

# AWG 2018 Annual Members Meeting

Emerald Kitchen

June 25, 2018

## Agenda

- Call to Order- Welcome and Introductions
- Annual Organization Business
  - Minutes Review and Approval
  - Board Officers and Members Confirmation for new term
- Guest Speaker Introduction and Presentation
- President's 2017-2018 Review
- Activities /Plans for Next Year
- Q&A
- Adjourn & Close Meeting

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Special Guest Speaker- **Tracey Johnson**, FAA

Terminal Assistant District Manager- Southern California at Federal Aviation Administration

Twenty-nine (29) years' service in the FAA. Over 20 years working as an air traffic controller from Florida to AZ to CA. Included twelve (12) years at Southern California TRACON working in both the Los Angeles Area and San Diego areas.

Four (4) years at the western area regional service center as manager- first in Quality Control and later in Operations Support Airspace, Flight Procedures, NAS analytic and tactical teams.

Tracey is experienced with the broad use of airspace, including Unmanned Aircraft Systems, Special Use Airspace, and, works in local community engagement. Tracy has degrees in physics and business management.

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## President's 2017-2018 Review

- First year of So Ca Metroplex
  - New arrival and departure procedures rolled out in Q1 2017
    - PIGGN, FINNZ, HHERO new departure procedures
    - Multiple modifications to each over 6 month period
    - Current operation- FINNZ & HHERO essentially synched with PIGGN over Upper Back Bay
- Multiple lawsuits files against FAA based on community impact issues
  - Re: John Wayne Airport-Newport Beach, Laguna Beach, County of Orange suit
    - Settlement in January 2018
    - Key points in the agreement terms
- Recent changes-
  - New STAYY procedure published in March 2018- (FAA approval required to fly STAYY for now)
  - Southwest airlines flying STAYY – 2 turn procedure- since March'18
- City of Newport Beach conducting noise studies to understand impact on residents and potential mitigation actions
  - HMMH Phase 1- neighborhood study (findings to be published at a later point)
  - HMMH Phase 2 - ?- Update 2008 Noise Study using Noise Monitor data from Oct'17-Jan'18



## Issues and questions raised-

- Noise in some neighborhoods has increased since 2016- pre-Metroplex
- Because current commercial fleets rarely exceed Noise Monitor limits, their departures seem less noise conscious as historically was true with noisier aircraft
  - Some observed behaviors appear to include-Early turns, late turns, power up before the offshore target at STREL, return to over land less precisely
- There are no “penalties” for non standard behavior
- Are their additional departure procedures available which would be quieter than those currently published?
- Would carriers (airlines) adjust flight operations procedures if they are not mandatory?

What has AWG done to support our community members in addressing these issues and questions-

- Reach out to the source of the noise- the airlines- to establish relationships based on fairness and trust
- Research the data
  - Airlines will only respond to arguments for change backed by the data
- Collaborate with others
  - Attend industry conferences, local aviation meetings, participate with community activities (ex., HMMH study)
- Help shape local strategy using the above steps as strong credentials for a “seat at the table”

Selected slides based on AWG work activities

Meetings to establish working relationships based on fairness and trust.

- Pilots meeting- January 2018
- Southwest Airlines conference call – Jan. 17. 2018
  - Preparation call to discuss collaboration
- Southwest Airlines Orange Co meeting April 17
  - Agreement to work together to jointly test options based on data
- American Airlines- Chief Pilot- West – June 11
  - Willingness to collaborate based on analytical approach with other airline participants
- Follow-on airline meeting (TBD -United, Alaska, Delta)

## Multiple approaches in process

1. Preliminary data analysis- all commercial flights- Oct. 26, 2017
2. 1<sup>st</sup> cut comparison of STAYY procedure noise data to PIGGN
3. Study the science of aircraft noise generation for ideas
4. Objective- Evaluate a new, quieter procedure effort (use graphic in Newsletter)

## Next steps-

- *If* options appear possible, generate support and campaign carriers and others(FAA) for testing and use

Preliminary data analysis-

**Original Data File from JWA ANO- Oct. 26, 2017- sample 120+ flights**

Date/Time	Airline	Flight Number	Aircraft Type	GTOW	Dest.	Altitude Date/Time	Altitude NMS	Altitude at NMS (ft)	Noise NMS	SENEL dB
10/26/2017 7:00	AS	AS519	B738	129000	KSEA	10/26/2017 7:00:50	1S	1024	1S	96.8
10/26/2017 7:00	AS	AS519	B738		KSEA	10/26/2017 7:00:49	2S	938	2S	96
10/26/2017 7:00	AS	AS519	B738		KSEA	10/26/2017 7:00:57	3S	1453	3S	95.1
10/26/2017 7:00	AS	AS519	B738		KSEA	10/26/2017 7:01:09	4S	1962	4S	87.9
10/26/2017 7:00	AS	AS519	B738		KSEA	10/26/2017 7:01:13	5S	2126	5S	85.7
10/26/2017 7:00	AS	AS519	B738		KSEA	10/26/2017 7:01:21	6S	2356	6S	85.8
10/26/2017 7:00	AS	AS519	B738		KSEA	10/26/2017 7:01:42	7S	2986	7S	82.7
10/26/2017 7:02	WN	WN1836	B737	113919	KSJC	10/26/2017 7:02:17	1S	1007	1S	88.6
10/26/2017 7:02	WN	WN1836	B737		KSJC	10/26/2017 7:02:17	2S	988	2S	89.2
10/26/2017 7:02	WN	WN1836	B737		KSJC	10/26/2017 7:02:25	3S	1322	3S	86.2
10/26/2017 7:02	WN	WN1836	B737		KSJC	10/26/2017 7:02:39	4S	1611	4S	81.9
10/26/2017 7:02	WN	WN1836	B737		KSJC	10/26/2017 7:02:45	5S	1722	5S	81.6
10/26/2017 7:02	WN	WN1836	B737		KSJC	10/26/2017 7:02:55	6S	1873	6S	82.2
10/26/2017 7:02	WN	WN1836	B737		KSJC	10/26/2017 7:03:23	7S	2579	7S	79.2
10/26/2017 7:03	DL	DL2454	B752	213211	KATL	10/26/2017 7:03:46	1S	968	1S	96
10/26/2017 7:03	DL	DL2454	B752		KATL	10/26/2017 7:03:45	2S	889	2S	95.4
10/26/2017 7:03	DL	DL2454	B752		KATL	10/26/2017 7:03:52	3S	1309	3S	95.4
10/26/2017 7:03	DL	DL2454	B752		KATL	10/26/2017 7:04:03	4S	1709	4S	87.8
10/26/2017 7:03	DL	DL2454	B752		KATL	10/26/2017 7:04:08	5S	1870	5S	85.8
10/26/2017 7:03	DL	DL2454	B752		KATL	10/26/2017 7:04:16	6S	2057	6S	86.4

Preliminary data analysis-

**AWG Re-formatted Data File – Oct. 26, 2018 (Source data from JWA ANO)  
(Better for analysis)**

AL	Flt. #	A/C Type	Des.	GTOW	Alt. (ft) NMS 4	SNL dB NMS 4	Alt. (ft) NMS 5	SNL dB NMS 5	Alt. (ft) NMS 6	SNL dB NMS 6	Delta db 6-5	Alt. (ft) NMS 7	SNL dB NMS 7
AS	AS519	B738	KSEA	129000	1962	87.9	2126	85.7	2356	85.8	0.1	2986	82.7
WN	WN1836	B737	KSJC	113919	1611	81.9	1722	81.6	1873	82.2	0.6	2579	79.2
DL	DL2454	B752	KATL	213211	1709	87.8	1870	85.8	2057	86.4	0.6	2949	83.1
WN	WN1768	B737	KOAK	122489	1427	83.7	1522	82	1673	84	2	2280	80.4
WN	WN1435	B737	KSFO	111403	1585	83	1716	80.5	1860	82.2	1.7	2562	79
UA	UA1611	B737	KORD	136966	1204	88.7	1293	88.4	1421	89.8	1.4	2313	85.7
UA	UA462	B738	KIAH	152667	1257	88	1368	87.9	1483	89.3	1.4	2119	86.5
UA	UA1535	B738	KSFO	152667	1309	86.9	1414	87.8	1575	88.9	1.1	2254	85.2
AA	AA925	B738	KPHX	140482	1365		1467	87.5	1565	88.5	1	2018	85.3
AA	AA1040	B738	KDFW	152456	1342		1417	87.6	1516	89	1.4	1969	86
DL	DL1678	B712	KSLC	106308	1575		1745		1850	77.6		2349	
WN	WN1693	B737	KDEN	136069	1240		1339	84.7	1503	86.7	2	2182	83.6
AA	AA2609	B738	KORD	151894	1398		1476	87.8	1588	89.2	1.4	1995	86.2
WN	WN1448	B737	KSMF	118885	1430		1568	82.8	1699	84.2	1.4	2428	81.3
WN	WN1775	B737	KSJC	119597	1493	82.7	1604		1765	83.8		2405	80.5
UA	UA1923	B737	KEWR	145251	1194	89.5	1381	89	1562	90.3	1.3	2260	86.1

Preliminary data analysis-

**Sample Analysis 2**  
**Isolate a single carrier**

Time	Carrier	Flight	Equipment	Dest.	GTOW	Alt. NM4	db NM4	Alt. NM5	db NM5	Alt. NM6	dbNM6	delta db NM6 -NM5	Alt. NM7	db NM7
8:10:10 AM	WN	WN1098	B737	KLAS	124889	1417		1539	84.6	1670	84.4	-0.2	2405	81.8
10:04:23 AM	WN	WN1348	B737	KPHX	124603	1493		1604		1768	84.1		2493	80.4
7:05:48 AM	WN	WN1435	B737	KSFO	111403	1585	83	1716	80.5	1860	82.2	1.7	2562	79
7:23:11 AM	WN	WN1448	B737	KSMF	118885	1430		1568	82.8	1699	84.2	1.4	2428	81.3
2:42:37 PM	WN	WN1517	B737	KSJC	123200	1457	84.8	1621	85.6	1818	84.6	-1	2625	81.1
10:07:23 AM	WN	WN1539	B737	KSMF	124669	1575		1680		1841	84.5		2608	80.2
10:31:42 AM	WN	WN1616	B737	KSJC	123585	1568	82.9	1706		1824	83.9		2585	81.4
7:20:42 AM	WN	WN1693	B737	KDEN	136069	1240		1339	84.7	1503	86.7	2	2182	83.6
7:04:27 AM	WN	WN1768	B737	KOAK	122489	1427	83.7	1522	82	1673	84	2	2280	80.4
12:03:03 PM	WN	WN1770	B737	KPHX	117843	1611	81.8	1762	82.9	1949	83.3	0.4	2677	79.7
7:34:53 AM	WN	WN1775	B737	KSJC	119597	1493	82.7	1604		1765	83.8		2405	80.5



**Observations (Oct. 26 only, other periods will differ)-**

Eliminating the regional jets / commuter flights from the data resulted in 119 flights with usable data. Some general preliminary findings were-

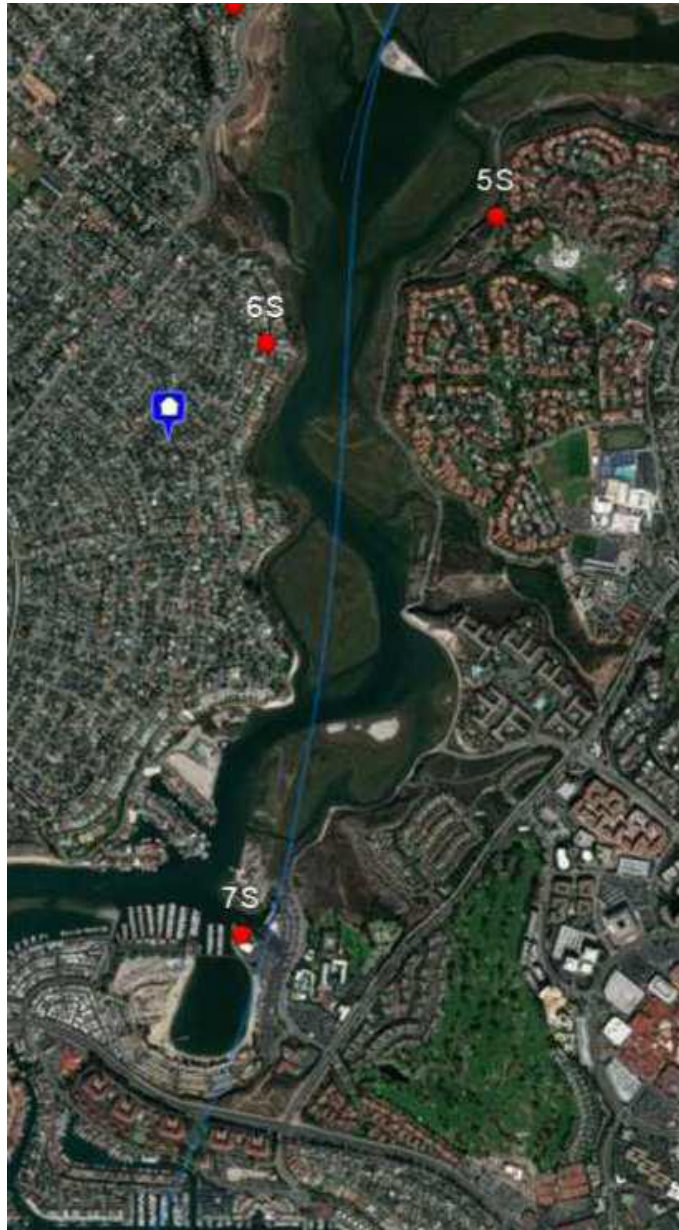
	<u>NM 5 (East Bluffs)</u>	<u>NM 6 (Santiago)</u>	<u>Difference</u>
Average altitude	1568 ft.	1706 ft.	+ 138 ft.
Noise Monitor (av. SNL db)	84.9	85.9	+1.0 SNL db

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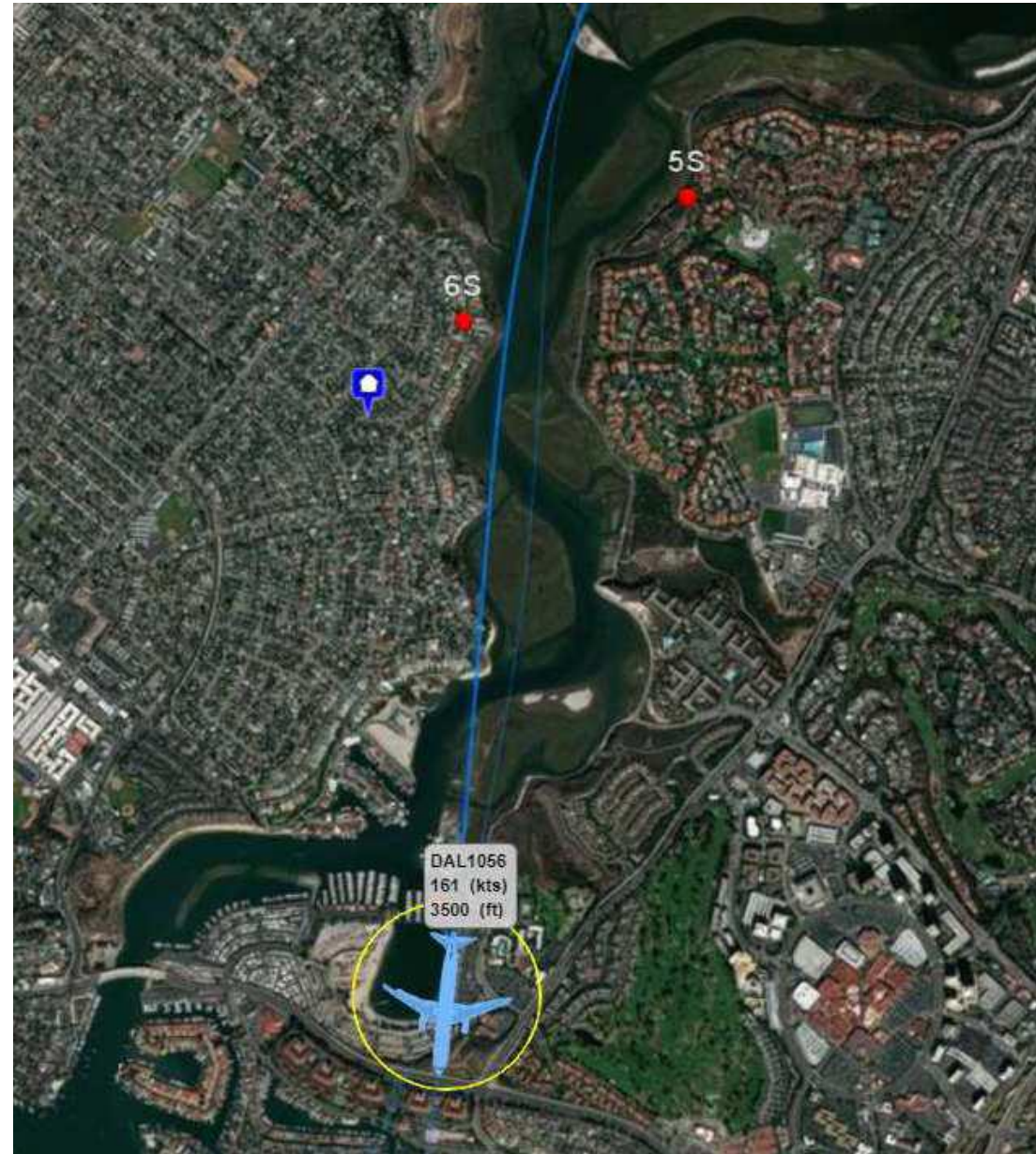
Noise Monitor 7 comparative #'s (closer to Dover Shores)

Average altitude	2334 ft.	(over 600 ft. higher than NM6)
Noise Monitor (av. SNL db)	82.8	(diff. of -2.1 SNL db)

SWA  
STAYY  
4-11-18



DL  
PIGGN  
Track  
4-11-18



## Quick view of STAYY vs PIGGN procedures on ground noise

Date of Data Capture	Noise Monitor 5	Noise Monitor 6	Noise Monitor 7	Observations
<b>PIGGN- Mar 27, 2018</b>				
Altitude*	1584	1734	2458	
SENEL db readings*	84.4	85.2	82.2	
<b>STAYY- April 3, 2018</b>				
Altitude*	1704	1855	2590	
SENEL db readings*	86.0	86.2	83.4	

\* Average of all flights matching PIGGN departures, same day of the week, similar payloads.

Collaboration with city and community

- Organize “flyability” event for STAYY procedure
  - Flight Safety International hosting AWG and guests (Newport Beach, T. Edwards)
- Attend and network with attendees of national aviation noise event
  - Aviation Noise and Pollution Symposium – Feb 25-27- Long Beach, Ca.
- Meet with other community groups
- Support City of Newport Beach in their contract milestone reviews with HMMH (noise consultant)
  - Joint goal of finding a quieter departure procedure for John Wayne

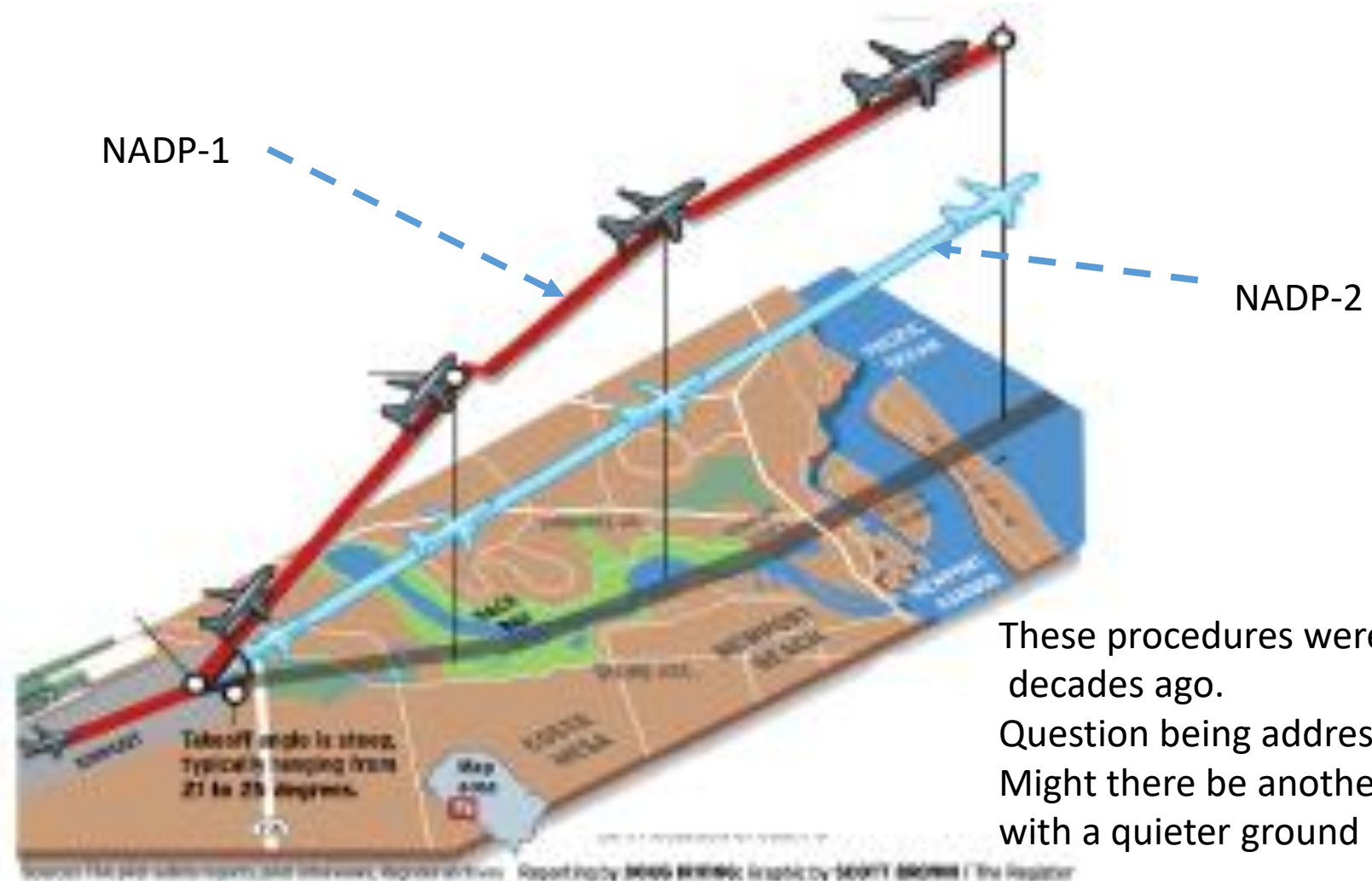
Flight Safety International hosting AWG and guests (Newport Beach, T. Edwards)



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## Current John Wayne Airport departure procedures for noise abatement



These procedures were established decades ago.  
Question being addressed-  
Might there be another procedure with a quieter ground noise footprint?

Plans for moving forward in next 12 months

Oral review



Questions