City of Newport Beach



MINUTES of the

COUNCIL/CITIZENS AVIATION COMMITTEE

(draft until approved by the Committee)

MEETING DATE & LOCATION: **Monday, August 6, 2015,** at the Newport Beach Civic Center (100 Civic Center Drive, NB), Community Room.

ATTENDANCE:

Committee membership:

Tony Petros	Council Representative	present
Kevin Muldoon	Council Representative	not present
Duffy Duffield	Council Representative	present
Kay Mortenson	District #1	present
Don Hecht	District #1 (alt)	not present
Eleanor Todd	District #2	present
Gerald Scarboro	District #2 (alt)	present
Tom Anderson	District #3	Present
Bonnie O'Neil	District #3 (alt)	Present
Tom Meng	District #4	Present
Jock Marlo	District #4 (alt)	Present
Vicki Frank	District #5	not present
Walt Richardson	District #5 (alt)	Present
Shirley Conger	District #6	Present
Bud Rasner	District #6 (alt)	Not present
Jim Dunlap	District #7	Present
Karen Rhyne	District #7 (alt)	Not present
Dave Kiff	City Manager	Present
Aaron Harp	City Attorney	Present
Tim Stoaks	SPON/Air Fair Rep.	Rep present
Tom Naughton, Tony Khoury	AWG Representative	Rep present
Roger Ham	Newport Coast Rep	Present
Vacant	General Aviation Rep	N/A

- JWA Representatives present: Larry Serafini, Eric Freed, Courtney Weirchoch
- City representatives present: Tom Edwards.
- Others present:
 - o Jill Adams
 - o Gretchen Anderson
 - o Gary Armstrong (representative of Costa Mesa)
 - Nancy Austin
 - o Amy Baltus
 - o Ann Beale
 - o Bob Burnham
 - Lynn Cathcart
 - o Paul Cohen

- Dan Converse
- Lynn Crutchley
- Jamshed Dastur
- David Devick
- Margaret Doedens
- o Reronka Dolleschel
- Andrew Douglass
- o Jim and Jean Evans
- o Adrienne & Torben Frederiksen
- Bing Girling
- o Gret Goeser
- o Dottie and Harlan Harmsen
- o lan Havard
- Tom Houston
- o Patricia Howarth
- o Rush Hill
- o Henry Kramer
- o Carol Jacobs
- o Ryan Johnson
- o Paul Kuhn
- o Kathy Leek
- o Lois Levine
- Art Lombardi
- John and Pat Merrell
- Patsy Metcalf
- Vince Mestre, L&B Planning Associates
- o Jim Mosher
- o Dave New
- o Jan New
- Shirley Oborny
- o Gary Ohino
- o Lee Pearl
- Darcy and Ned Post
- Jim Roberts
- Dick Rhone
- o John and Michele Sciarra
- Fred Selby
- o Jim Somers
- o Dean Thayer
- Gordon Wanlass
- o Sorrell Wayne
- o Jaime Weber
- o Don Webb
- Ronnie Weinstein

AGENDA ITEMS:

- 1. Call Meeting to Order. The meeting was called to order by Council Member Petros at 2 p.m.
- 2. Self-Introductions.

3. **Approval of the Minutes.** The minutes from the February 2, 2015 Aviation Committee meeting were approved.

4. Current Business

(a) Noise Monitoring (Larry Serafini)

Mr. Serafini said the Board of Supervisors authorized the replacement of a new noise monitoring system in 2014, followed by the installation in early 2015. A side-by-side comparison was done to see what the old system recorded vs. the new system. This comparison was done between March 1 and May 31, 2015 using four monitoring stations, three south of the airport in the Newport Beach area and one north of the airport in the Tustin area.

Mr. Serafini introduced Vince Mestre of Landrum & Brown Aviation Planning to talk about the results of the side-by-side comparison. Mr. Mestre gave a PowerPoint presentation (attached). He explained that the old noise monitoring equipment was about 20 years old and needed replacing. He said because the city's access plan rules are strict and the penalties strong, the fact that the new monitors don't measure the same as the old monitors has created a concern. The State of California and other standards agencies publish standards for performance of what the noise monitoring system should be. It should have a confidence level of plus or minus 1.5 dB. The new microphones are more sensitive than the old ones; although, they do fall well within the 1.5 db threshold.

Mr. Mestre explained that the new microphones are omni-directional – sensitive all the way around as opposed to the old one direction microphones. The differences in the readings of the new , more sensitive microphones makes it necessary for adjustments to increase the noise limits to achieve parity with the old system. It does not change the noise the aircraft will make.

Ms. O'Neil asked how would they know if the old monitor had become defective and the new monitor was actually the accurate one. Mr. Mestre said both the old and new systems are calibrated regularly and as such they don't believe the difference in readings has to do with any malfunctions.

Mr. Ham asked if the readings are affected by the direction the planes take off. Mr. Mestre agreed and said that's why the various microphones adjustments are different. The microphone located in the middle required the smallest adjustment because most of the airplanes are going over the top.

Mr. Khoury said noise level is affected by departure. He asked what the protocol is for departures. Mr. Mestre responded that the departure issue is separate from how sensitive the microphones are; however, the microphones have been placed in a configuration to capture all of the departures.

Council Member Petros inquired about the recommendations the County is making as a result of the side-by-side testing. Mr. Harp said the Settlement Agreement has the same type of limits in it for each monitoring station so the County is asking that the City as well as SPON and AWG amend the Settlement Agreement to increase those limits. Those would be carried into the Access Plan as well. The City Council will consider that on September 8, 2015.

Several members of the public complained that the planes are too loud already and asked why they are not being asked to ratchet down the noise level. They also complained that the planes are

now flying over Santiago Drive, Mariners and Dover, Highland, etc. and wondered how the microphones could measure accurately when the planes are flying off course.

Mr. Houston inquired about what the throttle position is at Station 3. Mr. Mestre said it depends on the aircraft and their weight. NMS 3 is right about where most planes throttle back.

(b) Comments/perspectives on the FAA's NextGen efforts for the Southern California Metroplex (Dave Kiff, Tom Edwards)

Mr. Kiff said the FAA is embarking on a nationwide NextGen, which is a more precise way of departing and isolating flight track in an air space. One of the places they are looking at is Southern California and there is an Environmental Assessment (EA) document available. There are many airports involved in this analysis. NextGen is to improve efficiency and it may involve changes in flight paths and altitudes but not in ground disturbances or increased flights. Mr. Kiff gave a PowerPoint presentation (attached).

He said the FAA's goals are:

- Safety
- Efficiency
- Repeatability
- Maximization of a congested airspace

Council Member Petros said he and Mr. Edwards were invited by County Supervisor Michelle Steele to attend the meeting with the FAA. He said at that meeting he relayed the angst of the committee and community about the issues with airplane noise and flight departures; it was received but the meeting continued. The City's role in this larger Federal issue is very small; however, the City will continue to follow this issue and advocate for the community.

Mr. Kiff explained that there was a time not too long ago when flights out of JWA would fan out in different directions. Now about half the flights out of JWA currently fly the STREL. These are the flights going anywhere back east or south. The FAA appears to be proposing having all the flights moved to the STREL. The City doesn't have a formal policy on fanning or narrowing flight pattern. Its policy speaks more to minimizing the impacts of operations to protect everybody's quality of life.

Mr. Kiff talked about the current flight departure patterns vs. the proposed changes. Mr. Edwards said the County was not consulted about any of the proposed changes; only the airlines were contacted.

Mr. Edwards said in September 2014 the runways were renumbered as a result of the magnetic change. The FAA updated the departures and this changed the degree where planes were turning. He thinks it's a mistake that is unfortunately affecting people because it may have driven planes farther to the west. The County and City have received complaints about it, and are attempting to correct it.

Council Member Petros said the EA is available for comment until September 8, 2015. The City will be preparing a comment letter to represent the City in a more technical basis. He encouraged the community to send along comments as well. Mr. Kiff said the handout has the information about how the public or homeowner associations can respond. Ms. Austin said this issue is happening all over the country and she also encouraged every group to respond to the EA.

Discussion ensued about planes flying lower, changed flight paths, fanning, narrowing, health issues, etc. Mr. Kiff said the EPA is starting to look at the emissions issue. More encouragement was given for the public to respond to the EA.

Ms. O'Neil offered comments about an air quality study that was done previously. She mentioned the small particulates that can't be seen but are inhaled and suggested that the City do a new health risk assessment to update the air quality study and pursue fanning as a result of that health study.

Council Member Petros said when he reports back to the City Council, he will ask if they would be willing to commission a study to go further than the air quality study that was done in the original Settlement Agreement EIR. He suggested members of the public contact the other council members to see if they would be willing to accept that. He will also as the Council to weigh in on whether Council Policy A-17 should be precise on the issue of fanning.

(c) Other updates from John Wayne Airport staff

No updates were given by staff. Mr. Freed directed Mr. Mosher on how to find information on their website about how many planes and what types of planes depart each month.

(d) Questions or clarifications on Tom Edwards' Monthly Update

Mr. Edwards said Los Angeles World Airports (LAWA) and Ontario reached settlement on their litigation today which will release the Ontario Airport from LAWA's control.

Council Member Petros said he would like to invite Lucy Dunn, head of Orange County Business Council and also Chair of California Transportation Commission, to come and share with the committee her perspectives on these issues. She was an advocate for the release of Ontario from LAWA.

5. Public Comments on Non-Agenda items

Ms. Austin suggested this committee should meet more often. Another person suggested the meetings be scheduled for later in the afternoon for the convenience of those who work.

Mr. Mosher said the City's website does not present aviation-related information very well. He could not find Council Policy A-17 very easily on the newly revamped website. He also said A-17 and the Settlement Agreement were not updated and the link to the Metroplex information is no longer available.

A request was made to have an update at a future meeting on what the City's policy is or what it's doing pertaining to the issue of drones.

6. Set the next meeting

Mr. Kiff suggested the next meeting be tentatively set for September 28, 2015.

7. Adjournment

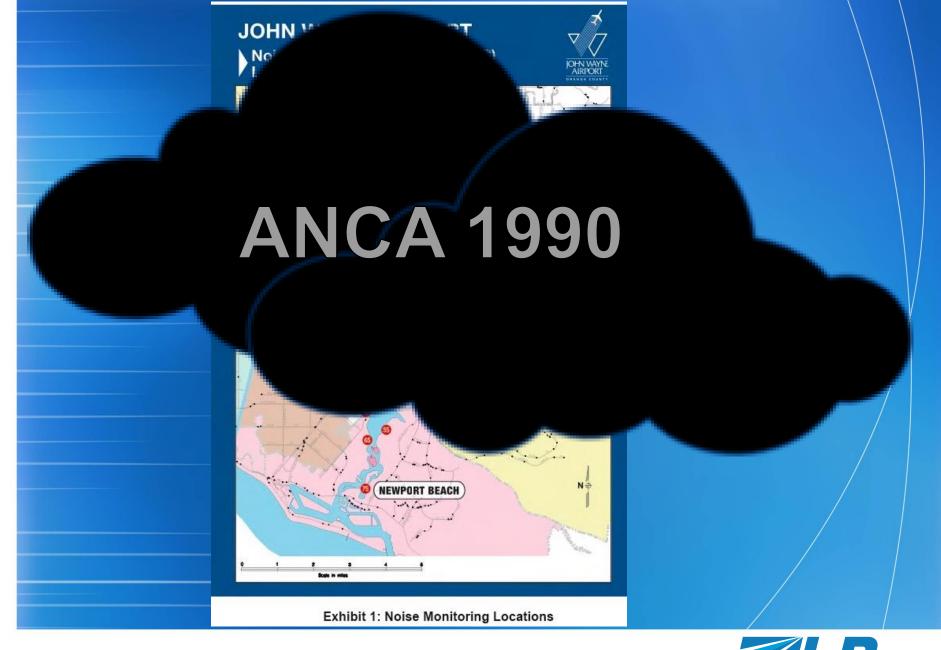
The meeting was adjourned at 3:52 p.m.

Side-By-Side Test Results

John Wayne Airport

August 2015







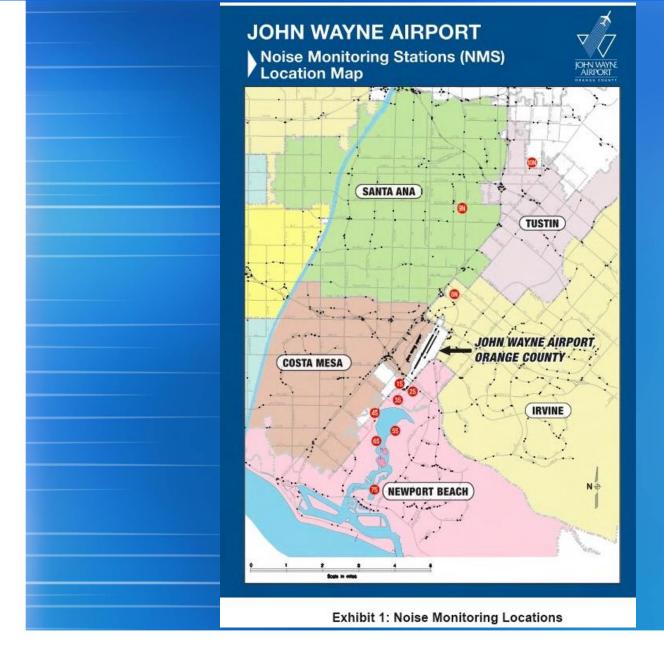






Exhibit 3: Sketch of Microphone Setup



Sec. 2-1-30.4. Commercial airline operations.

(a) No person may engage in commercial airline operations at John Wayne Airport if such aircraft generate a SENEL level at any of the following respective noise monitoring stations ("NMS"), averaged over each noise compliance period, which is greater than the following SENEL values for Class A aircraft when operating as a Class A operation and for Class E aircraft when operating as a Class E operation:

	Class A	Class E
NMS 1S	101.8 dB	93.5 dB
NMS 2S	101.1 dB	93.0 dB
NMS 3S	100.7 dB	89.7 dB
NMS 4S	94.1 dB	86.0 dB
NMS 5S	94.6 dB	86.6 dB
NMS 6S	96.1 dB	86.6 dB
NMS 7S	93.0 dB	86.0 dB



Sec. 2-1-30.5. General aviation operations.

(a) No person shall operate any general aviation aircraft at John Wayne Airport if it generates a SENEL level, as measured at John Wayne Airport NMS 1S, NMS 2S, or NMS 3S, on takeoff or landing, which is greater than the following SENEL values:

> NMS 1S 101.8 dB NMS 2S 101.1 dB NMS 3S 100.7 dB



(b) Curfew.

(1) No person shall operate any general aviation aircraft at night at John Wayne Airport if it generates a SENEL level at any of the following respective noise monitoring stations, either on takeoff or landing, which is greater than the following SENEL values:

NMS 1S	86.8 dB
NMS 2S	86.9 dB
NMS 3S	86.0 dB
NMS 4S	86.0 dB
NMS 5S	86.0 dB
NMS 6S	86.0 dB
NMS 7S	86.0 dB
NMS 8N	86.0 dB
NMS 9N	86.0 dB
NMS 10N	86.0 dB



3 Month Test At 4 Sites

for Class A operations,

the typical margin available ranges from 3 dB to 12 dB.

Table 1: The Margin Available Shown in dBA for Class E Noise Levels

Aircraft	1S	2S	3S	4S	5S	6S	7S
CRJ9	3.1	3.9	1.2	6.5	7.4	3.7	6.2
CRJ7	5.3	5.7	2.8	6.0	6.7	4.9	6.4
B737-700	3.3	2.9	1.0	1.8	3.3	2.2	3.7

Source: Quarterly Report April 1 through June 30, 2014



Microphone Directionality

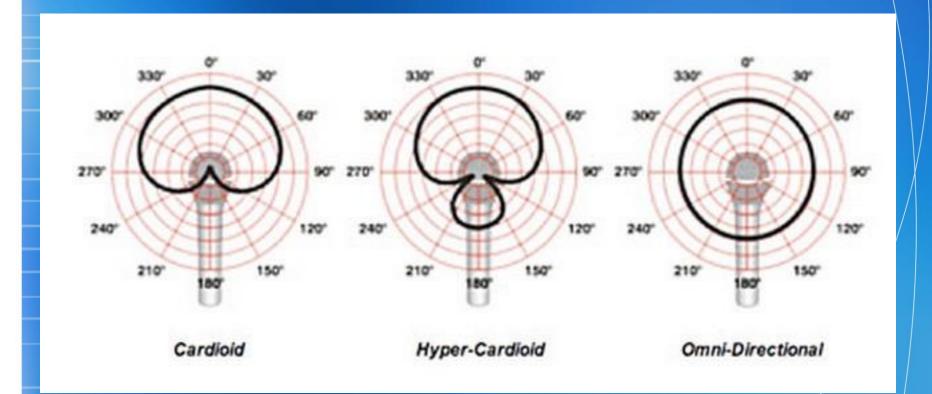








Exhibit 2: Pistonphone and Coupler Used to Calibrate Hydrophone (top: calibrator and coupler, bottom: coupler disassembled)



Table 2: Comparison of SENEL Values From Old and New Systems

			Existing SENEL	New SENEL		
Site	Aircraft	Aircraft Class	(energy averge)	(energy averge)	Count	Change*
15	A306	A	96.2	96.8	42	0.6
15	A30B	A	97.9	98.6	16	0.7
15	A319	Α	94.0	94.5	773	0.4
15	A320	A	93.6	94.0	504	0.4
1S	A321	Α	97.3	97.9	128	0.6
1S	B734	A	97.0	97.5	10	0.5
1S	B737	A & E	92.1	92.5	4916	0.5
1S	B738	A	97.7	98.2	1989	0.5
1S	B752	Α	95.4	95.8	317	0.4
15	CRJ7	E	87.5	88.1	402	0.6
1S	CRJ9	E	90.3	90.7	242	0.3
2S	A306	Α	95.5	96.2	45	0.7
25	A30B	A	97.2	97.9	16	0.7
2S	A319	A	93.2	93.7	761	0.5
25	A320	A	92.7	93.2	526	0.5
2S	A321	A	96.4	97.0	128	0.6
2S	B734	A	95.3	95.9	10	0.6
2S	B737	A&E	91.2	91.7	5032	0.5
25	B738	A	96.2	96.7	2021	0.6
2S	B752	A	94.5	95.0	317	0.5
2S	CRJ7	E	87.2	87.6	411	0.5
2S	CRJ9	E	88.7	89.2	244	0.5
3S	A306	Α	93.9	94.1	42	0.3
3S	A30B	A	95.2	95.6	16	0.4
35	A319	Α	92.7	93.1	789	0.3
35	A320	Α	91.4	91.7	519	0.3
3S	A321	A	95.3	95.6	125	0.4
35	B734	A	96.8	97.2	11	0.4
35	B737	A&E	90.8	91.1	5184	0.3
35	B738	A	96.3	96.6	2036	0.3
35	B752	Α	93.8	94.1	319	0.3
35	CRJ7	E	86.4	87.0	428	0.6
3S	CRJ9	E	88.5	89.0	243	0.4
8N	A306	A	95.5	96.4	26	0.8
8N	A30B	A	96.6	97.4	8	0.9
8N	A319	A	91.6	92.3	379	0.7
8N	A320	A	91.3	92.1	335	0.7
8N	A321	Α	92.5	93.3	53	0.8
8N	B734	A	95.5	96.2	5	0.8
8N	B737	A&E	92.6	93.3	2641	0.7
8N	B738	A	93.6	94.3	1077	0.7
8N	B752	A	94.2	95.0	170	0.8
8N	CRJ7	E	88.5	88.8	227	0.3
8N	CRJ9	Ē	88.8	89.3	115	0.5

^{*}A positive change means new SENEL measurement is louder than the existing measurement

.x Largest difference for Class A aircraft for sites 1S, 2S, and 3S



Largest difference for Class E aircraft for sites 1S, 2S, and 3S

General Aviation Aircraft

Note that the general aviation recommended changes were based on an analysis similar to the air carrier analysis described earlier. The results showed that for the general aviation aircraft the differences for the new monitors were 0.3, 0.7, 0.3, and 0.4 for sites 1S, 2S, 3S, and 8N respectively. These numbers are very similar to the air carrier numbers. There may be some bias in the general aviation results as only a small fraction of general aviation operations trigger a noise event at the monitors. Thus the measurements reflect the results only for the



- * Calibration Considerations
- * Microphone Considerations
 - * Electronic System Considerations



It is important to remember that these increases do not represent an increase in the noise levels that will occur in the community. Rather, these increases in the noise limits are necessary to account for new microphones that are more sensitive than the old microphones. As discussed in detail above, these modifications are therefore necessary to maintain parity with the existing noise compliance limits at the Airport.

Table 3: Recommended Adjustments, in dB, To The Phase 2 Access Plan SENEL Noise Limits

Site	Increase in Class A Limit	New Class A Limit	Increase in Class E Limit	New Class E Limit
1S	0.7	102.5	0.6	94.1
2S	0.7	101.8	0.5	93.5
3S	0.4	101.1	0.6	90.3
4S	0.7	94.8	0.6	86.6
5S	0.7	95.3	0.6	87.2
6S	0.7	96.8	0.6	87.2
7S	0.7	93.7	0.6	86.6
	-			



Table 4: Recommended Adjustments, in dB, to the General Aviation Noise Ordinance

Site	Increase in Daytime Limit	New Daytime Limit	Increase in Curfew Hours Limit	New Curfew Hours Limit
1S	0.7	102.5	0.7	87.5
2S	0.7	101.8	0.7	87.6
3S	0.4	101.1	0.7	86.7
4S	NA	NA	0.7	86.7
5S	NA	NA	0.7	86.7
6S	NA	NA	0.7	86.7
7S	NA	NA	0.7	86.7
8N	NA	NA	0.9	86.9
9N	NA	NA	0.9	86.9
10N	NA	NA	0.9	86.9
	•			



Table 5: Summary of Estimations of Measurement Uncertainty

Site	Aircraft	Old Average SENEL		+-Uncertainty	New Average SENEL	New Std Dev	+-Uncertainty	Count	Average Difference	Std Dev	+-Uncertainty
101	A306	95.9	1.8	0.5	96.4	1.8	0.6	42	0.5	0.1	0.04
101	A30B	97.7	1.2	0.6	98.4	1.3	0.6	16	0.7	0.2	0.08
101	A319	93.5	2.7	0.2	93.9	2.7	0.2	773	0.4	0.2	0.02
101	A320	93.2	2.2	0.2	93.6	2.3	0.2	504	0.4	0.2	0.02
101	A321	95.6	5.3	0.9	96.2	5.3	0.9	128	0.6	0.2	0.04
101	B734	96.9	0.6	0.4	97.4	0.8	0.5	10	0.5	0.2	0.15
101	B737	91.1	3.1	0.1	91.6	3.0	0.1	4916	0.5	0.3	0.01
101	B738	96.8	3.7	0.2	97.3	3.7	0.2	1989	0.5	0.3	0.03
101	B752	94.9	3.0	0.3	95.2	3.1	0.3	317	0.4	0.3	0.03
101	CRJ7	86.8	2.4	0.2	87.4	2.3	0.2	402	0.7	0.3	0.03
101	CRJ9	89.8	2.4	0.3	90.2	2.3	0.3	242	0.4	0.3	0.04
102	A306	94.0	5.2	1.5	94.7	5.1	1.5	46	0.7	0.3	0.09
102	A30B	97.0	1.2	0.6	97.7	1.3	0.7	15	0.7	0.2	0.08
102	A319	92.6	3.0	0.2	93.1	2.9	0.2	761	0.5	0.4	0.03
102	A320	92.0	3.5	0.3	92.5	3.4	0.3	526	0.5	0.4	0.04
102	A321	94.2	6.0	1.1	94.9	6.0	1.1	128	0.7	0.3	0.05
102	B734	95.3	0.3	0.2	95.9	0.3	0.2	10	0.6	0.1	0.07
102	B737	90.3	3.4	0.1	90.8	3.2	0.1	5032	0.6	0.4	0.03
102	B738	95.1	4.3	0.2	95.7	4.2	0.2	2021	0.6	0.5	0.02
102	B752	93.8	3.5	0.4	94.3	3.4	0.4	317	0.5	0.3	0.04
102	CRJ7	86.3	2.7	0.3	87.1	2.4	0.2	411	0.7	0.7	0.07
102	CRJ9	88.1	2.7	0.3	88.7	2.5	0.3	244	0.6	0.3	0.04
103	A306	93.6	1.6	0.5	93.8	1.7	0.5	42	0.3	0.2	0.07
103	A30B	95.1	0.8	0.4	95.5	0.9	0.5	16	0.3	0.3	0.13
103	A319	92.3	2.0	0.1	92.6	2.1	0.1	789	0.3	0.3	0.02
103	A320	91.2	1.5	0.1	91.4	1.6	0.1	519	0.2	0.4	0.04
103	A321	94.1	3.9	0.7	94.4	4.0	0.7	125	0.3	0.3	0.09
103	B734	96.8	0.7	0.4	97.1	0.9	0.5	11	0.4	0.3	0.17
103	B737	89.8	2.7	0.1	90.0	2.8	0.1	5184	0.2	0.3	0.01
103	B738	95.6	3.0	0.1	95.8	3.1	0.1	2036	0.2	0.3	0.02
103	B752	93.4	2.0	0.2	93.7	2.1	0.2	319	0.2	0.3	0.04
103	CRJ7	86.1	1.7	0.2	86.7	1.6	0.2	428	0.6	0.3	0.03
103	CRJ9	88.0	2.0	0.3	88.5	2.0	0.3	243	0.5	0.3	0.04
108	A306	93.8	5.6	2.2	94.6	5.8	2.3	26	0.8	0.3	0.12
108	A30B	96.4	1.3	0.9	97.2	1.3	1.0	8	0.8	0.1	0.06
108	A319	91.5	1.0	0.1	92.2	1.0	0.1	379	0.7	0.2	0.02
108	A320	90.8	3.1	0.3	91.5	3.1	0.3	335	0.7	0.5	0.05
108	A321	92.4	1.1	0.3	93.1	1.1	0.3	53	0.8	0.1	0.03
108	B734	95.4	0.5	0.5	96.2	0.6	0.6	5	0.8	0.2	0.20
108	B737	92.4	1.5	0.1	93.1	1.4	0.1	2641	0.7	0.4	0.02
108	B738	93.4	1.4	0.1	94.1	1.4	0.1	1077	0.7	0.3	0.02
108	B752	93.9	1.7	0.3	94.7	1.7	0.3	170	0.8	0.3	0.04
108	CRJ7	88.1	1.7	0.2	88.6	1.5	0.2	227	0.5	0.7	0.10
108	CRJ9	88.7	0.9	0.2	89.3	0.9	0.2	115	0.5	0.3	0.00

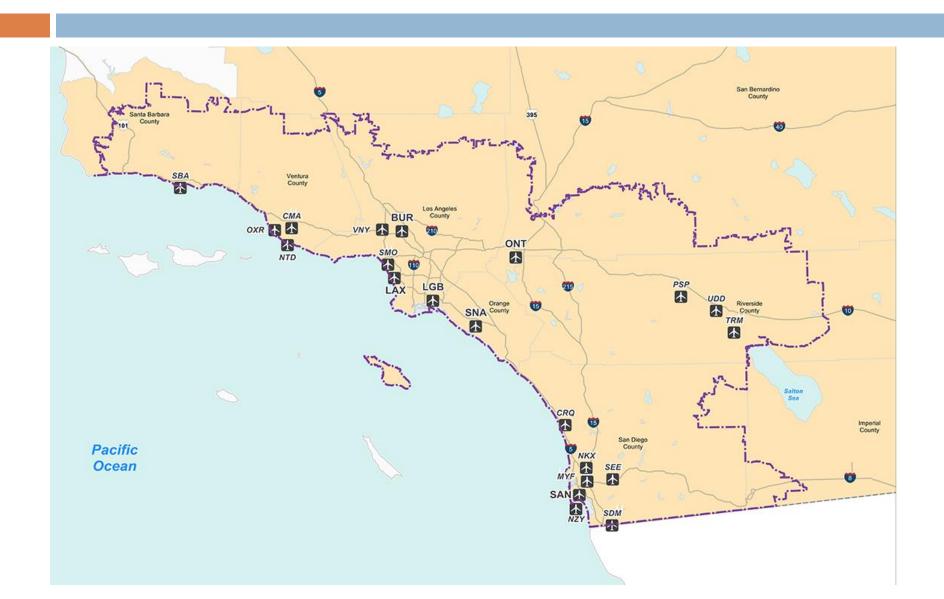


Questions?



EA FOR THE SO CAL METROPLEX

So Cal Metroplex EA Study Area



What's this about?

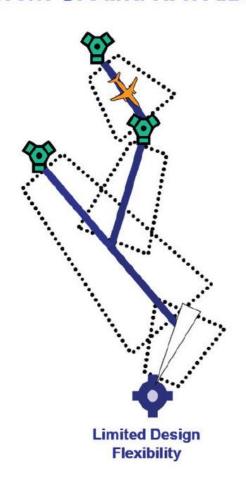
- "...Improve the efficiency of airspace at 21 airports."
- "...may involve changes in ... flight paths and altitudes ... but would not result in ... ground disturbance or increase the # of (flights)."
- FAA's Goals:
 - Optimize flight paths and climb/descent
 - RNAV (more narrow, repeatable tracks) "everywhere" and
 - RNP (required navigation performance most detailed) "where beneficial"

Terms to Know

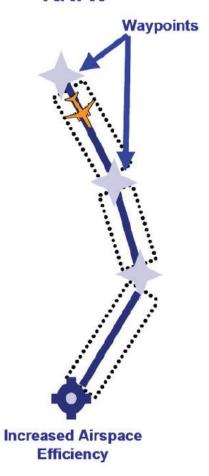
- ADS-B (automatic dependent surveillance broadcast, a replacement for secondary radar).
- EA (Environmental Assessment following the rules of NEPA [the National Environmental Protection Act – state equivalent is CEQA])
- NextGen (next generation of flight technology)
- OAPM (optimization of airspace and performance in the metroplex)
- RNAV (area navigation)
- RNP (required navigational performance)
- SID (Standard Instrument Departure)
- STREL (both a point offshore and a departure path leading to that point)
- TOING (a point now near the Newport Dunes and NMS 7)

RNAV and **RNP**

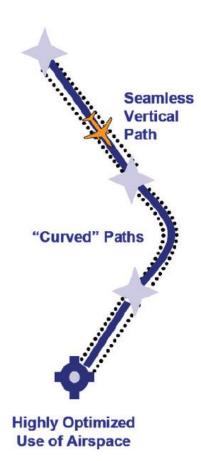
Current Ground NAVAIDs



RNAV



RNP



Questions We've Heard

- Are flight paths being moved over my home?
 - FAA's goal = no new areas affected.
- What if I live under the proposed narrowing of the flight paths?
 - More of the flights will go over your home.
- □ Can we stop this?
 - Very challenging NextGen is a nationwide effort for:
 - Safety
 - Efficiency
 - Repeatability
 - Maximization of congested airspaces

Please know...

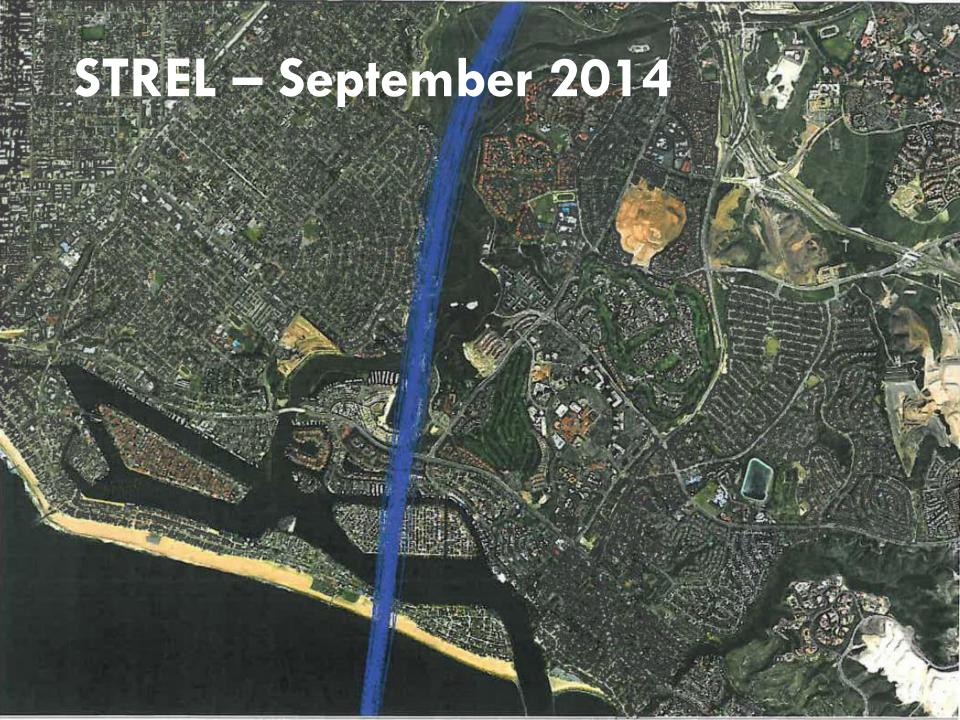
- Our ability to provide meaningful input is limited.
 - This is a Congressionally-driven process w/FAA
- The EA itself is not the most clear or helpful document.
- City will offer comments primarily technical.
- You and your association should consider responding by September 8th, 2015.
 - Email to: 9-ANM-SoCalOAPM@faa.gov
 - Snail mail to:
 - SoCal Metroplex EA
 Federal Aviation Administration
 Western Service Center Operations Support Group
 1601 Lind Avenue SW
 Renton, WA 98057

Our Concerns

- □ The EA isn't robust and shows limited detail so far (see maps)
- We want to be heard and to have our colleagues at JWA at the table.
- □ We're not sure ...
 - If the new STREL waypoint is fly-over or fly-by.
 - What the overall departure path to the STREL will be.
 - If a 2-turn path in the UNB will or should be considered.
- NextGen generally
 - Fewer neighborhoods affected, but
 - Those neighborhoods affected more intensely.
 - There is no formal city policy about narrowing or fanning Policy A-17 is to minimize the impact of JWA operations on the quality of life of Newport Beach residents

MAP EXAMPLES

Next Gen, EA for Southern CA Metroplex



SNA STREL3 SID RY20; Proposed PIGGN SID

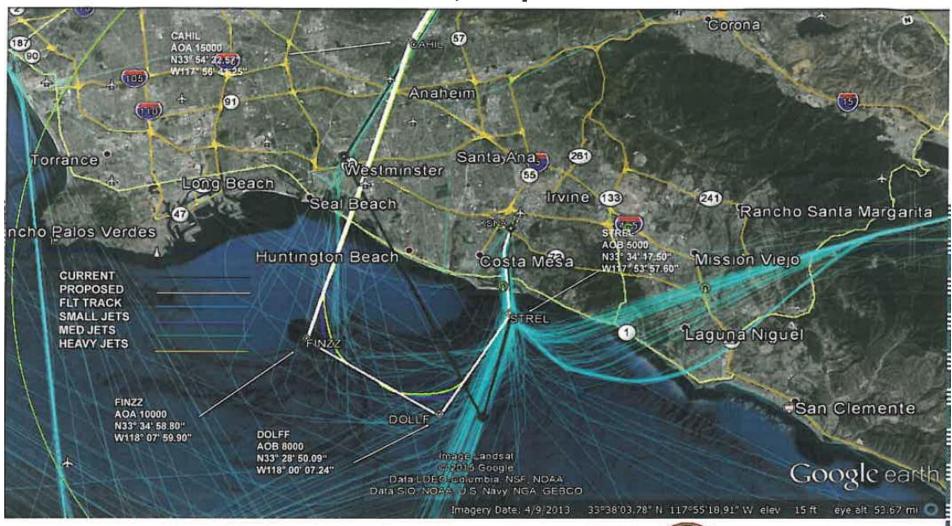


SNA CHANL2 SID; Proposed HAYLO





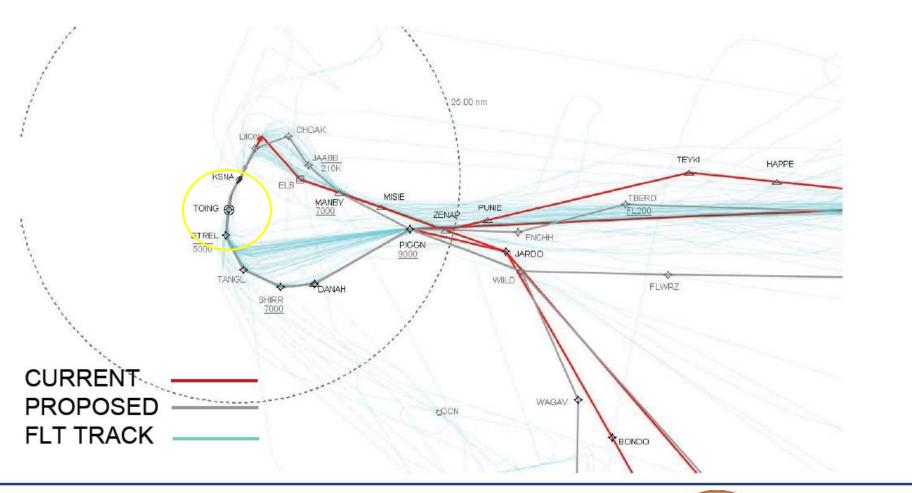
SNA MUSEL7 SID; Proposed FINZZ SID





SNA EL TORO/STREL SIDS (Old) SNA PIGGN SID (New)

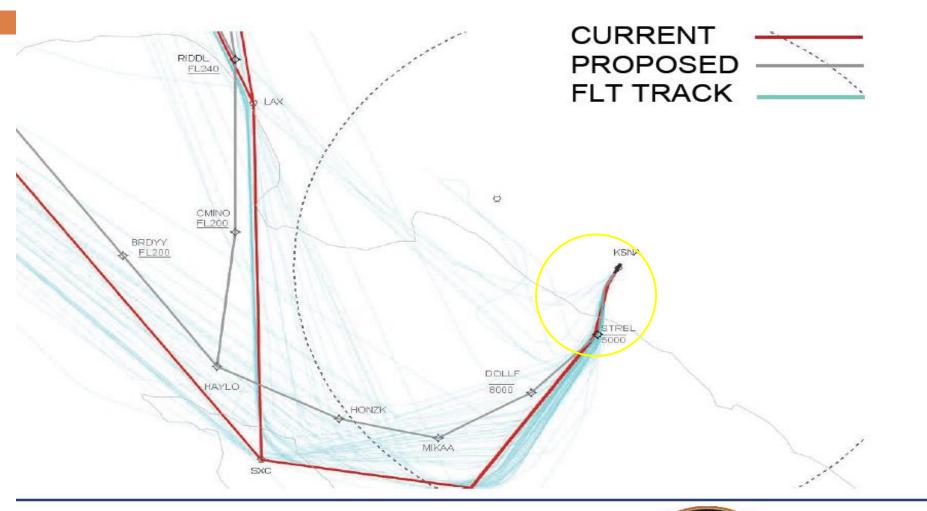
Close up view





SNA CHANL SID (Old) SNA HAYLO SID (New)

Close up view





Q&A

Next Gen, EA for Southern CA Metroplex