit Airlines
- Cargo Carrier – iAero Airways (operates DHL)
- International Carrier – Lufthansa

2.0 Fly Quiet Program Description

The purpose of the SDIA Fly Quiet Program is to encourage individual Air Carriers to fly as quietly as possible in the San Diego area by acknowledging those Carriers that operate the quietest fleets and adhere to Authority Use Regulations (Curfew)¹. By grading an Air Carrier's performance and making the scores available to the public, the program creates a participatory atmosphere for Carriers to actively reduce noise impacts.

The Fly Quiet Program offers a dynamic venue for reviewing noise abatement initiatives by praising and publicizing active participation rather than a system that admonishes violations from essentially voluntary procedures.

2.1 Reports

Fly Quiet reports communicate individual category results on an annual basis on a scale of 0-10 per element. These quantitative scores allow Air Carrier management and flight personnel to measure exactly how they stand compared to other carriers and how their proactive involvement can positively reduce noise in the San Diego area. Each year has a maximum value of 30 points.

2.2 Awards

At the end of the year, awards will be presented to the carriers in the following categories:

- Large Domestic Carrier (10% of SAN passengers or more)
- Small Domestic Carrier (Less than 10% of SAN passengers)
- Air Cargo Carrier (All Cargo Carriers operating at SAN)
- International Carrier (All International Carriers operating at SAN)

2.3 Elements

The Fly Quiet Program scores Air Carriers on the following three elements that will be described in detail in the next section. The elements are:

- Fleet Quality
- Noise Exceedances
- Curfew Compliance

¹ San Diego County Regional Airport Authority Code 9.40, Airport Use Regulations:
https://www.san.org/DesktopModules/Bring2mind/DMX/API/Entries/Download?EntryId=12229&Command=Core_Download&language=en-US&PortalId=0&TabId=499

2.3.1 Fleet Quality

The Fleet Quality score evaluates the noise contribution of each operator's fleet mix as it actually operates at SDIA. Carriers generally own a variety of aircraft types and schedule them according to operational needs, passenger/cargo demand and other marketing considerations. The Fly Quiet Program assigns a higher score to carriers flying quieter, newer aircraft, and to those that adhere to the curfew.

Historically airports have rated Fleet Quality by the relative percentage of Stage 2 vs. Stage 3 operations². Since the completion of the phase out of Stage 2 aircraft mandated by the Airport Noise and Capacity Act (ANCA) of 1990, all aircraft in the U.S. over 75,000 pounds meet the more stringent Stage 3 noise standards. However, within the allowable Stage 3 criteria, there is a wide range of noise levels, and the Federal Aviation Administration (FAA) does not distinguish between these aircraft types.

There are now Stage 4 and Stage 5 aircraft types entering service. All *new design aircraft* over 12,500 pounds issued a type certificate after January 1, 2006, were required to meet Stage 4 standards. The new Stage 5 noise standard applies to any application for a new airplane type design that has a Maximum Certificated Takeoff Weight (MTOW) of 121,254 pounds or more on or after December 31, 2017; or that has a MTOW of less than 121,254 pounds on or after December 31, 2021.

The method used here bases an operator's Fleet Quality Score on aircraft manufacturer noise certification data. For each aircraft type, 14 CFR Part 36 specifies allowable noise levels at three measurement locations: approach, departure, and sideline³. Per 14 CFR Part 36 allowable noise limits increase with weight, so that larger aircraft, serving more passengers, are not penalized as compared to smaller types.

The scoring method for the Fleet Quality totals the difference between each aircraft's certified noise levels at all three measuring points (takeoff, approach and sideline) and the Stage 3 standard for that aircraft type, weight and engine type.

Similar to and consistent with 14 CFR Part 36, the Fleet Quality Scoring allows for higher noise levels for larger aircraft. It is important to credit larger aircraft serving more passengers, because they offer more air service in fewer flights and less total noise than multiple operations in smaller aircraft types.

² Stages 1-4 were established by a Federal Aviation Regulation called 14 CFR Part 36 which mandated the allowable noise levels for the manufacture of aircraft. Over time both Stage 1 and Stage 2 aircraft have been phased out of operation in the U.S. as a result of subsequent federal regulations.

³ 14 CFR Part 36 standards are measured in terms of the single event metric Effective Perceived Noise Level (EPNdB), which accounts for different frequency characteristics of noise, such as low frequency.

Calculation of Score:

The Fleet Quality scoring calculation takes the takeoff, approach and sideline noise sum of the allowable Part 36 Stage 3 limit from the Part 36 certification level and then produces a total. Table 1 demonstrates this methodology for a B737-700 aircraft where the difference between the Stage 3 limit and certificated value is 4.1 dB on takeoff, 3.8 dB on approach and 6.8 dB for sideline noise; for a cumulative sum of 14.7dB.

Table 1 – B737-700 Aircraft Example⁴

B737-700 Aircraft	Takeoff (EPNdB)	Approach (EPNdB)	Sideline (EPNdB)	Total dB Below Stage 3 Limits
Part 36 Stage 3 Limit	91.2	99.7	96.6	-
Part 36 Certification Level	87.1	95.9	89.8	-
Difference	4.1	3.8	6.8	14.7

The Part 36 certification database for commercial aircraft is very extensive in listing many different noise values for variations on the same aircraft type depending on weight, flap settings, engine types, and other specifications. The Fleet Quality scoring methodology looks at each operator at SDIA and their specific aircraft fleet. Certifications values for each aircraft type are averaged together per operator.

Table 2 provides an example for computing the Fleet Quality sub-score. The *example* airline has two different aircraft types in their fleet that operate at SDIA. The Cumulative Noise Level of each aircraft type is multiplied by the total Operations for that aircraft. The product (number) is then divided by the total Operations for the Air Carrier, to create the Fleet Quality sub-score.

Table 2 – Example for Computing the Fleet Quality Sub-Score⁵

Aircraft Type	Cumulative Noise Level	Operations	Product of Cumulative Noise Level and Operations
B737	14.3	75	1073
B738	13.1	75	983
Fleet Avg. (total Cumulative Noise Level divided by total Operations):			13.7

⁴ Table 1 contains an example of the sum of Cumulative Noise Levels calculation. Data in this table is for conceptual purposes only.

⁵ Table 2 contains an example of Fleet Quality sub-score calculations. Data in this table is for conceptual purposes only.

Table 3 demonstrates the impact to a particular Fleet Quality sub-score, as Air Carriers incorporate quieter aircraft, like the Boeing 737MAX or Airbus 320neo into their operation at the Airport.

Table 3 – Example of Fleet Quality Improvement Sub-Score⁶

Aircraft Type	Cumulative Noise Level	Operations	Product of Cumulative Noise Level and Operations
B737	14.3	70	1001
B737MAX	25.2	20	504
B738	13.1	40	524
A320neo	25.3	20	506
Fleet Avg. (total Cumulative Noise Level divided by total Operations):			16.9

The final Fleet Quality Score for each operator is determined based upon the sub-score, with a target cumulative noise level of 30 dB. The sub-score is divided by 30 then grossed up to 10-points, to determine the final Fleet Quality Score. As Stage 5 aircraft become significant enough to be measurable, a target Cumulative Noise Level of 40 dB can be used.

In the Table 2 example, the sub-score is 13.7 and therefore the operator’s final Fleet Quality score would be 4.57 (13.7/30*10). In Table 3, that final Fleet Quality score increases to 5.63 (16.9/30*10), through the introduction of newer aircraft. In this example, with the introduction of newer and quieter B737MAX and A320neo aircraft, and with the same number of total Operations (150), the total Fleet Quality score improves from 4.57 to 5.63.

⁶ Table 3 contains an example of Fleet Quality Improvement sub-score calculations. Data in this table is for conceptual purposes only.

2.3.2 Noise Exceedances

Eliminating loud aircraft noise events is a long-standing goal of the Airport, as a result, the Airport has developed metrics that identify the loudest aircraft departing SDIA. These metrics are called Noise Exceedances. Arrival and departure Noise Exceedances are captured at Daytime, Evening and Nighttime levels.

- The locations of the monitors where Noise Exceedances are captured are as follows:
 - RMT ⁷ #2 – Approximately 4 nautical miles (6.5 km) from the start of Runway 9 takeoff roll, along the departure path to the east of the Airport.
 - RMT #14 – Approximately 4 nautical miles (6.5km) from the start of Runway 27 takeoff roll, along the departure path to the west of the Airport (straight out departures).
 - RMT #24 – Approximately 4 nautical miles (6.5km) from the start of Runway 27 takeoff roll, along the departure path to the west of the Airport (right-turn departures).

Calculation of Score:

The Noise Exceedance Score for each operator is determined by adding the different categories of Noise Exceedances together and adjusting them to the number of operations to generate a score of up to ten (10) points. Current Sound Exposure Level (SEL)⁸ threshold settings are 90 dB for daytime departures (7:00 a.m. to 7:00 p.m.), 85 dB in the shoulder hours (7:00 p.m. to 10:00 p.m.), and 80 dB for nighttime departures (10:00 p.m. to 7:00 a.m.). Multiple Noise Exceedances for a single departure may be captured if they exceed the thresholds at both RMT #14 and RMT #24. As Stage 4 and 5 aircraft use increases, these threshold levels can be adjusted downward to reflect the noise improvements of the fleet and maintain measurement validity in fleet comparisons.

⁷ RMT – Remote Monitoring Terminal is a component of an Airport Noise and Operations Monitoring System (ANOMS).

⁸ SEL – Sound Exposure Level is a measure of the total sound energy of an event, accounting for its duration.

2.3.3 Curfew Compliance

SDIA has had a curfew in place since 1976. SDIA's curfew is governed as part of the Airport Use Regulations and may result in a monetary fine if an operator violates the curfew. All departures are restricted from 11:30 p.m. to 6:30 a.m. Aircraft may arrive at SDIA 24 hours a day.

The departure curfew is mandatory; however, there are exemptions for Emergency/Mercy flights. Compliance is at the discretion of the pilot or operator. Penalties may be waived in certain circumstances. Typical circumstances include local maintenance issues discovered near departure time, weather that significantly disrupts the SAN operation, or other operational issues such as FAA system outages that preclude an aircraft from an on-time departure due to FAA implementation of ground delay programs. This component is designed to encourage a cancellation, even under these circumstances, rather than depart during the curfew window. Fee waivers are done through a review of the individual circumstances.

The curfew violations system includes administrative fines of \$2,000 for the first violation by a particular operator in a compliance period; \$6,000 for the second violation in a compliance period, and, \$10,000 for the third violation in a compliance period. Additionally, a multiplier is added to reflect the number of violations from the previous compliance period. The Fly Quiet Program formalizes the effort of working with the carriers to reduce the number of curfew violations.

Calculation of Score:

An operator that does not log any curfew violations in a quarter will receive a score of ten (10) points. The ten (10) point score is adjusted based upon the following:

1. Curfew Violations:

If a carrier violates the curfew, they will be assessed a penalty of one (1) point.

2. Curfew Violations that are fined:

If the Airport's Curfew Violation Review Panel (CVRP) determines that a fine should be imposed on a curfew violation, they will be assessed an additional penalty of one (1) point.

It is possible that a carrier will receive a negative score in this category. If a carrier continues to violate the curfew, an excessive number of violations will become more punitive to the final overall score.

3.0 Score Sheets

The following pages show the scores for the carriers in each element for the evaluation period.

- The first three charts show the scoring in each element for a given carrier, there is no ranking associated with the individual elements. There is no preference for a given operator.
- The summary page shows the total points in each element and rankings by carrier group utilized for the awards to the best carrier in each operating category.
- The operating categories are:
 - Large Domestic Carrier
 - Small Domestic Carrier
 - Air Cargo Carrier
 - International Carrier

Fleet Quality Report					
San Diego International Airport's Fly Quiet Program					
January - December 2022					
Airline		Operations	Percent of Operations	Sub Score	Fleet Quality Score
AAL		14,804	8.3%	14.31	4.77
AAY		997	0.6%	16.98	5.66
ACA		1,091	0.6%	22.82	7.61
ASA		18,246	10.2%	15.27	5.09
BAW		633	0.4%	25.84	8.61
DAL		16,662	9.3%	13.53	4.51
DLH		354	0.2%	31.30	10.43
FDX		3,006	1.7%	15.28	5.09
FFT		3,857	2.2%	22.64	7.55
HAL		1,457	0.8%	20.50	6.83
JAL		491	0.3%	27.78	9.26
JBU		3,585	2.0%	15.69	5.23
JZA		1,038	0.6%	13.80	4.60
NKS		3,402	1.9%	20.86	6.95
SCX		533	0.3%	12.69	4.23
SKW		21,273	11.9%	10.55	3.52
SWA		67,516	37.7%	15.69	5.23
SWQ		668	0.4%	12.98	4.33
UAL		18,337	10.2%	16.63	5.54
UPS		848	0.5%	15.97	5.32
WJA		354	0.2%	14.71	4.90

Noise Exceedance Report
San Diego International Airport's Fly Quiet Program
January - December 2022

Airline	Operations	Daytime Exceedances (90+ dB)	Evening Exceedances (85+ dB)	Nighttime Exceedances (80+ dB)	Total Exceedances	Noise Exceedance Score
AAL 	14,804	379	1,787	4,605	6,771	5.43
AAY 	997	3	84	47	134	8.66
ACA 	1,091	7	64	49	120	8.90
ASA 	18,246	881	2,908	3,620	7,409	5.94
BAW 	633	64	249	10	323	4.90
DAL 	16,662	545	1,984	4,925	7,454	5.53
DLH 	354	5	3	6	14	9.60
FDX 	3,006	143	582	1,564	2,289	2.39
FFT 	3,857	7	273	925	1,205	6.88
HAL 	1,457	79	411	301	791	4.57
JAL 	491	4	0	0	4	9.92
JBU 	3,585	84	1,365	559	2,008	4.40
JZA 	1,038	2	20	165	187	8.20
NKS 	3,402	13	338	163	514	8.49
SCX 	533	44	56	12	112	7.90
SKW 	21,273	55	864	2,356	3,275	8.46
SWA 	67,516	628	8,142	7,632	16,402	7.57
SWQ 	668	51	242	61	354	4.70
UAL 	18,337	2,268	2,604	3,451	8,323	5.46
UPS 	848	24	262	491	777	0.84
WJA 	354	5	0	0	5	9.86

Curfew Compliance Report
San Diego International Airport's Fly Quiet Program
January - December 2022

Airline	Operations	Violations	Penalized Violations	Curfew Penalty Points	Curfew Violation Score
AAL 	14,804	12	1	13	-3.00
AAY 	997	5	4	9	1.00
ACA 	1,091	0	0	0	10.00
ASA 	18,246	22	8	30	-20.00
BAW 	633	0	0	0	10.00
DAL 	16,662	11	4	15	-5.00
DLH 	354	0	0	0	10.00
FDX 	3,006	3	0	3	7.00
FFT 	3,857	2	2	4	6.00
HAL 	1,457	0	0	0	10.00
JAL 	491	0	0	0	10.00
JBU 	3,585	11	9	20	-10.00
JZA 	1,038	1	1	2	8.00
NKS 	3,402	1	1	2	8.00
SCX 	533	0	0	0	10.00
SKW 	21,273	0	0	0	10.00
SWA 	67,516	2	2	4	6.00
SWQ 	668	0	0	0	10.00
UAL 	18,337	3	0	3	7.00
UPS 	848	0	0	0	10.00
WJA 	354	0	0	0	10.00

Summary Report							
San Diego International Airport's Fly Quiet Program							
January - December 2022							
Airline Code		Number of Operations	Fleet Quality Score	Noise Exceedance Score	Curfew Violation Score	Total Fly Quiet Score	Category
AAL		14,804	4.77	5.43	-3.00	7.20	Large Carrier
AAY		997	5.66	8.66	1.00	15.31	Small Carrier
ACA		1,091	7.61	8.90	10.00	26.51	International
ASA		18,246	5.09	5.94	-20.00	-8.97	Large Carrier
BAW		633	8.61	4.90	10.00	23.51	International
DAL		16,662	4.51	5.53	-5.00	5.03	Large Carrier
DLH		354	10.43	9.60	10.00	30.04	International
FDX		3,006	5.09	2.39	7.00	14.48	Air Cargo
FFT		3,857	7.55	6.88	6.00	20.42	Small Carrier
HAL		1,457	6.83	4.57	10.00	21.41	Small Carrier
JAL		491	9.26	9.92	10.00	29.18	International
JBU		3,585	5.23	4.40	-10.00	-0.37	Small Carrier
JZA		1,038	4.60	8.20	8.00	20.80	International
NKS		3,402	6.95	8.49	8.00	23.44	Small Carrier
SCX		533	4.23	7.90	10.00	22.13	Small Carrier
SKW		21,273	3.52	8.46	10.00	21.98	Small Carrier
SWA		67,516	5.23	7.57	6.00	18.80	Large Carrier
SWQ		668	4.33	4.70	10.00	19.03	Air Cargo
UAL		18,337	5.54	5.46	7.00	18.00	Large Carrier
UPS		848	5.32	0.84	10.00	16.16	Air Cargo
WJA		354	4.90	9.86	10.00	24.76	International

Rankings Report							
San Diego International Airport's Fly Quiet Program							
January - December 2022							
Airline Code		Number of Operations	Fleet Quality Score	Noise Exceedance Score	Curfew Violation Score	Total Fly Quiet Score	Category
SWQ		668	4.33	4.70	10.00	19.03	Air Cargo
UPS		848	5.32	0.84	10.00	16.16	Air Cargo
FDX		3,006	5.09	2.39	7.00	14.48	Air Cargo
DLH		354	10.43	9.60	10.00	30.04	International
JAL		491	9.26	9.92	10.00	29.18	International
ACA		1,091	7.61	8.90	10.00	26.51	International
WJA		354	4.90	9.86	10.00	24.76	International
BAW		633	8.61	4.90	10.00	23.51	International
JZA		1,038	4.60	8.20	8.00	20.80	International
SWA		67,516	5.23	7.57	6.00	18.80	Large Carrier
UAL		18,337	5.54	5.46	7.00	18.00	Large Carrier
AAL		14,804	4.77	5.43	-3.00	7.20	Large Carrier
DAL		16,662	4.51	5.53	-5.00	5.03	Large Carrier
ASA		18,246	5.09	5.94	-20.00	-8.97	Large Carrier
NKS		3,402	6.95	8.49	8.00	23.44	Small Carrier
SCX		533	4.23	7.90	10.00	22.13	Small Carrier
SKW		21,273	3.52	8.46	10.00	21.98	Small Carrier
HAL		1,457	6.83	4.57	10.00	21.41	Small Carrier
FFT		3,857	7.55	6.88	6.00	20.42	Small Carrier
AAV		997	5.66	8.66	1.00	15.31	Small Carrier
JBU		3,585	5.23	4.40	-10.00	-0.37	Small Carrier