



SAN DIEGO
INTERNATIONAL AIRPORT

LET'S **GO.**

Airport Noise Advisory Committee

April 18, 2018

Agenda

1. Welcome and Introductions
2. Presentation Items
 - a. Quieter Home Program Update
 - b. Missed Approach Statistics
 - c. Early Turn Statistics
 - d. Curfew Violation Review Panel Statistics
 - e. Noise Complaint Statistics
 - f. 4th Qtr. 2017 Fly Quiet Report
 - g. Update on ANAC Recommendations
 - h. Part 150 TAC Update (Flt. Procedure Eval.)
 - i. Recognition of ANAC Members
3. Public Comment
4. Action Items
 - a. Approval of Minutes from February 21, 2018.

Next Meeting: June 20, 2018

1. Adjourn



Quieter Home Program Update

PROGRAM STATISTICS

Applicants / Homes on the Wait List	504/985
Homes Completed in Feb 2018 & March 2018	42
Estimated Homes to Complete in CY 2018	300
Total Homes Completed (through March 31, 2018)	3,529

Updates

- **8.12** – Construction Completion in April, 84 units
- **9.1, 8.10, 8.11, 9.3 & 9.4** – Construction contracts awarded, pre construction activities underway.

Questions ?



Definition: Missed Approaches



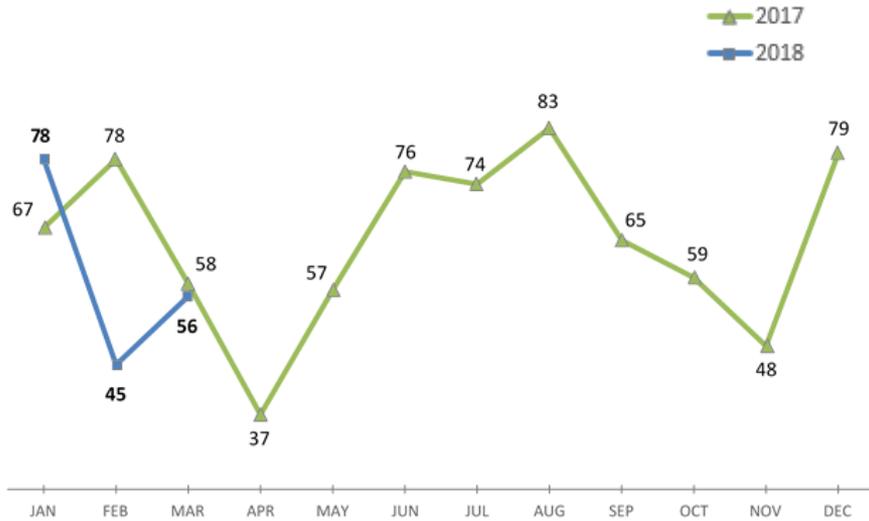
Commonly referred to as a “Go-Around,” a missed approach occurs when an aircraft cannot complete its landing and is required to make another attempt. It can be caused by:

- Inclement weather conditions
- Debris on the runway
- ATC separation of aircraft, slower aircraft unable to exit airspace or runway, forcing larger aircraft to go around

Missed approaches are **safety operations** that the Authority cannot influence.

Missed Approach Statistics

Missed Approaches by Month



Missed Approaches by Year

YEAR	Total M/A	% Change	Total Arrivals	% Change	% of Total Arrivals that are M/A
2013	659	--	93,985	--	0.7
2014	637	(3.3%)	95,881	2%	0.7
2015	748	17.4%	96,856	1%	0.8
2016	771	3.1%	98,566	1.8%	0.8
2017	781	1.3%	104,725	6.2%	0.7
2018	179*	--	26,042*	--	0.7

*Through March 31, 2018

Missed Approach Locations



● = FAA Noise Dots

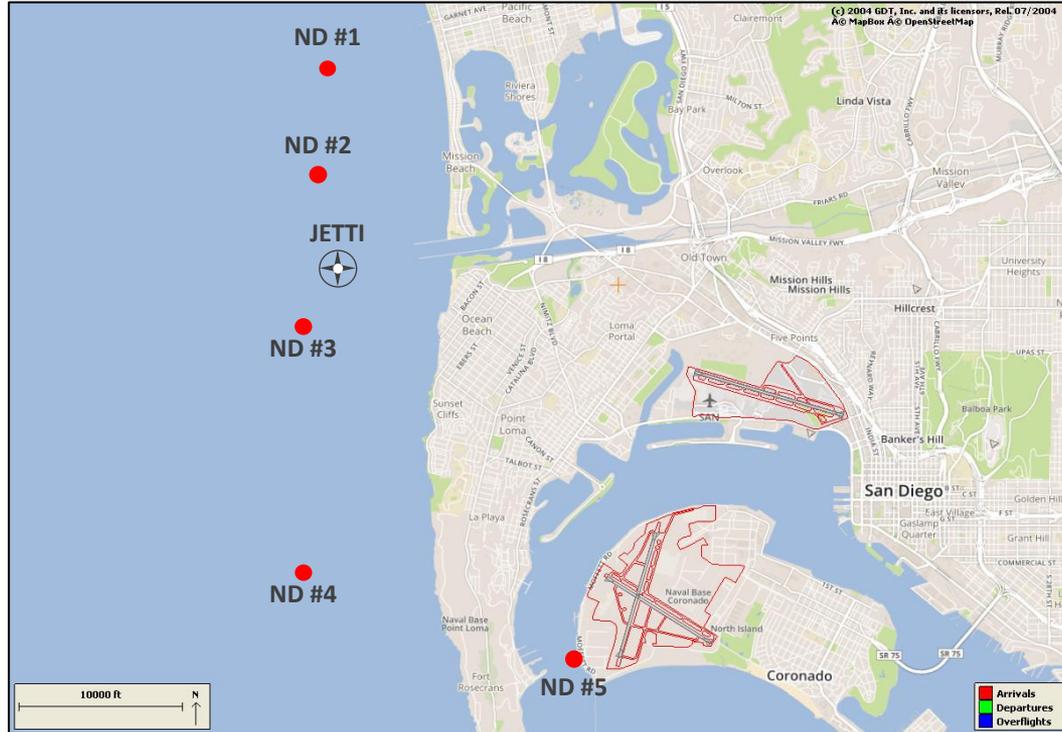
Missed Approaches Outside 265° - 295° Headings

	2016	2017	2018
Jan	18	15	8
Feb	11	9	3
Mar	10	5	9
Apr	11	3	
May	12	10	
Jun	29	20	
Jul	25	17	
Aug	19	16	
Sep	22	14	
Oct	11	15	
Nov	11	7	
Dec	12	13	

Date	265° - 295° Headings (Standard)	Left of 265°	Right of 295°	East of Airport	Day	Night
February	42	3	0	1	38	7
March	47	8	1	3	50	6

Missed approaches are safety-related operations and are not subject to the FAA Noise Dot agreement

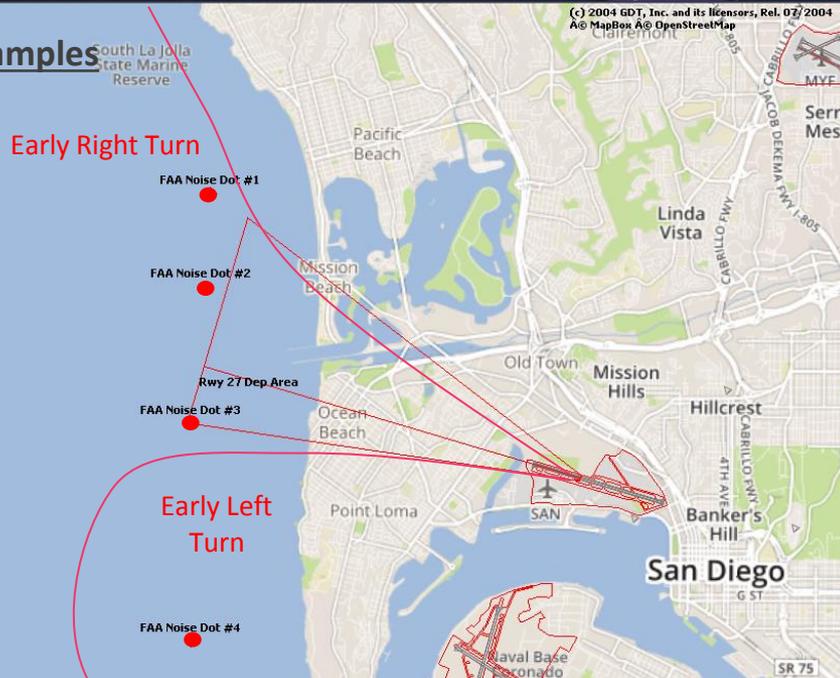
Missed Approach Locations



Date	ND #1 - ND #2	ND #2 - JETTI	JETTI – ND #3	ND #3 - ND #4
February	4	30	9	3
March	0	35	25	8

Definition: Early Turns

Examples

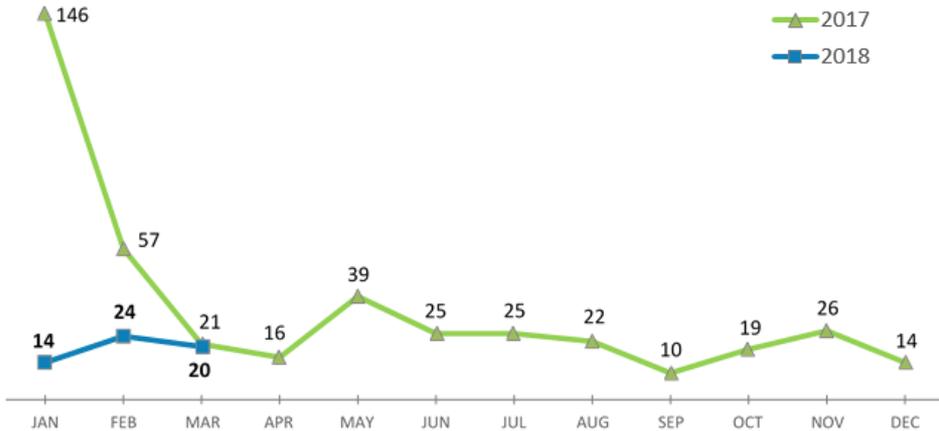


The Authority has defined early turns to the right as those aircraft that turn prior to FAA Noise Dot #1 at the 295-degree heading to the right. Left early turns are defined as those aircraft that turn prior to the FAA Noise Dot #3 at the 265-degree heading to the left.

Causes for early turns can be similar to missed approaches and are often due to weather or separation.

Early Turn Statistics

Early Turns by Month



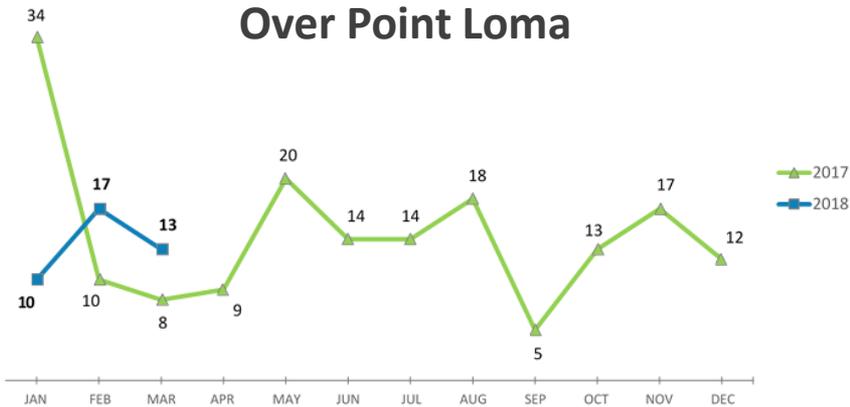
Historical vs. Current Data

YEAR	Below 6,000'	All Altitudes
2013	200	829
2014	338	1,105
2015	467	1,293
2016	559	776
2017	327	420
2018	32*	58*

*Through March 31, 2018

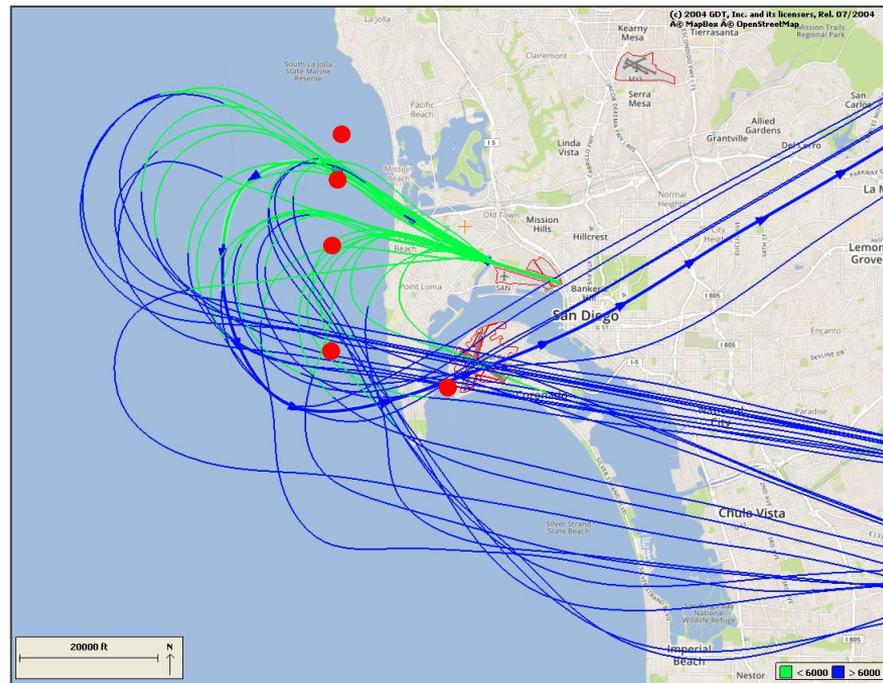
Early Turn Statistics - Left

Over Point Loma



Early Turns by Operator (Feb – Mar 2018)

Count	Airline	Aircraft	Total Operator Departures
9	Southwest Airlines	B737, B738	5,913
7	General Aviation	--	1,358
4	United Airlines	B738, B739	1,490
3	American Airlines	A321, B738	1,409
2	Delta Air Lines	A321, B738	1,118
2	Frontier Airlines	A319, A320	204
2	jetBlue Airways	A321	297
1	Swift Air	B733	4



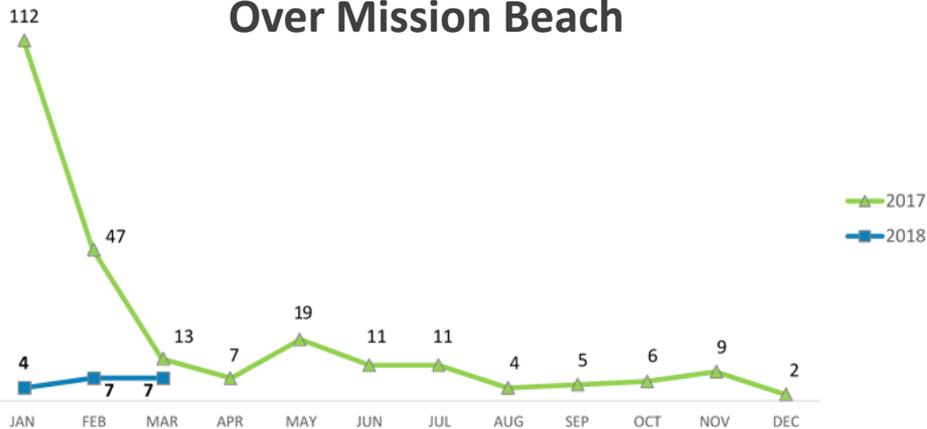
Legend:



● = FAA Noise Dots

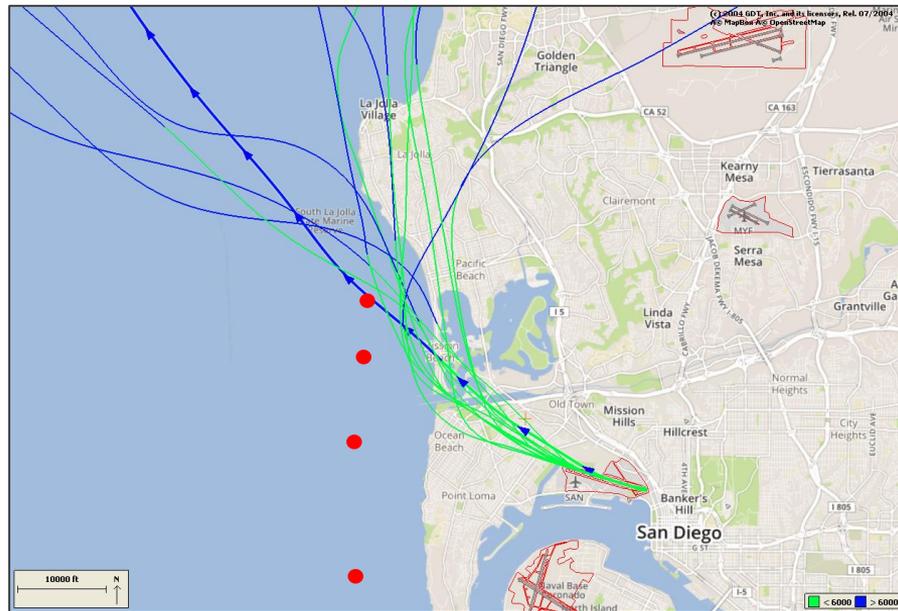
Early Turn Statistics - Right

Over Mission Beach



Early Turns by Operator (Feb – Mar 2018)

Count	Airline	Aircraft	Total Operator Departures
10	General Aviation	--	1,358
2	SkyWest Airlines	CRJ7, E75L	1,752
1	jetBlue Airways	A320	297
1	Southwest Airlines	B737	5,913



Legend:



● = FAA Noise Dots

Breakdown of Early Turns

Over Point Loma

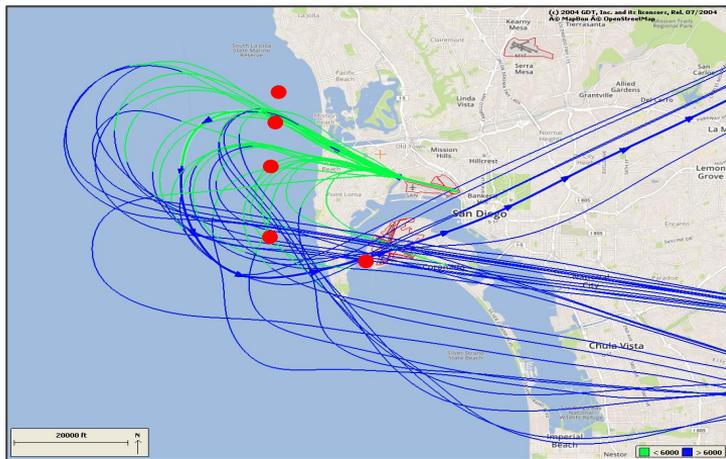
Reason	Count	%
Air Traffic Control (ATC)	22	73%
Weather-related / Contra Flow	7	23%
Pilot Deviation / Equipment Error	1	4%
TOTAL	30	100%

Note:

Cause breakdown is based on SDCRAA review of flight track replay and has not been confirmed by the FAA

Over Mission Beach

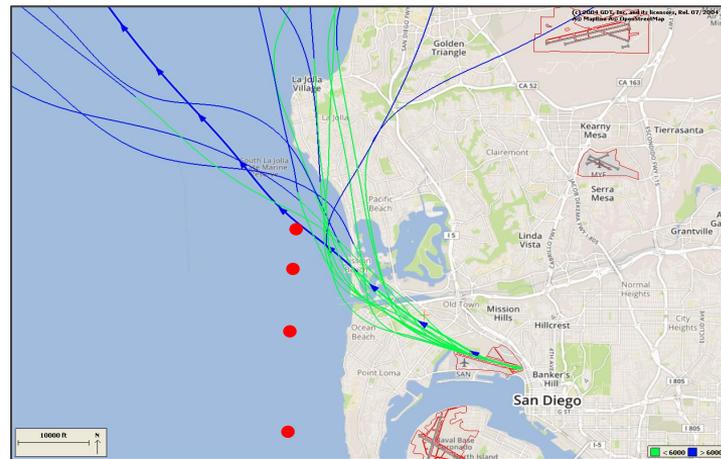
Reason	Count	%
Air Traffic Control (ATC)	7	50%
Pilot Deviation / Equipment Error	4	29%
Weather-related / Contra Flow	3	21%
TOTAL	14	100%



Legend:



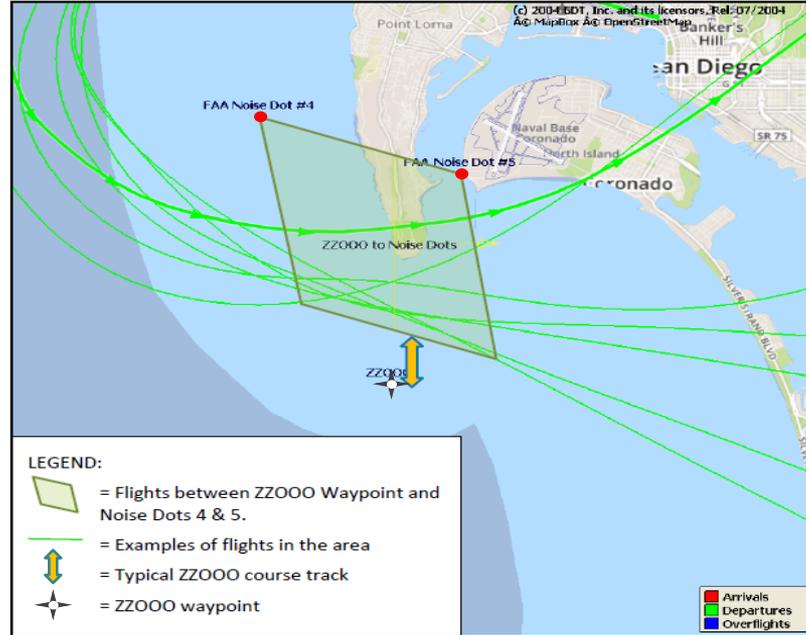
● = FAA Noise Dots



Flight Information - Pt. Loma

Flights Between ZZ000 Waypoint and Noise Dots

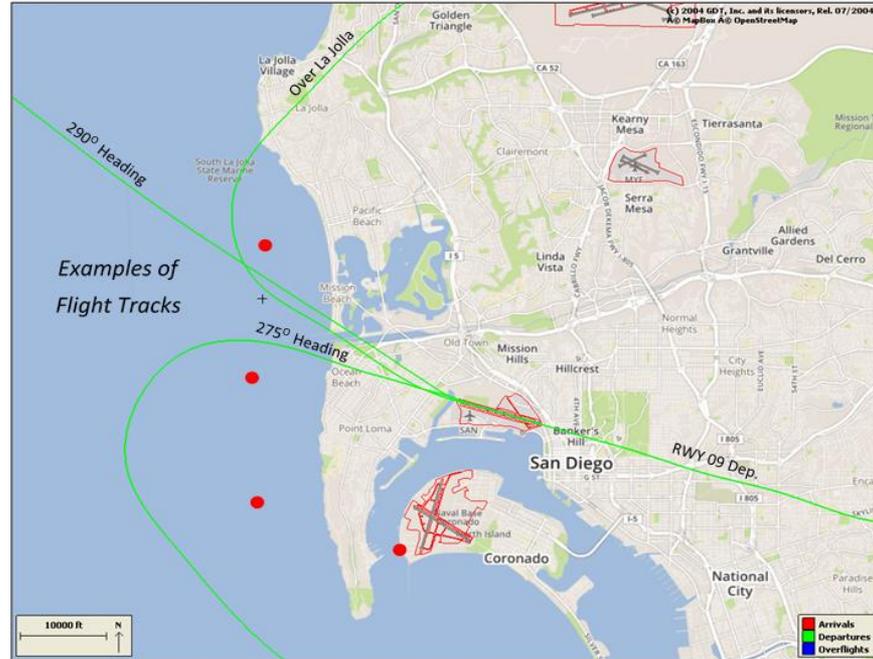
Note: These flights are following published flight routes and are not off course.



Date	Jets Turning Left	Between ZZ000 & Noise Dots	%
February	3,994	589	15%
March	4,643	657	14%

Flight Information - Nighttime Departures

Nighttime
10:00 p.m. – 6:30 a.m.



Date	Runway Heading (275°)	Adhered to Nighttime Dep. (290°)	Runway 09 Dep.	Total (Jet)	Over La Jolla (compliant)
February, 2018	4	257	--	261	12
March, 2018	8	460	6	474	12

Questions ?



Curfew Violation Review

Curfew Violations in February - March 2018

SUMMARY:

5 violations in February, penalized 2
1 violation in March, penalized 1

Mechanical:

February 11, 2018: JBU – Main Gear Issue
February 12, 2018: ASA – Galley Lighting Issue
February 27, 2018: UAL – Radio Control Panel Issue

To be reviewed on June 6, 2018 CVRP meeting:

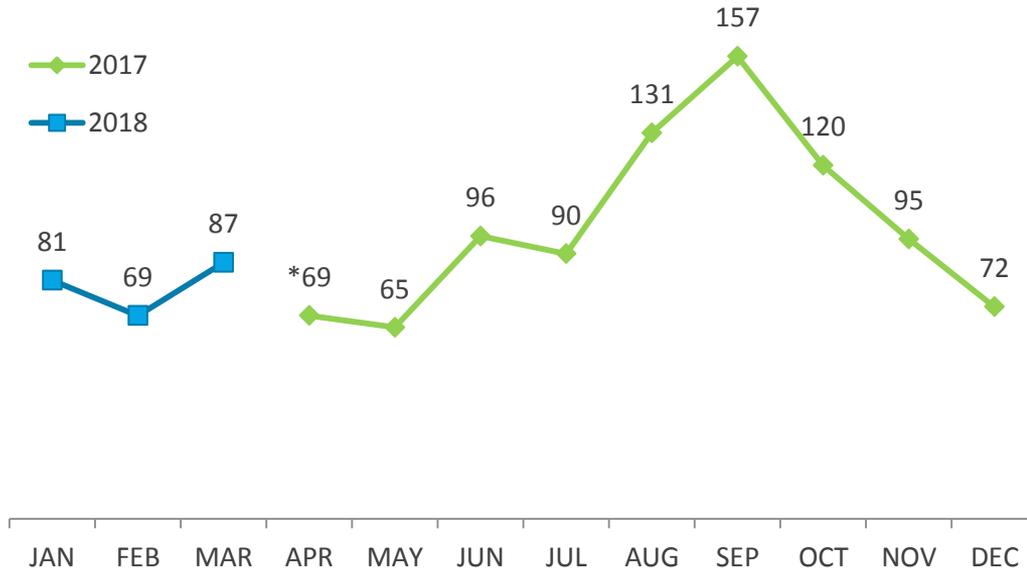
March 22, 2018: AAL 726

Note: Curfew violation numbers may be lower given nightly construction closing the runway.

Year	Total Curfew Violations	Fines Assessed
2013	60	\$ 166,000
2014	47	\$ 178,000
2015	55	\$ 152,165
2016	84	\$ 564,000
2017	72	\$ 376,000
2018	12*	\$ 60,000*

*Through March 31, 2018

Households Submitting Complaints



Neighborhood by Zip Code	Number of Households
La Jolla – 92037	39
Pt. Loma – 92106	21
OB/Sunset Cliffs – 92107	19
Mission Beach/PB 92109	5
North Park - 92104	3
Encanto - 92114	3
Other (<2 households)	14
Total	104

*New noise complaint system started in April, 2017.

Noise Complaints

February - March 2018:

69% of complaints came from 9 households

99% of complaints came from the non-Authority App



Reason for Complaint	Number of Complaints
Loud Aircraft	16,537
Curfew Violation	11
Suspected Off-Course	28
Low Flying	63
Increased Flight Volume	16
Early Turn	15
Missed Approach	11
Other	3

Through March 31, 2018

Questions ?



Fly Quiet 4th Quarter 2017

Changes since 3rd Quarter

Overall, the total scores in the summary report stayed about the same compared to 3rd quarter 2017.

Jazz Aviation and Delta Air Lines had less curfew violations and increased their curfew violation score by 2 points.

American Airlines, Alaska Airlines, Allegiant Air and Spirit Airlines decreased their overall score by having more curfew violations than the previous quarter.

United Airlines increased their overall score by having less early turns and by incorporating quieter aircraft into their fleet.

Delta Air Lines and Southwest Airlines decreased their overall score by having more early turns than the previous quarter.

Fly Quiet Score: Curfew Violations

Highest Score = Quietest score

*United, Delta, Frontier, all cancelled 1 flight to avoid curfew violations.
Southwest cancelled 3 flights.*

Curfew Score:
Operator starts with 10 points.
-1 point for violation, no penalty
-2 points for violation with penalty
+1 point if operator cancels flight to avoid violating



Fly Quiet Score: Early Turns

Highest Score
= Quietest
score

Early Turn Score:

Operator starts with 10 points.

-0.5 point per Early Turn within 1,500 feet from noise dot

-1.0 point per Early Turn greater than 1,500 feet from noise dot

Points are not counted if FAA directed the turn. Equalized for operations.

Airlines	% of Total Ops	# of Early Turns	Early Turn Score
SkyWest	9.1	1	9.5
Compass	4.0	0	10.0
Spirit	2.1	1	9.5
Virgin America	2.1	0	10.0
jetBlue	1.8	0	10.0
Fed Ex	1.4	1	9.0
Jazz	0.7	2	9.0
Hawaiian	0.4	0	10.0
Rouge	0.4	0	10.0
British	0.4	0	10.0
Sun Country	0.4	0	10.0
Westjet	0.3	0	10.0
Condor	0.1	0	10.0
Atlas Air	0.3	0	10.0
Alaska	8.8	3	8.5
Frontier	1.4	1	9.5
Allegiant	0.5	0	10.0
UPS	0.5	1	9.0
Japan	0.4	0	10.0
United	10.8	2	9.0
Delta	6.7	8	5.0
Southwest	38.2	11	4.5
American Airlines	9.3	6	6.5

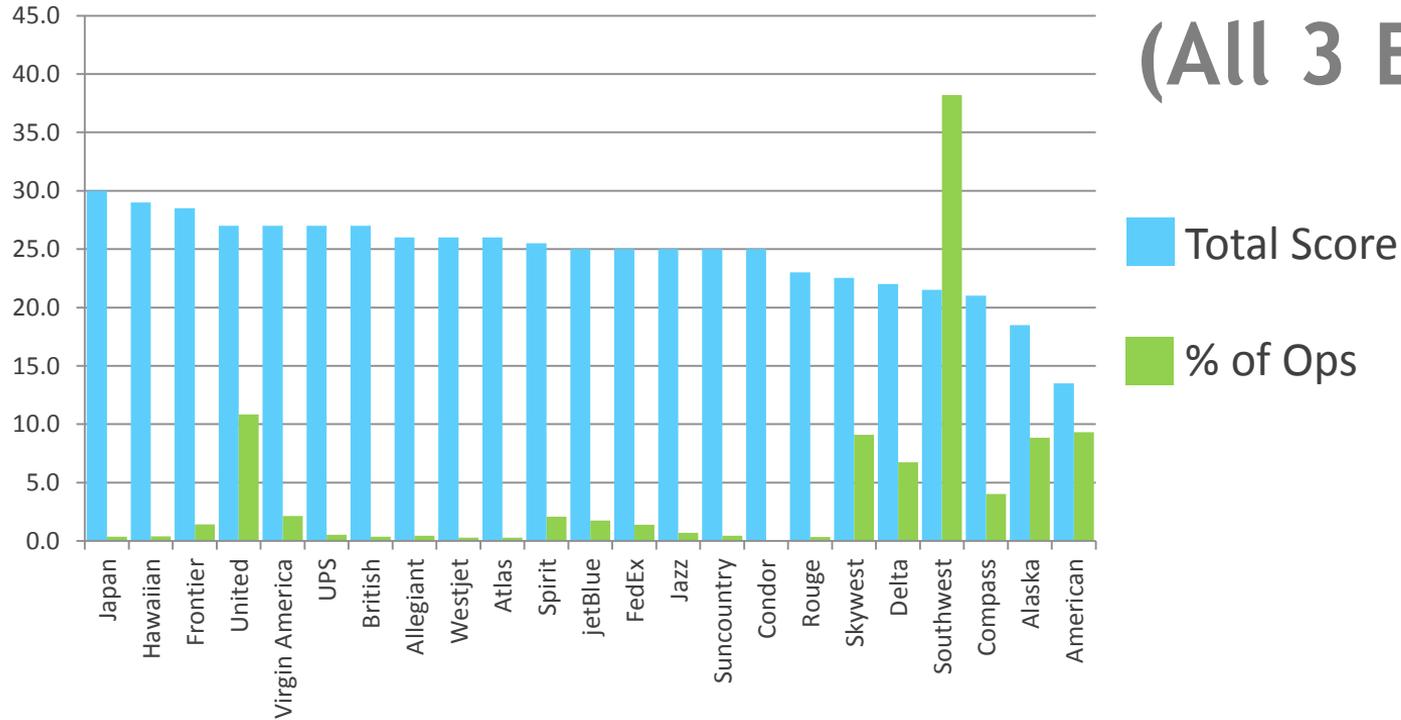
Fly Quiet Score: Fleet



Quietest score = 10

Fleet Score:
 FAA Certified Noise Level for each aircraft
 Multiplied by the percentage of operations for the quarter.
 Carriers are given scores 0 (loudest) to 10 (quietest.)

Fly Quiet Summary Score (All 3 Elements)



Questions ?



Update on ANAC Recommendations

- **ANAC Policy Changes (Membership)**
Staff proposes the continued use of City of San Diego Community Planning Groups to obtain most of the community members.
- **Recommendation #1 - Increase the Amount of Curfew Penalties**
Staff is still researching other airports with curfews to determine how much and how frequently they penalize operators. Working with Legal Counsel to determine next course of action.
- **Additional Statistics**
Last two items, Time Above contours and 55 decibel contours were provided in member materials and are uploaded on the website.
- **Part 150 Update**
In procurement process, anticipating FAA grant in May and hoping to go to Board with consultant contract in June.
- **Flight Procedure Analysis**
Citizen and Technical advisory committee kick off meetings were held. Analysis on flight procedures outside 65 decibels is underway.

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