

# SAN DIEGO COUNTY REGIONAL AIRPORT AUTHORITY

## **AIRPORT NOISE ADVISORY COMMITTEE (ANAC)**

### **MEETING AGENDA**

**Wednesday, June 21, 2017, 4:00 p.m.**

**UPSES Portuguese Hall**

**2818 Avenida De Portugal, San Diego, CA 92106**

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1. Welcome and Introductions
2. Presentation Items
  - a. Quieter Home Program Update
  - b. Curfew Violation Review Panel (CVRP) Statistics
  - c. Missed Approach Statistics
  - d. Early Turn Statistics
  - e. Metroplex Update
  - f. Noise Complaint Statistics
  - g. Fly Quiet Report – 1<sup>st</sup> Quarter 2017
3. Public Comment
4. Approval of April 26, 2017, Meeting Minutes
5. Information Items:
  - Subcommittee Update
  - Airport Authority Update
6. New Business
7. Adjourn

*Date/Time* 4/26/2017 4:00 p.m.

*Meeting called to order by:* Heidi Gantwerk

### In Attendance

<u>Name</u>	<u>Affiliation</u>	<u>In Attendance</u>
Captain (Ret.) Jack Bewley	Airline Pilot (Retired)	Yes
Lee Steuer	Representative for Congresswoman Susan Davis	Yes
Emmet Aquino	County of San Diego	No
Conrad Wear	Representative for San Diego City Council, District 2	Yes
Carl "Rick" Huenefeld	MCRD	No
Susan Ranft	Downtown Community Planning Council	Yes
Kirk Hansen	Community at Large	Yes
David Swarens	Greater Golden Hill Community Planning Committee	Yes
Deborah Watkins	Mission Beach Precise Planning Board	Yes
Fred Kosmo	Peninsula Community Planning Board	Yes
Tom Gawronski	Ocean Beach Planning Board	Yes
Victoria White	City of San Diego, Planning Department	No*
Robert Cook	FAA	Yes
Brian Elliott	Representative for Congressman Scott Peters	Yes
Chris Cole	Uptown Planners	Yes
Justin Cook	Acoustical Engineer	Yes
Vacant	Commercial Airline Pilot Representative	No
Victor Avina	Representative for San Diego County Supervisor Greg Cox	No?
Randall LaRocco	Midway/Pacific Highway Community Planning Board	No
Melissa Hernholm-Danzo	Peninsula Steering Committee	Yes
Angela Jamison	Authority Staff	Yes
Sjohnna Knack	Authority Staff	Yes
Heidi Gantwerk	Facilitator	Yes

\*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. She welcomed Fred Kosmo, representing the Peninsula Community Planning Board.

#### Presentation Items

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

<http://www.san.org/Airport-Noise/Initiatives#405494-meeting-schedule>

**Quieter Home Program Update** – Craig Mayer, Deputy Program Manager, Quieter Home Program (Program), provided an update on the Program’s status.

There are currently 660 applicants on our wait list (1,402 homes or units). That number is down a little bit from the last meeting because we started a new project. Total homes completed to date remains the same as last meeting at 3,453.

Since the last ANAC:

- We received approval to bid Project 8.12. 8.12 is an 84-unit, non-historic, multi-family project that is designed to receive a ventilation system in addition to the windows and the doors.
- We submitted 30% drawings for Project 8.10. 8.10 is a historic group of 13 single-family homes that are designed to receive air-conditioning systems.
- Staff met with FAA staff in Los Angeles to resolve outstanding concerns to move the program forward.

**Question from ANAC:** Fred Kosmo said he was approached by somebody who said that there was a slow-down in the Quieter Home Program. Mr. Kosmo wanted to know what can be done to get it back on track?

Mr. Mayer stated that since August of 2015 staff has been working with the FAA to resolve the current policy issues that the FAA wants to see incorporated into our program. He reiterated that we are doing everything we can to resolve these issues as quickly as we can.

**Curfew Violation Review Panel (CVRP) Statistics** – Sjohnna Knack, Program Manager, Airport Planning and Noise Mitigation, gave a review of the curfew violations.

For February and March of 2017 there was a significant decrease in the overall number of violations. For the two months there were three violations in February and none in March. Part of this was due to better weather conditions in March. Our assessed penalties are higher because many carriers have high multipliers.

**Missed Approach Statistics** - Ms. Knack explained the definition of missed approaches. She clarified that a missed approach is done for safety reasons and cannot be influenced by the Airport Authority.

Missed approaches for the past two months are higher as compared to last year. There were 78 in February and 58 in March. It is important to note that relative to the total number of operations, missed approaches are less than 1%. Additionally, when looking at the flight tracks of missed approaches, many flew straight out on a “normal” flight path. Only 22 in the two months turned before the noise dots.

**Early Turns** – Ms. Knack explained the difference between early turns and missed approaches. Early turns in essence are flights that are not compliant with the FAA noise dots. February early turns were higher, which coincides with the poor weather conditions. Flights were turned early to avoid thunderstorm cells. In March, early turns took a significant decrease (70% lower than last year). Predominantly this was related to the implementation of a new SoCal Metroplex procedure over Mission Beach. This procedure includes waypoints to keep aircraft compliant with the FAA noise dots. Early turns to the left over Point Loma continue to be low with the November implementation of the ZZOOO procedure.

Ms. Knack included new statistical information breaking down the reasons for early turns. This information is separated between Point Loma and Mission Beach and looks at those aircraft that were close to the noise dots (within 1,500 feet), still pending investigation, ATC, pilot deviation and weather. Most early turns were very close to the noise dots.

**Metroplex Update** –

Ms. Knack stated that she did not have an update on Metroplex, except to say that as of right now the FAA has no further SoCal Metroplex procedures to implement in San Diego.

**Question from ANAC:** Mr. Kosmo stated early turns are on a decline but it seems like pilots think they get away with it and they can turn early to save money.

Mr. Bewely, ANAC Member retired pilot, confirmed that was incorrect. He elaborated that pilots do not have the discretionary authority to make turns on their own, unless there is an emergency, such as avoiding a collision, or a

mechanical issue such as engine failure. They're not going to take an arbitrary turn to save fuel as they are constrained by the FAA (Air Traffic Control). Additionally, most pilots use the autopilot features to fly the airplane. They don't deviate from that, unless Air Traffic Control instructs them to make a turn.

Mr. Rick Savage, FAA Air Traffic Control confirmed that Mr. Bewely's statements were accurate. None of the turns are arbitrary or capricious. They're all done for a good purpose, and it's all to preserve safety. He also confirmed that often it is the flight management system that's flying the airplane. He further stated that all of the air traffic controllers are instructed not to deviate unless there is an emergency.

**Noise Complaints Statistics** – Ms. Caroline Becker, Noise Mitigation Specialist, explained her presentation of noise complaints by month. Over the past two months, there was an increase in the number of complaints to 6,288 complaints.

Out of those 6,288 complaints, the largest number of complaints we had on a singular aircraft event was seven. Two of the top five events were on March 22<sup>nd</sup> where we had two curfew violations.

When looking at the breakdown of what people are most complaining about, the greatest number of complaints were low or loud aircraft complaints, followed by over the ocean, and then off-course and low and loud. We have a couple new categories that we hadn't seen before, continuous prolonged noise, or frequency of flights.

Previously we have presented on number of noise complaints per neighborhood, however now we are moving to show number of households that issued complaints by neighborhood. For us, there is no distinction between a person sends us one complaint or 1,000 complaints, we're looking at that the same way. They're both just as valid. And we want to treat them the same way.

**Question from ANAC:** Mr. Chris Cole stated he found the breakdown to be very impressive. I asked if this data was helping staff in our discussions with airlines?

Ms. Knack stated that as it stands, the carriers are not really interested in the number of complaints. They are more interested in the types of procedures the public is concerned about. She indicated that staff is going to rectify this with a new noise complaint system that have noise complaint categories that will help us. It will switch our efforts from data entry into a case management role. She stated she will be presenting more information later in the meeting.

#### **Fly Quiet Report –**

Ms. Knack presented the second Fly Quiet Report for 4<sup>th</sup> Quarter 2016. This report looks at changes between 4<sup>th</sup> Quarter 2016, and 3<sup>rd</sup> Quarter 2016. She reminded everyone that Fly Quiet Program is a report that allows us to grade or score an operator on how quietly they operate out of our airport. Right now, we look at three elements. We look at curfew violations, early turns, and the fleet, or the type of aircraft that they're flying.

Ms. Knack discussed that both United and Southwest airlines had a high number of early turn scores, that she anticipated will improve in 2017 with the implementation of the Metroplex procedures. These airlines were also reminded of the FAA noise dots.

Curfew scores were lower due to the higher than normal violations during the holiday periods. Several carriers (United, Delta, British Airways and American) cancelled flights to avoid violating the curfew.

Fleet quality will continue to improve as older and louder aircraft are being phased out.

**Question from ANAC:** Mr. Cole asked if the new RNAV procedures are reflected in the scores?

**Ms. Knack indicated that** the early turn scores do reflect the ZZOOO procedure starting on November 2<sup>nd</sup>.

**Question from ANAC:** Mr. Kosmo asked if the carriers were actually cancelling flights to avoid curfew violations or if it was just because didn't have enough people on the flight to make it worth it.

Ms. Knack indicated that all flights out of San Diego have a very high load factor (or % of the plane that is full) so cancelling flights is not due to a low number of people on the plane. She stated she believes they do not want to violate the curfew.

#### **Subcommittee Update – Letter to FAA**

ANAC member Debbie Watkins, Chair of the ANAC Subcommittee, gave an update on the last Subcommittee meeting on Wednesday, March 15<sup>th</sup>. The topic of the meeting was an assessment of historical versus current

arrival and departure procedures for 2009, 2014, and 2016, from communities of Point Loma to La Jolla Shores. The Subcommittee also welcomed a new member from La Jolla, Chris McCann. Mr. Sandy Purdon from Point Loma, gave up his seat so that La Jolla could be represented on the panel.

Mr. Rob Cook, the FAA TRACON Supervisor, presented on the assessment of historical data for a one-month period in December 2009, 2014, and 2016. The subcommittee discussed various aspects of the presentation, including the weather impacts and aircraft sequencing impacting early turns.

Subcommittee also discussed:

- The reduction in early turns with the utilization of the SoCal Metroplex procedures, ZZOOO and PADRZ along with the number of aircraft following RNAV procedures.
- Nighttime departure routes on the 290-degree heading for noise.
- The number of aircraft that are vectored.

The Subcommittee meets again on May 17<sup>th</sup>, to review potential for procedure modification to limit or prevent early turns and missed approaches, and review the applicability of the FAA noise dots.

Several members of the Subcommittee expressed concern over the representation of the FAA not being able to address questions or make management decisions. Ms. Watkins presented a letter that the Subcommittee drafted to request the FAA to send the appropriate personnel.

Facilitator Heidi Gantwerk pointed out that ANAC had a chance to look at the letter as it was in their member package sent out last week. She stated she spoke with the staff regarding Board policy, which indicates that ANAC is not a board that can take action, ANAC can make recommendations to the Airport Authority Board. She told the panel they needed to decide if ANAC wants to recommend that staff forward this letter to the Airport Authority Board for their consideration to send the FAA the letter.

A motion was made by ANAC Member Victoria White and seconded by ANAC Member David Swarens.

During discussion, ANAC Member Brian Elliott representing Congressman Scott Peters office, pointed out that the relationship with the FAA has been very good so far. He suggested that there may be other alternatives, other than sending the letter, to maintain the positive working relationship and the open conversations we've been able to have with them.

There was a discussion between members regarding questions that were not answered in the Subcommittee meeting. Ms. Gantwerk pointed out that most questions that were not answered in the meeting were provided to members within a week after the meeting. Ms. Watkins indicated that it was the Subcommittee's preference that someone with decision-making authority would attend the meetings.

Mr. Conrad Wear representing City Councilwoman Lori Zapf's office if the FAA is required to be at the meetings. Ms. Knack stated that attendance at ANAC meetings or ANAC Subcommittee meetings is voluntary. The FAA did make a commitment in front of the Airport Authority Board to attend and they have met that commitment of supporting.

Members then discussed the possibility of not sending the letter and asking Airport Authority staff to request that Barry Davis attend the next ANAC Subcommittee meeting on May 17, 2017. Members generally felt that the request would be sufficient but that if Mr. Davis did not attend they would revisit sending the letter at the next ANAC meeting in June. Both Ms. White and Mr. Swarens were acceptable for tabling the motion.

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## 2. Public Comment

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Ms. Gantwerk opened the public comment period. She reminded the public that each speaker would have three (3) minutes to speak and would not be able to go over the allotted time, to ensure all speakers get an opportunity.

**Allan Harris:** Mr. Harris noted that on April 5<sup>th</sup>, there were ten flights that turned north over La Jolla. He wanted to know if those flights were turning north to clear a path to avoid curfew violations? He felt it was interesting that United has the highest score, but they have three flights that typically turn north most evenings. He also pointed out that he sits on the Subcommittee and was disappointed that ANAC tabled this motion to send the letter to the FAA.

**Urs Baumann:** Mr. Baumann lives in the village of La Jolla and pointed out that up until last October, he didn't have any noise, but now he has lots of noise and they fly close to the shore. He was a flight attendant for 25 years and knows a little bit about airplanes and feels the flights are closer to the shore. He asked why the FAA is not going further out before turning right? In Europe, dense populations, flights are probably a lot faster going up to the higher level, and cruising.

**Gary Wonacott,** representing the Mission Beach Town Council: Mr. Wonacott presented a proposal for ANAC to consider. He feels that pilots need to be educated on the flights over Mission Beach using PADRZ. He has analyzed how the new PADRZ is flying and feels there are modifications that could be made to decrease impacts over Mission Beach. He also talked about his desire to see more stage four operations. He obtained information on the Fly Quiet calculations and has determined there is a strong correlation between the airlines that had predominantly stage four aircraft, and ones that had the quietest scores. He feels the airport should put pressure on all carriers (especially Southwest Airlines) to fly stage four aircraft out of San Diego.

**Lee Miller:** Expressed concerns that in the last few months, the amount of noise from aircraft has risen exponentially. Historically, there has been a lot of aircraft noise from military—Marine helicopters, and private helicopters and private planes. In the last maybe six months, Mr. Miller expressed noise from commercial aircraft has increased. He expressed that he saw many Southwest airlines flights and that they were much closer and lower to the coast. The noise is constant and very stressful.

**Beatrice Pardo:** Expressed that sending a letter to the FAA for a new representative was a time sensitive matter. She stated she doesn't feel it should be difficult to get a decision maker to resolve the problems affecting their lives. She has been kept up late and night and early in the morning for noise and wants it resolved now.

**Chris McCann:** Lives in La Jolla and sits on the Subcommittee. he appreciates the efforts that have been done on this contentious issue. He read a letter from another La Jolla resident is impacted by the arrival flight path into San Diego that he felt changed several months ago. He stated that it appears everyone is unreceptive to acknowledging that these changes have adversely affected thousands of people. He indicated that he feels the altitudes on WebTrak are incorrect and are actually flying lower than it says they are. Mr. McCann stated he was disappointed about the situation with the letter. He was involved in crafting the letter and felt it was a simple request that to have someone with Barry Davis' managerial capability to understand the FAA management process at the meeting. He said that if the FAA doesn't show up with someone who helps us make solutions, they are part of the problem. Mr. McCann felt it was interesting that Southwest has some of the lowest Fly Quiet scores and he pointed out that they have many more operations as any other airline. Mr. McCann wanted to know how many of the 8,220 complaints were received by email because without the ability to send complaints via email, they will decrease because they will not have that avenue to submit complaints.

**Matthew Price:** Focused his comments on flights after 10 p.m. because he felt those flights were particularly egregious. He said that after 10 p.m. flights are nonstop and some flights that would normally go south are turning to the north along the coast and turn over La Jolla. Mr. Price pointed out that noise complaints in La Jolla make up the majority of the complaints in the San Diego community. He feels that because of this a La Jolla member should be added to this committee.

**Patty Davidson** Lives in La Jolla and noticed increased commercial air traffic outbound from near the coastline. Described that flights appear to be lower and closer to the coast. Then before when after 9:00 p.m. there were few cars and not much noise. She said the number of flights was considerably less, and not a big problem but described that now there are routine outbound flights, which take off every 30 minutes, while flights approach from the east and the noise can last five minutes. She said she gets visual jet engines, audible noise, with associated pollution from them and that she is really getting tired physically, and mentally.

**Cameron Volker:** Lives in La Jolla Shores and was present to discuss the loud jet airplane noise from jets. She explained she has lived there for over 30 years, and it was always exceptionally quiet and peaceful until approximately last November when late-night jets blasted over the neighborhood around 10:30 or later at night.. She described these jets are departures which have turned sharply over La Jolla to fly east at night. She said the continuous arrivals flying directly over our homes in La Jolla Shores, she hears all day long, and blasting noise of

jets flying continuously all day and night over her homes in La Jolla Shores. She also said jet noises are impacting her quality of life, and highly agitating, likening it to living with a giant kitchen blender or low, medium and high over her homes. She expressed in the recent past, she had no noise in La Jolla Shores from jet airplanes; it was always quiet, with the exception of some small planes and helicopters. She would like it if flight patterns, paths and altitudes could be examined and adjusted, so that La Jolla Shores can revert back to the previously peaceful neighborhood, not one with the frequency of flights, which never used to fly over. She said direct over major freeways and industrial areas where flights could be directed for arrival, away from La Jolla Shores.

**Krishna Ratnam:** Talked about the impacts the flight change has had on his children. They can now see the airline name and feel that the only cause for this is that the flight paths have changed to fly closer to the coast.

**Kasia Navarro:** Indicated she was an attorney and a mother of a small child. She has lived in La Jolla for 17 years and enjoyed peace and tranquility. She had never considered leaving her home until now because of the aircraft noise. The planes are so close she can see the colors and knows what airlines they are. She is concerned about the noise levels during the summer when they keep their windows and doors open. She made a decision to move to La Jolla, and not in Point Loma, because she knew that there were certain areas of San Diego County were going to be subject to some form of airplane noise. She is concerned with the inaction of the committee and wants changes now.

**Chris Roberts:** Mr. Roberts lives in La Jolla and referenced a recently published National Transportation Noise Map showing increases in noise because of lower aircraft altitudes. He felt that the altitudes were underrepresented because they did not account for topography. He mentioned that he felt planes were flying too close to one another, especially planes out of Montgomery Field and Gillespie Field.

**Karen Marshall:** She lives in La Jolla and feels that residents in this community were lied to, no one notified them of the flight path changes. She has read letters stating people under the flight path should have some form of relief but they have not seen it. The planes have had a negative effect on her life and her ability to enjoy the quiet and serenity in her home.

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### 3. Approval of February 17, 2016 Minutes

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Ms. Gantwerk called to motion of approval of the February 27, 2016 meeting minutes. David Swarens approved the motion and Chris Cole seconded the motion.

It was noted that Fred Cosmo and Victoria white abstained.

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### 4. Information Items

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**Eugene Riendel** – Acoustical Consultant with HMMH – presented noise regulations for airports, The presentation can be found online.

**Question from ANAC:** Ms. White asked if San Diego has a restriction on stage three aircraft already?

Ms. Knack confirmed that and indicated it was specific to a decibel level, for very loud aircraft.

**Question from ANAC:** Mr. Wear asked what the typical lifecycle of an aircraft?

Mr. Riendel responded by stating aircraft are lasting a lot longer than they were originally designed for. Stage two aircraft would still be flying today, if they were not phased out. There are some stage three aircraft, such as an MD-80, still flying that were built back in the early '70s. He indicated he estimated an aircraft could be used for 30 to 40 years.

**New Flight Tracker and Noise Complaint Entry** – Ms. Knack presented on the new web-based flight tracking program called Flight Tracker. A new vendor was selected via a competitive process to provide online flight tracking and noise complaint entries. Working with this vendor the Airport made sure to maintain the same functions as WebTrak system, and improve things by adding features that were not available previously, such as adding the noise dots.

In order to make sure that our noise complaints are providing us information that we can use with our aviation stakeholders (namely FAA and airlines) a new web-based system for entering complaints was designed. Staff spends a lot of time entering noise complaints, with the new system, complaints are automatically inputted and it requires the resident to provide specific and useful information that helps the office conduct specific research. Other benefits of the system include:

- Same level of accuracy as both WebTrak and Flight Tracker use the same FAA data feeds.
- Flight Tracker has less of a delay, only 15 minutes. For security reasons the FAA will not allow Flight Tracker to be real time.
- Eventually, residents can pull up to six months of historic flight data.
- Noise monitors will no longer be in real time, noise levels will be integrated 24-hours later. We are working to add the real time noise back into the system.

**Question from ANAC:** Melissa Hernholm-Danzo asked if there will be an auto-reply for the people that are used to emailing.

Ms. Knack replied that there will be an automatic message, one time, for 30-days.

Ms. Hernholm-Danzo stated some of the people have trouble deciphering between perhaps a Navy jet, a commercial airliner and a helicopter. She wanted to know if they answer incorrectly, then they put helicopter when it's an airplane, what is done with that data?

Ms. Knack stated that with the new noise complaint entry, there is an option for folks that may not know the type of the aircraft, they can pick the "other" category.

**Comment from ANAC:** Ms. Watkins thanked the Airport Authority for putting this new Flight Tracker in place. She said the recommendation to replace WebTrak can up at the Subcommittee.

**Question from ANAC :** Ms. White said she wanted to be sensitive to the community's concern about losing email and asked if it would be possible to send out an email blast to the people who have emailed a complaint in the past. This way we could let them know that about the changeover in the system.

Ms. Knack confirmed that an email could be sent out to everyone who had sent in a complaint in 2017.

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## 5. New Business

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There was no new business.

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## 6. Next Meeting/Adjourn

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The next meeting is scheduled for June 21st, at 4:00 p.m. location to be posted on the Airport Authority website. The meeting was adjourned at 7:20 p.m.



## PROGRAM STATISTICS

Applicants / Homes on the Wait List	666/1,411
Homes Completed in April & May 2017	0
Estimated Homes to Complete in CY 2017	20
Total Homes Completed (through May 31, 2017)	3,453

## Updates

- Project 8.12 approved by FAA, advertised and bid.
- QHP contract revision approved by FAA.
- Projects submitted for FAA review:
  - 8.10** – Historic, single-family (SF), ventilation and air conditioning designs. Originally submitted on February 22, 2017; revised and resubmitted on May 25, 2017.
  - 9.1** – Historic, multi-family (MF), ventilation on May 11, 2017.
- Pending Projects:
  - 8.11** – Non-Historic, SF and MF, 50 units.
  - 9.2** – Non-Historic, SF and MF, 40 units.
  - 9.3** – Non-Historic, SF and MF, 35 units.
  - 9.4** – Non-Historic, SF and MF, 25 units.

# CURFEW VIOLATION REVIEW PANEL

Airport Noise Advisory Committee

June 21, 2017

## Curfew Violations for April - May 2017

Date	Time	Flight ID	Aircraft Type	Penalty Status
4/12/2017	5:51	Liberty Mutual Insurance, N175BL	G I-V	Penalty, \$2,000
4/24/2017	00:21	jetBlue 530	A320	No Penalty, mechanical issue- engine cowling
5/17/2017	23:33	Frontier 1746	A320	CVRP 08/02/2017
5/17/2017	23:41	jetBlue 530	A320	No Penalty, mechanical issue- flight management system
5/25/2017	00:12	jetBlue 530	A320	CVRP 08/02/2017
5/26/2017	00:04	Spirit 189	A319	CVRP 08/02/2017
5/30/2017	23:40	Spirit 189	A319	CVRP 08/02/2017

### Annual Curfew Violations

Year	Total Curfew Violations
2013	60
2014	47
2015	55
2016	84
2017	18*

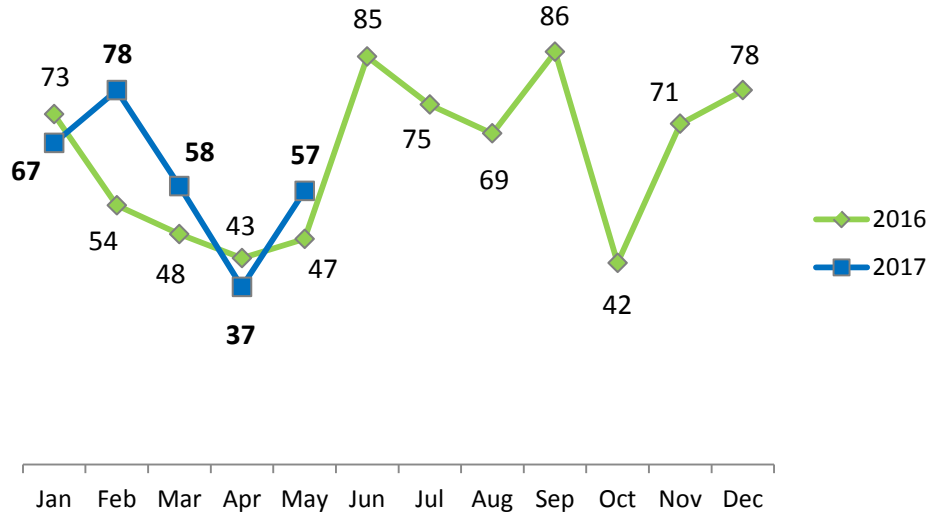
\*Through May 31, 2017

### Annual Fines Assessed

Year	Fines Assessed
2013	\$ 166,000
2014	\$ 178,000
2015	\$ 152,165
2016	\$ 564,000
2017	\$ 130,000*

\*Through May 31, 2017

## Missed Approaches by Month



## Compliance with FAA Noise Dots

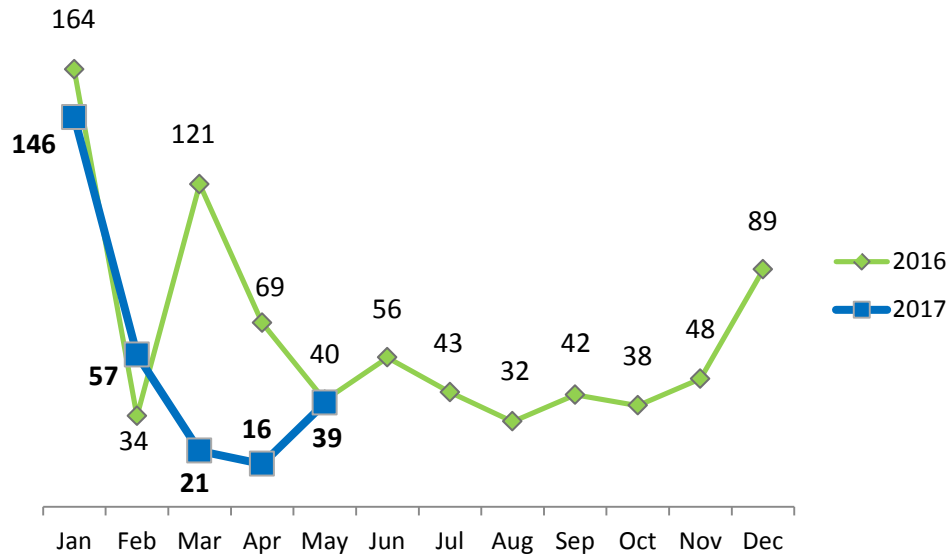
	<u>Compliant</u>	<u>Non-Compliant</u>	<u>East of Airport</u>
April, 2017	32	3	2
May, 2017	31	10	16

YEAR	Total Missed Approaches	Total Arrivals	% of Total Arrivals that are Missed Approaches
2012	692	93,126	0.7
2013	659	93,985	0.7
2014	637	95,881	0.7
2015	748	96,856	0.8
2016	771	98,566	0.8
2017	297*	40,747**	0.7

\* Through May 31, 2017

\*\* Estimated Through May 31, 2017

## 2016 – 2017 Early Turns by Month

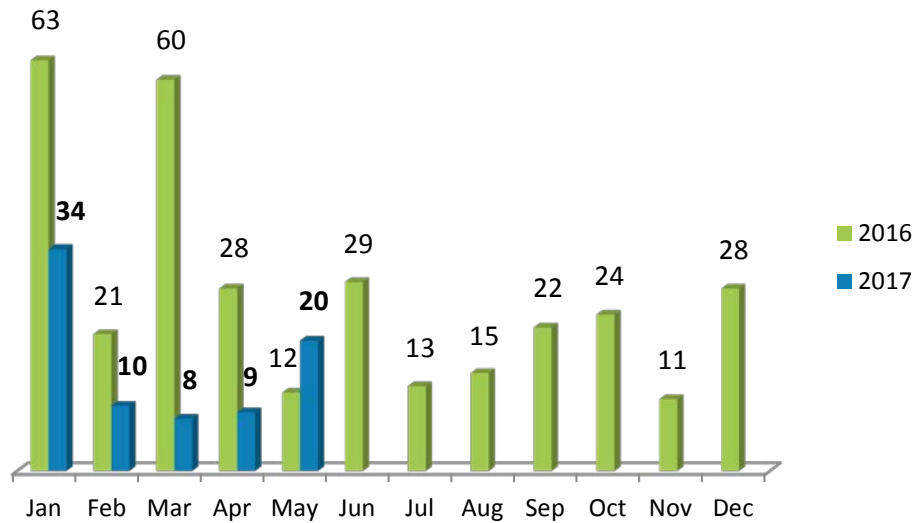


## Historical vs. Current Data

<u>YEAR</u>	<u>Below 6,000'</u>	<u>All altitudes</u>
<b>2012</b>	316	538
<b>2013</b>	200	829
<b>2014</b>	338	1,105
<b>2015</b>	467	1,293
<b>2016</b>	559	776
<b>2017</b>	242*	279*

\*Through May 31, 2017

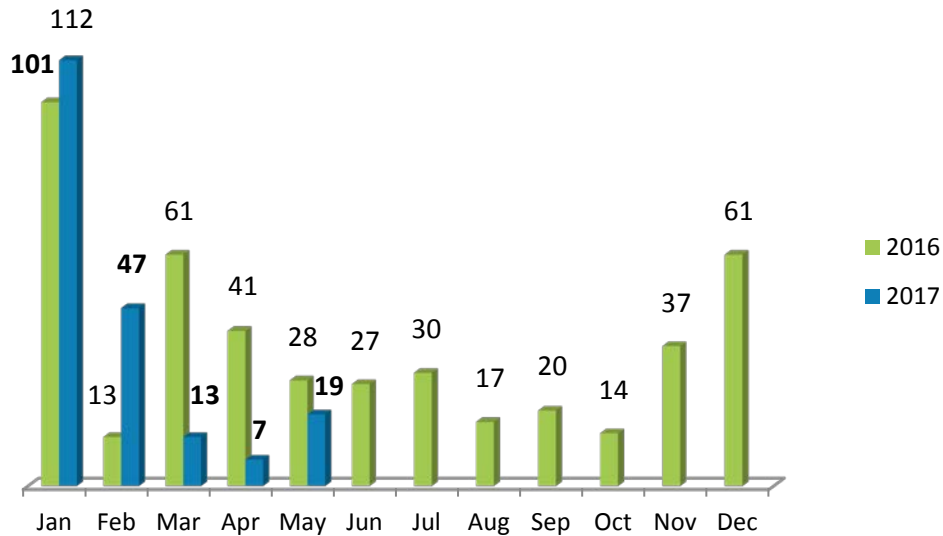
## Over Point Loma



## Early Turns by Operator (April – May 2017)

Count	Airline	Aircraft
18	General Aviation	--
3	American Airlines	A321, B738, B752
3	Southwest Airlines	B737
2	Delta Air Lines	A320, B738
1	Alaska Airlines	B737
1	Frontier Airlines	A320, B738
1	United Airlines	B737

## Over Mission Beach

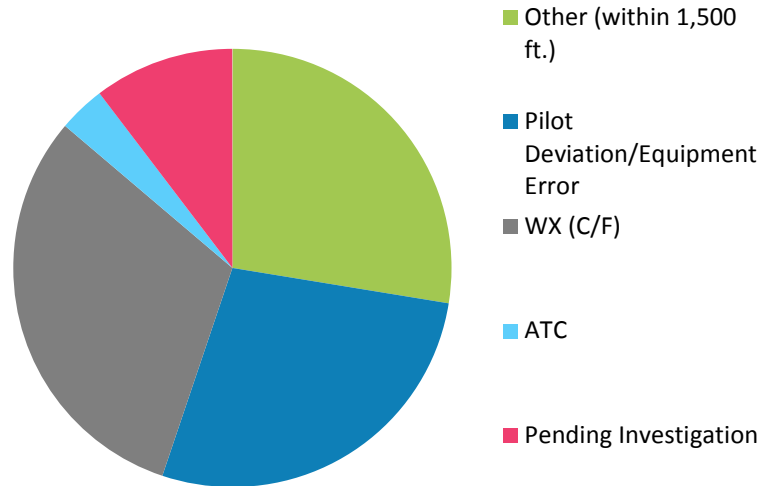


## Early Turns by Operator (April – May 2017)

<u>Count</u>	<u>Airline</u>	<u>Aircraft</u>
11	General Aviation	--
6	SkyWest Airlines	CRJ7, E75L
5	Compass Airlines	E75L, E75S
2	United Airlines	A320, B738
1	Jazz Aviation	CRJ9
1	Southwest Airlines	B737

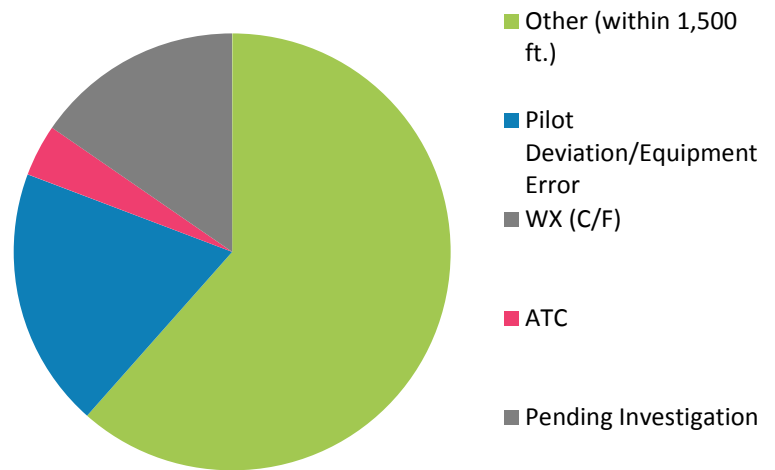
## Over Point Loma (E.T.L)

Reason	Count	%
Weather / Contra-Flow	9	31%
Within 1,500 ft. from Noise Dot	8	28%
Pilot Deviation/Equipment Error	8	28%
Pending Investigation	3	10%
ATC	1	3%
<b>TOTAL</b>	<b>29</b>	<b>100%</b>

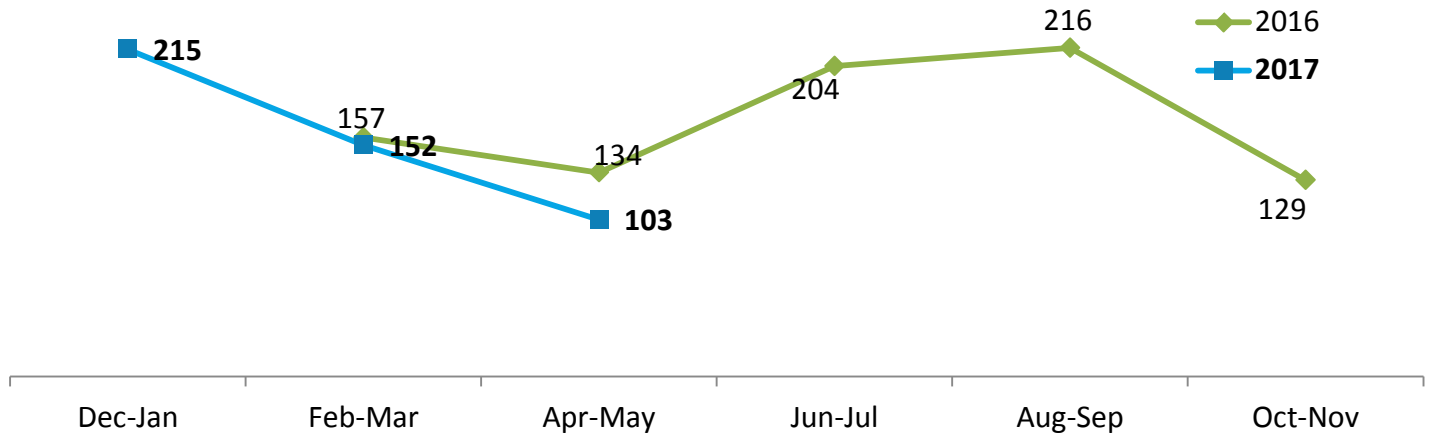


## Over Mission Beach (E.T.R)

Reason	Count	%
Within 1,500 ft. from Noise Dot	16	62%
Pilot Deviation/Equipment Error	5	19%
Pending Investigation	4	15%
ATC	1	4%
<b>TOTAL</b>	<b>26</b>	<b>100%</b>



## Noise Complaints per Household by Month



\*Through May 31, 2017

Neighborhood	Number of Households
La Jolla	23
La Jolla Mesa	16
Point Loma Heights	6
La Jolla Shores	7
Fletridge	4
Bird Rock	9
Wooded Area	9
Pacific Beach	4
Ocean Beach	3
Loma Portal	3
Sunset Cliffs	8
Other (<2 households )	11
<b>Total</b>	<b>103</b>

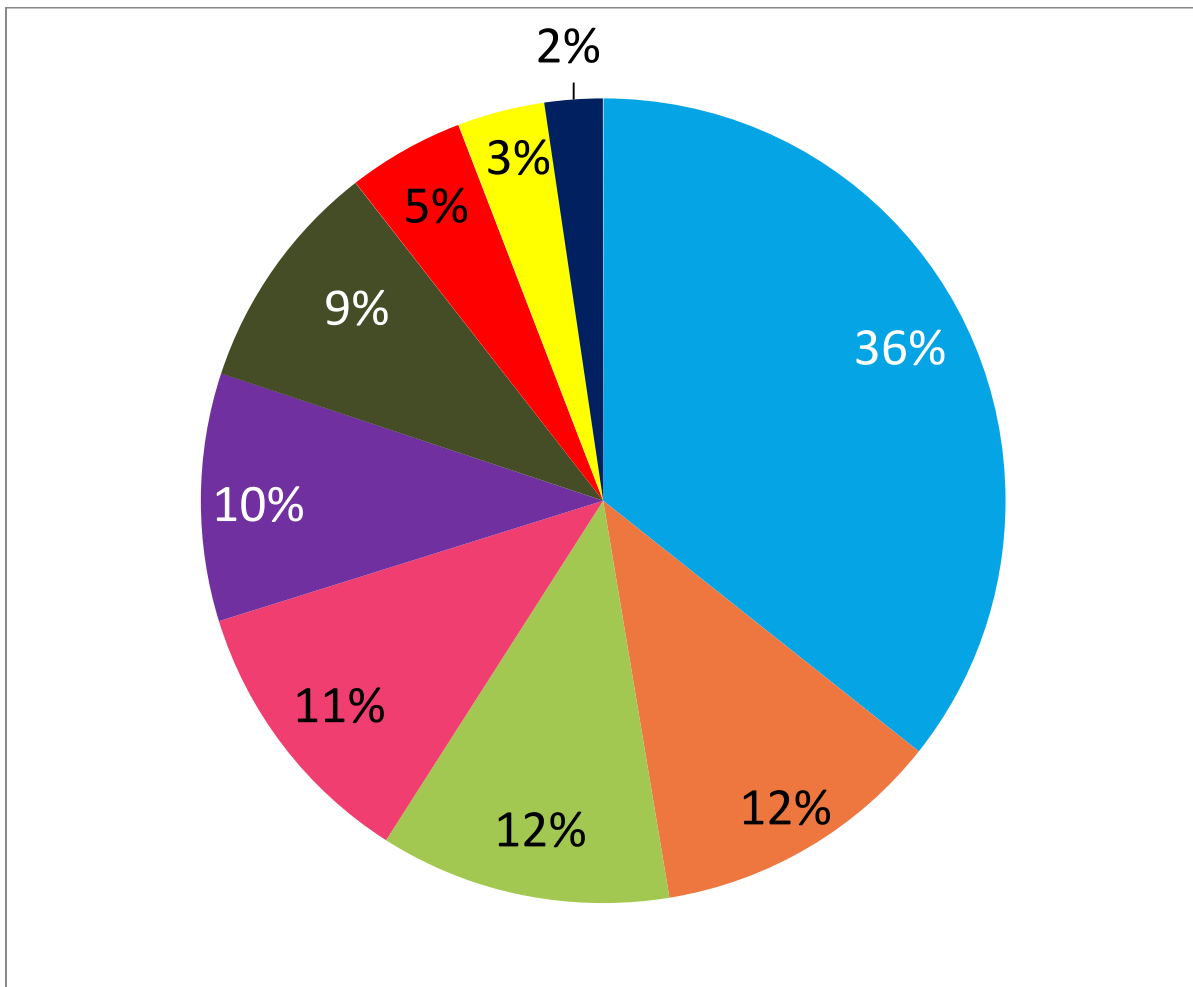











# NOISE COMPLAINT BREAKDOWN

Airport Noise Advisory Committee

June 21, 2017

## Breakdown of Complaint Reasons by Household April - May 2017



Color									
Reason	Loud	Low	General Noise Complaint	Suspected Off-Course	Early Turn	Increased Flight Volume	Curfew Violation	Loud/Low	Missed Approach
Number of Households*	61	20	20	19	17	16	8	6	4

\*Households may have had multiple complaint reasons and could be listed in multiple categories.



# SAN DIEGO INTERNATIONAL AIRPORT

## AIRPORT NOISE MITIGATION

June 9, 2017

# Fly Quiet Report

*1<sup>st</sup> Quarter 2017*

### Prepared by:

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San Diego County Regional Airport Authority



## 1.0 Summary of 1<sup>st</sup> Quarter 2017 Report

Each quarter, the Airport Noise Mitigation Office will publish this report that will outline the trends on how quietly each operator is flying in and out of San Diego International Airport (SAN). In Section 2.0 you will find a detailed description of the elements within the Fly Quiet Program.

Specific trends that were observed in this report include:

- Japan Airlines is our new leader in operating quietly at the airport. They had a near perfect score with one early turn and no curfew violations. Their fleet score continues to be high with quieter aircraft.
- Sun Country, Allegiant and Southwest Airlines improved their score by having no curfew violations this quarter.
- jetBlue score improved by having fewer curfew violations and early turns. This quarter JetBlue had three curfew violations compared to six the previous quarter and one early turn in comparison to six the previous quarter.
- American and Frontier Airlines increased their overall score by decreasing curfew violations and/or early turns.
- Compass Airlines decreased their score by having an increase in early turns. This quarter Compass Airlines had 12 early turns in comparison to four the previous quarter.
- This quarter there was an overall increase in early turns, however with the implementation of the NextGen SoCal Metroplex procedures early turns in the future should be significantly reduced, assuming strict aircraft compliance with the Metroplex profiles.
- Overall scores have improved because of the improvement in early turns and reduction in curfew violations.

## 2.0 Fly Quiet Program Description

The purpose of the San Diego International Airport's (SAN) Fly Quiet Program is to encourage individual commercial operators to operate as quietly as possible in the San Diego area by acknowledging those operators that attempt to follow the noise abatement goals of the airport. The program creates a participatory atmosphere of the operators working with the airport and community to actively reduce noise by grading an operator's performance and by making the scores available to the public.

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 Goals

The overall goal of the Fly Quiet Program is to influence commercial operators to operate as quietly as possible in the San Diego area by acknowledging those operators that make the greatest effort. Monitoring, collecting, and analyzing comprehensive amounts of operational and noise data highlights both airport trends and individual operator performance on specific noise abatement programs. Fly Quiet Program data is quantified and translated into quarterly reports for each operator rated in the Fly Quiet Program at SAN.

### 2.2 Reports

Fly Quiet reports communicate results in a clear, understandable format on a scale of 0-10, zero being poor and ten being the best. (*Note: an operator can have a score higher than 10 in the Curfew Violations element only, if they had no violations and also cancelled flights to avoid a Curfew Violation*). This allows for an easy comparison between operators over time. Individual operator scores are computed and reports are generated each quarter. These quantitative scores allow operator management and flight personnel to measure exactly how they stand compared to other operators and how their proactive involvement can positively reduce noise in the San Diego area. The overall airport score is tracked to measure the overall improvement over time.

### 2.3 Elements

Currently the Fly Quiet Program scores commercial operators on the following three elements that will be described in detail in the next section.

- Curfew Violations
- Early Turns
- Fleet Noise Quality

### 2.3.1 Curfew Violations

SAN has an existing curfew violations system in place as part of the Airport Use Regulations that 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. Stage 2 aircraft departures are restricted from 10:00 p.m. to 7:00 a.m. Any aircraft may arrive at SAN 24 hours a day.

While the authority to control aircraft in flight at airports lies solely with the FAA, prior to 1990 airports could adopt regulations to restrict hours of operations for certain aircraft types or for the airport as a whole. SAN's curfew violations system was developed in 1989. The program is mandatory; however, there are exemptions for lifeguard and emergency flights; compliance is at the discretion of the pilot or operator. Penalties may be waived if there are local issues impacting safety (such as weather or maintenance of the aircraft).

The curfew violations system includes administrative fines: \$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. Each compliance period six calendar months, starting in January and July. The Fly Quiet Program will formalize working with the operators to reduce the number of curfew violations of departing aircraft. The airport's noise monitoring system documents which operator and aircraft type depart between the curfew times, so the point value can be accurately assigned for each operation.

#### Calculation of Rating

An operator that does not log any curfew violations during the time period is automatically assigned a score of 10 points. Every operator starts with a score of 10 points. Scores are then adjusted based upon the following:

Number of Curfew Violations that are Penalized (Fined):

If the Airport's Curfew Violation Review Panel (CVRP) determines that a flight violated curfew and will be penalized, the score will be adjusted by subtracting 2 points.

Number of Curfew Violations that are Not Penalized (Fined):

If the Airport's Curfew Violation Review Panel (CVRP) determines that a flight violated curfew and will not be penalized, the score will be adjusted by subtracting 1 point.

Additionally, 1 point will be added to any operators score that cancelled a flight in order to avoid violating curfew.

### 2.3.2 Early Turns (FAA Noise Dots)

Aircraft departing SAN using Runway 27 are asked to fly runway heading until reaching a defined distance in an attempt to keep aircraft from making extraneous noise, over residential areas, while turning. These areas are defined as the FAA Noise Dots. A corridor/gate was established based on the FAA Noise Dots and departing aircraft that do not pass through that corridor/gate, regardless of the time of day, are defined as turning early. The Fly Quiet Program will formalize working with the operators to reduce the number of early turns of departing aircraft. It should be noted that some of the early turns are done at the request of FAA Air Traffic Control to maintain safe operations due to poor weather conditions or traffic separation. Staff is working with the FAA to pull out those early turns that were outside the control of the airlines.

#### Calculation of Rating

An operator that does not log any early turns during the time period is automatically assigned a score of 10 points. Every operator starts with a score of 10 points. Scores are then adjusted based upon the following.

- Subtract 0.5 Point Per Early Turn Within 1,500 Feet from Any Noise Dot.
- Subtract 1.0 Point Per Early Turn Greater Than 1,500 Feet from Any Noise Dot.

Missed approaches are not be counted as early turns as 1) they are not departures; and 2) the pilots are being given specific instructions by ATC that must be followed for safety reasons.

### 2.3.3 Fleet Noise Quality

The Fleet Noise Quality score evaluates the noise contribution of each operator's fleet as it actually operates at SAN. Operators generally own a variety of aircraft types and schedule them according to both operational and marketing considerations. The Fly Quiet Program assigns a higher rating or grade to operators operating quieter, new generation aircraft, while operators operating older, louder technology aircraft would rate lower. The goal of this measurement is to fairly compare operators – not just by the fleet they own, but by the frequency that they schedule and fly particular aircraft into SAN.

Historically airports have rated fleet noise quality by the relative percentage of Stage 2 vs. Stage 3 operations. 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 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 is a Stage 4 aircraft type, applicable to aircraft with a type certification issued after January 1, 2006; all aircraft manufactured today that are over 12,500 pounds meet these Stage 4 standards. The majority of the commercial aircraft fleet remains Stage 3.

The method used here bases an operator's Fleet Noise Quality Rating on established 14 CFR Part 36 noise certification data. For each aircraft type, Part 36 specifies allowable noise levels at three measurement locations: approach, departure, and sideline. 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 Noise Quality rating totals the difference between each aircraft's certified noise levels at all three measuring points and the Stage 3 standard for that weight and number of engines. Aircraft with the greatest number of decibels below Stage 3 threshold are rated the best.

Similar to and consistent with Part 36, the Fleet Noise 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.

### Calculation of Rating

The Fleet Noise Quality rating calculation takes the takeoff, approach and sideline noise difference 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 total difference of 14.7 dB.

**Table 1 – B737-700 Aircraft Example**

<b>B737-700 Aircraft</b>	<b>Takeoff (EPNdB)</b>	<b>Approach (EPNdB)</b>	<b>Sideline (EPNdB)</b>	<b>Total dB Below Stage 3 Limits</b>
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	<b>14.7</b>

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 Noise Quality rating methodology looks at each operator at SAN and their specific aircraft fleet. Certifications values for each aircraft type are averaged together per operator.

Table 2 provides an example for commuting the Fleet Noise Quality Sub Score. Airline A has four different aircraft types in their fleet that operate at SAN. The percent of total operations for each aircraft type is calculated based upon the total quarterly operations per aircraft type and the total number of operations for Operator A. The average certification values for each aircraft type are calculated from the Part 36 certification database for commercial aircraft and the resulting values are then calculated per aircraft type. The Fleet Noise Quality Sub Score is calculated by summing all of the resulting values per aircraft type.

**Table 2 – Example for Commuting the Fleet Noise Quality Sub Score**

<b>Operator A - Aircraft Types</b>	<b>Total Quarterly Operations</b>	<b>Percent of Total Operations</b>	<b>Average Total dB Below Stage 3 Limits</b>	<b>Resulting Value</b>
B733	3066	21.1%	9.4	21.1% * 9.4 = 1.99
B735	14	0.1%	11.3	0.1% * 11.3 = 0.01
B737	10046	69.2%	13.9	69.2% * 13.9 = 9.62
B738	1386	9.6%	12.5	9.6% * 12.5 = 1.19
Total	14512	100%	<b>Fleet Noise Quality Sub Score</b>	<b>12.8</b>

The Fleet Noise Quality Score for each operator is determined based upon what range the sub score falls under. The following is a list of the Fleet Noise Quality Scores and corresponding sub score ranges.

- 0 Points; Sub Score between 0 and 5.
- 1 Point; Sub Score between 5 and 10.
- 2 Points; Sub Score between 10 and 11.
- 3 Points; Sub Score between 11 and 12.
- 4 Points; Sub Score between 12 and 13.
- 5 Points; Sub Score between 13 and 14.
- 6 Points; Sub Score between 14 and 15.
- 7 Points; Sub Score between 15 and 16.
- 8 Points; Sub Score between 16 and 17.
- 9 Points; Sub Score between 17 and 18.
- 10 Points; Sub Score 18 or Greater.






















In the example of Table 2, the sub score is 12.8 and therefore the operator's final Fleet Noise Quality score would be 4.

### 3.0 Reports

The following pages contain the Fly Quiet Summary Report and the individual element reports for the 1<sup>st</sup> Quarter of 2017 and the Fly Quiet Summary Report for 4<sup>th</sup> Quarter 2016. The Fly Quiet Summary Reports contains the total Fly Quiet score and ranking of the commercial operators.



**Higher Number=Better Score**  
**Summary Report ranks by**  
**“Quietest” to “Loudest” operator**

Summary Report								
San Diego International Airport Fly Quiet Program								
1st Quarter 2017 (January 1, 2017 - March 31, 2017)								
Airline Code		Number of Operations	Percent of Total Operations	Curfew Violations Score	Early Turns Score	Fleet Noise Quality Score	Total Fly Quiet Score	Ranking
JAL		184	0.5%	10.0	9.5	10.0	29.5	1
NKS		692	1.9%	10.0	9.0	10.0	29.0	2
AAY		196	0.5%	10.0	10.0	7.0	27.0	3
GTI		134	0.4%	10.0	10.0	6.0	26.0	4
HAL		182	0.5%	10.0	9.5	6.0	25.5	5
SCX		156	0.4%	10.0	10.0	5.0	25.0	6
WJA		128	0.4%	10.0	10.0	5.0	25.0	6
JBU		788	2.2%	5.0	9.5	10.0	24.5	8
VRD		902	2.5%	10.0	7.0	7.0	24.0	9
FDX		616	1.7%	10.0	9.0	5.0	24.0	9
ROU		162	0.4%	10.0	10.0	4.0	24.0	9
UPS		230	0.6%	10.0	8.5	5.0	23.5	12
FFT		530	1.5%	4.0	10.0	8.0	22.0	13
BAW		176	0.5%	10.0	10.0	1.0	21.0	14
ASA		3,636	10.0%	7.0	8.0	5.0	20.0	15
SKW		792	2.2%	10.0	1.5	6.0	17.5	16
AAL		4,156	11.5%	11.0	2.0	4.0	17.0	17
DAL		3,220	8.9%	8.0	3.0	6.0	17.0	17
UAL		4,204	11.6%	10.0	0.0	5.0	15.0	19
SWA		16,214	44.8%	10.0	0.0	4.0	14.0	20
CPZ		108	0.3%	10.0	2.5	1.0	13.5	21


Curfew Violations Report					Higher Number=Better Score Airlines Sorted Alphabetically
San Diego International Airport Fly Quiet Program					
1st Quarter 2017 (January 1, 2017 - March 31, 2017)					

Airline Code		Number of Operations	Percent of Total Operations	Number of Curfew Violations Penalized	Number of Curfew Violations Not Penalized	Curfew Violations Score
AAL		4,156	10.7%	0	1	11.0
AAY		196	0.5%	0	0	10.0
ASA		3,636	9.3%	1	1	7.0
BAW		176	0.5%	0	0	10.0
CPZ		1,714	4.4%	0	0	10.0
DAL		3,220	8.3%	1	0	8.0
FDX		616	1.6%	0	0	10.0
FFT		530	1.4%	3	0	4.0
GTI		134	0.3%	0	0	10.0
HAL		182	0.5%	0	0	10.0
JAL		184	0.5%	0	0	10.0
JBU		788	2.0%	2	1	5.0
NKS		692	1.8%	0	0	10.0
ROU		162	0.4%	0	0	10.0
SCX		156	0.4%	0	0	10.0
SKW		792	2.0%	0	0	10.0
SWA		16,214	41.6%	0	0	10.0
UAL		4,204	10.8%	0	0	10.0
UPS		230	0.6%	0	0	10.0
VRD		128	0.3%	0	0	10.0
WJA		902	2.3%	0	0	10.0
Non Scheduled Operators				1	0	-
<b>Total</b>		39,012	100%	8	3	-
<b>Average</b>		-	-	-	-	9.3

Operators Who Cancelled a Flight to Avoid a Curfew Violation	
American Airlines - 2	













Early Turns Report					
San Diego International Airport Fly Quiet Program					
1st Quarter 2017 (January 1, 2017 - March 31, 2017)					






















Higher Number=Better Score  
Airlines Sorted Alphabetically

Airline Code		Number of Operations	Percent of Total Operations	Number of Early Turns	Percent of Early Turns from Number of Departures	Early Turns Score
AAL		4,156	10.7%	10	0.5%	2.0
AAY		196	0.5%	0	0.0%	10.0
ASA		3,636	9.3%	4	0.2%	8.0
BAW		176	0.5%	0	0.0%	10.0
CPZ		1,714	4.4%	12	1.4%	2.5
DAL		3,220	8.3%	10	0.6%	3.0
FDX		616	1.6%	1	0.3%	9.0
FFT		530	1.4%	0	0.0%	10.0
GTI		134	0.3%	0	0.0%	10.0
HAL		182	0.5%	1	1.1%	9.5
JAL		184	0.5%	1	1.1%	9.5
JBU		788	2.0%	1	0.3%	9.5
NKS		692	1.8%	1	0.3%	9.0
ROU		162	0.4%	0	0.0%	10.0
SCX		156	0.4%	0	0.0%	10.0
SKW		792	2.0%	14	3.5%	1.5
SWA		16,214	41.6%	73	0.9%	0.0
UAL		4,204	10.8%	29	1.4%	0.0
UPS		230	0.6%	2	1.7%	8.5
WJA		128	0.3%	0	0.0%	10.0
VRD		902	2.3%	5	1.1%	7.0
Non Scheduled Operators				60	-	-
<b>Total</b>		39,012	100%	224	-	-
<b>Average</b>		-	-	-	-	7.1

Please note that some of the early turns are done at the request of FAA Air Traffic Control to maintain safe operations due to poor weather conditions or traffic. Staff is working with the FAA to pull out those early turns that were outside the control of the airline

<b>Fleet Noise Quality Report</b>	<b>Higher Number=Better Score Airlines Sorted Alphabetically</b>
San Diego International Airport Fly Quiet Program	
1st Quarter 2017 (January 1, 2017 - March 31, 2017)	

Airline Code	Number of Operations	Percent of Total Operations	Sub Score	Fleet Noise Quality Score
AAL 	4,156	10.7%	12.6	4.0
AAY 	196	0.5%	15.7	7.0
ASA 	3,636	9.3%	13.6	5.0
BAW 	176	0.5%	9.7	1.0
CPZ 	1,714	4.4%	9.4	1.0
DAL 	3,220	8.3%	14.5	6.0
FDX 	616	1.6%	13.6	5.0
FFT 	530	1.4%	17.2	8.0
GTI 	134	0.3%	14.5	6.0
HAL 	182	0.5%	14.1	6.0
JAL 	184	0.5%	26.2	10.0
JBU 	788	2.0%	19.6	10.0
NKS 	692	1.8%	18.9	10.0
ROU 	162	0.4%	12.3	4.0
SCX 	156	0.4%	13.5	5.0
SKW 	792	2.0%	14.0	6.0
SWA 	16,214	41.6%	12.5	4.0
UAL 	4,204	10.8%	13.4	5.0
UPS 	230	0.6%	13.1	5.0
WJA 	128	0.3%	13.0	5.0
VRD 	902	2.3%	15.6	7.0
<b>Total</b>	39,012	100%	-	-
<b>Average</b>	-	-	14.7	5.7

Summary Report								
San Diego International Airport Fly Quiet Program								
4th Quarter 2016 (October 1, 2016 - December 31, 2016)								
Airline Code		Number of Operations	Percent of Total Operations	Curfew Violations Score	Early Turns Score	Fleet Noise Quality Score	Total Fly Quiet Score	Ranking
NKS		926	2.3%	10.0	10.0	10.0	30.0	1
JAL		184	0.5%	10.0	9.0	10.0	29.0	2
FDX		670	1.7%	10.0	10.0	6.0	26.0	3
HAL		186	0.5%	10.0	10.0	6.0	26.0	3
GTI		128	0.3%	10.0	10.0	6.0	26.0	3
ROU		210	0.5%	10.0	8.5	7.0	25.5	6
UPS		250	0.6%	10.0	10.0	5.0	25.0	7
WJA		150	0.4%	9.0	10.0	5.0	24.0	8
VRD		1,024	2.5%	8.0	8.0	7.0	23.0	9
BAW		180	0.4%	11.0	10.0	2.0	23.0	9
ASA		3,618	9.0%	10.0	7.5	5.0	22.5	11
AAV		232	0.6%	6.0	9.5	7.0	22.5	11
SCX		212	0.5%	6.0	10.0	5.0	21.0	13
SKW		1,362	3.4%	10.0	6.5	4.0	20.5	14
DAL		3,308	8.2%	9.0	5.0	6.0	20.0	15
CPZ		316	0.8%	10.0	8.0	1.0	19.0	16
JBU		864	2.1%	1.0	7.0	10.0	18.0	17
UAL		4,636	11.5%	11.0	0.0	5.0	16.0	18
FFT		480	1.2%	1.0	6.5	8.0	15.5	19
AAL		4,406	10.9%	3.0	4.0	4.0	11.0	20
SWA		17,044	42.2%	2.0	0.0	4.0	6.0	21