Airport Noise Advisory Committee (ANAC) Agenda

Wednesday, December 15, 2021 4:00 P.M.

Board Members

Gil Cabrera (Chair)
Paul Robinson (Vice Chair)
Catherine Blakespear
Mary Casillas Salas
Robert T. Lloyd
Paul McNamara
Johanna Schiavoni
Nora E. Vargas
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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 of the 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. On December 2, 2021, the San Diego County Regional Airport Authority Board adopted Resolution Number 2021-0133 finding that as a result of the continuing State of Emergency and the fact that local officials have recommended measures to promote social distancing and a finding that meeting in person continues to present imminent risks to the health and safety of attendees, it is in the best interest of the Authority and the public to continue to conduct meetings of the Board and standing committees virtually pursuant to AB 361. Therefore, in the interest of public health, all Committee Members will be participating in the meeting electronically. In accordance with Assembly Bill 361 and Authority Board Resolution No. 2021-0133, there will be no members of the public in attendance at the Committee 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 to ANAC live during the meeting, please follow these steps to request to speak:

- Step 1: Watch the meeting via via YouTube at the following link, https://youtu.be/yVDQL7Vq2Uk
- Step 2: When the Facilitator introduces the item you would like to comment on (or indicates it is time for Non-Agenda 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.

Wednesday, December 15, 2021

- Dial 1-669-900-9128. When prompted, input Conference ID: 847 5332 0741#
- 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 unmute your phone. Note: There is a delay between the ANAC 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 3:30 p.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/yVDQL7Vq2Uk

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.

Wednesday, December 15, 2021

WELCOME:

ROLL CALL:

PRESENTATIONS:

- Update on Part 150
 Sjohnna Knack, Airport Authority
- **Current Aircraft Noise Trends** Jim Payne, Airport Authority
- **Update on Fly Quiet Program** Jim Payne, Airport Authority
- ANAC Facilitator
 Sjohnna Knack, 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.

ACTION ITEMS

1. APPROVAL OF MEETING SUMMARY:

RECOMMENDATION: Approve the meeting summary of the October 20, 2021, ANAC meeting.

2. 2022 MEETING SCHEDULE DISCUSSION ON QUARTERLY MEETINGS:

RECOMMENDATION: Approve 2022 quarterly meeting dates of March 16, 2022, June 15, 2022, September 21, 2022 and December 21, 2022.

NEXT ANAC MEETING March 16, 2022

ADJOURNMENT



MEETING SUMMARY

Airport Noise Advisory Committee

Date | Time 10/20/2021 4:00 p.m.

Meeting called to order by: Heidi Gantwerk

In Attendance

| <u>Name</u> <u>Affiliation</u> | | <u>In Attendance</u> | |
|----------------------------------|---|----------------------|--|
| Community Planning Grou | ips Within the 65 dB contour | | |
| Celestin Fausino | Greater Golden Hill Planning Committee | Yes | |
| Tania Fragomeno | Downtown Community Planning Council | Yes | |
| Anthony Ciulla | Ocean Beach Planning Board | Yes | |
| Chris Cole | Uptown Planners | Yes | |
| Judy Holiday | Midway-Pacific Highway Community Planning Group | Yes | |
| Char-Lou Benedict | Community Resident at Large within 65 dB CNEL - East | Yes | |
| Paul Webb for Fred Kosmo | Peninsula Community Planning Board | Yes | |
| Community Planning Grou | ips Outside the 65 dB contour | | |
| Jonathan Cole | Pacific Beach Planning Group | No | |
| Michael Herron | Valley De Oro Community Planning Group | Yes | |
| Matthew Price | La Jolla Community Planning Association | No | |
| Deborah Watkins | Mission Beach Precise Planning Board | 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 Men | nbers | | |
| Eugene (Gene) Reindel | Acoustical Engineer | Yes | |
| Jawad Al Baghdadi | Congress, 53rd District for Rep. Sara Jacobs | Yes | |
| Makana Rowan | San Diego City Council, District 2, for Jennifer Campbell | Yes | |
| Anthony Nguyen | Congress, 52nd District for Rep. Scott Peters | No | |
| David Flores | S.D. County Board of Supervisors, District 1 | No | |
| Presenters | | | |
| Heidi Gantwerk | Facilitator | Yes | |
| Sjohnna Knack | SDCRAA | Yes | |
| Jim Payne | SDCRAA | Yes | |
| SDCRAA Staff | | | |

Dennis Probst, Brendan Reed, Roman Lanyak

¹⁴ voting members in attendance

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

1. Welcome and Introductions

Heidi Gantwerk, facilitator for the Airport Noise Advisory Committee (ANAC), opened the meeting at 4:00 p.m. with introductions. Ms. Gantwerk briefly shared the agenda and read applicable provisions of California Assembly Bill 361, which suspends certain requirements of the Ralph M. Brown Act.

2. Roll Call

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

3. Awards

Heidi Gantwerk, on behalf of the Airport, presented an award to Colonel Carl "Rick" Huenefeld, who has served on ANAC for 10 years. She also introduced Jim Gruny, who will be serving on ANAC as the new MCRD representative.

4. 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=13989

a. Update on Part 150

Sjohnna Knack stated that on June 3rd, 2021, the Airport Authority Board authorized staff to submit the Part 150 study to the FAA for review. Currently, we are waiting to have the FAA review the Noise Exposure Map (NEM) and once that is accepted, they will review the Noise Compatibility Program (NCP). Eventually, the Airport will receive a Record of Decision on the Part 150 recommendations.

Ms. Knack provided an update on the Noise Abatement Departure Procedure (NADP). While this item was a recommendation in the Part 150, is not something the Airport needs a specific FAA approval for. Since the FAA already has regulatory guidance on NADP, Airport staff is already reaching out and working with airline representatives.

Finally, Ms. Knack gave an update on the three flight procedures that were submitted to the FAA. The first one was to move waypoint JETTI west, so that aircraft turn even farther over the ocean and fly around the Peninsula. This was submitted several years ago, and the good news is that the FAA has set a tentative publication date of summer 2022. The FAA has acknowledged receipt of the other two nighttime departure procedure recommendations. These are the procedures that basically incorporate the FAA noise dots into a published procedure. This means that instead of FAA vectoring, aircraft should be able to follow a published departure procedure, which adheres to the FAA noise dots.

Public Comment:

Heidi Gantwerk described the new Public Comment process, and gave instructions on how to call in, into the ANAC meeting, over the telephone. There was no public comment on this item.

Questions from ANAC:

<u>Michael Herron</u> asked if there was an estimate as to how long it might take to receive the FAA feedback, on the Part 150 study. Also, what type of comments are being expected from the FAA?

<u>Sjohnna Knack</u> stated that, first, the FAA accepts the NEMs and it is not clear how long that will take. Once the NEMs have been accepted, the FAA starts to review the NCP, by sending an acceptance letter. This acceptance letter starts a 180-day period, in which the FAA has to finalize their review on the NCP. Throughout this time, Airport staff stays in-contact with the FAA, on regular basis, to receive updates on their review process. As to the type of comments that are being expected from the FAA, it is anticipated that those are likely to be about the study process, how the noise contours were created, and how the Airport involved the public in the Part 150 Study.

<u>Robert Bates</u> asked what kind of feedback, if any, the Airport has received from the air carriers, regarding the Noise Abatement Departure Procedure (NADP).

<u>Sjohnna Knack</u> mentioned that efforts are still in the early phases and it is too soon to provide any definitive data.

b. Update on Current Aircraft Noise Trends

Jim Payne started with an observation that Airport is seeing a significant increase in Stage 4 and Stage 5 aircraft use. This is attributed to retirement of older Stage 3 aircraft, but also due to new aircraft coming into the market. These changes in fleet will be incorporated into the Fly Quiet Program, which staff will present in December of 2021.

Mr. Payne gave updates on air service, including changes to international and domestic routes with airlines like Air Canada, British Airways, Swoop, WestJet, Frontier and Southwest.

Finally, he gave an update on public outreach efforts, where Noise and Quieter Home Program (QHP) staff had presented to several Realtor Associations to provide aircraft noise and QHP information and reviewed resources available to realtors to help with clients.

Public Comment:

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

Questions from ANAC:

<u>Chris Cole</u> asked for a copy of the most recent 65 dB contour map outline, especially to the east of the freeway. Staff will satisfy the request.

Anthony Ciulla offered an observation that the newer Airbus (Neo) and Boeing (Max) aircraft are significantly quieter. He also requested to confirm that the Fly Quiet Program would incorporate these newer aircraft, which was confirmed. Anthony also requested some analysis and data regarding the use of new aircraft, to be able to present at the local Community Board. Staff will satisfy the request.

<u>Paul Webb</u> asked about the use of wide-body aircraft. Jim Payne offered a methodology as to the use of such aircraft, including passenger carrying capacity, hub use frequency expansion, and use in domestic and international markets.

<u>Judy Holiday</u> asked about Midway community re-development projects and general community development procedures, and whether there is any coordination with the Airport Authority. Sjohnna Knack provided a brief overview of the Airport Land Use Compatibility Program (ALUCP) and methodology, in which zoning is used by the county, municipality and developers, as it relates to new construction and noise abatement projects.

<u>Michael Herron</u> asked to clarify the data on Early Turns over La Jolla. Sjohnna Knack confirmed that the Early Turns were decreasing.

<u>Anthony Ciulla</u> circled back to Judy Holiday's question and provided feedback. Based on his experience in completing a recent new construction project, Anthony reinforced the notion that the City development services are using very stringent and appropriate measures on new commercial and residential construction, including noise attenuation measures. Jorge Rubio, City of San Diego, also confirmed adherence to these stringent project development requirements.

<u>Celestin Fausino</u> asked a question about how individual residents could measure noise in their homes, so he could report back to his community. Sjohnna Knack said that portable noise monitoring is a part of the Part 150 recommendation, but the program is being developed and is not quite available, at this time.

C. Update on Community Sound Insulation Programs

Joshua Covell, Construction Manager, provided an update for the Airport's Community Sound Installation Programs.

Public Comment:

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

Questions from ANAC:

<u>Tania Fragomeno</u> asked if the wait list for QHP was based on the order of application signups or based on need. Joshua Covell replied that the priority was based on both, the order of incoming applications, as well as the priority based on noise impact. Sjohnna Knack added that according to California Title 21 requirements, the priority is to rank first on noise level and then length of ownership.

<u>Michael Herron</u> asked to clarify what was the limiting factor for faster project advancement, and where did the funds come from. Sjohnna Knack stated the funds come from the FAA grants and the average annual amount that is spend on QHP efforts is about \$12-14 million. Generally speaking, the pace of the program is based on the funding levels.

<u>Judy Holiday</u> inquired about which 570-unit apartment complex project was in the works, and where was it located. Joshua Covell replied that it was Loma Palisades, located on the west side of the Airport.

5. Public Comment (non-agenda items)

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

6. Action Items

a. Approval of May 5, 2021 Meeting Summary

Heidi Gantwerk asked if there was a motion to approve.

Judy Holiday – made the first motion to approve.

Chris Cole - made the second motion.

Public Comment:

Heidi Gantwerk offered an opportunity for the Public to call-in with a public comment on both sets of Meeting Summaries. There was no public comment on these items.

Heidi Gantwerk called for a vote on the motion to approve May 5, 2021, Meeting Summary.

All voting ANAC members unanimously voted for approval.

b. Approval of June 16, 2021 Meeting Summary

Heidi Gantwerk asked if there was a motion to approve.

Anthony Ciulla – made the first motion to approve.

Jorge Rubio - made the second motion.

Heidi Gantwerk called for a vote on the motion to approve June 16, 2021, Meeting Summary.

All voting ANAC members unanimously voted for approval.

7. Next Meeting/Adjourn

Next meeting is December 15, 2021

Meeting was adjourned.

Airport Noise Advisory Committee

December 15, 2021

SAN DIEGO COUNTY REGIONAL AIRPORT AUTHORITY

Agenda

- Welcome & Roll Call
- Update on Part 150
- Current Aircraft Noise Trends
- Update on Fly Quiet Program
- ANAC Facilitator
- Public Comment
- Approval of Meeting Summary from October 20, 2021
- 2022 Meeting Schedule Discussion on Quarterly Meetings
- Adjourn Next Meeting March 16, 2022

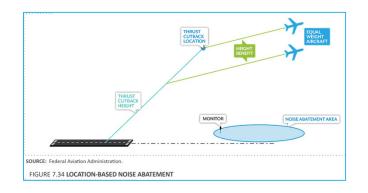


Update on Part 150

Every meeting staff will provide an update on the Part 150 Update Recommendations. Current Actions include: No Major Updates Since October



On June 3, 2021, The Airport Authority Board approved the Part 150 update and on June 10th, staff submitted the study to the FAA for their review. Waiting for their comments.



Staff is working with the Air Carriers regarding the implementation of Noise Abatement Departure Procedure (NADP). Waiting for FAA comment.



FAA flight procedure database shows that the relocation of JETTI further west is in review for Summer 2022 rollout. FAA acknowledged receipt of the two nighttime departure procedures.



Public Comment on Part 150 Update is Now Open

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

- Dial 1-669-900-9128
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- Turn off YouTube to avoid feedback
- Before speaking, state your name and begin your comments



Current Aircraft Noise Trends

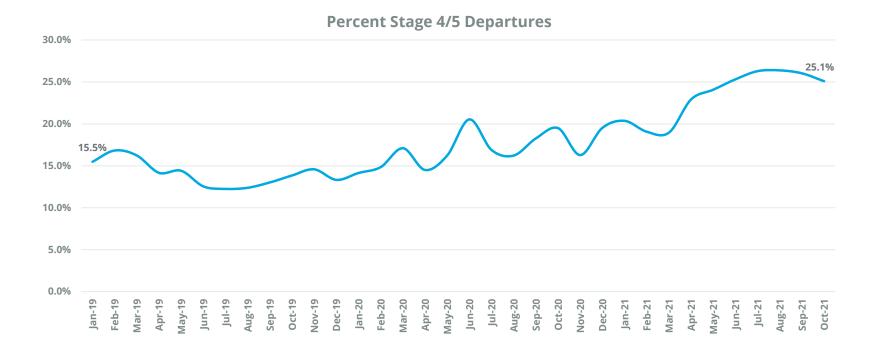
HOUSEHOLDS FILING NOISE COMPLAINTS VS. OPERATIONS





Current Aircraft Noise Trends

INCREASED AIR CARRIER STAGE 4 AIRCRAFT USAGE





Air Service Changes

- British Airways has switched to the 787-9 (Stage 4)
- Swoop new air service to Edmonton
- WestJet restarted Calgary

Stage 4 certification data has been requested from the carriers as many aircraft that are certified Stage 3 have been recertified as Stage 4. This recertification is not being picked up by ANOMS. Stage 4 use is likely substantially higher.





Public Comment On Noise Trends is Now Open

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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Fly Quiet Program Program Overview

Scoring Elements

Curfew

- No changes
- 1 Point loss for a violation
- 2 Point loss if fined

Noise Exceedance

- No changes
- Exceedances as a percent of operations
- Day (90dB)
- Evening (85 dB)
- Night (80dB)

Fleet Quality

- No changes
- Based on cumulative certification data for aircraft
- Net average of operations by type of Aircraft

Stage 4/5 (New)

- Bonus points up to a maximum of 10
- Offset fined curfew violations



Fly Quiet Program Recognition - Large Carrier

SOUTHWEST AIRLINES: October 2020 - September 2021



Award winning because:

- Use of Stage 4 Aircraft (737MAX)
- Only one curfew violation



SOUTHWEST ADDED 2,343 STAGE 4 OPERATIONS IN 2021 (13% OF THE OPERATION)



Fly Quiet Program Recognition - Small Carrier

SPIRIT AIRLINES: October 2020 - September 2021



Award winning because:

- High percentage of Stage 4 use (35% of Flights)
- No curfew violations



SPIRIT INCREASED THEIR STAGE 4 USE FROM 23% TO 35% OF THEIR OPERATION



Fly Quiet Program Recognition - Air Cargo Carrier

FEDEX EXPRESS: October 2020 - September 2021



Award winning because:

- Use of newer Stage 3 aircraft
- No curfew violations



FEDEX CONTINUES TO REPLACE THEIR OLDER DC-10 AND A300 AIRCRAFT WITH QUIETER 767-300F AIRCRAFT WHILE SELDOM VIOLATING THE CURFEW



Public Comment On Fly Quiet Program is Now Open

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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ANAC Facilitator





Public Comment on ANAC Facilitator is Now Open

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

- Dial 1-669-900-9128
- When prompted, input Conference ID: 847 5332 0741#
- 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



Non-Agenda Public Comment is Now Open

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

- Dial 1-669-900-9128
- When prompted, input Conference ID: 847 5332 0741#
- 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 the Meeting Summary is Now Open

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

- Dial <u>1-669-900-9128</u>
- When prompted, input Conference ID: 847 5332 0741#
- 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



2022 Meeting Schedule Discussion on Quarterly Meetings

Board Policy indicates that ANAC must meet quarterly, Staff is proposing quarterly meetings because:

- Projects are currently in review (Part 150 and Flight Procedures) and updates are limited.
- Limited noise staff at this time.
- Statistic updates are provided monthly on our website. https://www.san.org/Airport-Noise



Public Comment On the 2022 Meetings

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

- Dial 1-669-900-9128
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- 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



Next Meeting: March 16, 2022

SAN DIEGO COUNTY REGIONAL AIRPORT AUTHORITY



December 1, 2021

Fly Quiet Report

October 2020 – September 2021

Prepared by:

Jim Payne Senior Aircraft Noise Specialist Planning & Environmental Affairs San Diego County Regional Airport Authority



1.0 Summary of the 2021 Report (October 2020 – September 2021)

The Airport Noise Mitigation Office publishes an annual report that outlines the 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 2021.

To better align with ANAC reporting periods, we have adjusted the program evaluation period to the FAA Fiscal Year which runs from October through the following September. This will allow for facilitation of the awards with ANAC approval in December, award coordination and Board presentation to the carriers in February of each year.

Observations for 2021:

- Stage 4 use has expanded significantly due to COVID through fleet attrition improving fleet quality scores.
- Exceedance measurements performed as expected to balance out the Fleet Quality component.
- Curfew Component impacts are still on the heavy side, but this will be augmented in 2022 with a Stage 4 component allowing recovery from penalized curfew violations.

This year's winners:

- Large Carrier Southwest
- Small Carrier Spirit Airlines
- Cargo Carrier FedEx Express



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). 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 a quarterly 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:

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

2.3 Elements

Currently the Fly Quiet Program scores Air Carriers on the following three elements that will be described in detail in the next section. Over time, changes can be made to adjust to new or modified metrics. The elements are:

- Fleet Quality
- Noise Exceedances
- Curfew Compliance



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 rating 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 operations¹. 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 <u>new design aircraft</u> 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 Rating 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 sideline². 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 rating 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 Rating 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.

¹ 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.

² 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 Rating:

The Fleet Quality rating 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 4.1dB on takeoff, 3.8 dB on approach and 6.8 dB for sideline noise; for a cumulative sum of 14.7dB.

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

Table 1 - B737-700 Aircraft Example

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 rating 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 four different aircraft types in their fleet that operate at SDIA. The number of operations is multiplied by the Cumulative Noise Level of the aircraft type to generate a cumulative noise level. The cumulative noise level is then divided by the sum of operations for the carrier to create a fleet average sub score.

Table 2 – Example for Computing the Fleet Quality Sub Score.

| Aircraft Types | Cumulative Noise Level | Operations | Sum of Cumulatives Noise |
|-------------------|---------------------------|------------|--------------------------------|
| B737 | 14.3 | 80.0 | 1144.0 |
| B737MAX | 25.2 | 10.0 | 252.0 |
| B738 | 13.1 | 50.0 | 655.0 |
| B738MAX | 25.3 | 10.0 | 253.0 |
| Fleet Avg (sum of | 15.4 | | |



Table 3 demonstrates the impact to a particular Fleet Quality score as they incorporate quieter aircraft, like the 737Max or A320neo into their operation at the airport.

Table 3 – Example of Fleet Quality Improvement

| Aircraft Types | Cumulative Noise Level | Operations | Sum of Cumulatives Noise |
|-------------------|---------------------------|------------|--------------------------------|
| B737 | 14.3 | 70.0 | 1001.0 |
| B737MAX | 25.2 | 20.0 | 504.0 |
| B738 | 13.1 | 40.0 | 524.0 |
| B738MAX | 25.3 | 20.0 | 506.0 |
| Fleet Avg (sum of | 16.9 | | |

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

In the example of Table 2, the sub score is 15.4 and therefore the operator's final Fleet Quality score would be 5.13 (15.4/30*10). In Table 3, that score increases to 5.63 through the utilization of newer aircraft (16.9/30*10).



2.3.2 Noise Exceedances

Eliminating loud aircraft noise events is a long-standing goal of the Airport, as a result, the Airport has established an element that identifies the loudest aircraft departing SDIA. The arrival and departure exceedances are captured at Daytime, Evening and Nighttime levels.

- The locations of the monitors where exceedances are captured are as follows:
 - RMT #2 Approximately 3.5-nautical miles (6.5km) along the departure path to the east of the airport.
 - RMT #14 Approximately 3.5-nautical miles (6.5km) along the departure path to the west of the airport for straight out departures.
 - RMT #24 Approximately 3.5-nautical miles (6.5km) along the departure corridor to the northwest of the airport for right turn departures.

Calculation of Rating:

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. The current threshold settings are 90 dB for daytime departures (7:00 am to 7:00 pm), 85 dB in the shoulder hours (7:00 pm to 10:00 pm), and 80 dB during nighttime hours (10:00 pm to 7:00 am). Multiple exceedances for a single departure may be captured if they exceed the thresholds at both RMTs 14 and 24. As Stage 4 and 5 use increases, these threshold levels can be adjusted downward to reflect the noise improvements of the fleet and maintain measurement validity in fleet comparisons.



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 if \$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 Rating:

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 to 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:
 - o Small Carrier
 - Large Carrier
 - International Carrier (Excluded this year due to COVID)
 - o Air Cargo Carrier



Fleet Quality Report San Diego International Airport's Fly Quiet Program October 1, 2020 through September 30, 2021

| Airline | | Operations | Percent of Operations | Sub Score | Fleet Quality Score |
|---------|----------------------------------|------------|--------------------------|-----------|------------------------|
| AAL | American Airlines 🔪 | 12,998 | 11.3% | 21.00 | 7.00 |
| AAY | allegiant | 697 | 0.6% | 17.30 | 5.77 |
| ASA | Alaska. | 13,545 | 11.8% | 14.00 | 4.67 |
| BAW | BRITISH AIRWAYS | 0 | 0.0% | 0.00 | 0.00 |
| DAL | ▲ DELTA ⊚ | 12,626 | 11.0% | 12.00 | 4.00 |
| DLH | ⊕ Lufthansa | 0 | 0.0% | 0.00 | 0.00 |
| EDW | edelweiss | 0 | 0.0% | 0.00 | 0.00 |
| FDX | FedEx | 3,425 | 3.0% | 16.30 | 5.43 |
| FFT | FRONTIER LOW FARES DONE RIGHT | 3,082 | 2.7% | 20.70 | 6.90 |
| HAL | HAWAIIAN — AIRLINES.— | 1,216 | 1.1% | 21.40 | 7.13 |
| JAL | JAPAN AIRLINES | 326 | 0.3% | 27.70 | 9.23 |
| JBU | jetBlue AIRWAYS | 2,633 | 2.3% | 14.90 | 4.97 |
| JZA | Sau | 122 | 0.1% | 13.80 | 4.60 |
| NKS | Spirit" | 1,436 | 1.3% | 20.60 | 6.87 |
| ROU | rouge* | 0 | 0.0% | 0.00 | 0.00 |
| SCX | sun country airlines | 442 | 0.4% | 12.70 | 4.23 |
| SKW | SkyWest. | 13,440 | 11.7% | 14.70 | 4.90 |
| SWA | Southwest | 35,434 | 30.9% | 15.00 | 5.00 |
| UAL | UNITED | 12,250 | 10.7% | 14.90 | 4.97 |
| UPS | ups | 852 | 0.7% | 16.00 | 5.33 |
| WJA | WESTJETE | 0 | 0.0% | 0.00 | 0.00 |



Noise Exceedance Report San Diego International Airport's Fly Quiet Program October 1, 2020 through September 30, 2021

| Air | line | Operations | Daytime Exceedances (90+ dB) | Evening Exceedances (85+ dB) | Nighttime Exceedances (80+ dB) | Total Exceedances | Noise Exceedance Score |
|-----|-------------------------------|------------|------------------------------------|------------------------------------|--------------------------------------|----------------------|------------------------------|
| AAL | American Airlines 🔪 | 12,998 | 327 | 1,645 | 3,260 | 5,232 | 5.97 |
| AAY | allegiant | 697 | 2 | 43 | 33 | 78 | 8.88 |
| ASA | Alaska. | 13,545 | 379 | 2,573 | 1,796 | 4,748 | 6.49 |
| BAW | BRITISH AIRWAYS | 0 | 0 | 0 | 0 | 0 | 0.00 |
| DAL | ▲ DELTA 🏵 | 12,626 | 792 | 1,452 | 3,070 | 5,314 | 5.79 |
| DLH | Lufthansa | 0 | 0 | 0 | 0 | 0 | 0.00 |
| EDW | edelweiss | 0 | 0 | 0 | 0 | 0 | 0.00 |
| FDX | FedEx | 3,425 | 210 | 671 | 1,372 | 2,253 | 3.42 |
| FFT | FRONTIER LOW FARES DONE RIGHT | 3,082 | 11 | 141 | 712 | 864 | 7.20 |
| HAL | HAWAIIAN — BIRLINES.— | 1,216 | 36 | 479 | 25 | 540 | 5.56 |
| JAL | JAPAN AIRLINES | 326 | 1 | 1 | 0 | 2 | 9.94 |
| JBU | jetBlue AIRWAYS | 2,633 | 79 | 625 | 164 | 868 | 6.70 |
| JZA | dans | 122 | 0 | 0 | 0 | 0 | 10.00 |
| NKS | Spirit" | 1,436 | 6 | 259 | 82 | 347 | 7.58 |
| ROU | rouge* | 0 | 0 | 0 | 0 | 0 | 0.00 |
| SCX | sun country airlines | 442 | 26 | 21 | 10 | 57 | 8.71 |
| SKW | SkyWest | 13,440 | 42 | 290 | 1,398 | 1,730 | 8.71 |
| SWA | Southwest | 35,434 | 285 | 4,217 | 3,906 | 8,408 | 7.63 |
| UAL | UNITED M. | 12,250 | 1,843 | 1,683 | 1,067 | 4,593 | 6.25 |
| UPS | ups | 852 | 41 | 256 | 462 | 759 | 1.09 |
| WJA | WESTJETE | 0 | 0 | 0 | 0 | 0 | 0.00 |



Curfew Violation Report

San Diego International Airport's Fly Quiet Program October 1, 2020 through September 30, 2021

| Air | Airline | | Violations | Penalized Violations | Curfew Penalty Points | Curfew Violation Score |
|-----|----------------------------------|--------|------------|-------------------------|--------------------------|---------------------------|
| AAL | American Airlines 🔪 | 12,998 | 4 | 2 | 6 | 4.00 |
| AAY | allegiant | 697 | 2 | 1 | 3 | 7.00 |
| ASA | Alaska. | 13,545 | 10 | 5 | 15 | -5.00 |
| BAW | BRITISH AIRWAYS | 0 | 0 | 0 | 0 | 0.00 |
| DAL | ▲ DELTA ⊚ | 12,626 | 4 | 2 | 6 | 4.00 |
| DLH | ⊗ Lufthansa | 0 | 0 | 0 | 0 | 0.00 |
| EDW | * edelweiss | 0 | 0 | 0 | 0 | 0.00 |
| FDX | FedEx | 3,425 | 0 | 0 | 0 | 10.00 |
| FFT | FRONTIER LOW FARES DONE RIGHT | 3,082 | 0 | 0 | 0 | 10.00 |
| HAL | HAWAIIAN — HIRLINES.— | 1,216 | 0 | 0 | 0 | 10.00 |
| JAL | JAPAN AIRLINES | 326 | 0 | 0 | 0 | 10.00 |
| JBU | jetBlue | 2,633 | 5 | 5 | 10 | 0.00 |
| JZA | San | 122 | 0 | 0 | 0 | 10.00 |
| NKS | Spirit LESS MONEY MORE 60. | 1,436 | 0 | 0 | 0 | 10.00 |
| ROU | rouge* | 0 | 0 | 0 | 0 | 0.00 |
| SCX | sun country airlines | 442 | 0 | 0 | 0 | 10.00 |
| SKW | SkyWest. | 13,440 | 0 | 0 | 0 | 10.00 |
| SWA | Southwest | 35,434 | 1 | 0 | 1 | 9.00 |
| UAL | UNITED | 12,250 | 1 | 1 | 2 | 8.00 |
| UPS | ups | 852 | 0 | 0 | 0 | 10.00 |
| WJA | WESTJETE | 0 | 0 | 0 | 0 | 0.00 |



Summary Report San Diego International Airport's Fly Quiet Program October 1, 2020 through September 30, 2021

| Airline Code | | Number of Operations | Fleet Quality Score | Noise Exceedance Score | Curfew Violation Score | Total Fly Quiet Score | Category |
|--------------|----------------------------------|-------------------------|------------------------|------------------------------|---------------------------|--------------------------|---------------|
| AAL | American Airlines 🔪 | 12,998 | 7.00 | 5.97 | 4.00 | 16.97 | Large Carrier |
| AAY | allegiant | 697 | 5.77 | 8.88 | 7.00 | 21.65 | Small Carrier |
| ASA | Alaska. | 13,545 | 4.67 | 6.49 | -5.00 | 6.16 | Large Carrier |
| BAW | BRITISH AIRWAYS | 0 | 0.00 | 0.00 | 0.00 | 0.00 | International |
| DAL | ▲ DELTA ⊛ | 12,626 | 4.00 | 5.79 | 4.00 | 13.79 | Large Carrier |
| DLH | ⊖ Lufthansa | 0 | 0.00 | 0.00 | 0.00 | 0.00 | International |
| EDW | edelweiss | 0 | 0.00 | 0.00 | 0.00 | 0.00 | International |
| FDX | FedEx | 3,425 | 5.43 | 3.42 | 10.00 | 18.86 | Air Cargo |
| FFT | FRONTIER LOW PARES DONE RIGHT | 3,082 | 6.90 | 7.20 | 10.00 | 24.10 | Small Carrier |
| HAL | HAWAIIAN — BIRLINES.— | 1,216 | 7.13 | 5.56 | 10.00 | 22.69 | Small Carrier |
| JAL | JAPAN AIRLINES | 326 | 9.23 | 9.94 | 10.00 | 29.17 | International |
| JBU | jetBlue AIRWAYS | 2,633 | 4.97 | 6.70 | 0.00 | 11.67 | Small Carrier |
| JZA | Sau | 122 | 4.60 | 10.00 | 10.00 | 24.60 | International |
| NKS | Spirit" | 1,436 | 6.87 | 7.58 | 10.00 | 24.45 | Small Carrier |
| ROU | rouge* | 0 | 0.00 | 0.00 | 0.00 | 0.00 | International |
| SCX | sun country airlines | 442 | 4.23 | 8.71 | 10.00 | 22.94 | Small Carrier |
| SKW | SkyWest | 13,440 | 4.90 | 8.71 | 10.00 | 23.61 | Small Carrier |
| SWA | Southwest's | 35,434 | 5.00 | 7.63 | 9.00 | 21.63 | Large Carrier |
| UAL | UNITED | 12,250 | 4.97 | 6.25 | 8.00 | 19.22 | Large Carrier |
| UPS | ups | 852 | 5.33 | 1.09 | 10.00 | 16.42 | Air Cargo |
| WJA | WESTJETE | 0 | 0.00 | 0.00 | 0.00 | 0.00 | International |



Summary Report San Diego International Airport's Fly Quiet Program October 1, 2020 through September 30, 2021

| Airline Code | | Number of Operations | Fleet Quality Score | Noise Exceedance Score | Curfew Violation Score | Total Fly Quiet Score | Category |
|--------------|-------------------------------|-------------------------|------------------------|------------------------------|---------------------------|--------------------------|---------------|
| FDX | FedEx | 3,425 | 5.43 | 3.42 | 10.00 | 18.86 | Air Cargo |
| UPS | ups | 852 | 5.33 | 1.09 | 10.00 | 16.42 | Air Cargo |
| JAL | JAPAN AIRLINES | 326 | 9.23 | 9.94 | 10.00 | 29.17 | International |
| JZA | Sazz | 122 | 4.60 | 10.00 | 10.00 | 24.60 | International |
| BAW | BRITISH AIRWAYS | 0 | 0.00 | 0.00 | 0.00 | 0.00 | International |
| DLH | ⊖ Lufthansa | 0 | 0.00 | 0.00 | 0.00 | 0.00 | International |
| EDW | edelweiss | 0 | 0.00 | 0.00 | 0.00 | 0.00 | International |
| ROU | rouge* | 0 | 0.00 | 0.00 | 0.00 | 0.00 | International |
| WJA | WESTJETN | 0 | 0.00 | 0.00 | 0.00 | 0.00 | International |
| SWA | Southwest* | 35,434 | 5.00 | 7.63 | 9.00 | 21.63 | Large Carrier |
| UAL | UNITED M. | 12,250 | 4.97 | 6.25 | 8.00 | 19.22 | Large Carrier |
| AAL | American Airlines 🔪 | 12,998 | 7.00 | 5.97 | 4.00 | 16.97 | Large Carrier |
| DAL | ▲ DELTA 🏵 | 12,626 | 4.00 | 5.79 | 4.00 | 13.79 | Large Carrier |
| ASA | Alaska. | 13,545 | 4.67 | 6.49 | -5.00 | 6.16 | Large Carrier |
| NKS | Spirit LESS MONEY MORE 60. | 1,436 | 6.87 | 7.58 | 10.00 | 24.45 | Small Carrier |
| FFT | FRONTIER LOW FARES DONE RIGHT | 3,082 | 6.90 | 7.20 | 10.00 | 24.10 | Small Carrier |
| SKW | SkyWest | 13,440 | 4.90 | 8.71 | 10.00 | 23.61 | Small Carrier |
| SCX | sun country airlines | 442 | 4.23 | 8.71 | 10.00 | 22.94 | Small Carrier |
| HAL | HAWAIIAN — BIRLINES.— | 1,216 | 7.13 | 5.56 | 10.00 | 22.69 | Small Carrier |
| AAY | allegiant | 697 | 5.77 | 8.88 | 7.00 | 21.65 | Small Carrier |
| JBU | jetBlue AIRWAYS | 2,633 | 4.97 | 6.70 | 0.00 | 11.67 | Small Carrier |

^{*}International was exluded this year due to COVID.