

ROUNDTABLE REGULAR MEETING PACKET

Meeting No. 291
Wednesday, June 4, 2014 - 7:00 p.m.

David Chetcuti Community Room – Millbrae City Hall
450 Popular Avenue – Millbrae, CA 94030

Note: To arrange an accommodation under the Americans with Disabilities Act to participate in this public meeting, please call (650) 363-1853 at least 2 days before the meeting date.

AGENDA

- 1. Call to Order / Roll Call / Declaration of a Quorum Present** ACTION
Cliff Lentz, Roundtable Chairperson / James A. Castaneda, AICP, Roundtable Coordinator
- 2. Public Comments on Items NOT on the Agenda** INFORMATION
Speakers are limited to two minutes. Roundtable members cannot discuss or take action on any matter raised under this item.
- 3. Announcement of Start of SFO FAR Part 150 Noise Exposure Map Update** INFORMATION
Bert Ganoung, Manager - Aircraft Noise Abatement Office

CONSENT AGENDA ITEMS

All items on the Consent Agenda are approved/accepted in one motion. A Roundtable Representative can make a request, prior to action on the Consent Agenda, to transfer a Consent Agenda item to the Regular Agenda. Any items on the Regular Agenda may be transferred on the Consent Agenda in a similar manner.

- 4. Review of Airport Director's Reports for:** ACTION
March 2014 pg. 11
April 2014 pg. 19
- 5. Review of Roundtable Regular Meeting Overview for April 2, 2014** ACTION
Item continued to next Regular Meeting pg. 27

REGULAR AGENDA

- 6. Review of SFO FlyQuiet Report for Q1 2014** ACTION
Bert Ganoung, Manager - Aircraft Noise Abatement Office pg. 31



- | | |
|---|------------------|
| 7. Airport Director's Comments
John Martin, Director – San Francisco International Airport | INFORMATION |
| 8. Request from the City of Palo Alto for Roundtable Membership
Cliff Lentz, Roundtable Chairperson | ACTION
pg. 45 |

REGULAR AGENDA – WORK PROGRAM ITEMS

- | | |
|---|-------------|
| 9. SFO Construction Update and Departure/Arrival affects
Bert Ganoung, Manager - Aircraft Noise Abatement Office | INFORMATION |
| 10. Update, FAA's PORTE Departure Analysis
Bert Ganoung, Manager - Aircraft Noise Abatement Office
Cliff Lentz, Roundtable Chairperson | INFORMATION |
| 11. Update, Oceanic Arrivals Over the Woodside VOR
Bert Ganoung, Manager - Aircraft Noise Abatement Office
Cliff Lentz, Roundtable Chairperson | INFORMATION |
| 12. Update, Optimization of Airspace & Procedures in the Metroplex (OAPM) Environmental Review
Cliff Lentz, Roundtable Chairperson
<i>Responses sent to the FAA are in the Correspondences section starting on page 51</i> | INFORMATION |

OTHER MATTERS

- | | |
|--|-------------|
| 13. Airport Noise Briefing
Cindy Gibbs, Roundtable Aviation Technical Consultant | INFORMATION |
| 14. Member Communications / Announcements
Roundtable Members and Staff | INFORMATION |
| 15. Adjourn
Cliff Lentz, Roundtable Chairperson | ACTION |

Correspondences	pg. 51
Airport Noise Industry News	pg. 129
Glossary of Common Acoustic & Air Traffic Control Terms	pg. 135

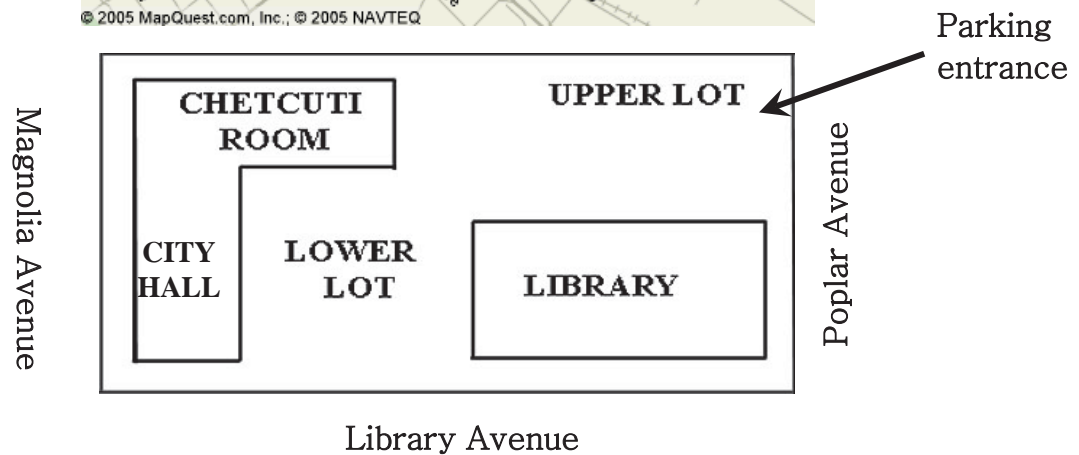
Next Regular Roundtable Meeting Date: Wednesday, October 1, 2014

Note: Public records that relate to any item on the open session Agenda (Consent and Regular Agendas) for a Regular Airport/Community Roundtable Meeting are available for public inspection. Those records that are distributed less than 72 hours prior to a Regular Meeting are available for public inspection at the same time they are distributed to all Roundtable Members, or a majority of the Members of the Roundtable. The Roundtable has designated the San Mateo County Planning & Building Department, at 455 County Center, 2nd Floor Redwood City, California 94063, for the purpose of making those public records available for inspection. The documents are also available on the Roundtable website at: www.sforoundtable.org.

ROUNDTABLE REGULAR MEETING LOCATION

**David Chetcuti Community Room
450 Poplar Avenue - Millbrae, CA 94030**

Access through Millbrae Library parking lot on Poplar Avenue





ABOUT THE AIRPORT/COMMUNITY ROUNDTABLE

OVERVIEW

The Airport/Community Roundtable was established in May 1981, by a Memorandum of Understanding (MOU), to address noise impacts related to aircraft operations at San Francisco International Airport (SFO). The Airport is owned and operated by the City and County of San Francisco, but it is located entirely within San Mateo County. This voluntary committee consists of 22 appointed and elected officials from the City and County of San Francisco, the County of San Mateo, and several cities in San Mateo County (see attached Membership Roster). It provides a forum for the public to address local elected officials, Airport management, FAA staff, and airline representatives, regarding aircraft noise issues. The committee monitors a performance-based aircraft noise mitigation program, as implemented by Airport staff, interprets community concerns, and attempts to achieve additional noise mitigation through a cooperative sharing of authority brought forth by the airline industry, the FAA, Airport management, and local government officials. The Roundtable adopts an annual Work Program to address key issues. The Roundtable is scheduled to meet on the first Wednesday of the following months: February, April, June, September and November. **Regular Meetings are held on the first Wednesday of the designated month at 7:00 p.m. at the David Chetcuti Community Room at Millbrae City Hall, 450 Poplar Avenue, Millbrae, California. Special Meetings and workshops are held as needed. The members of the public are encouraged to attend the meetings and workshops to express their concerns and learn about airport/aircraft noise and operations. For more information about the Roundtable, please contact Roundtable staff at (650) 363-1853.**

POLICY STATEMENT

The Airport/Community Roundtable reaffirms and memorializes its longstanding policy regarding the “shifting” of aircraft-generated noise, related to aircraft operations at San Francisco International Airport, as follows: ***“The Airport/Community Roundtable members, as a group, when considering and taking actions to mitigate noise, will not knowingly or deliberately support, encourage, or adopt actions, rules, regulations or policies, that result in the “shifting” of aircraft noise from one community to another, when related to aircraft operations at San Francisco International Airport.”*** (Source: Roundtable Resolution No. 93-01)

FEDERAL PREEMPTION, RE: AIRCRAFT FLIGHT PATTERNS

The authority to regulate flight patterns of aircraft is vested exclusively in the Federal Aviation Administration (FAA). Federal law provides that:

“No state or political subdivision thereof and no interstate agency or other political agency of two or more states shall enact or enforce any law, rule, regulation, standard, or other provision having the force and effect of law, relating to rates, routes, or services of any air carrier having authority under subchapter IV of this chapter to provide air transportation.” (49 U.S.C. A. Section 1302(a)(1)).



WELCOME

The Airport/Community Roundtable is a voluntary committee that provides a public forum to address community noise issues related to aircraft operations at San Francisco International Airport. The Roundtable encourages orderly public participation and has established the following procedure to help you, if you wish to present comments to the committee at this meeting.

- You must fill out a Speaker Slip and give it to the Roundtable Coordinator at the front of the room, as soon as possible, if you wish to speak on any Roundtable Agenda item at this meeting.
- To speak on more than one Agenda item, you must fill out a Speaker Slip for each item.
- The Roundtable Chairperson will call your name; please come forward to present your comments.

The Roundtable may receive several speaker requests on more than one Agenda item; therefore, each speaker is limited to two (2) minutes to present his/her comments on any Agenda item unless given more time by the Roundtable Chairperson. The Roundtable meetings are recorded. Copies of the audio file can be made available to the public upon request. Please contact the Roundtable Coordinator for any request.

Roundtable Meetings are accessible to people with disabilities. Individuals who need special assistance or a disability-related modification or accommodation to participate in this meeting, or who have a disability and wish to request an alternative format for the Agenda, Meeting Notice, Agenda Packet, or other writings that may be distributed at the meeting, should contact the Roundtable Coordinator at least two (2) working days before the meeting at the phone or e-mail listed below. Notification in advance of the meeting will enable Roundtable staff to make reasonable arrangements to ensure accessibility to this meeting.

AIRPORT/COMMUNITY ROUNDTABLE OFFICERS & STAFF

Chairperson:

CLIFF LENTZ

Representative, City of Brisbane
cliff Lentz@ci.brisbane.ca.us

Vice-Chairperson:

DAVE PINE

Representative, County of San Mateo
dpine@smcgov.org

Roundtable Coordinator:

JAMES A. CASTAÑEDA, AICP

County of San Mateo
Planning & Building Department
jcastaneda@sforoundtable.org



MEMBERSHIP ROSTER JUNE 2014 REGULAR MEMBERS

CITY AND COUNTY OF SAN FRANCISCO

BOARD OF SUPERVISORS

Representative: Vacant

Alternate: Vacant

CITY AND COUNTY OF SAN FRANCISCO

MAYOR'S OFFICE

Julian C. L. Chang, (Appointed)

Alternate: Edwin Lee, Mayor

CITY AND COUNTY OF SAN FRANCISCO

AIRPORT COMMISSION REPRESENTATIVE

John L. Martin, Airport Director (Appointed)

Alternate: Doug Yakel, Acting Airport Spokesperson

COUNTY OF SAN MATEO BOARD OF SUPERVISORS

Dave Pine, Supervisor/Roundtable Vice-Chairperson

Alternate: Don Horsley, Supervisor

CITY/COUNTY ASSOCIATION OF GOVERNMENTS OF SAN MATEO COUNTY (C/CAG)

AIRPORT LAND USE COMMITTEE (ALUC)

Richard Newman, ALUC Chairperson (Appointed)

Alternate: Carol Ford, Aviation Representative (Appointed)

TOWN OF ATHERTON

Elizabeth Lewis, Council Member

Alternate: Bill Widmer, Council Member

CITY OF BELMONT

Representative: Vacant

Alternate: Vacant

CITY OF BRISBANE

Cliff Lentz, Council Member/Roundtable Chairperson

Alternate: Lori Liu, Council Member

CITY OF BURLINGAME

Ricardo Ortiz, Council Member

Alternate: Vacant

MEMBERSHIP ROSTER JUNE 2014

Page 2 of 3

CITY OF DALY CITY

Raymond Buenaventura, Mayor

Alternate: Carol Klatt, Council Member

CITY OF FOSTER CITY

Steve Okamoto, Council Member

Alternate: Vacant

CITY OF HALF MOON BAY

Naomi Patridge, Council Member

Alternate: Allan Alifano, Council Member

TOWN OF HILLSBOROUGH

Alvin Royse, Council Member

Alternate: Shawn Christianson, Council Member

CITY OF MENLO PARK

Richard Cline, Council Member

Alternate: Peter Ohtaki, Council Member

CITY OF MILLBRAE

Robert Gottschalk, Council Member

Alternate: Marge Colapietro, Council Member

CITY OF PACIFICA

Sue Digre, Council Member

Alternate: Vacant

TOWN OF PORTOLA VALLEY

Ann Wengert, Council Member

Alternate: Maryann Derwin, Council Member

CITY OF REDWOOD CITY

Rosanne Foust, Council Member

Alternate: Vacant

CITY OF SAN BRUNO

Ken Ibarra, Council Member

Alternate: Rico Medina, Council Member

CITY OF SAN CARLOS

Bob Grassilli, Council Member

Alternate: Ron Collins, Council Member

MEMBERSHIP ROSTER JUNE 2014

Page 3 of 3

CITY OF SAN MATEO

David Lim, Council Member

Alternate: Vacant

CITY OF SOUTH SAN FRANCISCO

Mark Addiego, Council Member

Alternate: Pradeep Gupta, Council Member

TOWN OF WOODSIDE

David Burow, Council Member

Alternate: Thomas Shanahan, Council Member

ROUNDTABLE ADVISORY MEMBERS

AIRLINES/FLIGHT OPERATIONS

Captain Andy Allen, United Airlines

Glen Morse, United Airlines

Michael Jones, United Airlines

FEDERAL AVIATION ADMINISTRATION

Elisha Novak, Airports District Office, Burlingame

Greg Kingery, SFO Air Traffic Control Tower

Don Kirby, Northern California Terminal Radar Approach Control (NORCAL TRACON)

ROUNDTABLE STAFF/CONSULTANTS

James A. Castañeda, AICP, Roundtable Coordinator

Cynthia Gibbs, Roundtable Aviation Technical Consultant (BridgeNet International)

Harvey Hartman, Roundtable Aviation Technical Consultant (Hartman & Associates)

SAN FRANCISCO INTERNATIONAL AIRPORT NOISE ABATEMENT STAFF

Bert Ganoung, Noise Abatement Manager

David Ong, Noise Abatement Systems Manager

Ara Balian, Noise Abatement Specialist

Barbara Lawson, Noise Abatement Specialist

John Hampel, Noise Abatement Specialist

Joyce Satow, Noise Abatement Office Administration Secretary

CONSENT AGENDA

Regular Meeting # 291
June 4, 2014

Agenda Items 3 & 4

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Airport Director's Report

**Presented at the June 4, 2014
Airport Community Roundtable Meeting
SFO Aircraft Noise Abatement Office
March 2014**



Monthly Noise Exceedance Report

San Francisco International Airport -- Director's Report

Period: **March 2014**



Airline	Noise Exceedances				Noise Exceedance Quality Rating
	Total Noise Exceedances	Total Operations per Month	Exceedances per 1,000 Operations	Score	
SKW	19	8,484	2	9.99	
VRD	31	2,823	11	9.95	
CPZ	12	992	12	9.94	
AAL	23	1,749	13	9.94	
DAL	21	1,356	15	9.93	
SWA	40	2,339	17	9.92	
AWE	17	871	20	9.91	
FFT	5	226	22	9.90	
ASA	19	855	22	9.90	
JBU	19	692	27	9.87	
ACA	14	455	31	9.86	
HAL	2	62	32	9.85	
AFR	2	59	34	9.84	
UAL	401	9,333	43	9.80	
TRS	3	62	48	9.78	
AMX	8	151	53	9.75	
TAI	5	88	57	9.74	
ABX	7	82	85	9.61	
DLH	11	120	92	9.58	
ANZ	6	63	95	9.56	
FDX	8	58	138	9.36	
BAW	19	123	154	9.29	
NCA	21	52	404	8.13	
KAL	54	123	439	7.97	
EVA	57	124	460	7.87	
CPA	58	123	472	7.82	
SIA	60	123	488	7.74	
AAR	88	113	779	6.40	
GTI	1	1	1,000	5.37	
CAL	180	109	1,651	2.36	
PAL	134	62	2,161	0.00	
TOTAL	1,345	31,873	8,878		

Source: SFO Noise Abatement Office

Historical Significant Exceedances Report
San Francisco International Airport -- Director's Report
Period: **March 2014**



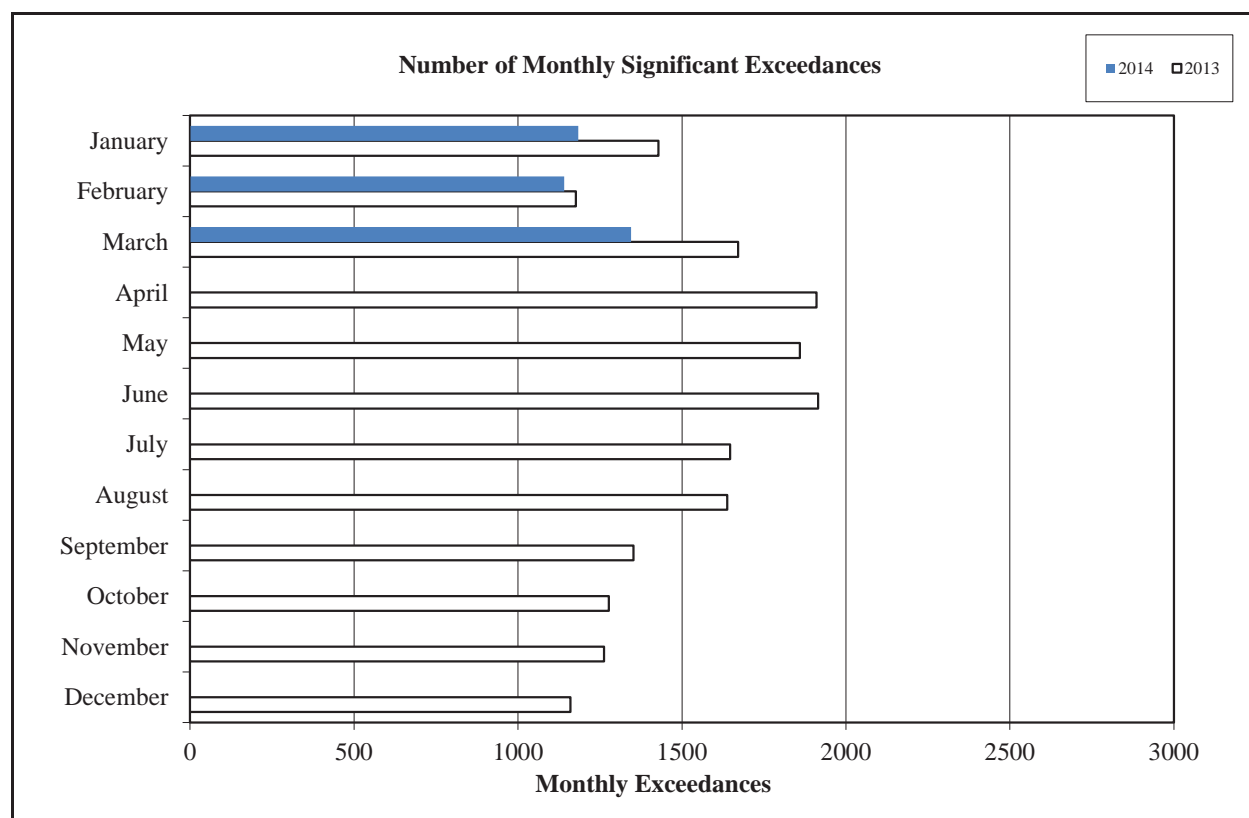
San Francisco International Airport

Month	Number of Monthly Significant Exceedances					Change from Last Year
	2010	2011	2012	2013	2014	
January	1312*	1580	1378	1428	1184	-244
February	1297*	1429	1581	1176	1141	-35
March	1778	1681	1703	1671	1345	-326
April	1449	1900	1870	1910**		0
May	2042	2024	1912	1859**		0
June	2177	1947	2355	1915		0
July	1743	2017	2621	1647		0
August	2090	1847	1823	1638***		0
September	1636	1609	1464	1352		0
October	1537	1572	1689	1277		0
November	1599	1575	1421	1262		0
December	1411	1447	1439	1160		0
Annual Total	20071	20628	21256	18295	3670	
Year to Date Trend	20071	20628	21256	18295	3670	-605

* Revised with correct amount of exceedance - 4/30/10

** Revised with correct amount of exceedance - 8/5/13

*** No data available from Site 7, August 1-26



Monthly Noise Complaint Summary

San Francisco International Airport -- Director's Report

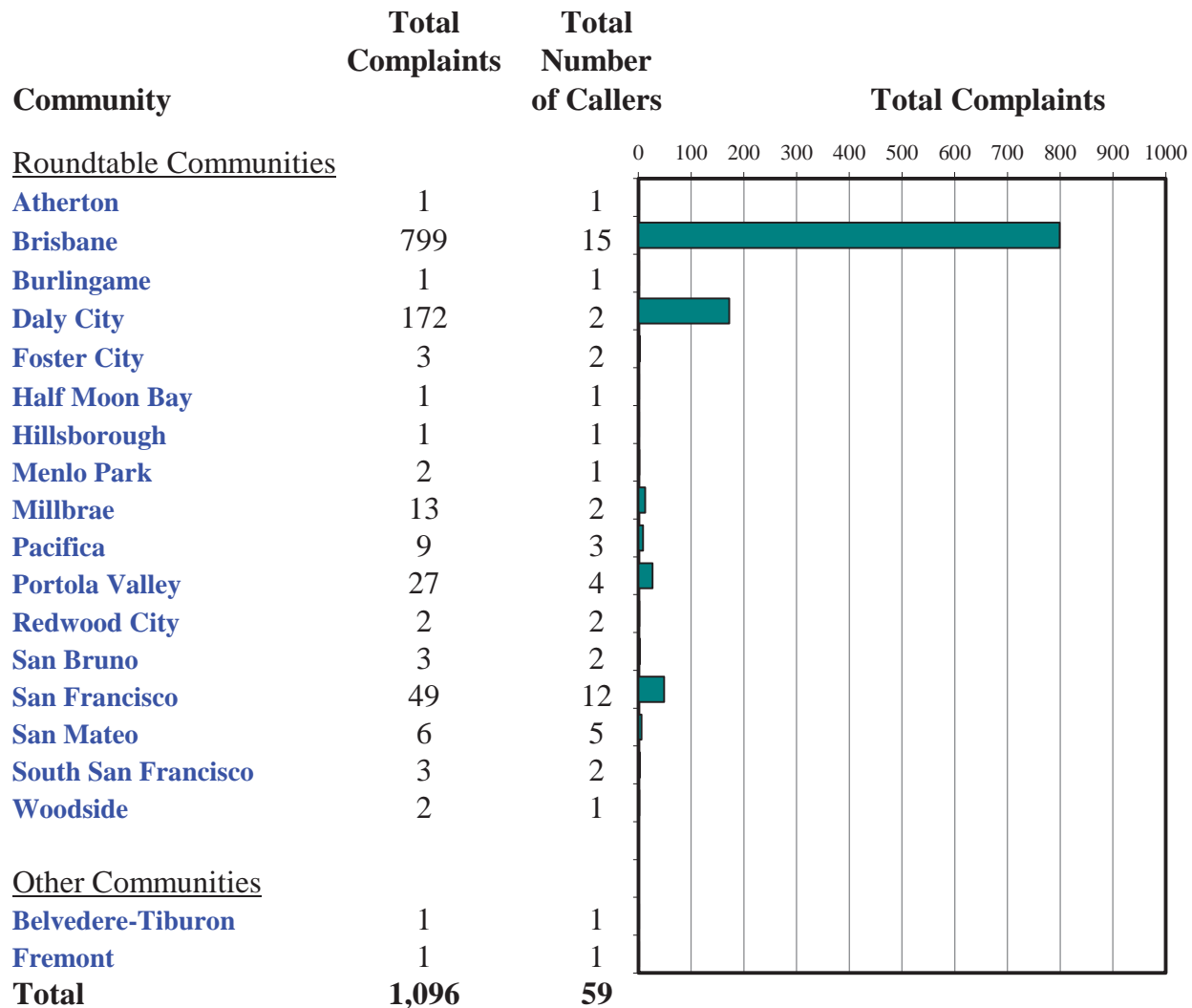
Period: **March 2014**



San Francisco International Airport

Monthly Calls by Community

Source: Airport Noise Monitoring System



Monthly Noise Complaint Summary Map March 2014



● Caller Location and Amount of Complaints





Monthly Nighttime Power Runups Report (85-06-AOB)

San Francisco International Airport -- Director's Report

Period : **March 2014**

Time of Day : From 10 pm through 7 am



Airline	Code	Number of Runups	Runups Per 1,000 Departures	Percentage of Runups
American Airlines 	AAL	12	13.6	50% 
UNITED 	UAL	12	2.5	50% 
Total		24		

A power runup is a procedure used to test an aircraft engine after maintenance is completed.

This is done to ensure safe operating standards prior to returning the aircraft to service.

The power settings tested range from idle to full power and may vary in duration.

Late Night Preferential Runway Use Report
San Francisco International Airport -- Director's Report
Period: March 2014
Time of Day: Late Night (1 am to 6 am)



San Francisco International Airport

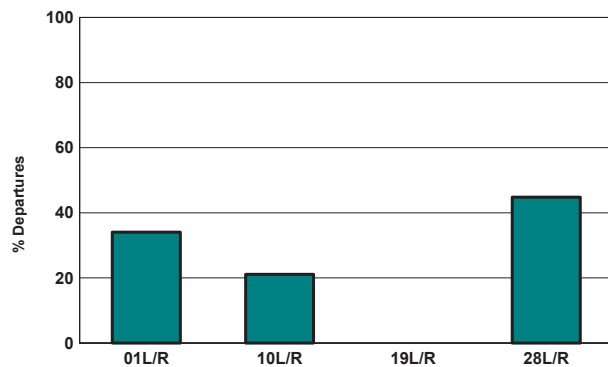
Runway Utilization (1 am to 6 am)

Monthly Jet Departures

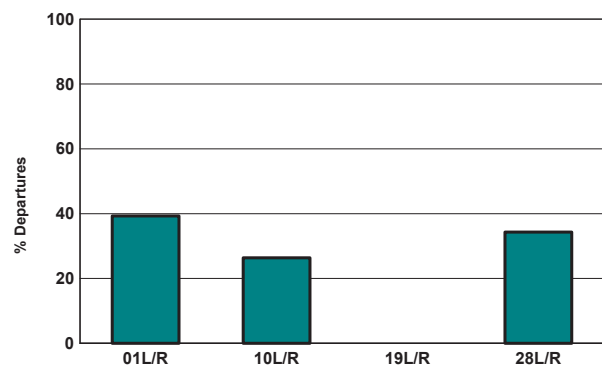
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
01L/R	110	51	92	-	-	-	-	-	-	-	-	-	253
10L/R	45	68	57	-	-	-	-	-	-	-	-	-	170
19L/R	-	-	-	-	-	-	-	-	-	-	-	-	0
28L/R	40	60	121	-	-	-	-	-	-	-	-	-	221
Total	195	179	270	-	-	-	-	-	-	-	-	-	644

01L/R	56%	28%	34%	0%	0%	0%	0%	0%	0%	0%	0%	0%	39%
10L/R	23%	38%	21%	0%	0%	0%	0%	0%	0%	0%	0%	0%	26%
19L/R	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
28L/R	21%	34%	45%	0%	0%	0%	0%	0%	0%	0%	0%	0%	34%

Current Month (1 am to 6 am)



Year-to-Date (1am to 6 am)



Current Month (1 am to 6 am)



Numbers rounded to nearest whole percentages

Year-to-Date (1am to 6am)



Numbers rounded to nearest whole percentages

Air Carrier Runway Use Summary Report

San Francisco International Airport -- Director's Report

Period: March 2014

Time of Day : All Hours



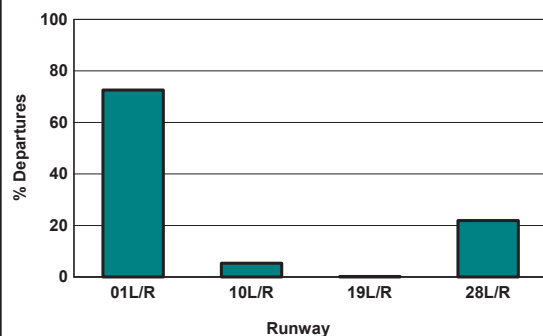
San Francisco International Airport

Runway Utilization (All Hours)

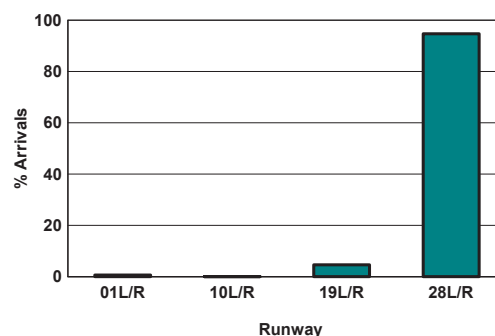
Source: Airport Noise Monitoring System

	Runway Utilization				Total
	01L/R	10L/R	19L/R	28L/R	
Total Monthly Operations					
Departures	12,113	894	32	3,655	16,694
Arrivals	107	2	757	15,425	16,291
Percentage Utilization					
Departures	72.6%	5.4%	0.2%	21.9%	100%
Arrivals	0.7%	0.0%	4.6%	94.7%	100%

Departures (All Hours)



Arrivals (All Hours)



Percentage Departure Utilization



Numbers rounded to nearest whole percentages

Percentage Arrival Utilization



Numbers rounded to nearest whole percentages

Airport Director's Report

**Presented at the June 4, 2014
Airport Community Roundtable Meeting
SFO Aircraft Noise Abatement Office
April 2014**



Monthly Noise Exceedance Report

San Francisco International Airport -- Director's Report

Period: April 2014



Airline	Noise Exceedances				Noise Exceedance Quality Rating
	Total Noise Exceedances	Total Operations per Month	Exceedances per 1,000 Operations	Score	
SKW	20	7,729	3	9.99	
CPZ	16	1,259	13	9.95	
AAL	24	1,731	14	9.95	
HAL	1	66	15	9.94	
VRD	44	2,904	15	9.94	
FFT	4	230	17	9.94	
ASA	16	913	18	9.94	
DAL	24	1,323	18	9.93	
AWE	21	907	23	9.92	
SWA	61	2,408	25	9.91	
ACA	14	459	31	9.89	
JBU	22	705	31	9.89	
UAL	331	9,906	33	9.88	
AMX	12	201	60	9.78	
BAW	9	120	75	9.73	
TRS	6	60	100	9.64	
TAI	11	85	129	9.53	
ABX	13	88	148	9.46	
FDX	12	73	164	9.40	
EVA	42	122	344	8.75	
ANZ	23	60	383	8.61	
NCA	20	51	392	8.57	
CPA	57	120	475	8.27	
SIA	57	120	475	8.27	
KAL	72	120	600	7.82	
AAR	98	112	875	6.82	
CAL	167	112	1,491	4.58	
PAL	165	60	2,750	0.00	
TOTAL	1,362	32,044	8,718		

Source: SFO Noise Abatement Office

Historical Significant Exceedances Report
San Francisco International Airport -- Director's Report
Period: **April 2014**



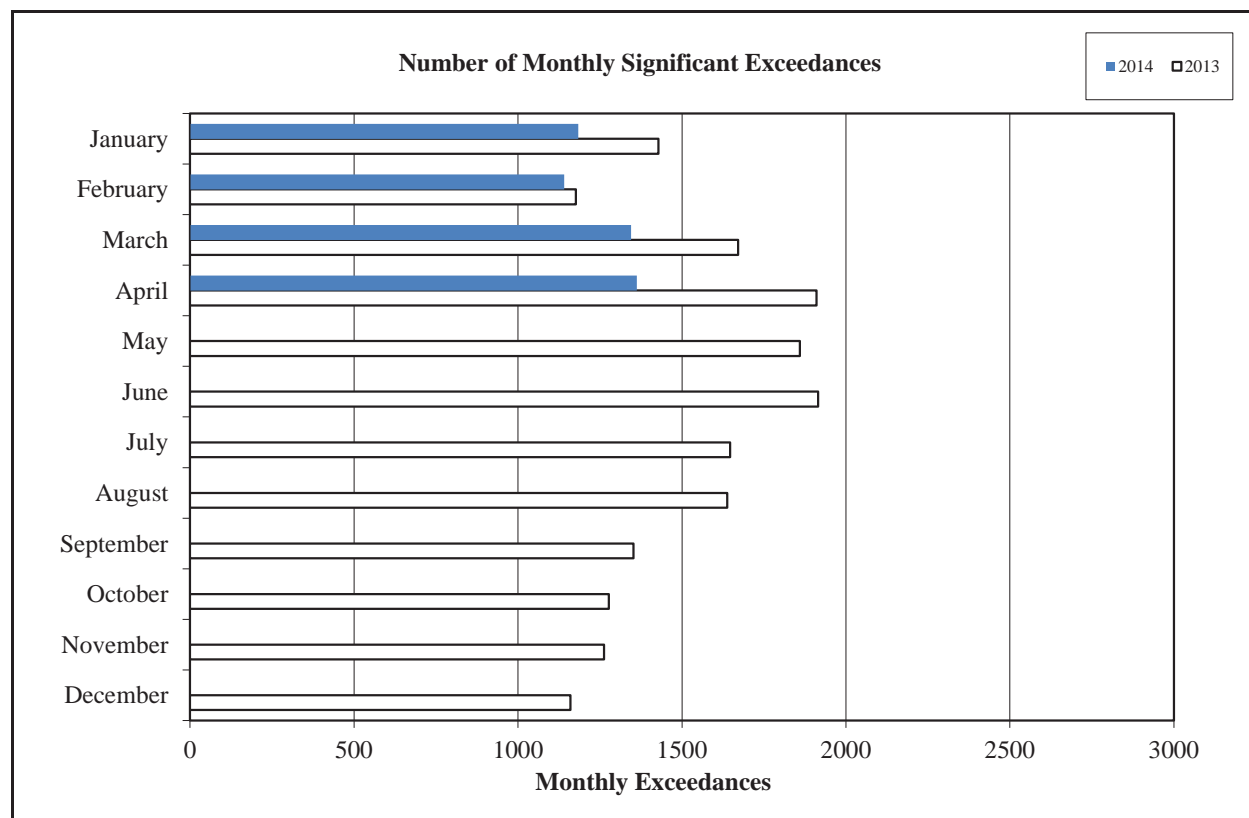
San Francisco International Airport

Month	Number of Monthly Significant Exceedances					Change from Last Year
	2010	2011	2012	2013	2014	
January	1312*	1580	1378	1428	1184	-244
February	1297*	1429	1581	1176	1141	-35
March	1778	1681	1703	1671	1345	-326
April	1449	1900	1870	1910**	1362	-548
May	2042	2024	1912	1859**		0
June	2177	1947	2355	1915		0
July	1743	2017	2621	1647		0
August	2090	1847	1823	1638***		0
September	1636	1609	1464	1352		0
October	1537	1572	1689	1277		0
November	1599	1575	1421	1262		0
December	1411	1447	1439	1160		0
Annual Total	20071	20628	21256	18295	5032	
Year to Date Trend	20071	20628	21256	18295	5032	-1153

* Revised with correct amount of exceedance - 4/30/10

** Revised with correct amount of exceedance - 8/5/13

*** No data available from Site 7, August 1-26



Monthly Noise Complaint Summary

San Francisco International Airport -- Director's Report

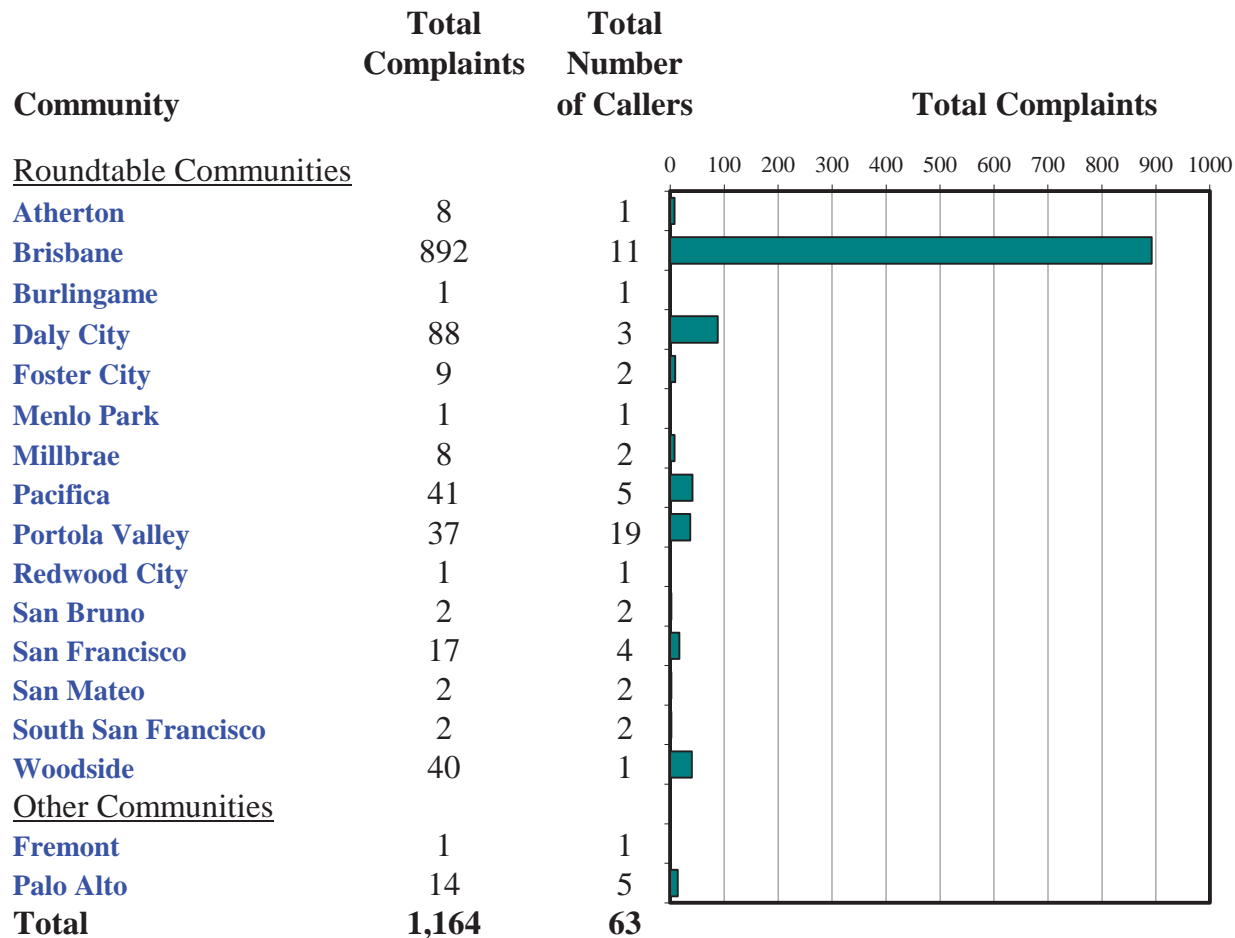
Period: **April 2014**



San Francisco International Airport

Monthly Calls by Community

Source: Airport Noise Monitoring System



Monthly Noise Complaint Summary Map April 2014



● Caller Location and Amount of Complaints




Monthly Nighttime Power Runups Report (85-06-AOB)

San Francisco International Airport -- Director's Report

Period : **April 2012**

Time of Day : From 10 pm through 7 am



Airline		Number of Runups	Runups Per 1000 Departures	Percentage of Runups
  	CPZ	1	1.4	7%
	AAL	6	6.9	43%
	UAL	7	1.4	50%
	Total	14	9.7	

A power runup is a procedure used to test an aircraft engine after maintenance is completed. This is done to ensure safe operating standards prior to returning the aircraft to service. The power settings tested range from idle to full power and may vary in duration.



San Francisco International Airport

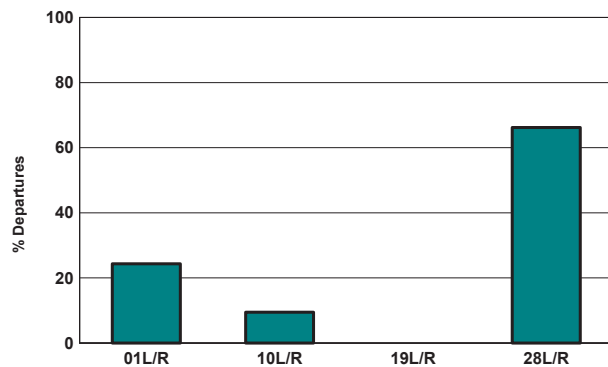
Runway Utilization (1 am to 6 am)

Monthly Jet Departures

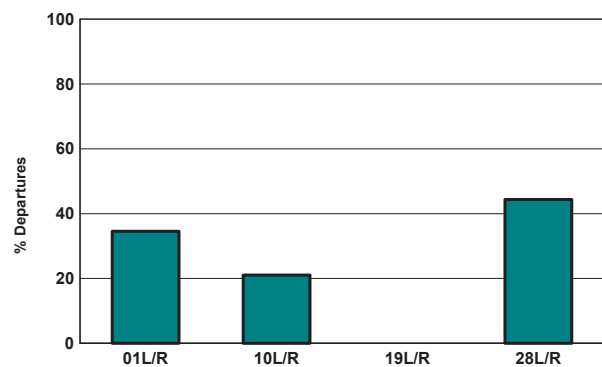
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
01L/R	110	51	92	32	-	-	-	-	-	-	-	-	425
10L/R	85	67	53	27	-	-	-	-	-	-	-	-	197
19L/R	-	-	-	-	-	-	-	-	-	-	-	-	0
27L/R	80	60	121	196	-	-	-	-	-	-	-	-	813
Total	195	179	270	296	-	-	-	-	-	-	-	-	940

01L/R	56%	27%	48%	28%	0%	0%	0%	0%	0%	0%	0%	0%	45%
10L/R	24%	47%	21%	9%	0%	0%	0%	0%	0%	0%	0%	0%	21%
19L/R	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
27L/R	21%	48%	85%	66%	0%	0%	0%	0%	0%	0%	0%	0%	88%

Current Month (1 am to 6 am)



Year-to-Date (1am to 6 am)



Current Month (1 am to 6 am)



Numbers rounded to nearest whole percentages

Year-to-Date (1am to 6am)



Numbers rounded to nearest whole percentages

Air Carrier Runway Use Summary Report

San Francisco International Airport -- Director's Report

Period: April 2014

Time of Day : All Hours



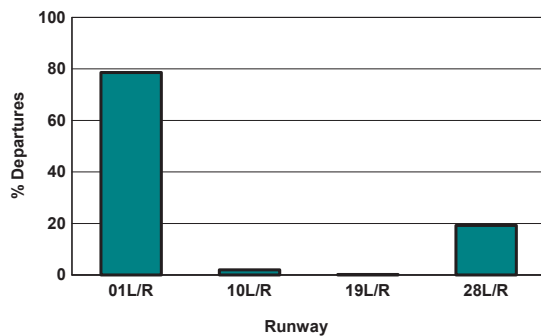
San Francisco International Airport

Runway Utilization (All Hours)

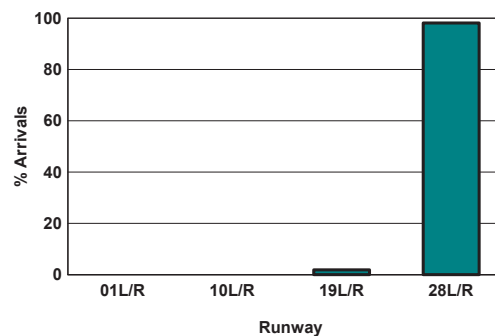
Source: Airport Noise Monitoring System

	Runway Utilization				Total
	01L/R	10L/R	19L/R	28L/R	
Total Monthly Operations					
Departures	13,274	334	32	3,251	16,891
Arrivals	0	0	309	16,158	16,467
Percentage Utilization					
Departures	78.6%	2.0%	0.2%	19.2%	100%
Arrivals	0.0%	0.0%	1.9%	98.1%	100%

Departures (All Hours)



Arrivals (All Hours)



Percentage Departure Utilization



Numbers rounded to nearest whole percentages

Percentage Arrival Utilization



Numbers rounded to nearest whole percentages

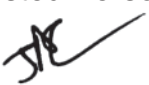


San Francisco International
Airport/Community Roundtable

455 County Center, 2nd Floor
Redwood City, CA 94063
T (650) 363-1853
F (650) 363-4849
www.sforoundtable.org

May 29, 2014

TO: Roundtable Representatives, Alternatives, and Interested Persons

FROM: James A. Castañeda, AICP, Roundtable Coordinator 

SUBJECT: Meeting Overview for the April 2, 2014 Roundtable Meeting

Due to unforeseen time constraints in packet preparation, the Meeting Overview for the April 2, 2014 Regular Meeting is not available for review at this time. It will be available and posted on the Roundtable's website as soon as it becomes available, and will be presented to the Roundtable for consideration/adoption at the next Regular Meeting. An audio copy of the meeting can be made available to download upon request.

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REGULAR AGENDA

Regular Meeting # 291
June 4, 2014

Agenda Items 5 - 10

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Fly Quiet Report

Presented at the June 4, 2014

Airport Community Roundtable Meeting

SFO Aircraft Noise Abatement Office

First Quarter 2014



Fly Quiet Program

San Francisco International Airport's Fly Quiet Program is an Airport Community Roundtable initiative implemented by the Aircraft Noise Abatement Office. Its purpose is to encourage individual airlines to operate as quietly as possible at SFO. The program promotes a participatory approach in complying with noise abatement procedures and objectives by grading an airline's performance and by making the scores available to the public via newsletters, publications, and public meetings.

Fly Quiet offers a dynamic venue for implementing new noise abatement initiatives by praising and publicizing active participation rather than a system that admonishes violations from essentially voluntary procedures.

Program Goals

The overall goal of the Fly Quiet Program is to influence airlines to operate as quietly as possible in the San Francisco Bay Area. A successful Fly Quiet Program can be expected to reduce both single event and total noise levels around the airport.

Program Reports

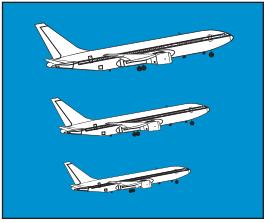
Fly Quiet reports communicate results in a clear, understandable format on a scale of 0-10, zero being poor and ten being good. This allows for an easy comparison between airlines over time. Individual airline scores are computed and reports are generated each quarter. These quantitative scores allow airline 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 Bay Area.

Program Elements

Currently the Fly Quiet Program rates jets and regional jets on six elements: the overall noise quality of each airline's fleet operating at SFO, an evaluation of single overflight noise level exceedences, a measure of how well each airline complies with the preferred nighttime noise abatement runways, assessment of airline performance to the Gap and Shoreline Departures, and over the bay approaches to runways 28L and 28R.



SFO's Fly Quiet Ratings



Fleet Noise Quality

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



Noise Exceedance

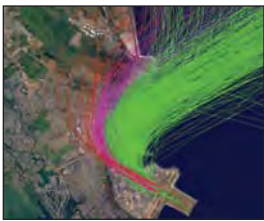
Eliminating high-level noise events is a long-standing goal of the Airport and the Airport Community Roundtable. As a result the Airport has established single event maximum noise level limits at each noise-monitoring site. These thresholds were set to identify aircraft producing noise levels higher than are typical for the majority of the operations.

Whenever an aircraft overflight produces a noise level higher than the maximum decibel value established for a particular monitoring site, the noise threshold is surpassed and a noise exceedance occurs. An exceedance may take place during approach, takeoff, or possibly during departure ground roll before lifting off. Noise exceedances are logged by the exact operation along with the aircraft type and airline name.



Nighttime Preferential Runway Use

SFO's Nighttime Preferential Runway Use program was developed in 1988. Although the program cannot be used 100% of the time because of winds, weather, and other operational factors, the Airport, the Community Roundtable, the FAA, and the Airlines have all worked together to maximize its use when conditions permit. The program is voluntary; compliance is at the discretion of the pilot in command. The main focus of this program is to maximize flights over water and minimize flights over land and populated areas between 1:00 a.m. and 6:00 a.m. Fortunately, because airport activity levels are lower late at night, it is feasible to use over-water departure procedures more frequently than would be possible during the day. Reducing nighttime noise—especially sleep disturbance—is a key goal of SFO's aircraft noise abatement program.



Shoreline Departure Quality

Aircraft departing SFO using Runways 28L and 28R are also considered by the Fly Quiet grading system whenever they use the Shoreline Departure Procedure. This predominately VFR (visual flight rules) departure steers aircraft to the northeast shortly after takeoff in an attempt to keep aircraft and aircraft noise away from the residential communities located to the northwest of SFO. By keeping aircraft east of Highway 101 the majority of the overflights will be experienced by industrial and business parks instead of residential areas.

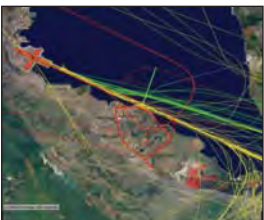
In order to evaluate each airline's performance when flying a Shoreline Departure, a corridor was established using Interstate 101 (green colored flight tracks) as a reference point. The corridor runs north along 101, beginning approximately one-mile north-northwest of the end of Runways 28L and 28R and continuing up into the City of Brisbane. Departures west of 101 are scored marginal or poor depending on their location.



Gap Departure Quality

Aircraft departing SFO using Runways 28L and 28R frequently depart straight out using a procedure known as the Gap Departure. This procedure directs air traffic to fly a route that takes them over the area northwest of the airport over the cities of South San Francisco, San Bruno, Daly City, and Pacifica. In an attempt to mitigate noise in this specific area, the Gap Departure Quality Rating has been included as a category in the Fly Quiet Program.

Since "higher is quieter", aircraft altitudes are recorded along the departure route. Scores are assigned at specified points or gates set approximately one mile apart, with the higher aircraft receiving higher scores.



























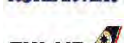





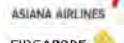

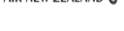


Foster City Arrival Quality

The Arrival Quality Rating is the latest addition to the Fly Quiet Program. In an effort to further reduce nighttime noise in neighboring communities, this rating is designed to maximize over-bay approaches to Runways 28 between 11:00 p.m. and 6:00 a.m. Airlines arriving to Runways 28 during these hours are assessed based on which approach flight path was used. Over-the-bay approaches are rated good (green colored flight tracks), versus over-the-communities which are rated poor.




Airline Fly Quiet Summary Report - 1st Quarter 2014

January 1 to March 31, 2014

Airline		Fleet Noise Quality	Noise Exceedance	Nighttime Runway Use	Departures		Arrivals	Final Score	Airline Fly Quiet Rating				
					Shoreline	Gap	Foster City						
	JAL	10.00	10.00	10.00	-	5.09	-	8.77	<div><div></div></div>				
	CPZ	10.00	9.96	-	9.48	6.58	7.60	8.72	<div><div></div></div>				
	ANA	7.15	10.00	-	-	7.97	-	8.37	<div><div></div></div>				
	ACA	7.13	9.83	10.00	9.53	4.11	8.21	8.13	<div><div></div></div>				
	AWE	4.78	9.91	8.89	9.22	7.12	8.78	8.12	<div><div></div></div>				
	CES	4.05	10.00	-	-	9.81	-	7.95	<div><div></div></div>				
	ABX	4.87	9.17	10.00	9.38	6.82	7.17	7.90	<div><div></div></div>				
	SKW	10.00	9.99	4.17	9.39	6.39	6.56	7.75	<div><div></div></div>				
	SAS	8.17	10.00	-	-	4.77	-	7.65	<div><div></div></div>				
	KLM	4.91	10.00	-	10.00	5.54	-	7.61	<div><div></div></div>				
	FFT	6.08	9.91	-	9.76	3.44	8.86	7.61	<div><div></div></div>				
	ASA	5.14	9.90	10.00	9.91	5.11	5.56	7.60	<div><div></div></div>				
	SCX	5.82	10.00	-	10.00	2.50	9.50	7.56	<div><div></div></div>				
	SWA	5.77	9.89	6.67	9.04	6.51	7.29	7.53	<div><div></div></div>				
	FDX	3.85	9.31	10.00	9.50	4.58	7.63	7.48	<div><div></div></div>				
	UAE	7.15	10.00	-	-	5.23	-	7.46	<div><div></div></div>				
	CCA	5.41	9.94	-	-	6.93	-	7.43	<div><div></div></div>				
	DAL	6.33	9.93	4.00	8.86	6.08	8.01	7.20	<div><div></div></div>				
	VRD	5.25	9.92	5.28	9.61	5.99	6.96	7.17	<div><div></div></div>				
	AAL	5.76	9.92	4.96	9.09	4.06	8.62	7.07	<div><div></div></div>				
	AMX	5.82	9.74	3.65	10.00	6.19	6.49	6.98	<div><div></div></div>				
	NCA	9.90	7.65	-	-	2.97	7.32	6.96	<div><div></div></div>				
	SWR	8.17	9.97	-	-	2.29	-	6.81	<div><div></div></div>				
	JBU	4.85	9.88	3.89	8.33	5.33	8.47	6.79	<div><div></div></div>				
	TRS	5.82	9.61	4.87	5.00	6.56	8.71	6.76	<div><div></div></div>				
	TAI	5.18	9.58	3.86	10.00	5.00	6.81	6.74	<div><div></div></div>				
	UAL	5.93	9.77	4.56	8.93	3.39	7.74	6.72	<div><div></div></div>				
								6.71	SFO AVERAGE				
	AFR	5.74	9.93	-	-	4.24	-	6.64	<div><div></div></div>				
	KAL	7.66	7.42	5.36	-	5.83	5.13	6.28	<div><div></div></div>				
	EVA	6.65	7.65	1.35	-	5.67	10.00	6.26	<div><div></div></div>				
	DLH	5.83	9.79	-	3.33	5.15	-	6.03	<div><div></div></div>				
	HAL	4.05	9.87	-	-	2.50	7.50	5.98	<div><div></div></div>				
	VIR	3.43	9.90	-	-	4.58	-	5.97	<div><div></div></div>				
	LPE	3.84	10.00	-	-	4.00	-	5.95	<div><div></div></div>				
	CPA	5.35	7.72	2.50	-	5.71	5.00	5.26	<div><div></div></div>				
	AAR	4.62	5.52	5.07	5.00	5.54	5.51	5.21	<div><div></div></div>				
	SIA	7.15	7.16	0.00	-	5.86	-	5.04	<div><div></div></div>				
	ANZ	3.79	9.53	0.00	-	4.79	-	4.53	<div><div></div></div>				














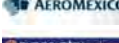












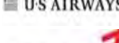



Airline Fly Quiet Summary Report - 1st Quarter 2014













January 1 to March 31, 2014

Airline		<div><div>Fleet Noise</div><div>Noise</div><div>Nighttime</div><div>Departures</div><div>Arrivals</div></div>						Final Score		Airline Fly Quiet Rating										
		Quality	Exceedance	Runway Use	Shoreline	Gap	Foster City													
	BAW	3.43	9.66	0.00	-	1.69	5.00	3.95	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>											
	PAL	3.69	0.92	-	-	3.19	-	2.60	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>											
	CAL	3.43	0.00	0.00	-	4.47	5.00	2.58	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>											
SFO Average		5.90	9.00	4.96	8.73	5.11	7.29	6.71												

Fleet Noise Quality - 1st Quarter 2014























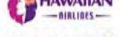

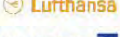












January 1 to March 31, 2014

Airline		Nationwide	San Francisco		Fleet Noise Quality Rating
		Fleet Noise Quality Rating	Average Daily Jet Operations	Score	
	JAL	4.20	1	10.00	<div><div></div></div>
	CPZ	10.00	14	10.00	<div><div></div></div>
	SKW	10.00	80	10.00	<div><div></div></div>
	NCA	3.90	1	9.90	<div><div></div></div>
	SAS	4.96	1	8.17	<div><div></div></div>
	SWR	5.17	1	8.17	<div><div></div></div>
	KAL	4.05	2	7.66	<div><div></div></div>
	ANA	5.43	1	7.15	<div><div></div></div>
	SIA	5.93	2	7.15	<div><div></div></div>
	UAE	7.89	1	7.15	<div><div></div></div>
	ACA	6.75	7	7.13	<div><div></div></div>
	EVA	5.05	2	6.65	<div><div></div></div>
	DAL	4.92	21	6.33	<div><div></div></div>
	FFT	6.41	4	6.08	<div><div></div></div>
	UAL	5.83	146	5.93	<div><div></div></div>
				5.90	<div><div>SFO AVERAGE</div></div>
	DLH	6.09	2	5.83	<div><div></div></div>
	AMX	5.54	3	5.82	<div><div></div></div>
	SCX	5.82	1	5.82	<div><div></div></div>
	TRS	6.97	1	5.82	<div><div></div></div>
	SWA	5.70	36	5.77	<div><div></div></div>
	AAL	3.94	27	5.76	<div><div></div></div>
	AFR	5.49	1	5.74	<div><div></div></div>
	CCA	3.46	1	5.41	<div><div></div></div>
	CPA	4.18	2	5.35	<div><div></div></div>
	VRD	5.31	46	5.25	<div><div></div></div>
	TAI	5.18	1	5.18	<div><div></div></div>
	ASA	5.10	13	5.14	<div><div></div></div>
	KLM	4.67	1	4.91	<div><div></div></div>
	ABX	1.52	1	4.87	<div><div></div></div>
	JBU	6.13	11	4.85	<div><div></div></div>
	AWE	5.67	13	4.78	<div><div></div></div>
	AAR	3.93	2	4.62	<div><div></div></div>
	CES	4.63	1	4.05	<div><div></div></div>
	HAL	6.21	1	4.05	<div><div></div></div>
	FDX	2.80	1	3.85	<div><div></div></div>

Airline		Nationwide	San Francisco		Fleet Noise Quality Rating
		Fleet Noise Quality Rating	Average Daily Jet Operations	Score	
 LPE	4.38	0	3.84		
 ANZ	4.00	1	3.79		
 PAL	5.09	1	3.69		
 BAW	4.34	2	3.43		
 CAL	3.62	2	3.43		
 VIR	5.84	1	3.43		
AVERAGE		5.27	11	5.90	



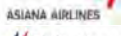




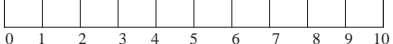
Noise Exceedance Rating Report - 1st Quarter 2014

January 1 to March 31, 2014

Airline	Noise Exceedances				Noise Exceedance Quality Rating
	Total Noise Exceedances	Total Quarterly Operations	Exceedances per 1000 Operations	Score	
 ANA	0	179	0	10.00	<div><div></div></div>
 CES	0	180	0	10.00	<div><div></div></div>
 JAL	0	177	0	10.00	<div><div></div></div>
 KLM	0	137	0	10.00	<div><div></div></div>
 LPE	0	71	0	10.00	<div><div></div></div>
 SAS	0	124	0	10.00	<div><div></div></div>
 SCX	0	161	0	10.00	<div><div></div></div>
 UAE	0	178	0	10.00	<div><div></div></div>
 SKW	29	14,354	2	9.99	<div><div></div></div>
 SWR	1	181	6	9.97	<div><div></div></div>
 CPZ	20	2,587	8	9.96	<div><div></div></div>
 CCA	2	178	11	9.94	<div><div></div></div>
 DAL	44	3,727	12	9.93	<div><div></div></div>
 AFR	2	167	12	9.93	<div><div></div></div>
 AAL	68	4,934	14	9.92	<div><div></div></div>
 VRD	123	8,210	15	9.92	<div><div></div></div>
 FFT	10	644	16	9.91	<div><div></div></div>
 AWE	39	2,428	16	9.91	<div><div></div></div>
 VIR	3	171	18	9.90	<div><div></div></div>
 ASA	43	2,354	18	9.90	<div><div></div></div>
 SWA	129	6,490	20	9.89	<div><div></div></div>
 JBU	43	1,955	22	9.88	<div><div></div></div>
 HAL	4	180	22	9.87	<div><div></div></div>
 ACA	38	1,280	30	9.83	<div><div></div></div>
 DLH	12	330	36	9.79	<div><div></div></div>
 UAL	1,086	26,335	41	9.77	<div><div></div></div>
 AMX	22	478	46	9.74	<div><div></div></div>
 BAW	22	361	61	9.66	<div><div></div></div>
 TRS	12	175	69	9.61	<div><div></div></div>
 TAI	19	255	75	9.58	<div><div></div></div>
 ANZ	15	181	83	9.53	<div><div></div></div>
 FDX	23	188	122	9.31	<div><div></div></div>
 ABX	36	246	146	9.17	<div><div></div></div>
				9.00	<div><div></div></div>
 CPA	147	365	403	7.72	<div><div></div></div>
 EVA	148	357	415	7.65	<div><div></div></div>
 NCA	54	130	415	7.65	<div><div></div></div>
 KAL	160	351	456	7.42	<div><div></div></div>
SFO AVERAGE					<div><div></div></div>


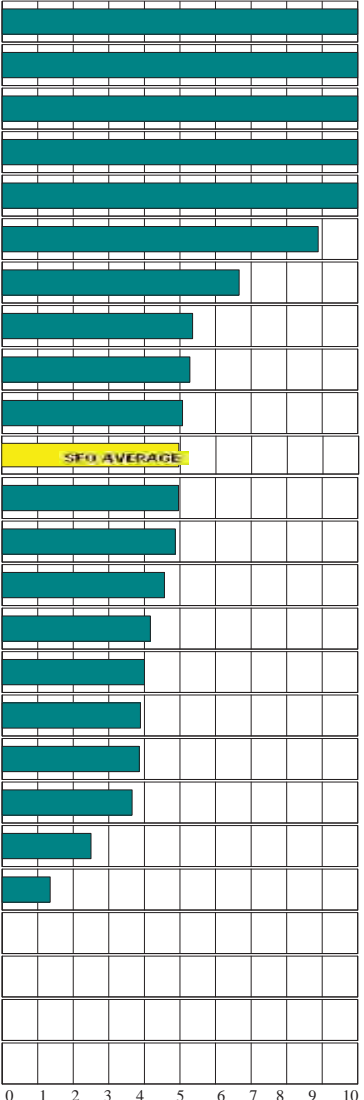























Noise Exceedance Rating Report - 1st Quarter 2014

January 1 to March 31, 2014

Airline	Noise Exceedances				Noise Exceedance Quality Rating
	<i>Total Noise Exceedances</i>	<i>Total Quarterly Operations</i>	<i>Exceedances per 1000 Operations</i>	<i>Score</i>	
 SIA	180	359	501	7.16	
 AAR	262	331	792	5.52	
 PAL	292	182	1604	0.92	
 CAL	532	301	1767	0.00	
TOTAL	3,620	81,972			
SFO AVERAGE			177	9.00	













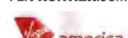













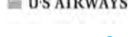









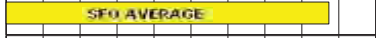






Nighttime Preferential Runway Use - 1st Quarter 2014

January 1 to March 31, 2014

Airline	Nighttime Departures (1:00 am to 6:00 am)						Nighttime Runway Use Rating
	Total	10L/R	28L/R Shoreline	01L/R	28L/R Straight	Score	
 ABX	1	100%	0%	0%	0%	10.00	
 ACA	1	100%	0%	0%	0%	10.00	
 ASA	1	100%	0%	0%	0%	10.00	
 FDX	1	100%	0%	0%	0%	10.00	
 JAL	1	100%	0%	0%	0%	10.00	
 AWE	3	67%	33%	0%	0%	8.89	
 SWA	4	50%	0%	50%	0%	6.67	
 KAL	84	54%	0%	0%	46%	5.36	
 VRD	12	42%	0%	33%	25%	5.28	
 AAR	71	51%	0%	0%	49%	5.07	
						4.96	
						SFO AVERAGE	
 AAL	41	24%	7%	61%	7%	4.96	
 TRS	13	23%	8%	62%	8%	4.87	
 UAL	122	18%	5%	73%	4%	4.56	
 SKW	4	25%	0%	50%	25%	4.17	
 DAL	10	20%	0%	60%	20%	4.00	
 JBU	12	8%	8%	75%	8%	3.89	
 TAI	38	8%	5%	82%	5%	3.86	
 AMX	83	8%	2%	80%	10%	3.65	
 CPA	4	25%	0%	0%	75%	2.50	
 EVA	37	14%	0%	0%	86%	1.35	
 ANZ	2	0%	0%	0%	100%	0.00	
 BAW	1	0%	0%	0%	100%	0.00	
 CAL	23	0%	0%	0%	100%	0.00	
 SIA	23	0%	0%	0%	100%	0.00	
TOTAL						592	
SFO AVERAGE		39%	3%	26%	32%	4.96	



















































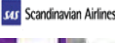

















Shoreline Departure Rating - 1st Quarter 2014

January 1 to March 31, 2014

Airline	Shoreline Departures					Shoreline Departure Rating
	Total	Successful	Marginal	Poor	Score	
 AMX	2	100%	0%	0%	10.00	
 KLM	1	100%	0%	0%	10.00	
 SCX	6	100%	0%	0%	10.00	
 TAI	2	100%	0%	0%	10.00	
 ASA	58	98%	2%	0%	9.91	
 FFT	21	95%	5%	0%	9.76	
 VRD	103	93%	6%	1%	9.61	
 ACA	32	91%	9%	0%	9.53	
 FDX	10	90%	10%	0%	9.50	
 CPZ	29	93%	3%	3%	9.48	
 SKW	271	89%	10%	1%	9.39	
 ABX	8	88%	13%	0%	9.38	
 AWE	32	84%	16%	0%	9.22	
 AAL	82	85%	11%	4%	9.09	
 SWA	26	81%	19%	0%	9.04	
 UAL	452	80%	18%	2%	8.93	
 DAL	83	82%	13%	5%	8.86	
					8.73	
 JBU	27	67%	33%	0%	8.33	
 AAR	1	0%	100%	0%	5.00	
 TRS	5	40%	20%	40%	5.00	
 DLH	6	0%	67%	33%	3.33	
TOTAL 1,257						
SFO AVERAGE		79%	17%	4%	8.73	















Gap Departure Climb Rating - 1st Quarter 2014

January 1 to March 31, 2014

Airline		Gap Departures		Gap Departure Quality Rating
		Total	Score	
 CHINA EASTERN	CES	81	9.81	
 ANA	ANA	79	7.97	
 US AIRWAYS	AWE	56	7.12	
 AIR CHINA	CCA	81	6.93	
 ABX AIR	ABX	11	6.82	
 COMPASS AIRLINES	CPZ	99	6.58	
 AIRTRAN	TRS	4	6.56	
 SOUTHWEST	SWA	226	6.51	
 SKYWEST AIRLINES	SKW	286	6.39	
 AEROMEXICO	AMX	20	6.19	
 DELTA	DAL	109	6.08	
 AMERICAN AIRLINES	VRD	206	5.99	
 SINGAPORE AIRLINES	SIA	165	5.86	
 KOREAN AIR	KAL	118	5.83	
 CATHAY PACIFIC	CPA	165	5.71	
 EVA AIR	EVA	161	5.67	
 ASIANA AIRLINES	AAR	119	5.54	
 KLM	KLM	14	5.54	
 jetBlue	JBU	50	5.33	
 EMIRATES	UAE	81	5.23	
 Lufthansa	DLH	146	5.15	
			5.11	SFO AVERAGE
 ALASKA AIRLINES	ASA	47	5.11	
 JAPAN AIRLINES	JAL	40	5.09	
 AVIANCA	TAI	5	5.00	
 AIR NEW ZEALAND	ANZ	84	4.79	
 SAS	SAS	55	4.77	
 FedEx	FDX	3	4.58	
 VIRGIN ATLANTIC	VIR	56	4.58	
 CHINA AIRLINES	CAL	138	4.47	
 AIRFRANCE	AFR	51	4.24	
 AIR CANADA	ACA	14	4.11	
 AMERICAN AIRLINES	AAL	90	4.06	
 LAN	LPE	30	4.00	
 FLYFRONTIER.COM	FFT	4	3.44	












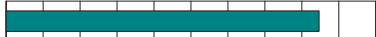
















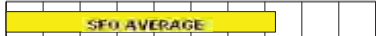












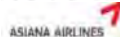








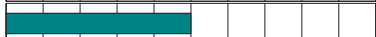
Gap Departure Climb Rating - 1st Quarter 2014

January 1 to March 31, 2014

Airline	Gap Departures		Gap Departure Quality Rating
	Total	Score	
 UNITED UAL	2026	3.39	
 Philippines PAL	85	3.19	
 NCA Nippon Cargo Airlines NCA	58	2.97	
 HAWAIIAN HILIBIES HAL	1	2.50	
 sun country airlines SCX	2	2.50	
 SWISS SWR	78	2.29	
 BRITISH AIRWAYS BAW	148	1.69	
TOTAL 5292			
SFO Average 5.11			

Foster City Arrival Rating - 1st Quarter 2014


January 1 to March 31, 2014

Airline	Foster City Arrivals					Foster City Arrival Rating
	Total	Successful	Marginal	Poor	Score	
 EVA	3	100%	0%	0%	10.00	
 SCX	10	90%	10%	0%	9.50	
FLYFRONTIER.COM FFT	22	77%	23%	0%	8.86	
 AWE	131	76%	24%	0%	8.78	
 TRS	62	74%	26%	0%	8.71	
American Airlines AAL	188	72%	28%	0%	8.62	
 JBU	150	69%	31%	0%	8.47	
 ACA	67	64%	36%	0%	8.21	
 DAL	78	60%	40%	0%	8.01	
 UAL	909	55%	44%	0%	7.74	
 FDX	40	53%	48%	0%	7.63	
 CPZ	25	52%	48%	0%	7.60	
 HAL	2	50%	50%	0%	7.50	
 NCA	41	46%	54%	0%	7.32	
 SWA	166	46%	54%	0%	7.29	
					7.29	
 ABX	60	43%	57%	0%	7.17	
 VRD	92	39%	61%	0%	6.96	
 TAI	72	38%	61%	1%	6.81	
 SKW	64	34%	63%	3%	6.56	
 AMX	77	30%	70%	0%	6.49	
 ASA	71	14%	83%	3%	5.56	
 AAR	68	10%	90%	0%	5.51	
 KAL	77	3%	97%	0%	5.13	
 BAW	1	0%	100%	0%	5.00	
 CAL	1	0%	100%	0%	5.00	
 CPA	3	0%	100%	0%	5.00	
TOTAL	2,480					
SFO AVERAGE		46%	54%	0%	7.29	



May 29, 2014

TO: Roundtable Representatives

FROM: James A. Castañeda, AICP, Roundtable Coordinator 

SUBJECT: Consideration/Approval of Proposed Amendments to the Roundtable Bylaws

RECOMMENDATION

The Roundtable considers and approves amendments to the Roundtable Memorandum of Understanding (MOU) and Bylaws that will: (1) amend language to allow a city within the County of Santa Clara to join the Roundtable, and (2) add the City of Palo Alto as a voting member.

BACKGROUND/DISCUSSION

Staff has received a request from the City of Palo Alto to participate on the Roundtable as a voting member (see attached letter). In order to allow such, two amendments of the Roundtable regulatory documents are required.

The first amendment is to the Roundtable's Memorandum of Understand (MOU). Within the MOU, Article III, Section 4 establishes the rules of adding additional voting members to the Roundtable, which specifically limits membership to incorporated towns and/or cities located within San Mateo County. An amendment to this requirement will be necessary in order to accept the City of Palo Alto as a voting member of the Roundtable. The second amendment is to the Roundtable's Bylaws, which would require the addition of the City of Palo Alto to the Roundtable Roster as shown on page 4 in Article III, as well as page 5 in Article III, section 9.

The City of Palo Alto first requested membership to the Roundtable in late 1997. The Roundtable at that time did not take a vote to make the required aforementioned changes to accommodate cities outside of the County of San Mateo. The noise issues and concerns raised by the City of Palo Alto as the impetus to participate on the Roundtable was referred to the Association of Bay Area Government's (ABAG) Regional Airport Planning Committee (RAPC) to review and discuss aircraft issues outside of the Roundtable purview. The City of Palo Alto has renewed its interest in participating on the Roundtable as a voting member.

As mentioned, in order to accommodate the City of Palo Alto's request, the Roundtable must amend language in both the MOU and Bylaws to open up membership beyond San Mateo County. Alternative language in the MOU and Bylaws to consider includes the following (changes in bold):

MOU page 7, Article III, Section 4 draft revised language:

"Additional Voting Membership – Other incorporated towns and/or cities located within San Mateo County **or city within the County of Santa Clara that shares a border with San Mateo County** may request voting membership on the San Francisco International Airport/Community Roundtable by adopting a resolution"

Bylaws page 5, Article III, Section 9 draft revised language:

"Any city or town in San Mateo County **or city within the County of Santa Clara that shares a border with San Mateo County** that is not a member of the Roundtable may request membership on the Roundtable in accordance with the membership procedure contained in the most current version of the MOU."

Attachment: Request memo from the City of Palo Alto

May 29, 2014

Cliff Lentz
Chair, San Francisco Airport Community Roundtable
San Mateo County Planning & Building Department
455 County Center, 2nd Floor
Redwood City, CA 94063

Re: Request to Include the City of Palo Alto as a Voting Member of the San Francisco Airport Community Roundtable

Dear Chair Lentz,

Thank you for considering adding the City of Palo Alto as a voting member of the San Francisco Airport Community Roundtable. As you can see from the attached map, Palo Alto is directly impacted by aircraft operations from San Francisco International Airport. My City Council colleagues and I believe that a seat on the Roundtable is extremely important for Palo Alto, and would also benefit the Roundtable and San Francisco International Airport (SFO).

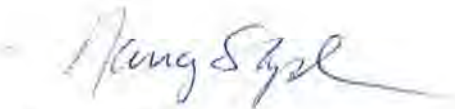
Designating a seat for Palo Alto at the Roundtable would serve two purposes: 1) Our citizens will have an elected official to represent their concerns about noise impacts from aircraft operations at SFO; and 2) the Airport will have a representative of the City of Palo Alto to relay accurate and timely information about Airport operations to our community and advocate for sensible and well-supported changes.

Recently, Congresswoman Anna Eshoo's office contacted Palo Alto about the NorCal OAPM Environmental Assessment and asked us to support the Congresswoman's request for an extension of the comment period. Congresswoman Eshoo's request was the first time that Palo Alto officials were made aware of the NorCal OAPM. We gladly supported Congresswoman Eshoo's request letter by sending our own letters, but the experience taught us that the City of Palo Alto would be better served by participating in the San Francisco Airport Community Roundtable, where we would receive regular updates about important developments at SFO that impact our community.

P.O. Box 10250
Palo Alto, CA 94303
650.329.2477
650.328.3631 fax

We believe that a seat on the Roundtable is key to an open dialogue, understanding and cooperative approach with other cities on the Peninsula that are impacted by aircraft operations from San Francisco International Airport. We greatly look forward to joining the group and playing a constructive role in Airport-community relations.

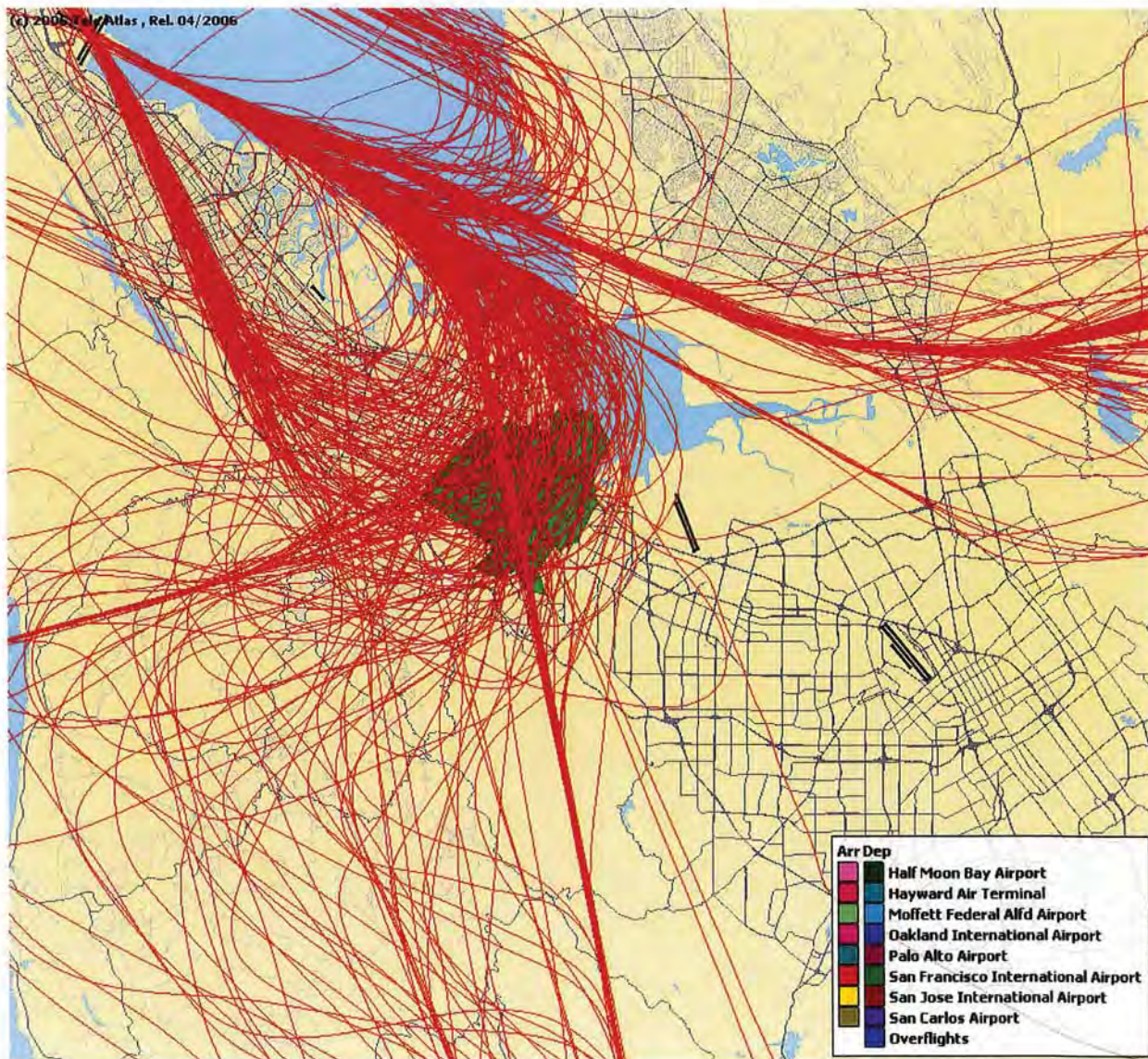
Sincerely,

A handwritten signature in dark ink, appearing to read "Nancy Shepherd", with a long, sweeping horizontal line extending to the right.

Nancy Shepherd
Mayor, City of Palo Alto

cc: Congresswoman Anna Eshoo
 Congresswoman Jackie Speier
 Congresswoman Zoe Lofgren
 Congressman Mike Honda
 Senator Jerry Hill
 Assembly Member Richard Gordon
 Palo Alto City Council
 James Keene, Palo Alto City Manager
 Molly Stump, Palo Alto City Attorney
 Mike Sartor, Palo Alto Public Works Director
 Andy Swanson, Palo Alto Airport Manager

San Francisco International flight tracks for a 24 hour period on April 18, 2014 the City of Palo Alto is highlight in green:



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CORRESPONDENCES

Regular Meeting # 291
June 4, 2014

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U.S. Department
of Transportation

**Federal Aviation
Administration**

APR 04 2014

RECEIVED

2014 APR 23 P 2: 15

SAN MATEO COUNTY
PLANNING AND BUILDING
DEPARTMENT

Mission Support Services
800 Independence Avenue, SW.
Washington, DC 20591

Mr. Cliff Lentz
Chairman
San Francisco International Airport/San Francisco Community Roundtable
455 County Center, 2nd Floor
Redwood City, CA 94063

Dear Chairman Lentz:

Thank you for your February 20, 2014, letter concerning the Northern California Optimization of Airspace and Procedures in the Metroplex (NorCal Metroplex) Project.

Public involvement in the National Environmental Policy Act (NEPA) review process is critical for the overall framework of the Federal Aviation Administration's (FAA) informed decision-making. The FAA must follow its implementing procedures, mindful that members of the public are provided the opportunity to review environmental information and permitted to provide their views concerning the FAA's decision-making process. Consistent with NEPA's public notice requirements, the specific information for all workshop locations and times will be provided at the time of the public release of the draft Environmental Assessment (EA).

We appreciate your input and have looked into the feasibility of additional meetings. We have determined that one additional meeting is possible. We have secured workshop venues in San Francisco, San Mateo, San Jose, Oakland, and Sacramento.

To clarify, we do not determine the locations for the public workshops based on the number of noise or other complaints received by specific parties. We select centrally located, accessible facilities near the four primary airports which are in close proximity to public transportation and free parking.

The draft EA addresses a number of issues such as noise, historic and cultural resources, fish, wildlife, plants, climate, natural resources, air quality, etc. For example, the NorCal Metroplex Team has also received inquiries about the draft EA from Tribal Councils, as well as users and custodians of the Point Reyes National Seashore and the Golden Gate National Recreation Area. As a result, the team has attempted to provide workshop opportunities for all citizens who may be interested in attending and learning about the project.

We appreciate the opportunity to respond to your concerns and hope our proposed compromises are helpful. Thank you for your interest in the NorCal Metroplex Project.

If you or members of your staff have any further questions or comments, please do not hesitate to contact Mike Barnhart, National Metroplex Program Manager at (202) 267-4296.

Sincerely,



Elizabeth L. Ray
Vice President, Mission Support Services
Air Traffic Organization



April 3, 2014

NorCal OAPM EA
Federal Aviation Administration
Western Service Center - Operations Support Group
1601 Lind Avenue SW
Renton, WA 98057

Re: Extension of OAPM Environmental Assessment Public Comment Period

This comment is in reference to the Draft Environmental Assessment (DEA) released on March 25, 2014. The release included all chapters of the DEA and technical reports except the *Design & Implementation Team Technical Report*, which contains details to the enhancements of IFR procedures. This report was released on March 31, 2014. While the *Design & Implementation Team Technical Report* shows the anticipated procedure way points, it does not show altitudes of the new waypoints or the latitude/longitude of these new locations.

At the April 2, 2014 regular meeting of the SFO Airport/Community Roundtable (Roundtable), the group asked the attending FAA representation for additional design information be made public during the comment period, including altitudes of the way points and the procedure approach and departure plates. Should this information become available during the comment period, we anticipate the existing 30 day comment period will be inadequate to review the changes. We respectfully request a comment period extension of 60 days in anticipation of reviewing the waypoint and associated altitude information.

A key part of the Roundtable's mission is to continually abide by Article II Section 5 of its Memorandum of Understanding, "that the Roundtable members, as a group, will not take an action(s) that would result in the "shifting" of noise from one community to another, related to aircraft operations at San Francisco International Airport." It is our intention to fulfill this article for our stakeholders in San Mateo County and the City and County of San Francisco through a thorough review of the DEA in its entirety, including technical reports.

Regards,

Cliff Lentz
City of Brisbane
Chair, San Francisco Airport Community Roundtable



Congress of the United States
Washington, DC 20515

April 4, 2014

The Honorable Anthony Foxx
Secretary of Transportation
United States Department of Transportation
1200 New Jersey Avenue, SE
Washington, DC 20590

Dear Secretary Foxx,

The Federal Aviation Administration (FAA) has given notice of proposed changes to the published routes of aircraft landing and taking off from San Francisco International Airport and other airports in Northern California. The published document is generally referred to as the Northern California (NorCal) Optimization of Airspace and Procedures in the Metroplex (NorCal OAPM) Environmental Assessment. Pursuant to federal law, the FAA published the assessment and invited public comment for 30 days.

It is our opinion and the opinion of local government leaders that additional time is needed to receive critically-needed information about the altitude of airplanes along the new routes. The FAA states that it will determine if the information can be made available and, if so, how quickly it can be disseminated. As things stand at the moment, the 30 day time period would be nearly exhausted before this critically-needed information would become publicly available. The altitude of airplanes over communities heavily influences how much noise is imposed upon residents. One can view a line on paper or on a map but without altitude information one cannot begin to estimate the noise impacts. The FAA has the information. We believe that the public should also have it and, just as importantly, that the public should be given time to incorporate the information into its comments on the Environmental Assessment.

We therefore write to respectfully urge you to instruct the FAA to extend the public comment period on the NorCal OAPM environmental assessment by at least 60 days so that the public and its representatives may make judgments based upon information that the government has, but that is not currently in the public domain. We all want to have a safe, well-functioning aviation system. We believe that this objective is in the public interest. We also believe that the purpose of the Environmental Assessment cannot be well served if critically-needed information is absent

from the published document or only available at the very last minute. Thank you for your time and consideration of this request. Because the 30 day written comment period ends only a few weeks from now—on April 24th—we respectfully ask for your timely attention to this matter.

All the best,



Anna Eshoo
Member of Congress



Jackie Speier
Member of Congress

cc: Members of the San Francisco Airport Community Roundtable

Ms. Elizabeth Ray, Vice President, Mission Support Services
Air Traffic Organization
Federal Aviation Administration
800 Independence Avenue, SW
Washington, DC 20591



DAVE PINE
SUPERVISOR, FIRST DISTRICT
SAN MATEO COUNTY

April 8, 2014

Secretary Anthony Foxx
U.S. Department of Transportation
1200 New Jersey Ave, SE
Washington, D.C. 20590

Re: Extension of OAPM Environmental Assessment Public Comment Period

Dear Secretary Foxx:

I am writing on behalf of the San Mateo County Board of Supervisors to request an extension of the public comment period for the draft Environmental Assessment for Northern California Optimization of Airspace and Procedures in the Metroplex (Draft Norcal OAPM EA) that was released on March 25, 2014.

The Draft Norcal OAPM EA is a lengthy and highly complex document. However, it does not provide critical information about the altitudes of airlines along the new routes. More specifically, it does not show altitudes of the new waypoints and the procedure approach and departure plates. This information is needed before meaningful comments can be made on the Draft Norcal OAPM EA.

This information has been formally requested of FAA representatives by local leaders. Should the requested data be forthcoming within the very limited 30-day comment period it will be challenging at best to review it and provide input prior to the current April 24, 2014 deadline for comments. Accordingly, I respectfully request that you instruct the FAA to extend the public comment period on the Draft Norcal OAPM EA by a minimum of 60 days.

A similar extension of the public comment period was granted for the environmental review of the proposed changes to the departure route of runway 33L at Boston Logan International last year. Such an extension is in the public interest and serves the purpose of allowing for robust community participation.

Thank you for any assistance that you may be able to provide.

Sincerely,

Dave Pine
Board President, San Mateo County Board of Supervisors

cc: Western Service Center – Operations Support Group, FAA
Elizabeth Ray, Vice President, Mission Support Services, Air Traffic Organization, FAA



April 11, 2014

Mr. Anthony Foxx
Secretary of Transportation
United States Department of Transportation
1200 New Jersey Avenue, SE
Washington, D.C. 205900

Re: Extension of Public Comment Period for the Draft Environmental Assessment (DEA) for the Northern California Optimization of Airspace and Procedures in the Metroplex (NorCal OAPM)

Dear Secretary Foxx,

On behalf of the Committee for Green Foothills (CGF), a regional environmental organization in San Mateo and Santa Clara Counties, I write to respectfully request an extension of 60 days for the public comment period for the above-referenced DEA.

Congresswomen Anna Eshoo and Jackie Speier, as well as the SFO Community Roundtable (by unanimous vote on April 2) have made similar formal requests.

The DEA was released on March 25, 2014, but did not include the Design and Implementation Team Technical Report, which was released one week later. However, this Report lacks essential information that is necessary for affected communities as well as parks and open space agencies to be able to adequately evaluate the noise impacts from the proposed new flight path SERFR1.

Specifically the public needs information as to the exact location of the proposed new flight path SERFR1, the altitudes of the proposed waypoints and detailed, specific geographic and topographic information instead of the graphic that depicts only the Bay, the Coast, and the two freeways (101 and 280). In particular, the base maps of the flight paths in the DEA should include topography (suggest using Google Earth), jurisdictional boundaries of cities/towns and unincorporated communities including La Honda, Skylonda, Ladera, and Stanford Weekend Acres, as well as the public parks and open space preserves.

CGF has a particular interest and concern about noise impacts to our parks and open space preserves which provide critical habitat for a wide diversity of species, and opportunities for visitors to enjoy active recreational activities including hiking, bicycling, and horseback riding, as well as quiet contemplation of nature. Increased frequency of flights (up to one every two or three minutes) at low altitudes could create a potentially significant impact to park visitors and wildlife.

The parks and open space preserves that could potentially be negatively impacted by the proposed SERFR1 action include but are not limited to: Castle Rock State Park, Portola Redwoods State Park, Pescadero Creek County Park, San McDonald County Park, Wunderlich County Park,

Huddart County Park, Stevens Creek County Park, Long Ridge Open Space Preserve, Skyline Ridge Open Space Preserve, Russian Ridge Open Space Preserve, Monte Bello Open Space Preserve, Los Trancos Open Space Preserve, La Honda Creek Open Space Preserve, El Corte de Madera Creek Open Space Preserve, Palo Alto Foothills Park, Pearson-Arastradero Preserve, and Stanford University's Jasper Ridge Biological Preserve.

It is clearly in the public interest that we have a safe, well functioning aviation system that also creates the least possible impact upon affected communities and our public open space and parklands.

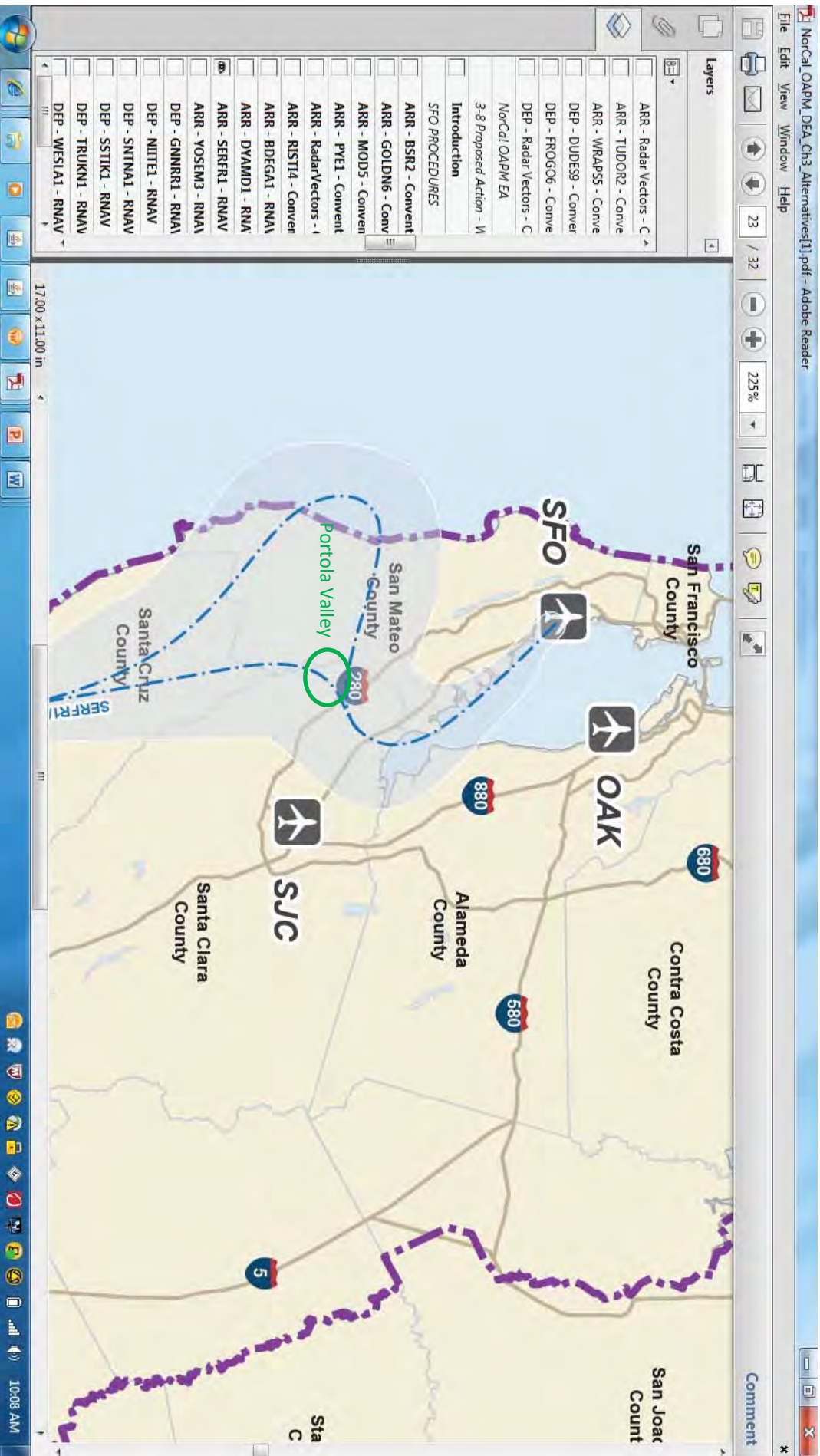
Thank you for your attention to our request for an extension of the 60-day comment period and for better mapping of the areas of concern outlined in this letter.

Sincerely,

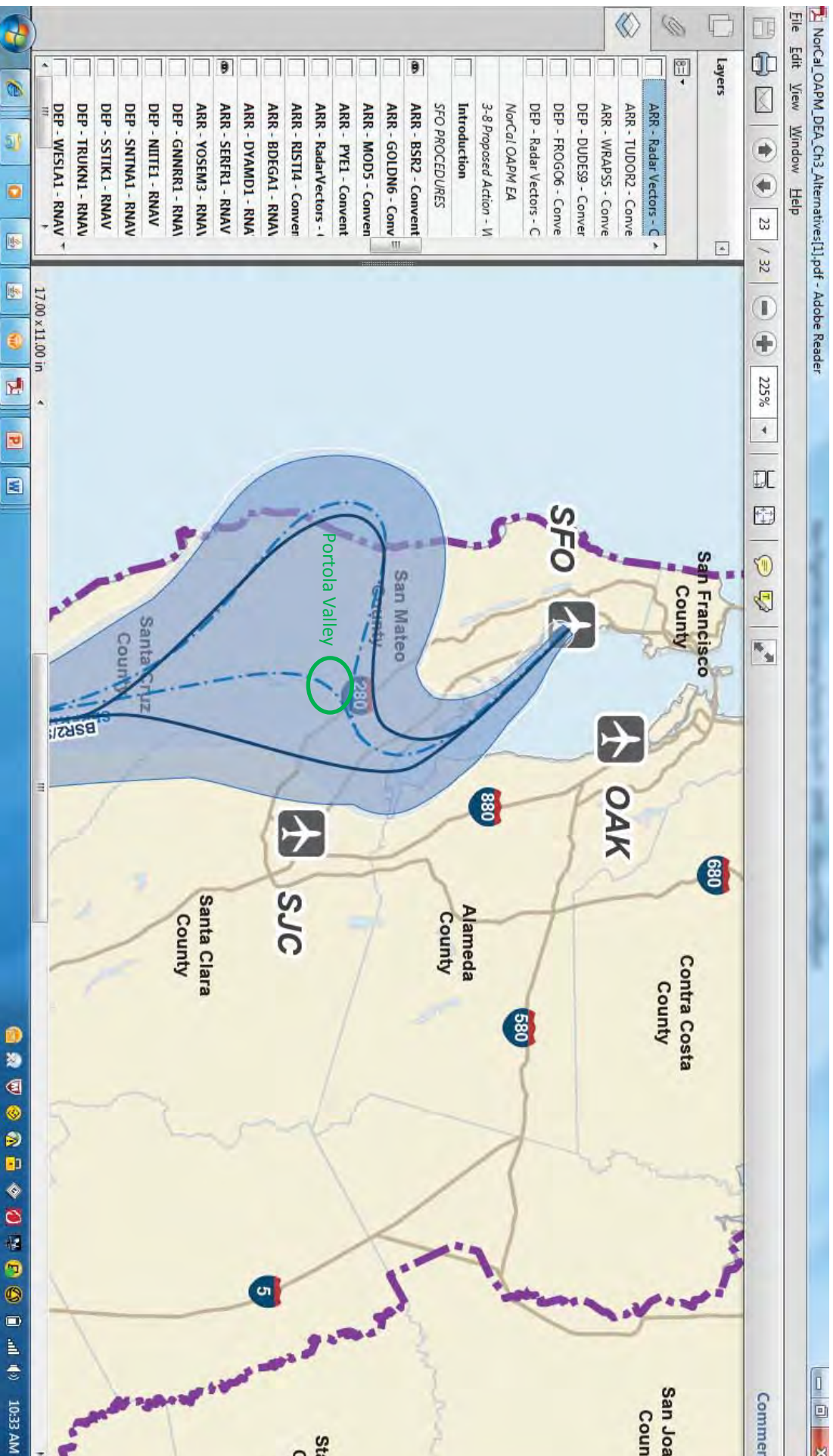
A handwritten signature in black ink, appearing to read "Lennie Roberts". The signature is written in a cursive, flowing style.

Lennie Roberts, San Mateo County Legislative Advocate

New SFO arrival route SERFR1 as shown in the Proposed Action Plan on Chapter 3, page 23. SERFR1 places tracks in the sky directly over **Portola Valley** with 2 flight path options converging over Ladera and then over Palo Alto.



New proposed SFO arrival route SERFR1 shown as dashed blue lines vs. current SFO arrival route Big Sur 2 which is shown as continuous blue line. FAA's intention is to eventually replace Big Sur 2 with SERFR1, which will route significantly more airplanes over Portola Valley.



United States Senate

WASHINGTON, DC 20510

April 22, 2014

The Honorable Anthony Foxx
Secretary of Transportation
United States Department of Transportation
1200 New Jersey Avenue, SE
Washington, DC 20590

Dear Secretary Foxx:

It has come to our attention that on March 25, 2014, the Federal Aviation Administration (FAA) published documents relating to the Northern California Optimization of Airspace and Procedures in the Metroplex Draft Environmental Assessment. The documents give notice of proposed changes to the published routes of aircraft landing and taking off from San Francisco International Airport and other Northern California commercial airports. The FAA's Northern California Metroplex region includes San Francisco, San Mateo, Oakland, San Jose, and Sacramento and the operations of aircraft in these communities affect millions of California residents.

The public comment period is currently set to expire on April 24, 2014, having invited 30 days of public comment. Many communities in the region have expressed concern that the 30 days comment period is too short for members of the public to adequately react to the proposed changes. We would like to add our voices to those who believe an extension of the comment period is warranted in order to determine the potential noise impacts of the proposed operating procedures and to allow sufficient time for the public to provide informed comments.

We urge you to encourage the FAA to extend the public comment period on the Northern California Optimization of Airspace and Procedures in the Metroplex Draft Environmental Assessment by an additional 60 days, for a total comment period of at least 90 days, and to inform the affected communities of the extension as quickly as possible.

Thank you for your attention to the matter.

Sincerely,



Barbara Boxer
United States Senator



Dianne Feinstein
United States Senator

OAKLAND AIRPORT-COMMUNITY NOISE MANAGEMENT FORUM

An Advisory Body to the Executive Director of the Port of Oakland

Co-Chairs

Benny Lee,
Councilmember,
City of San Leandro

Walt Jacobs, Citizen
City of Alameda

Director of Aviation

Deborah Ale Flint

Forum Members

City of Alameda

City of Berkeley

City of Hayward

City of Oakland

City of San Leandro

City of Union City

County of Alameda

County of Marin

Port of Oakland

Facilitator

Michael R. McClintock

Technical Advisors

Federal Aviation
Administration

Federal Express

KaiserAir, Inc.

Southwest Airlines

HMMH, Inc.

Landrum & Brown

Hartmann & Associates

April 23, 2014

NorCal OAPM EA
Federal Aviation Administration
Western Service Center—Operations Support Group
1601 Lind Avenue SW
Renton, WA 98057

RE: Extension of Northern California OAPM Draft EA Comment Period and Request for Additional Technical Information

This letter is in support of the requests by the San Francisco Airport Community Roundtable, U.S. Representatives Jackie Speier (CA 14th) and Anna Eshoo (CA 18th), and others to extend the public comment period for the Draft Northern California Optimization of Airspace and Procedures in the Metroplex Environmental Assessment (EA) an additional sixty days. This would allow stakeholders critical time to obtain and analyze important technical information and noise data not included in the Draft EA, but of great importance to our respective constituencies.

The Oakland Airport-Community Noise Management Forum (Forum) is a fifteen-year old community and industry advisory group to the Executive Director of the Port of Oakland on aircraft noise and air quality issues at the Oakland International Airport. Forum members include elected and community representatives from six cities and two counties with a combined population in excess of one million people.

As a group, the Forum has successfully worked with the Oakland Airport and Federal Aviation Administration (FAA) to resolve a wide-range of aircraft noise issues that have impacted our member communities. One key to this successful working relationship has been the ability of the Airport's noise abatement office to obtain FAA air traffic control information.

We understand, appreciate, and applaud the efforts of the OAPM Team to enhance the safety and efficiency of the Bay Area's regional airspace. However, based in part on television news reports and the lack of specific information on the procedures set forth in the draft EA, the Forum is concerned that without access to the design information utilized in the OAPM project, it has no way of corroborating whether or not the proposed airspace procedural revisions could have any potentially adverse effects on our member communities.

*C/O Michael R. McClintock & Co.
1077 Grebe St.
Foster City, CA 94404-1442*

*415-203-9097 Direct
650-638-1161 FAX
glomike65@aol.com*

April 21, 2014
NorCal OAPM EA
Page Two

The Oakland Airport-Community Noise Management Forum respectfully requests that the FAA extend the comment period for the Draft EA an additional sixty days beyond the April 24, 2014 deadline. We believe that it is necessary to have more specific information on the proposed procedures, including the altitudes and latitude/longitude of the individual waypoints in order for our member communities to be able to adequately assess the potential noise and overflight effects of the project.

Please contact the Forum's facilitator, Mr. Michael McClintock at 415-203-9097 or glomike65@aol.com if you have any questions or require any additional information.

Thank you for your consideration.

Sincerely,

For the Forum Co-Chairs:

Michael R. McClintock

Michael R. McClintock, AICP, CM
Forum Facilitator

Cc:

The Honorable Dianne Feinstein
The Honorable Barbara Boxer
The Honorable Anna G. Eshoo
The Honorable Jackie Speier
The Honorable Barbara Lee
The Honorable Eric Swalwell
The Honorable Jerad Huffman
The Honorable Jerry Hill
Mr. Chris Lytle, Executive Director, Port of Oakland
Ms. Deborah Ale Flint, Aviation Director, Port of Oakland
Oakland Airport-Community Noise Management Forum
Mr. Cliff Lentz, San Francisco Airport Community Roundtable
Ms. Ann Wengert, Mayor, Town of Portola Valley



April 24, 2014

NorCal OAPM EA
Federal Aviation Administration
Western Service Center - Operations Support Group
1601 Lind Avenue SW
Renton, WA 98057

Re: Northern California OAPM Environmental Assessment Comments

This letter is in reference to the Draft Environmental Assessment (DEA) for the Northern California Optimization of Procedures in the Metroplex (Project) released on March 25, 2014 and the subsequently released *Design & Implementation Team Technical Report* (Technical Report), released on March 31, 2014. The following comments endorsed by the San Francisco International Airport/Community Roundtable (Roundtable) reflect its mission, in part to continually abide by Article II Section 5 of its Memorandum of Understanding, "that the Roundtable members, as a group, will not take an action(s) that would result in the "shifting" of noise from one community to another, related to aircraft operations at San Francisco International Airport." It is with this understanding that our comments are submitted.

This is the second comment letter the Roundtable has submitted to the FAA regarding the DEA; the initial comment letter, submitted on April 4, 2014, requested a 60-day extension of the comment period. This was requested to account for the possibility of reviewing approach and departure plates for the Project's enhanced procedures, should they be released in their entirety. Our precedent for this extension includes the Boston Logan International Airport Runway 33L RNAV SID Environmental Assessment; this project's comment period was extended 30 days to account for the large amount of public interest and concern.

Comment #1 – FAA Public Involvement in EA Process

The Roundtable was given multiple briefings by FAA staff involved with the DEA starting in October 2012 through our most recent meeting on April 2, 2014. We appreciate the FAA continuing it's over 20-year history of being involved with the Roundtable by attending meetings, sharing information, and answering questions from Roundtable members and the public. It is our understanding that the DEA process started in 2011. As an elected body representing the 21 municipalities and counties that surround San Francisco International Airport, one of the five study airports, we would like to be considered a stakeholder in the process from this point forward. While the Roundtable was not identified as a stakeholder in the Study and Design Team process, our knowledge of specific communities and any changes that may occur due to implementation of the procedures in the DEA can be useful in identifying any hotspots or changes in patterns of complaints. We encourage the FAA to include airport-sanctioned community groups as stakeholders in future airspace projects.



In an effort to continue the dialogue regarding airspace changes, the Roundtable would like to include a Project update on its February 4, 2015 meeting agenda to update progress on the implementation plan. We would like to be updated on how the FAA will be tracking progress of the implementation, including use of optimized profile descents and reduction of vectored traffic under normal operation conditions.

Comment #2 – Procedure Information Not in DEA

At the April 2, 2014 regular meeting of the Roundtable, the group asked the attending FAA representation for additional design information be made public during the comment period, including altitudes of the way points and the procedure approach and departure plates. This information is requested due to 1) the inconsistencies between the DEA and the Technical Report and 2) the lack of full disclosure of the new or “enhanced” procedures.

The Technical Report contains some details to the enhancements of IFR procedures; however it does not include the specific changes, such as new and/or deleted way points and the altitudes of these way points. For example, **Figure 1** below shows two specific procedures from the DEA, the Big Sur 2 and Serfer 1; this figure is the combination of these two procedure layers as published in the DEA. The solid blue line represents the Big Sur 2 arrival and the hashed blue line represents the Serfer 1 arrival. As can be seen in Figure 1, the new procedure’s main path is moved to the west. **Figure 2** shows the same two procedures from the Technical Report, with Big Sur 2 as the solid red line and Serfer 1 is the hashed blue line, joining with the red line at ANJEE. This graphic from the Technical Report shows no changes to the procedure past the ANJEE waypoint. These two depictions of the same procedures are not cohesive and leave the community to question which depiction is correct. We request the following: 1) the FAA release the procedure design plates for each enhanced procedure in the Technical Report and 2) identify the document that contains the most accurate and up to date information, the DEA or Technical Report. With inconsistencies such as these two graphics, it is critical that the public is fully informed on the proposed changes.



Figure 1 – DEA Graphic



Figure 2 – Report Graphic

In an effort to comply with FAA Order 1050.1E Section 210b, the Roundtable requests the final Environmental Assessment contain a map for each of the enhanced procedures that is a quality aerial basemap with streets and highways labeled that shows the charted procedure with waypoints and the anticipated altitude for aircraft overflights. Supplying the public with this information will allow them to understand the procedures as charted; the ability for citizens to understand the project should go beyond the typed word requirements of "plain language" and extend to all related graphics. The graphics should be simple enough to be understood by a lay person, but also include enough information to make an informed decision on potential community impacts.

Comment #3 – Enhanced Procedure Availability

In reference to Comment #2 above, should these procedure design plates not be available for the enhanced procedures, the FAA should detail how they conducted an Environmental Assessment based on procedures that are either in draft form or incomplete. Using the National Air and Space Administration's (NASA) Technical Readiness Levels 1-9, we request the FAA detail the TRL for each of the procedure enhancements contained in the DEA and detail anticipated changes between the current TRL and anticipated final release of the procedures.

Regards,



Cliff Lentz
City of Brisbane
Chair, San Francisco Airport Community Roundtable

Cc: San Francisco Airport/Community Roundtable
Senator Boxer
Congresswoman Speier
Congresswoman Eshoo
State Senator Hill
Assemblyman Gordon
Assemblyman Mullin
Dennis Roberts, Director FAA Airspace Services
Elizabeth Ray, Vice President, Mission Support Services, Air Traffic Organization, FAA
Oakland Airport-Community Noise Management Forum
San Francisco International Airport Noise Abatement Office

INITIAL COMMENTS ON THE DRAFT ENVIRONMENTAL ASSESSMENT REGARDING NORCAL OAPM

April 28, 2014

We are writing on behalf of the Ad Hoc Committee for Noise Abatement in the South Bay. We are a volunteer group of concerned citizens residing in the areas near the Woodside VOR and Portola Valley in San Mateo County. For the past several years, we have communicated with the Federal Aviation Administration, both in writing and in personal meetings, about our deeply held concerns regarding the increase in commercial aircraft noise in our communities. Please consider this submission to be our initial comments on the Draft Environmental Assessment (“DEA”) for the Northern California Optimization of Airspace and Procedures in the Metroplex (“OAPM”), which was issued by the FAA on March 24, 2014.¹

The DEA purports to document the environmental impact of the FAA’s Proposed Action, called the “NorCal OAPM Project,” which standardizes new arrival and departure routes involving the four major airports in Northern California.² The NorCal OAPM Project is part of FAA’s transition to the Next Generation Air Transportation System (“NextGen”), which uses GPS-based technologies to permit aircraft to fly routes that are more efficient and predictable.³ The DEA’s principal conclusion is that “the Proposed Action would not result in a significant noise impact.”⁴ The DEA does not support its conclusion insofar as it relates to our communities. We believe that the FAA should withdraw the DEA in its current form and resubmit it with the additional information that we request below.

In summary, our initial comments on the DEA are as follows:

¹ As we have repeatedly stated in the past, there has been an inadequate and incomplete disclosure of key information to the public in the DEA. Our comments are being provided now to comply with the FAA’s submission deadline, but without prejudice to our filing a further response if the requested information is made available to the public.

² The DEA states that it “documents the potential effects to the environment that may result from the optimization of Air Traffic Control (ATC) procedures that would standardize aircraft routing to and from airports in Northern California, including San Francisco International Airport (SFO), Metropolitan Oakland International Airport (OAK), Norman Y. Mineta San Jose International Airport (SJC) and Sacramento International Airport (SMF).” DEA at 1-1.

³ DEA at 1-10.

⁴ DEA at 5-3.

1. The DEA fails to describe with sufficient precision the flight path of the proposed new SERFR1 arrival route, which will guide commercial aircraft over our communities on arrival into SFO. We cannot ascertain the impact of SERFR1 on our communities without receiving more precise information on the proposed route the FAA expects commercial aircraft to follow under SERFR 1. At a workshop sponsored by the FAA on April 17, 2014, personnel from the FAA and its consultant ATAC Corporation (“ATAC”) were not able to provide this information.
2. The DEA fails to explain the impact of aviation noise on our communities from aircraft following SERFR 1. Among other things, although the DEA projects a 21 percent increase in arriving air traffic over our communities, it also concludes that aircraft noise will not increase and will even decrease slightly in our communities. The DEA does not explain this incongruous result and FAA and ATAC personnel at the April 17 workshop were unable to explain the difference. We also note that the FAA has stated publicly that aircraft using NextGen technologies could result in increased aircraft noise under the NextGen flight paths. The DEA does not explain how aircraft noise will remain the same or be less for those living under the new flight paths, with increased air traffic.
3. The FAA has no doubt invested much effort and expense in the DEA and, we are certain, has the information and expertise available to address both of the points above. The FAA’s unjustified failure to do so is very disconcerting. When the FAA proposes actions that affect our communities so directly through increased air traffic and noise, the FAA should carefully consider the views of the affected citizens and respond to expressed concerns in an easily understood, coherent manner. The FAA has not done this.

A. The NorCal OAPM Project Proposes to Increase Air Traffic in a Noise Sensitive Area.

The bucolic areas surrounding the Woodside VOR and Portola Valley in San Mateo County are known for their redwoods, hiking and riding trails and open spaces. They are enjoyed by people from all over the San Francisco Bay Area who come to appreciate the wilderness. This region is also home to 17 state and county parks and open

space preserves.⁵ There is no doubt that this region qualifies as a “Noise Sensitive Area” under the FAA’s own environmental regulations.⁶ Indeed, Patty Daniel, Project Manager and Co-Lead of the NorCal OAPM Project, described the Woodside VOR area as an “EXTREMELY NOISE SENSITIVE area.”⁷

In assessing the environmental impact of aircraft noise, the FAA uses as its primary metric the yearly day/night average sound level (“DNL”), expressed in decibels.⁸ However, FAA regulations permit the FAA to use supplemental noise analysis tools for noise sensitive areas: “Supplemental noise analyses are most often used to describe aircraft noise impacts for specific noise-sensitive locations or situations and to assist in the public’s understanding of the noise impact.”⁹ Among the supplemental metrics recognized for use by the FAA in considering the impact of aircraft noise for noise sensitive areas is a measurement called Sound Exposure Level (“SEL”) and a measurement called Maximum Sound Level (“Lmax”). SEL is a single event metric, measured in decibels, that takes into account both the noise level and the duration of the noise event. Lmax is a single event metric that is the highest A-weighted sound level measured in decibels during a noise event.¹⁰

FAA regulations require the FAA to “fully access and disclose potential environmental impacts resulting from the proposed action and alternatives. . . .”¹¹ In writing an environmental assessment of a proposed action, the FAA is required to employ “plain language” and “clear prose” with appropriate graphics “so that decisionmakers and the public can readily understand” the FAA’s analysis.¹² Given that we (the writers of these comments) live in a noise sensitive area, it is especially important for us to receive an environmental assessment from the FAA written in plain language with easily

⁵These include Castle Rock State Park, Portola Redwoods State Park, Pescadero Creek County Park, San McDonald County Park, Wunderlich County Park, Huddart County Park, Stevens Creek County Park, Long Ridge Open Space Preserve, Skyline Ridge Open Space Preserve, Russian Ridge Open Space Preserve, Monte Bello Open Space Preserve, Los Trancos Open Space Preserve, La Honda Creek Open Space Preserve, El Corte de Madera Creek Open Space Preserve, Palo Alto Foothills Park, Pearson-Arastradero Preserve, and Stanford University’s Jasper Ridge Biological Preserve.

⁶ FAA Order 1050.1E § 11a (8) defines Noise Sensitive Area as “[a]n area where noise interferes with normal activities associated with its use. Normally, noise sensitive area include residential . . . sites, and parks [and] recreational areas (including areas with wilderness characteristics). . . .”

⁷ Patty Daniel email of February 22, 2010, to William Bachman. (Emphasis in original.)

⁸ FAA Order 1050.1E, App. A ¶ 14.1a.

⁹ FAA Order 1050.1E, App. A ¶ 14.5b.

¹⁰ FAA Order 1050.1E, App. A ¶ 14.5f (1) and (2).

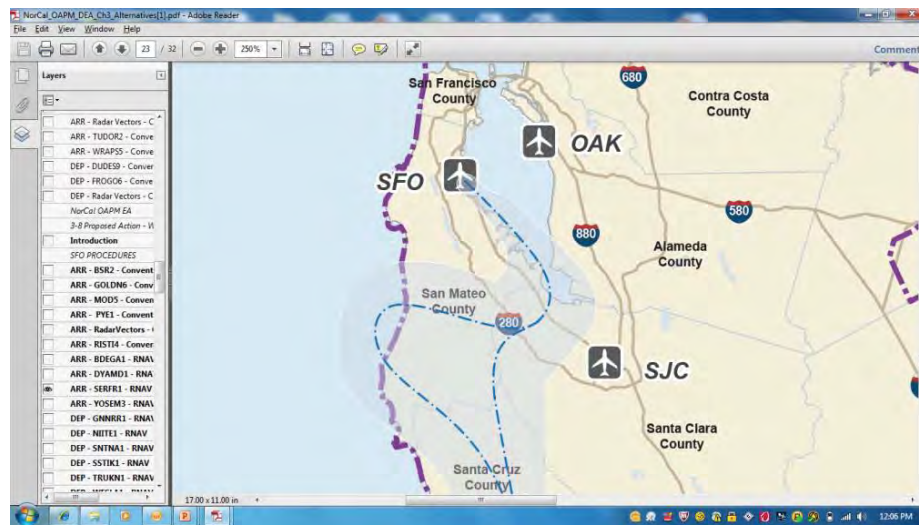
¹¹ FAA Order 1050.1E § 208a.

¹² 40 C.F.R. § 1502.8.

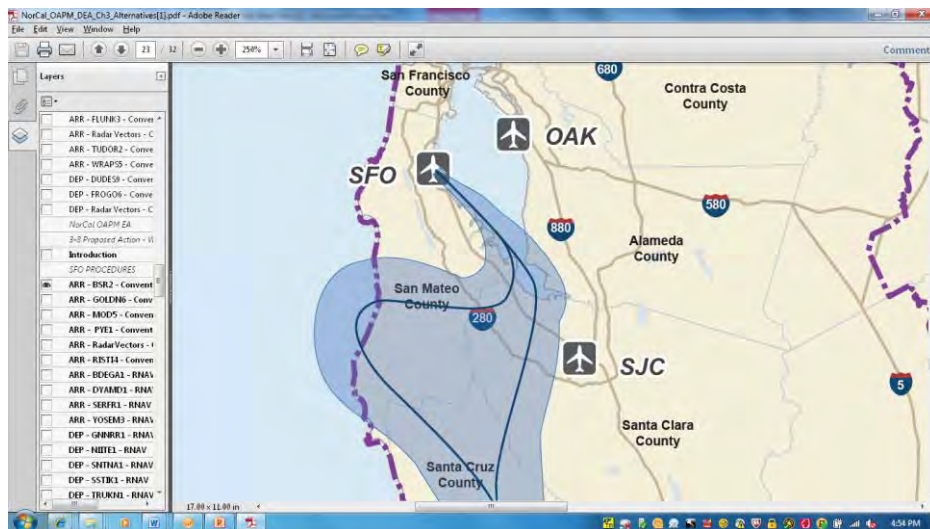
understandable charts and graphics, together with coherent supporting data that logically support its conclusions. The DEA violates each of these principles.

B. The DEA's Description of the SERFR1 Arrival Route is Incomprehensible.

SERFR1 is the proposed new SFO arrival route described in the DEA that appears most likely to affect our communities. According to graphics supplied with the DEA at Exhibit 3-8, SERFR1 shows flight corridors for arriving flights into SFO using NextGen technologies. It consists of two flight options represented by dashed blue lines that converge over Portola Valley (specifically over the neighborhood of Ladera), with one flight option overflying the Woodside VOR area:

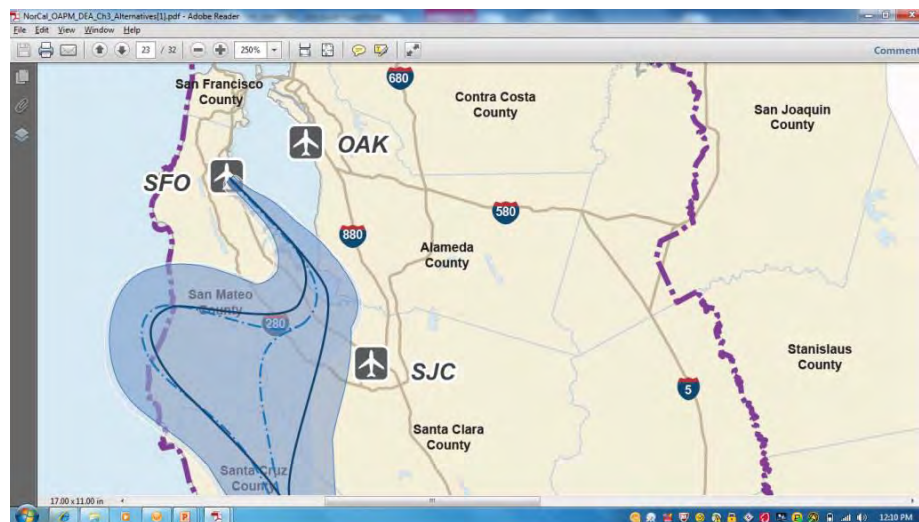


We are informed that SERFR1 will eventually replace the Big Sur 2 SFO arrival route, once all aircraft convert to NextGen technology. The Big Sur 2 route is the existing standard arrival route into SFO for commercial aircraft from southern California (LAX, SNA, SAN, LGB, etc.), Arizona, New Mexico, Mexico and other South American countries. Exhibit 3-8 also shows the Big Sur 2 route:



Big Sur 2 currently accounts for 29 percent of all arrivals into SFO, or about 158 flights per day.¹³ The Aircraft Noise Technical Report (“ANTR”), which accompanies the DEA, projects this air traffic to increase 21 percent by 2019, or up to 191 flights per day.¹⁴

Exhibit 3-8 disturbingly shows that under SERFR1, one flight option for the Big Sur 2 route will be shifted to the west (closer to Portola Valley) and one flight option will be shifted to the south (closer to the Woodside VOR and Portola Valley). This is shown in the combined flight track from Exhibit 3-8:



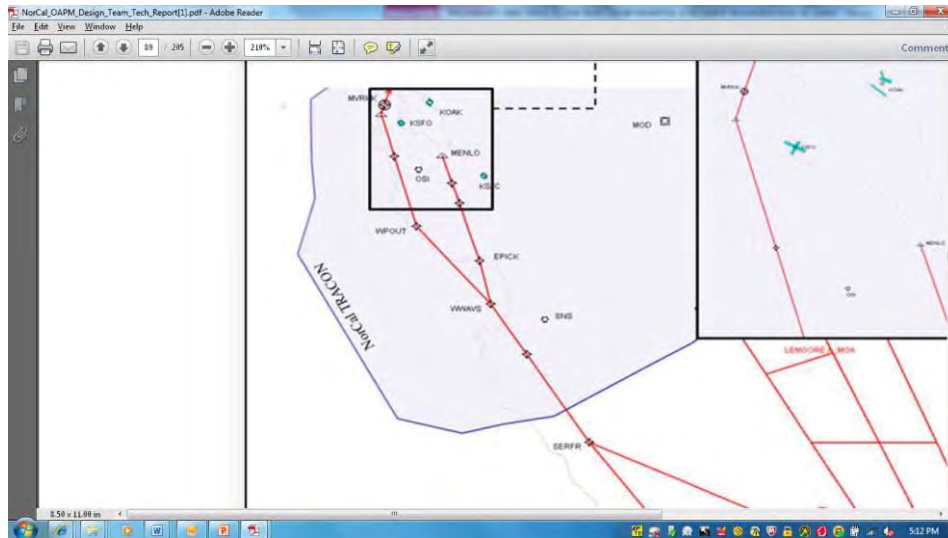
If our interpretation is correct, these areas will also experience up to 191 overflights per day with the full implementation of SERF1, and we are concerned that our communities’ exposure to aircraft noise will increase substantially. The FAA has thus far

¹³ OAPM Study Team Final Report at 4.5.2.3 (noting Big Sur accounts for 29% of all SFO arrivals); ANTR at 3-9, Table 1 (SFO daily operations in 2011: 1090; we assume one-half are arrivals).

¹⁴ ANTR at 3-9, Table 1 (SFO daily operations in 2019 is projected to increase to 1323, or 21%).

refused to confirm or deny our interpretation of the SERFR1 route, and has instead responded with Kafkaesque explanations that are the opposite of plain speaking.

At a meeting on March 30, 2014, Ms. Daniel announced that the FAA had just published a new version of the SERFR1 route, called SFO SERFR STAR. This route is diagramed in the OAPM Northern California Design and Implementation Team Final Report for SFO SERFR STAR at page 4, Figure 3:



The diagram shows two alternate legs approaching SFO from the south, one of which is east of Portola Valley and the other of which is west of the Woodside VOR. According to this graphic, neither leg crosses the Woodside VOR or Portola Valley. If this graphic is accurate, the proposed new SERFR STAR route will not affect our communities except during vector trafficking.

Which graphic accurately reflects the new SERFR route? At a workshop sponsored by the FAA on April 16, FAA personnel stated that the SERFR1 routes depicted on Exhibit 3-8 of the DEA were inaccurate, and that the correct route is SERFR STAR. At the FAA sponsored workshop on April 17, FAA and ATAC representatives said both versions accurately represented the new SERFR route, but that the flight corridors depicted by dashed blue lines on Exhibit 3-8 should be ignored, as they did not show the likely flight paths of arriving aircraft. Those same personnel also stated that the FAA does not have information to describe the flight paths that aircraft flying the SERFR route will likely follow.

Although the DEA is representing to the public that the new OAPM arrival routes will not have an environmental impact on our communities, the FAA and its technical consultants cannot describe the precise flight path aircraft following the SERFR route

will follow. We do not see how this can be the case, given that the DEA states that a purpose of the NorCal OAPM Project is to “standardize aircraft routing to and from airports in Northern California.”¹⁵ Indeed, the DEA trumpets that NextGen’s area navigation system (known as “RNAV”) implemented in the NorCal OAPM Project will enable aircraft “to follow more accurate and better-defined routes.”¹⁶ If these representations are true, the FAA should tell us precisely the path that aircraft flying the SERFR route will follow, so that we can ascertain how the route affects our communities.

C. The DEA Fails to Address Adequately the Impact on Our Communities of Noise from Aircraft Flying the Proposed SERFR Route.

The DEA asserts that the Nor Cal OAPM Project “would not result in a significant noise impact.”¹⁷ To support this conclusion, the DEA states that it employed a computer model called the Noise Integrated Routing System (“NIRS”), which used a variety of data inputs to calculate the noise exposure levels of the proposed action on almost 200,000 geographic points in the affected area, including in San Mateo County.¹⁸ The ANTR contains two tables disclosing the NIRS calculations (in DNL dB) for several thousand of these geographic points under “existing conditions” (as of 2011) and in 2014 and in 2019, under “no action” and “proposed action” alternatives.

From the information provided in the ANTR tables, we are not able to ascertain the noise impact of the proposed SERFR routes. The geographic points listed in the two tables in the ANTR mostly do not correspond to geographic points along the SERFR 1 flight paths on Exhibit 3-8 of the DEA or to geographic points along the SERFR STAR route. At the workshop on April 17, FAA and ATAC personnel told us that this information is available, but that we had to request it in writing from the FAA and we should not expect to receive a response to our request before the end of the comment period on April 24.¹⁹

We note that in one instance, the ANTR provided noise exposure information for the Portola Valley School in Portola Valley.²⁰ The ANTR predicted that the noise

¹⁵ DEA at 1-1.

¹⁶ DEA at 1-10.

¹⁷ DEA at 5-3.

¹⁸ The DEA states inconsistently that the NIRS model calculated the noise impact at 199,360 geographic points (at page 4-8) and at 159,402 geographic points (at page 5-4).

¹⁹ On April 17, 2014, we requested that information from the FAA in writing.

²⁰ ANTR, Table 1 at 19.

exposure for this location would be 41.6 dB DNL for 2014 and 42.1 dB DNL for 2019 if the NorCal OAPM Project were implemented. The ANTR also concluded that these numbers would represent a decline in noise exposure levels from the “existing condition” in 2011 of 42.3 dB DNL. This calculation raises several questions that the FAA also has been unable to answer adequately.

First, it seems illogical to us --and defies common sense-- that the volume of air traffic flying routes over Portola Valley will increase by about 21 percent from 2011 to 2019, but that the noise exposure level will **decrease** by 0.2 dB DNL under the OAPM Project. At the April 17 workshop, an ATAC representative told us that “one” possible explanation is that aircraft are expected to get quieter over time. When asked to assess the relative importance of that possible explanation in the NIRS calculation, or describe other possible explanations that could contribute to the difference, he was unable to do so.

Second, the FAA has publicly admitted on numerous occasions that implementation of NextGen through the NorCal OAPM Project will cause noise levels to **increase** under the new flight paths. In a 2010 presentation entitled “Implications of Environmental Requirements for NextGen,” the FAA stated that NextGen operational changes employing RNAV procedures “would allow aircraft to maintain precisely defined flight paths approaching a runway” but that “concentration of flight paths could also increase noise exposure in some areas.”²¹ In addition, in a 2011 presentation, the FAA stated that narrowing of flight tracks through the implementation of NextGen “may lead to increased noise under [the] track.”²²

Third, the DEA failed to utilize supplemental noise metrics, such as SEL and Lmax, in calculating impact of aircraft noise on our communities. The use of such supplemental metrics is especially appropriate given that our communities are located in a “noise sensitive area.” In a letter to Ms. Daniel in her capacity as Project Manager of the NorCal OAPM Project dated February 13, 2013, Jeff Gee, Chair of the San Francisco Airport Community Roundtable, urged on behalf of the Roundtable that “the FAA . . . utilize supplemental metrics to measure the change of [noise] exposure” with respect to the new procedures proposed in the OAPM Project, including SEL and Lmax.²³ Without any response to Mr. Gee’s request, or any other explanation, the ANTR states, “[n]o

²¹ “Implications of Environmental Requirements for NextGen,” issued by the FAA January 12, 2010, at 6.

²² “Airport NEPA and Planning Workshop,” December 5-7, 2011, Atlanta, GA. at 5 (sponsored by the FAA among others).

²³ DEA at A-33. The Airport Community Roundtable is a community organization consisting of SFO representatives and local community officials established to address noise impacts of aircraft using SFO. Ms. Daniel and other FAA representative regularly attend its meetings.

supplemental noise metrics were calculated for the NorCal OAPM EA.”²⁴ The FAA has no justification to ignore both its own regulations and the Roundtable’s reasonable request.

Fourth, the NIRS calculation for Portola Valley School is wildly divergent from an empirical noise analysis conducted by SFO consisting of actual aircraft noise recordings in Portola Valley for the period March 6, 2012, through July 8, 2012. The SFO analysis found that Portola Valley had a DNL of 35.9 dB for that period.²⁵ This number is 6.4 dB less than ANTR’s 2011 calculation of 43.2 dB, and is 5.7 dB and 6.2 dB lower than the ANTR’s calculations for 2014 and 2019, respectively. Because decibels are calculated based on a logarithmic scale, the differences between the SFO calculation and the ANTR calculations suggest that the NorCal OAPM project will increase noise levels over Portola Valley by 57 percent to 64 percent. At the April 17 workshop, ATAC personnel argued that a reason for the difference is the small sample size on which the SFO calculation was based, as well as differences in weather or other variables between 2011 and 2012. But the SFO sample size is statistically significant.²⁶ And ATAC has not provided facts to establish that weather or other variables explain the difference.²⁷

The DEA’s conclusion that the NorCal OAPM Project will have no significant noise impact on our communities is not supported by the evidence or common sense. The DEA relies on noise exposure calculations that fail to take into account the increase in aircraft use of the SERFR route, fails to address the acknowledged noise effect that concentrating flight paths will increase noise exposure levels and are based on computer calculations that are inconsistent with empirical evidence. In its current form the DEA thus fails in its obligation to fully assess and disclose potential environmental impacts resulting from the NorCal OAPM Project.²⁸

²⁴ANTR at 2-1.

²⁵The SFO analysis calculated the all aircraft Community Noise Equivalent Level (“CNEL”) for Portola Valley at an average of 36.5 dB for this more than four-month period. When converted to DNL, this number equals 35.9 dB.

²⁶ The 124-day sample size is sufficiently large to exceed a confidence level of 95%.

²⁷ We assume that the FAA performed a software validation before using the NIRS model to calculate DNL to confirm that the model was performing properly. We ask the FAA to provide us with a copy of the software validation report for the NIRS model used in the DEA.

²⁸ FAA Order 1050.1E § 208a.

D. In Issuing the DEA, the FAA has Failed in its Obligation to Ensure Meaningful Public Understanding of the Environmental Impact of the NorCal OAPM Project.

The FAA has failed to provide information in the DEA and accompanying documents to support its conclusion that the NorCal OAPM Project will have no significant noise impact on our communities. The DEA does not specify the flight paths of aircraft flying the proposed SERFR route over our communities, although the FAA has routinely boasted that NextGen technologies will permit aircraft to fly precise and predictable arrival tracks. The FAA did not consider supplemental metrics to calculate noise exposure levels for our communities, although we live in a noise sensitive area and our elected officials requested that this be done. The FAA did not explain how additional air traffic would affect noise exposure levels for us, although it projected an increase of 21 percent in arriving aircraft over our communities.

In our view, there is a bureaucratic indifference in the FAA's approach, which fails to inform the public of the environmental impact of the NorCal OAPM Project. The FAA has at its disposal substantial information about projected flight paths using the SERFR approach route and the noise impact of aircraft using that route, but it has not shared that information with us or the affected communities. Such a flawed process is not only unfair, but more importantly, it violates the letter and spirit of the assessment procedure by precluding a proper discussion and evaluation of the critical issues. The FAA asks us to buy a pig in a poke. We refuse to do so.

The DEA should be withdrawn, and resubmitted with (1) the additional information we requested and (2) adequate time to analyze and respond to the findings.

James E. Lyons *Woodside, CA*

Vic Schachter *Portola Valley, CA*

Tina Nguyen *Portola Valley, CA*

Co-Chairs of the Ad Hoc Committee for Noise Abatement in the South Bay²⁹

²⁹ Email addresses of Ad Hoc Committee Co-Chairs:
James E. Lyons jell1293@yahoo.com
Vic Schachter VSchachter@fenwick.com
Tina Nguyen tnps2008@gmail.com

City of Palo Alto
Office of the Mayor and City Council

May 2, 2014

Mr. Michael P. Huerta, Administrator
Federal Aviation Administration
800 Independence Avenue, S.W, Room 1022
Washington, DC 20591

Re: Request for Additional Data on the Northern California Optimization of Airspace and Procedures
in the Metroplex Environmental Assessment

Dear Administrator Huerta,

On behalf of the Palo Alto City Council, I submit this letter in support of the April 24, 2014 letter sent to you from Congress members Anna Eshoo and Jackie Speier requesting additional data for the Northern California Optimization of Airspace and Procedures in the Metroplex (NorCal OAPA) Environmental Assessment (EA).

The City appreciates your response to the Congress members' request to extend the comment period from April 24, 2014 to May 4, 2014. This extension gave City of Palo Alto elected officials, staff, and residents, who only recently became aware of the NorCal OAPA EA, the opportunity to provide some preliminary input; however, at no point in this process was the City of Palo Alto properly or officially notified by the FAA of the project.

Even though the extension is appreciated, critical altitude information requested by the City and Congress members still has not been released by the FAA. Therefore, there is no way to properly evaluate the aircraft position/elevations over the City of Palo Alto. The possibility of lower altitudes and increased noise is a serious concern of the City.

The project directly involves airspace over the City of Palo Alto and yet the City was not notified by the FAA of the proposed project. (See below San Francisco International flight tracks for a 24 hour period on April 18, 2014 the City of Palo Alto is highlight in green.) The City gained knowledge of this project third hand well after the March 25, 2014 release date.

We respectfully request that the FAA extend the due date of May 4, 2014 by 60 days and provide the requested information in order for there to be an appropriate input process. Thank you.

Sincerely,



Nancy Shepherd
Mayor, City of Palo Alto

Cc: Congresswoman Anna Eshoo
Congresswoman Jackie Speier
Congresswoman Zoe Lofgren
Congressmen Mike Honda
✓ San Francisco International Airport/Community Roundtable
Palo Alto City Council

P.O. Box 10250
Palo Alto, CA 94303
650.329.2477
650.328.3631 fax

Meeting 291 - April 2, 2014

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James Keene, Palo Alto City Manager
Molly Stump, Palo Alto City Attorney
Mike Sartor, Palo Alto Public Works Director
Andy Swanson, Palo Alto Airport Manager

San Francisco International flight tracks for a 24 hour period on April 18, 2014 the City of Palo Alto is highlight in green:





Congress of the United States
House of Representatives
Washington, DC 20515

April 24, 2014

Mr. Michael P. Huerta, Administrator
Federal Aviation Administration
800 Independence Avenue, S.W., Room 1022
Washington, DC 20591

Re: NorCal OAPM EA/Request for Additional Data

Dear Administrator Huerta,

Thank you for responding to our request for an extension of the comment period for the draft environmental impact report regarding the Northern California Optimization of Airspace and Procedures in the Metroplex (NorCal OAPM).

The extension of the comment period from April 24, 2014 to May 4, 2014 is an opportunity for more constituents and cities unaware of the proposal to comment and review the draft report.

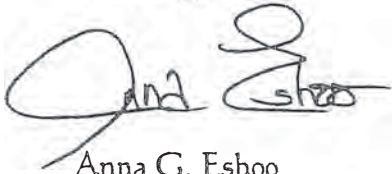
Regional agencies, cities and constituents who have reviewed the draft report are still waiting for critically important information from your agency including the altitude of aircraft. Attached are letters from the Midpeninsula Regional Open Space District, the Town of Woodside, the Town of Portola Valley, the City of Palo Alto, the Ad Hoc Committee for Noise Abatement in the South Bay, and the SFO Community Roundtable, all of whom have asked for critically important information from the FAA but have yet to receive it.

It is difficult for a lay person or even an expert outside of the FAA to determine where a plane will be along a proposed route or its height based upon information in the current draft report. This jeopardizes the informative value of the document and makes it difficult to comment upon the possible noise impacts of the proposal on our communities, including sensitive habitat and wildlife.


The document states that noise impacts are not significant. We would like to believe so, but there is no assurance that we would be able to determine how high planes will be over communities that we represent, or whether they are likely to be over a particular community, without having more detailed information outlined above.

Thank you for agreeing to extend the time for comment on the draft report. Local agencies, cities and constituents deserve to better understand the data so we can all determine that the proposed optimization of airspace results in both improved efficiency and an improved quality of life for those affected by arrivals and departures.

Sincerely,

A handwritten signature in black ink, appearing to read "Anna Eshoo".

Anna G. Eshoo
Member of Congress

A handwritten signature in black ink, appearing to read "Jackie Speier".

Jackie Speier
Member of Congress

Enclosures

cc: NorCal OAPM EA



OpenSpace

Midpeninsula Regional Open Space District

GENERAL MANAGER
Stephen E. Abbors

BOARD OF DIRECTORS
Pete Siemens
Yoriko Kishimoto
Jed Cyr
Curt Riffle
Monette Hanko
Larry Hassett
Cecily Harris

April 22, 2014

NorCal OAPM EA
Federal Aviation Administration
Western Service Center - Operations Support Group
1601 Lind Avenue SW
Renton, WA 98057
Email: 7-ANM-NorCalOAPM@faa.gov

Re: Public Comments on the Draft Environmental Assessment (DEA) for the Northern California Optimization of Airspace and Procedures in the Metroplex (NorCal OAPM)
Dear Secretary Foxx

On behalf of the Midpeninsula Regional Open Space District (Midpen), a special district created through voter initiative with vast expanses of open space lands in San Mateo, Santa Clara, and a portion of Santa Cruz Counties, I respectfully submit the following comments regarding the above-referenced DEA.

Since 1972, Midpen has worked to preserve more than 62,000 acres of public open space land, much of it located on the ridgeline and foothills of the San Francisco Bay Peninsula. Midpen land has protected large, continuous swaths of sensitive habitat along a significant stretch of the new flight path that is proposed in the NorCAL OAPM. These lands (known as South Skyline Region) include: Los Trancos Open Space Preserve (OSP) (272 acres), Monte Bello OSP (3,436 acres), Skyline Ridge OSP (2,143 acres), Long Ridge OSP (2,035 acres), and Saratoga Gap OSP (1,542 acres). These five open space preserves offer more than 46 miles of public recreational trails atop the highest elevations of the Santa Cruz Mountains, ranging between 2,200 to 2,800 feet.

As a steward of the public's sensitive natural resources, and provider of tranquil nature study areas and outdoor recreation that affords people a respite from the hustle and bustle of city life, we are particularly concerned about the potential noise impacts of NorCAL OAPM to recreation, tranquil nature study, and to sensitive wildlife that is not acclimated to such noise. We anticipated noise impacts to be significant in our South Skyline Region given in part the high elevations of Midpen property that reduce the distance and available buffer between NorCAL OAPM aircraft and sensitive receptors on the land.

To adequately address potential noise impacts, please provide an assessment of the potential increase in noise levels, including the potential highest elevated noise levels that may be produced by the NorCAL OAPM at any one time over a 24 hour period and on average over a

continuous period of time. In addition, please compare these noise levels to the thresholds of significance for sensitive receptors and sensitive activities, including outdoor recreation/people recreating on open space lands, tranquil nature study/researchers and nature observers, and sensitive wildlife. As part of this assessment, please include raptors, which are known to be highly sensitive to noise, particularly during breeding and nesting periods.

We bring these issues to your attention, as you may not be aware of unique noise-sensitive receptors and noise-sensitive activities that are present along the proposed new flight path that is part of the NorCAL OAPM. I would like to thank you for your time and consideration of our comments. Feel free to contact Ana Ruiz, Assistant General Manager, via phone at (650) 691-1200 and via email at aruiz@openspace.org if you have any questions regarding our comments.

Sincerely,

A handwritten signature in dark ink, appearing to read "Stephen E. Abbors". The signature is fluid and cursive, with the first name "Stephen" being more prominent.

Stephen E. Abbors
General Manager

cc: Lennie Roberts, Committee for Green Foothills
Mipen Board of Directors

**AD HOC COMMITTEE FOR NOISE ABATEMENT
IN THE SOUTH BAY**

April 15, 2014

Mr. Anthony Foxx
Secretary of Transportation
United States Department of Transportation
1200 New Jersey Avenue, SE
Washington, D.C. 205900

**Re: Extension of Public Comment Period for the Draft Environmental Assessment
(DEA) - NorCal OAPM**

Dear Secretary Foxx:

On behalf of the Ad Hoc Committee for Noise Abatement in the South Bay, we write to request a 60 day extension for the public comment period for the above-referenced DEA. Congresswomen Anna Eshoo and Jackie Speier, as well as the SFO Community Roundtable (by unanimous vote on April 2) have made similar formal requests. Our Committee is composed of volunteers who are residents of Portola Valley, Woodside and surrounding communities.

The DEA was released on March 25, 2014, but did not include the Design and Implementation Team Technical Report, which was released one week later. However, this Report lacks essential information that is necessary for affected communities as well as parks and open space agencies to be able to adequately evaluate the noise impacts from the proposed new flight path SERFR1.

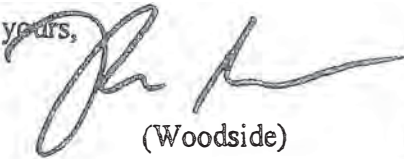
Specifically the public needs information as to the exact location of the proposed new flight path SERFR1, the altitudes of the proposed waypoints and detailed, specific geographic and topographic information instead of the graphic that depicts only the Bay, the Coast, and the two freeways (101 and 280). In particular, the base maps of the flight paths in the DEA should include topography and jurisdictional boundaries of cities/towns and unincorporated communities including La Honda, Skylonda, Ladera, and Stanford Weekend Acres, as well as the public parks and open space preserves.

In addition to our residential communities, we are concerned about noise impacts to our parks and open space preserves which provide critical habitat for a wide diversity of species, and opportunities for visitors to enjoy active recreational activities including hiking, bicycling, and horseback riding, as well as quiet contemplation of nature. Increased frequency of flights (up to one every two or three minutes) at low altitudes would create a potentially significant impact to park visitors and wildlife.

We understand it is in the public interest that we have a safe, well functioning aviation system that also creates the least possible impact upon affected communities and our public open space and parklands.

Thank you for your attention to our request for an extension of the comment period and for better mapping of the areas of concern outlined in this letter.

Very truly yours,


Jim Lyons (Woodside)
Tina Nguyen (Portola Valley)
Vic Schachter (Portola Valley)
Co-Chair of the Ad Hoc Committee

JEL1293@yahoo.com
tnps2008@gmail.com
vschachter@fenwick.com



The Town of
Woodside

April 10, 2014

The Honorable Anthony Foxx
Secretary of Transportation
United States Department of Transportation
1200 New Jersey Avenue, SE
Washington, DC 20590

RE: NorCal OAPM Environmental Assessment

Dear Secretary Foxx:

You have received a letter from Congresswomen Anna Eshoo and Jackie Speier requesting that you instruct the Federal Aviation Administration (FAA) to extend the public comment period on the NorCal OAPM Environmental Assessment by at least 60 days. I am writing to join in their request.


The FAA has given notice of proposed changes to the published routes of aircraft landing and taking off from San Francisco International Airport and other airports in Northern California. At this time, however, the FAA has not made information about the altitude of airplanes along the new routes publicly available. Because the altitude of airplanes over communities heavily influences how much noise is imposed upon residents, it is difficult for the public to make meaningful comments on the NorCal OAPM Environmental Assessment without the information about the altitude of airplanes.

P.O. Box 620005
2955 Woodside Road
Woodside CA 94062

It is my understanding that the FAA has information about the altitude of airplanes along the new routes. I support the request of Congresswomen Eshoo and Speier, who suggest that the public should be provided the information and be given time to incorporate the information into their comments on the Environmental Assessment. I, too, believe that because we are now two weeks from the comment deadline of April 24, 2014, that the public will not have sufficient time to review altitude information and submit meaningful comments on the Environmental Assessment. Therefore, I join their request to extend the public comment period by at least 60 days.

Thank you very much in advance for your consideration.

Sincerely,


Dave Burow
Mayor

Cc: Congresswoman Anna Eshoo
Congresswoman Jackie Speier
Elizabeth Ray, Vice President, Mission Support Services, Air Traffic
Organization, FAA

650-851-6790
Fax: 650-851-2195
townhall@woodsidetown.org

City of Palo Alto
Office of the Mayor and City Council

April 10, 2014

The Honorable Anthony Foxx
Secretary of Transportation
United States Department of Transportation
1200 New Jersey Avenue, SE
Washington, DC 20590

Subject: Northern California Optimization of Airspace and Procedures in the Metroplex Environmental Assessment

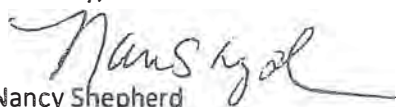
Dear Secretary Foxx,

The Federal Aviation Administration (FAA) has given notice of proposed changes to the published routes of aircraft landing and taking off from San Francisco International Airport and other airports in Northern California. The published document is generally referred to as the Northern California (Nor Cal) Optimization of Airspace and Procedures in the Metroplex (Nor Cal OAPM) Environmental Assessment. Pursuant to federal law, the FAA published the assessment and invited public comment for 30 days.

The City of Palo Alto concurs with our local Congresswomen and other agencies that additional time is needed to receive critically-needed information about the altitude of airplanes along the new routes. The FAA states that it will determine if the information can be made available and, if so, how quickly it can be disseminated. As things stand at the moment, the 30 day time period would be nearly exhausted before this critically-needed information would become publicly available. The altitude of airplanes over Palo Alto heavily influences how much noise is imposed upon residents. Since the FAA has the information, we believe that the City should also have it. Additionally, the City should be given time to incorporate the information into its comments on the Environmental Assessment.

The City of Palo Alto therefore respectfully urges you to instruct the FAA to extend the public comment period on the Nor Cal OAPM environmental assessment by at least 60 days so that the City of Palo Alto and other entities may make judgments based upon information that the FAA has but that is not currently in the public domain. We feel that the purpose of the Environmental Assessment cannot be well served if critically-needed information is absent from the published document or only available at the very last minute. Thank you for your time and consideration of this request. Because the 30 day written comment period ends only a few weeks from now on April 24th, we respectfully ask for your timely attention to this matter.

Sincerely,


Nancy Shepherd
Mayor, City of Palo Alto

cc: Palo Alto City Council
Palo Alto City Manager
Members of the San Francisco Airport Community Roundtable
Congresswoman Anna Eshoo
Congresswoman Jackie Speier

P.O. Box 10250
Palo Alto, CA 94303
650.329.2477
650.328.3631 fax

TOWN of PORTOLA VALLEY

Town Hall, 765 Portola Road, Portola Valley, CA 94025 T: (650) 851-1700 Fax: (650) 851-4077

April 10, 2014

The Honorable Anthony Foxx
Secretary of Transportation
United States Department of Transportation
1200 New Jersey Avenue, SE
Washington, DC 20590

Dear Secretary Foxx,

On behalf of the Town Council of the Town of Portola Valley, I respectfully submit this letter in support of the April 4, 2014 request to you from Congress Members Anna Eshoo and Jackie Speier regarding the NorCal OAPM Environmental Assessment Report (Report).

The Report was issued on March 24, 2014, and on April 2, 2014, the SFO Airport/Community Roundtable requested that the Federal Aviation Administration (FAA) release additional design information regarding the NorCal OAPM project, including but not limited to altitudes of the waypoints and the procedure approach and departure plates. The Report's *Design & Implementation Team Technical Report* shows the anticipated procedure waypoints but it does not show the altitudes of the new waypoints or the latitude/longitude of these new locations. Without this information, the communities most affected by noise in the San Francisco Metroplex are not able to adequately assess the potential impacts of the project. Further, should this information become available, the current 30 day comment period will be inadequate to review the waypoint and associated altitude information.

We respectfully request that the FAA extend the Report's comment period for an additional 60 day period and provide the information requested by the SFO Airport/Community Roundtable. Your assistance in this matter is greatly appreciated.

Sincerely,



Ann Wengert
Mayor, Town of Portola Valley

Cc: Congresswoman Anna Eshoo
Congresswoman Jackie Speier
Senator Dianne Feinstein
Senator Barbara Boxer
Federal Aviation Administration, Ms. Elizabeth Ray
NorCal OAPM Environmental Assessment

May 2, 2014

NorCal OAPM EA
Federal Aviation Administration
Western Service Center-Operations Support Group
1601 Lind Avenue SW
Renton, WA 98057

Re: City of Palo Alto Comments on the FAA Northern California Optimization of Airspace and Procedures in the Metroplex Draft Environmental Assessment Document Release

To Whom It May Concern:

The City of Palo Alto appreciates the FAA 10-day extension to comment on the Northern California Optimization of Airspace and Procedures in the Metroplex (NorCal OAPM) Environmental Assessment (EA). To appropriately evaluate the impacts of this project we reiterate our request for detailed route information and altitudes that have still not been provided. The 10-day extension allowed us to hold a public meeting to discuss the proposal and receive citizen input; however, our review was hampered due to the lack of critical altitude information.

Below is a list of comments the City of Palo Alto has on this proposal. The City of Palo Alto requests that each of these comments be addressed before any further action on this proposal is taken.

1. While the Design & Implementation Team Technical Report shows the anticipated procedure waypoints, it does not show altitudes of the new waypoints or the latitude/longitude of these new locations, which limits the City's ability to effectively comment. It is the City of Palo Alto's understanding that the FAA has this information and has not made it available to the public. This information is critical as there is no way to evaluate the aircraft position/elevations over the City of Palo Alto (i.e. possibility of lower altitudes and increased noise impact).
2. The City of Palo Alto requested that the FAA extend the public comment period on the Nor Cal OAPM environmental assessment by at least 60 days to allow the City of Palo Alto and other entities to make comments based upon complete information. The outcome of the environmental assessment cannot be accurately represented if critical information is absent from the published document or only available at the very last minute. At this time the altitudes have not be released to the public.
3. The City of Palo Alto is concerned that this project will increase or shift noise to the Palo Alto community.
4. The project directly involves airspace over the City of Palo Alto and yet the City was not notified by the FAA of the proposed project. (See attached San Francisco International flight tracks for a 24 hour period on April 18, 2014 the City of Palo Alto is highlight in green.) The City gained knowledge of this project third hand well after the March 25, 2014 release date.
5. The Report's *Design & Implementation Team Technical Report* shows the anticipated procedure waypoints but it does not show the altitudes of the new waypoints or the latitude/longitude of these new locations.
6. A Palo Alto resident testified that he has observed aircraft flying lower than they typically did in the past. Please clarify or confirm:


- Have flight paths already changed prior to the EA and if so were the proper notification processes followed?

P.O. Box 10250
Palo Alto, CA 94303
650.329.2477
650.328.3631 fax

- Are the aircraft that fly over the City of Palo Alto flying lower now than in the past?
 - Will aircraft be flying lower over the City of Palo Alto once this project is implemented?
7. Our job, as elected officials, is to provide Palo Alto residents with sound precise information from your report. We are not able to do so because of your report is lacking the technical data to do so.

We appreciate the opportunity to participate in this public process on the draft EA; however, it lacks the critical information necessary to properly evaluate the project and give complete comments. We look forward to the release of this critical information and sufficient time to incorporate that information into our response.

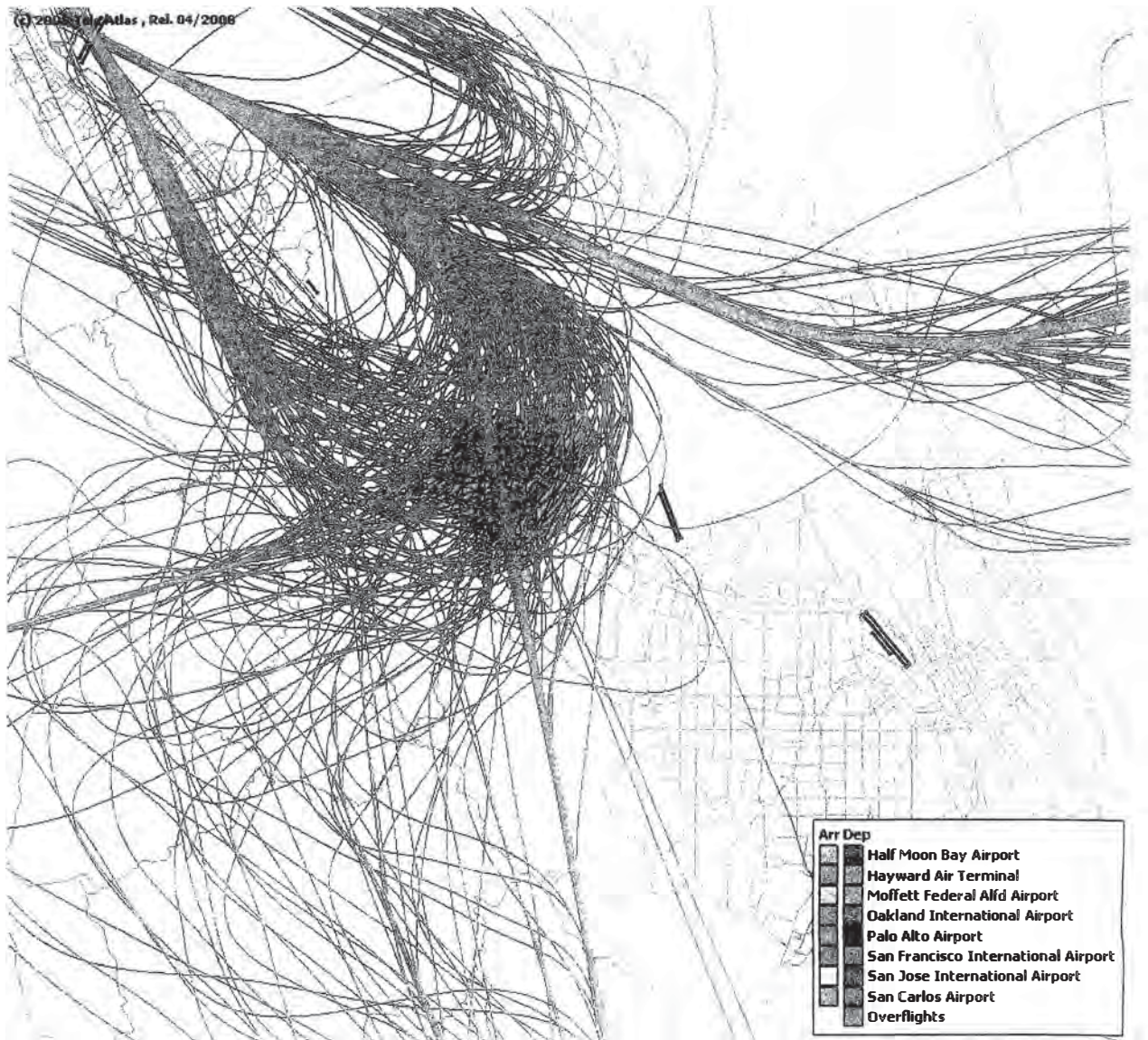
Sincerely,



Nancy Shepherd
Mayor, City of Palo Alto

cc: Congresswoman Anna Eshoo
Congresswoman Jackie Speier
Congresswoman Zoe Lofgren
Congressmen Mike Honda
San Francisco International Airport/Community Roundtable
Palo Alto City Council
James Keene, Palo Alto City Manager
Molly Stump, Palo Alto City Attorney
Mike Sartor, Palo Alto Public Works Director
Andy Swanson, Palo Alto Airport Manager

San Francisco International flight tracks for a 24 hour period on April 18, 2014 the City of Palo Alto is highlight in green:



To: NorCal OAPM EA; Federal Aviation Administration
Western Service Center – Operations Support Group
1601 Lind Ave., SW, Renton, WA 98057

From: Madeleine Tammy Skoog, 3974 Bibbits Drive, Palo Alto, CA
94303

Subject: Northern California Optimization of Airspace and Procedures in
the Metroplex Draft Environmental Assessment

First, I want to thank the FAA and SFO for their presentations the week of 14 through 18 April 2014 in the San Francisco area. The information provided was very interesting. The presenters and representatives did a good job answering questions and clarifying any issues.

As background, in the city of Palo Alto we have been experiencing an increase in the amount of aircraft traffic. We have an on-line system where the topic of airplane noise is very busy with much information being traded as to policy. We are also familiar with the SFO Flight Tracker System, as well as the San Jose Airport Flight Tracker System which provides data on arriving and departing flights, equipment type, altitude, speed, and visual flight path of individual planes.

People are experiencing different levels of air traffic and noise based on location. Speaking for myself only I live in south Palo Alto near the junction of Louis Road and Charleston / Arastradero – which are well traveled thoroughfares in the city near the southern border of the city at Highway 101.

I am experiencing the following:

1. Flights coming overhead from Asia / Hawaii enter the area coming from the west and make the turn northward for arrival at SFO. These are very large planes.
2. Flights overhead from the northern states – Oregon and Washington come down the peninsula then rotate northward for arrival at SFO. These are both large planes and smaller commuter planes.
3. The staging of flights is producing a lower altitude for 747-400's and other planes which are preparing for their instruction to land. There is acceleration as well a breaking to slow down depending on the specific flight instructions.
4. There are commuter planes and large plane coming from the Southern California area.

Bottom line: I am at the juncture for a portion of the air traffic – like a giant freeway interchange with on-ramps, slowing and speeding based on time of day and general traffic in the air. This is not all of the SFO bound traffic - it is the Pacific side traffic for the most part which has to speed up and slow down to join the traffic coming from the east US.

There is also traffic from / to the San Jose Airport which changes based on wind directions.

SFO is planning to close some runways from May to September which will disrupt the “normal” traffic routes. This is a concern since it is during the summer months when people are outside. It is unclear at this point how that will turn out. However, last year during a closure of some runways there was continual traffic and noise. There was also a very low altitude with some of the larger planes.

The noise level is varying based on the size and age of the plane. We do not have noise monitors in the Palo Alto area so there is no documentation of noise except people calling in to complain.

The major concern now is that SFO is contemplating a variance in how planes are directed in the flight path in order to save fuel. It is unclear what the end result of that will be. However, Palo Alto being the prescribed flight path for entry into a portion of the SFO arrival queue is problematical.

It would be appreciated if some type of requirement would be imposed that provides a minimum altitude based on size of planes. I have a copy of the SFO TAC Guide but it is clearly not being followed.

There is also a concern that a plane was visibly viewed as discharging while in flight – unclear what was being discharged -concern is toilets. I can appreciate on extremely long flights on very large planes where this could be a large problem but discharge over a populated area is not acceptable. This is like a cruise ship discharging in the bay.

We are aware that there is a San Francisco Airport Commission to coordinate SFO traffic concerns but Palo Alto is not an active member, despite the fact that it is the pivot point for transactions on queue / arrival and departure for aircraft in the air space. Since Palo Alto is a pivot point for aircraft direction then Palo Alto, as part of Santa Clara County needs a place at the table. It appears that SFO is working to support the demands of the San Mateo cities by moving the flow of traffic south.

Thank you for requesting this feedback – we are here to help and assist in the overall SFO experience.

Regards, Madeleine Tammy Skoog, 04/24/14

Follow Up:

This topic was discussed at the Palo Alto City Council Meeting 04.28.14. There will be follow-up action as more information is available and evaluated.

Initial Comments on the Draft Environmental Assessment for Northern California Optimization of Airspace and Procedures in the Metroplex

April 30, 2014

We are a group of concerned citizens from Brisbane. This is our initial comments on the Draft Environmental Assessment, DEA for the Northern California Optimization of Airspace and Procedures in the Metroplex which the FAA issued March 24, 2014.

Thank you for the opportunity to be included and for the direction that the FAA consider environmental factors in their planning and decision-making processes and to encourage public involvement in decisions that affect the quality of the human environment.

This commentary includes maps that use color. If you intend to read this report on paper, please use a printer with color capabilities.

Key parts of the DEA report:

1. As part of the NEPA process, federal agencies are required to consider the environmental effects of a proposed action, reasonable alternatives to the Proposed Action, and a No Action Alternative (i.e., analyzing the potential environmental effects of not undertaking the proposed action).
2. Separation and Safety concerns are one of the causes of inefficiency of the existing aircraft flight procedures in the Northern California Metroplex. Efficiency in the Northern California Metroplex can be substantially increased by updating existing conventional procedures that use older ground-based navigational aid (NAVAID) technology with procedures that employ newer area navigation (RNAV) technology. These inefficiencies directly impact the Controllers at TRACON. The Controllers job is to maintain separation between aircraft that operate within their sectors. RNAV will help as the RNAV signal accuracy requires only two nm of clearance on either side of a route's main path. This will reduce the unpredictability of the flights route and altitude, the two criteria in the Published Procedures
3. Under the current NAVAID conditions, the controller and pilot workload may be greater than necessary, as aircraft are flying less efficient, more complex routes. For example, some aircraft flying SID procedures from the Study Airports may rely on radar vectors issued by controllers for guidance to their exit fixes. It may be necessary for any number of aircraft to fly an extended common route prior to diverging on their separate courses to their assigned exit fixes. To ensure appropriate separation between aircraft along the common route, controllers may be required to employ airspace management tools, such as issuing speed control, vectors, or holding. This can result in more frequent controller-to-pilot and controller-to-controller communication. This increased communication may result in less predictable flight paths due to the time needed for a controller to issue an instruction to a pilot and for a pilot to confirm the instruction prior to execution. As a

result, more airspace must be protected to allow aircraft the room to operate. This reduces flexibility in managing aircraft and results in less efficient operations.

4. 2.2.2 Improve the segregation of arrivals and departures interterminal area and enroute airspace

As discussed in Section 2.1.2.2, in some portions of the airspace, arrival and departure routes cross, converge, or are within close proximity of each other. This requires controllers to manage the traffic to ensure that adequate separation between aircraft is maintained. RNAV procedures can be designed with capabilities such as speed control and altitude restrictions that maintain segregation of aircraft while reducing the complexity of controller and pilot workload. One objective of the Proposed Action is to implement procedures that would achieve better segregation of arrivals and departures within the airspace. This objective can be measured with the following criterion:

- Segregate Study Airport traffic (measured by the count of RNAV SIDs and/or STARs that can be used independently to/from Study Airports.)

Specific Comments

Comment 1

We agree on the need to improve efficiency, aircraft path predictability and reduce controller involvement.

Comment 2

The DEA fails to address adequately the impact on our communities from aircraft flying the proposed SSTIK Procedure.

The ability to comment meaningfully about the proposed Action in the context of the quality of the human environment, is really difficult as there is very little hard information on the Proposed Procedures in the report in the effect to Brisbane and also available at the Public meetings. Please see the proposed SSTIK Procedure.

Northern California (NorCal) OAPM Design Package

*SFO SSTIK RNAV DP (formerly SFO PORTE SID and SFO OFFSHORE SID)
NorCal Design Team Reference: SFO SSTIK_DP_v06.3*

The NorCal Design Team is proposing the creation of the new SFO SSTIK RNAV DP (Figure 3) for SFO Runway 01 South departures. The current conventional SFO PORTE and SFO OFFSHORE SIDs will continue to be used by aircraft unable to utilize Performance Based Navigation (PBN) procedures. The design elements and benefits include:

- Use of Performance Based Navigation (PBN).
- Optimization of lateral flight paths.
- Elimination of ground based Navaid dependency.
- Predictable and repeatable flight tracks.
- Reduction in controller workload and controller/pilot transmissions.
- Efficient Cost to Carry (CTC) fuel planning.
- Combines the SFO PORTE and OFFSHORE SID into a single RNAV DP.
- The lateral track of the SFO SSTIK design is shorter than the current conventional SFO PORTE and SFO OFFSHORE procedures.
- Six optimized transitions improving flow efficiency and flexibility.
- Routes are designed to maximize efficiencies utilizing expanded terminal to en route transitional separation (3 NM increasing to 5 NM).

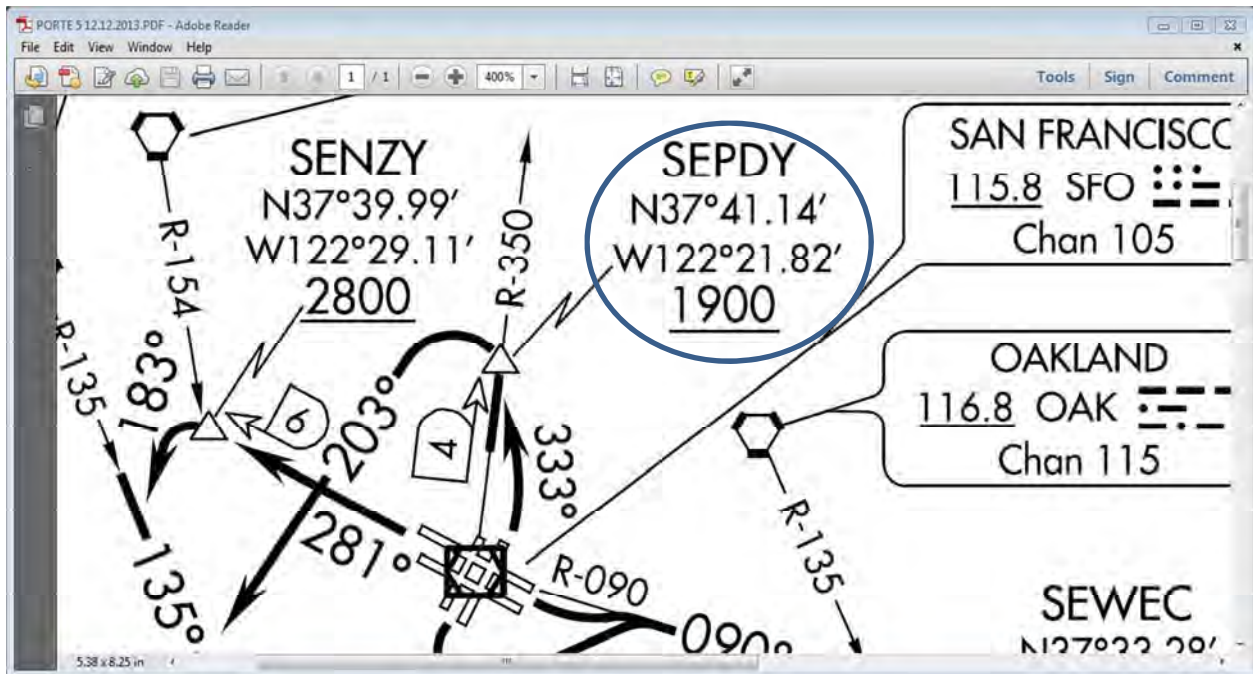


Figure 3. Proposed Procedure

Additional Design Consideration

It does not show the SEPDY NAVAID point so reconciling between the SSTIK and Porte Five and Eugene EIGHT procedures is guesswork. We are used to Published Procedures that have both geographical coordinates that we can plot on google maps and altitude. This depiction of the procedure offers neither.

The Porte Five departure shows both geographical coordinates of SEPDY and altitude.



Comment 3

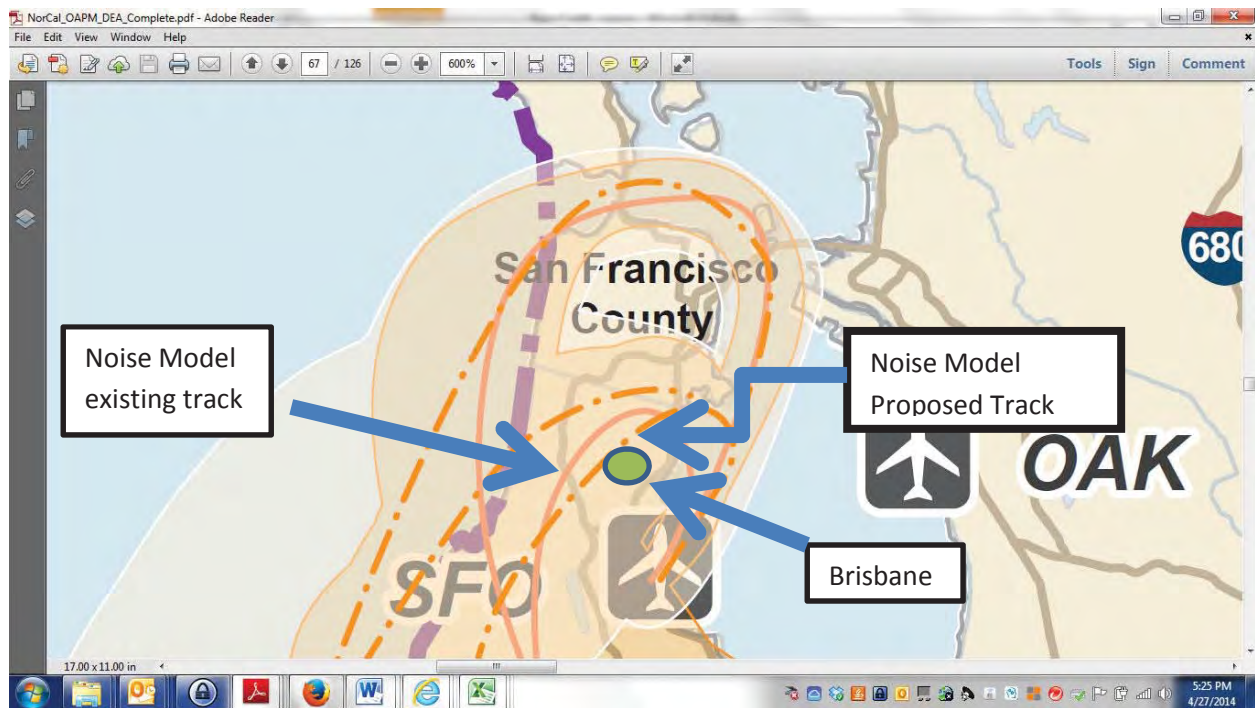
The Noise map and other detail on the modelled noise are also very thin. Table 2 of ANTR¹ shows the results for San Bruno Mountain.

	Existing Condition DNL	No Action DNL	Proposed Action DNL
2011	51.7		
2014		51.8	51.9
2019 (21% increase in traffic from 2011)		52.3	52.4

There is insufficient detail to understand how this will happen, a slight increase in noise and a large increase in traffic. One way is to move the flight path east from San Bruno Mountain and towards Brisbane. There is no reference to the change in noise at the permanent Brisbane noise monitor although this must be able to be determined from the noise model. We have not been given the information that we need to make a meaningful contribution to the **decisions that affect the quality of the human environment** in Brisbane. The model must be able to calculate this information.

Let's look at the SSTIK noise map. The Proposed new flight path, the dot and dashed line cuts to the east of the current route, the hard line in the area marked in the diagram below. We know from experience that any movement of any flight path towards Brisbane, increases noise in Brisbane. I will describe later why an increase in elevation of the flight path is much less effective in reducing noise over 65dB than a horizontal shift back to towards the Published Procedure.

¹ ANTR Table 2 page 72



All we can see is that the Noise map shows that the proposed route is to the east of the current route. We live in Brisbane which is subject to the current Porte 5 Published Procedure. We do not have enough information to comment except to say that any movement to the east as the planes turn south - increases noise in Brisbane.

We will show later that if Brisbane is offered a tradeoff between raising the flights to fly higher over Brisbane versus moving them further away, moving them further away has a greater benefit to the community.

Comment 4

While:

The OAPM initiative specifically addresses congestion, airports in close geographical proximity, and other limiting factors that reduce efficiency in busy Metroplex airspace. Efficiency is improved by expanding the implementation of RNAV-based standard instrument procedures and connecting the routes defined by the standard instrument procedures to high- and low-altitude RNAV routes. Efficiency is further improved by using RNAV to maximize the use of the limited airspace in congested metroplex environments²

The report does not describe how the report specifically addresses congestion and the consequences of congestion. RNAV are the tracks in the sky. We understand that they are not the timetable for the planes that follow the tracks.

² DEA 1.2.6

Currently one of the consequences of congestion is vectoring.

If the stated goal of the OAPM report is to reduce the inefficiency of the existing aircraft flight procedures and reduce the controller involvement surely the inefficiency caused by manual vectoring has to be addressed in detail rather than claimed to be solved?

While RNAV procedures describe route and altitude, they do not address take off unpredictability, the timing component.

The DEA states that ATCT typically controls airspace extending from the airport out to a distance of several miles³. This is not the case at SFO as we understand from the SFO Noise office that the ATCT passes control to TRACON 25 feet from the runway⁴.

Since SFO and Oakland are so close and with the SFO runways 01L and 01R facing Oakland's, the FAA and SFO Noise Office have stated at public meetings that many of the flights from 01L and occasionally 01R at SFO are vectored by the TRACON Controllers due to Safety and Separation issues.

We saw no discussion about coordinating departures at Oakland and SFO although there is a reference to "Holding⁵" as one of the Controller's management tools. At the Public meeting we attended, we asked about holding but no one could respond whether this was being used at Oakland or SFO. We were told that vectoring would continue as a method to ensure Safety and Separation.

We have also asked at the SFO Round Table meetings at the meetings with Rep Speier and Eschoo whether there is coordination of takeoffs between Oakland and SFO. We were unable to get a concrete answer yes or no. It appears that there may be coordination until 6am.

Example of manual vectoring and consequences to Brisbane

This is an example of flights off Runway 01L and 01R at SFO on 11/2/2013, a west flow day which occurs 95% of the time according to the report. There were 617 departures overall. 554 were off Runways 01L and 01R i.e. 90%. Note how the tracks are grouped within corridors except for the left turn through the Brisbane Gate. 209 flights passed through the Brisbane Gate. These departures were 34% of all the SFO departures.

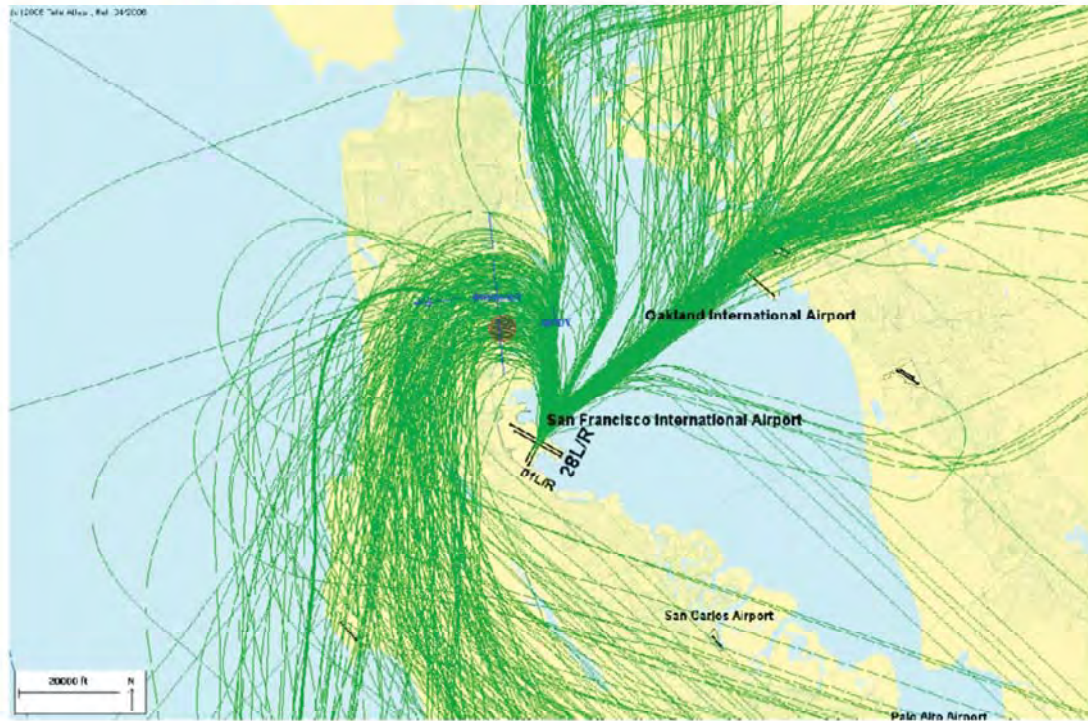
A careful analysis of the tracks through the Brisbane Gate flight shows that less than 40% of these flights get to the marked SEPDY Gate and that more than 60% are turned early i.e. vectored. 60% is over 120 flights and over 20% of total departures. (These departure numbers and flight tracks were supplied by the SFO Noise Office.)

³ DEA 1.2.4

⁴ Meeting with Bert Ganoung of SFO Noise Office on 11/2/2013 at SFO Noise Office

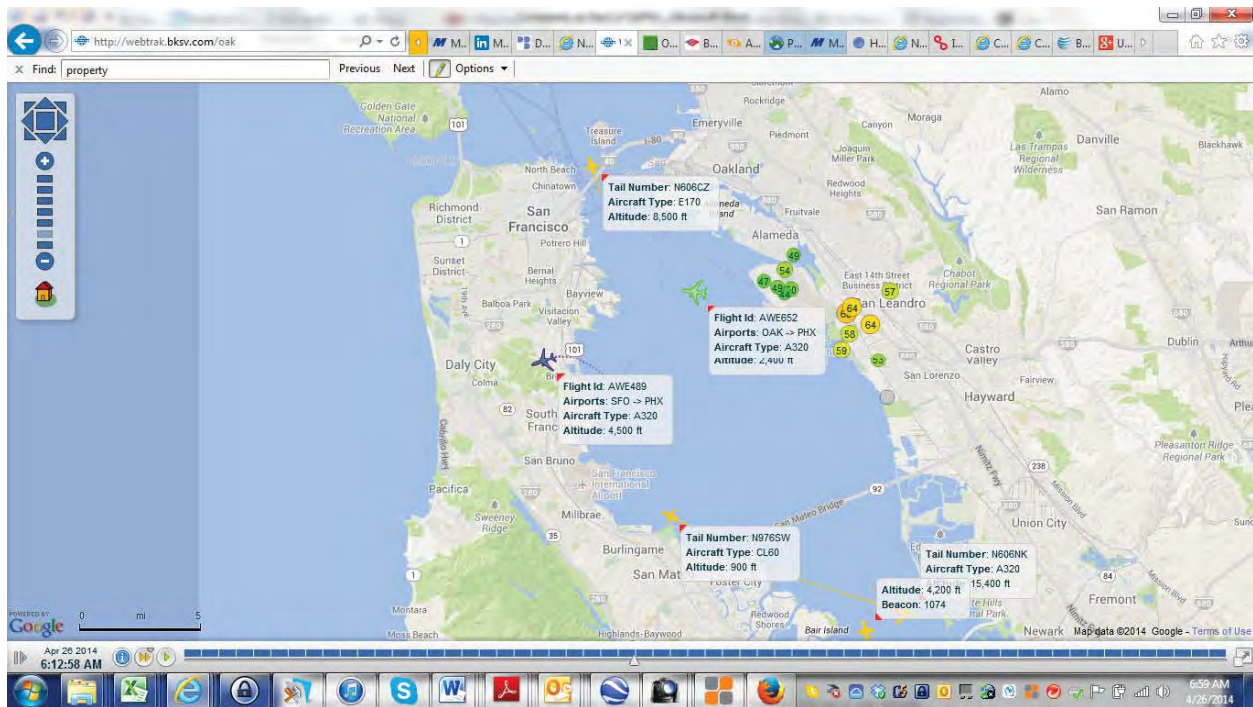
⁵ DEA 2.1.1 page 2-2

Figure 2 – All SFO's Runways 1 L/R Departures for 11-21-2013 (554 Departures)

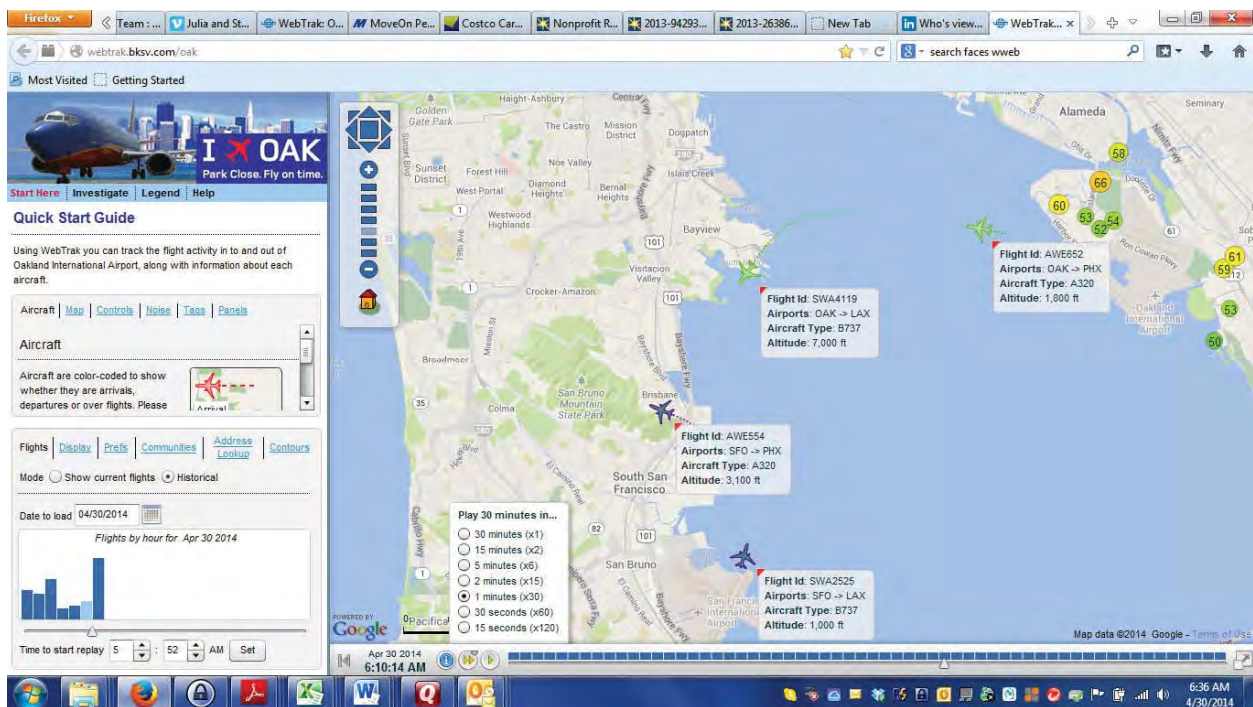


This turning early is a demand on Controller time and resources. If RNAV and RNP are to be implemented, surely this inefficiency has to be addressed? Having a 60% manual involvement or 120 flights per day due to safety and separation concerns is surely a major efficiency concern and needs to be addressed in the OAPM Report with more than the phrase "specifically addresses". The report offers no information on how departure congestion conflicts will be handled differently.

Example of vectoring happening. We presume that the SFO plane was turned early to maintain separation from the plane from Oakland



And at times things get worse. In this example there are 4 planes heading south with two to Phoenix and two to LAX, one from each airport.



It is clear that there is a problem with SFO 01L and 01R departures and the south bound Oakland flights. The telling statistic is the high Controller manual involvement to cope with the departures. The current

method is for each airport's controllers to send the planes off as they see fit and then leave it to the TRACON controllers to sort out the consequences. Surprisingly the TRACON controllers do not have the tools to see or know what is actually happening on the ground according to SFO Noise Office⁶. The controllers' response to uncertainty is to vector. Why not address a major source of uncertainty and demand on Controllers resources in detail in this OAPM report? Please describe how RNAV will reduce vectoring and secondly cope with the conflict of two planes heading to the same position on the RNAV track.

It is worth re-reading the email foot note and consider all the uncertainties that the TRACON controllers face i.e. do not know:

- What is on the ground at SFO
- What is on the ground at Oakland
- When the next plane will take off from SFO on Runway 01L and 01R
- When the next plane will take off from Oakland

There seems to be a major disconnect between the tools the TRACON controllers currently have and what they need to move planes safely and efficiently through the airspace. Any wrong assumption leads to a reduction in efficiency of the system and collateral damage to the communities below the vectored planes.

When we cross the Bay Bridge from the East Bay in periods of heavy traffic, we are used to traffic lights controlling when we can leave. This ensures coordination between lanes so that there are no conflicts

⁶ SFO Noise Office email dated 4/14/2014 to J. Charas.

"However, TRACON can't see what's going on the airfield at that moment; they just know there's a pending departure that will occur from SFO and/or OAK. The controller's job is to safely move the aircraft through their sector and keep separation between the aircraft. On Sunday, a Virgin America flight (VRD025) to Palm Springs with a scheduled departure time of 3:05 was in trail of the Alaska flight (ASA306, also going to Palm Springs) you complained about; turns out VRD025 did not take-off until 3:12-13. There was also a business jet departing Oakland at 3:14 on their Skyline departure, taking them over Brisbane (I don't know what time they had scheduled for departure). All the controller knows is ASA306 and VRD025 are supposed to depart around 3pm. When, the first aircraft contacts TRACON they get turned and sent through the sector quickly to clear space for the next departure which could have been the Oakland bizjet or the Virgin America flight to Palm Springs. Although the skies over Brisbane look clear of other traffic, the controllers have this sequence laid out in front of them (in the forms of strips of scheduled departure times) and in their mind, they are mentally preparing how to move the aircraft to keep them safely separated. The controllers primary goal is to move aircraft through their sector quickly and efficiently, while maintaining separation between aircraft, because of this the SEPDI location/intersection is seldom observed."

The graphic SFO Noise sent showed the Alaska Airlines plane over Brisbane at 3:07. It was vectored to avoid conflict with a plane that actually took off from Oakland at 3:12-13. Please see the flight path on the final page of this letter. The wrong assumption leads to collateral noise damage in Brisbane.

We believe that vectoring for this and similar reasons are a significant percentage of the 60% of flight being vectored that pass through the Brisbane Gate.

from two cars arriving at the same place at the same time. When will the SFO and Oakland airports take offs be coordinated and include the TRACON controllers? The current turning of flights is a major use of Controller time, inefficiency and uncertainty in the system and is likely to get worse with the forecasted increase in traffic.

Comment 5

The noise maps are based on the average flight paths for 2011 when vectoring was used for separation and safety on departures runways 01L and 01R. Vectoring i.e. turning flights early is the result of a system that requires manual intervention, the very thing that the study is designed to reduce. The noise maps model assumptions are thus questionable and appear to formalize a system that is broken and which has the unintended consequence of increased noise in the communities over which the planes are vectored. The noise model should exclude vectored data and then run against the Proposed Action to see the difference.

Many studies have been conducted on the effect of turning flights earlier than SEPDY. One in the Brisbane City files was by Charles M. Salter Associates, Acoustic Consultants. The report was called “Porte Departures from San Francisco International Airport”. The key conclusion:

“While results varied somewhat for the individual aircraft types, the aircraft produced noise levels in Brisbane approximately 10dB higher turning at the 2 NM distance than at the standard 4 NM distance. This 10dB difference is substantial representing an approximate doubling of perceived loudness”.

The map in Comment 4 shows the extent of the manual vectoring on 11/21/2013. Over 60% of the flights failed to get to SEPDY, the 4NM point. Many were turned before 2 NM. This Separation and Safety solution has resulted in increased noise in Brisbane.

By including the vectored flights we are formalizing a failing system. The noise model needs to be based on a system that does not require manual intervention. The vectored flights need to be removed from the data set and the model recalculated.

Comment 6

Metrics. The Segregate Study Airport traffic⁷ metric measures the count of RNAV SIDs and STARs that can be used independently. There also needs to be a metric that counts the number of daily manual exceptions including vectoring.

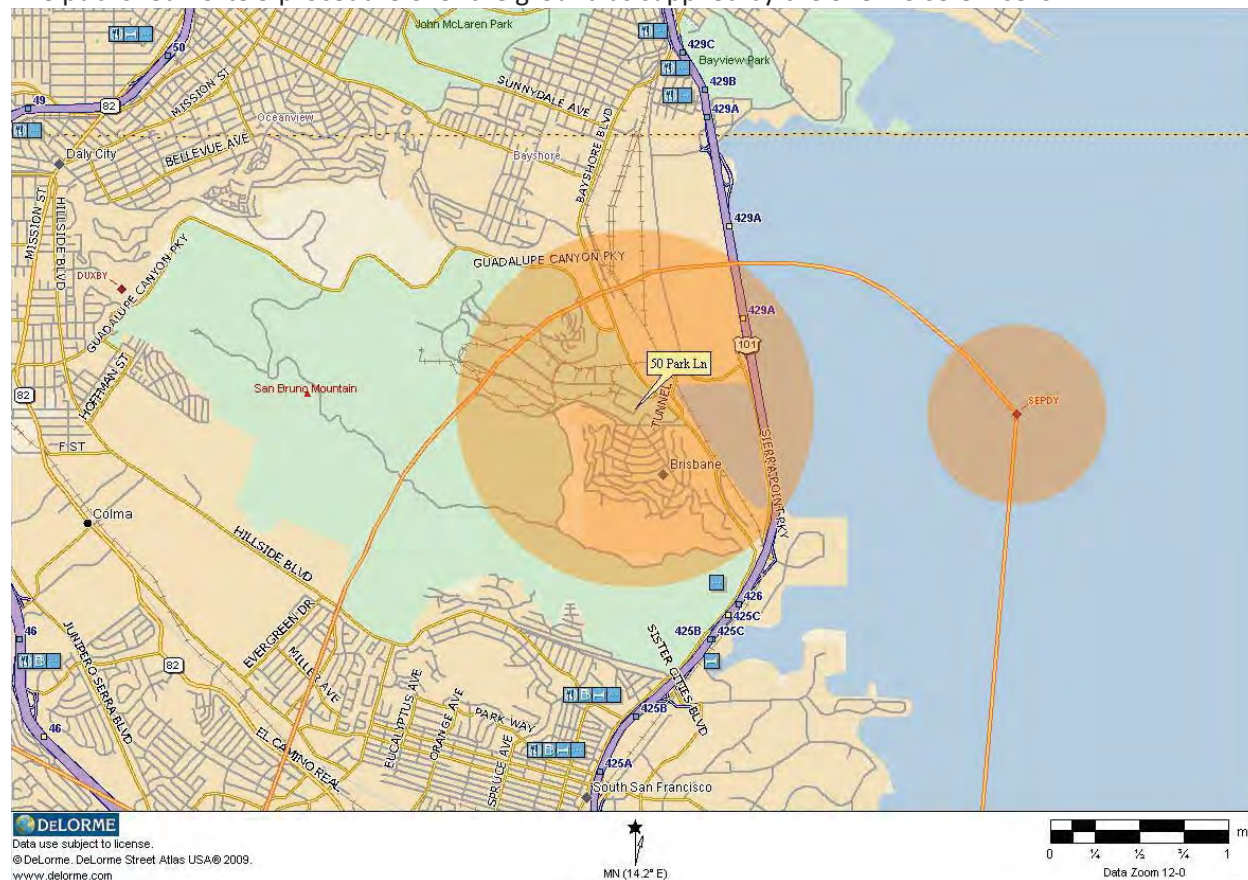
⁷ DEA 2.2.2 page 2-13

Comment 7

Turning early increases the environmental impact on Brisbane and creates a safety issue for the City such as an engine failure. It also reduces the safety margin clearance over San Mountain. This is a further reason to understand the reasons for the turning early and determine whether 100% are necessary. We also need to understand the effect of the current vectoring on aircraft noise levels Brisbane.

If Brisbane is offered a tradeoff between raising the flights over Brisbane versus moving them further away, moving them further away has a greater benefit to the community.

The published Porte 5 procedure over the ground as supplied by the SFO Noise Office is:



Note how the procedure encircles Brisbane and how Brisbane is nestled to the north of San Bruno Mountain. Note also how the whole of the distance to the NAVID waypoint, SEPDY is over water, the lowest ground around. If a plane loses an engine, it is surely safer to fly and gain altitude over water than over ground and this is perhaps one of the reasons that this Procedure was developed and has continued to be used.

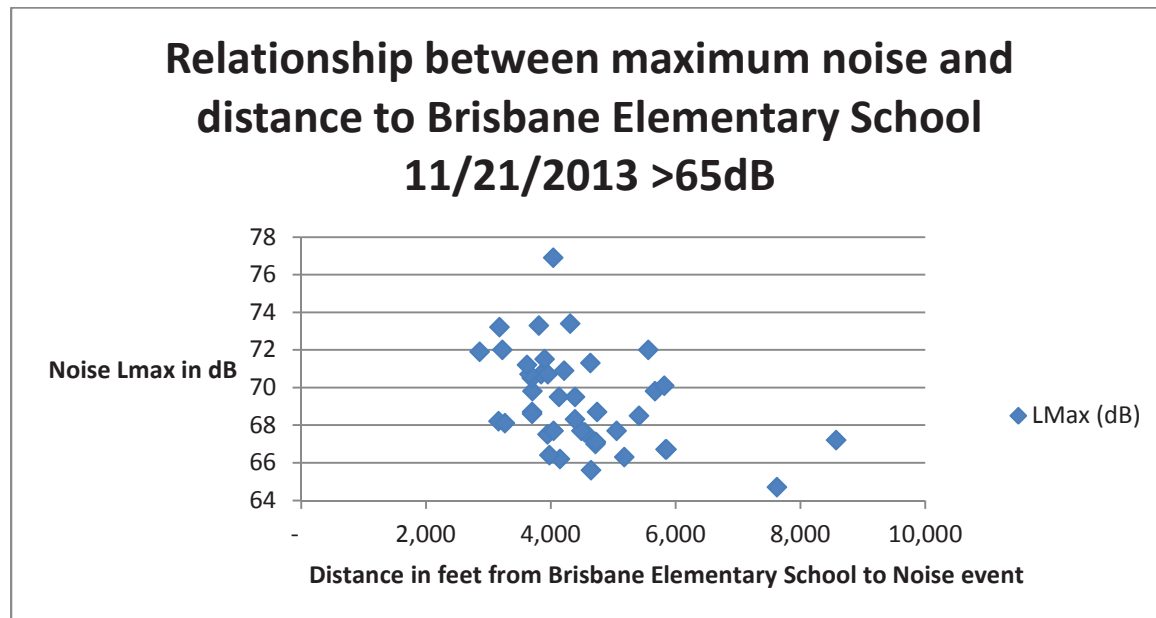
Any turning early from the Published Procedure reduces the distance flown and the clearance over San Bruno Mountain. It also increases the number of events over 65dB measured at the Brisbane noise monitor⁸.

If we are being asked for public involvement in the human environment, the current risks need to be highlighted.

Let's look at what happened on 11/21/2013 using data supplied by the SFO Noise Office. The data gives details of the flights that passed through the Brisbane Gate and for a subset, the 43 flights that created noise events greater than 65dB at the Brisbane Noise monitor. We plotted the actual distance between the plane at the start of the noise event and a geographical point, PCA

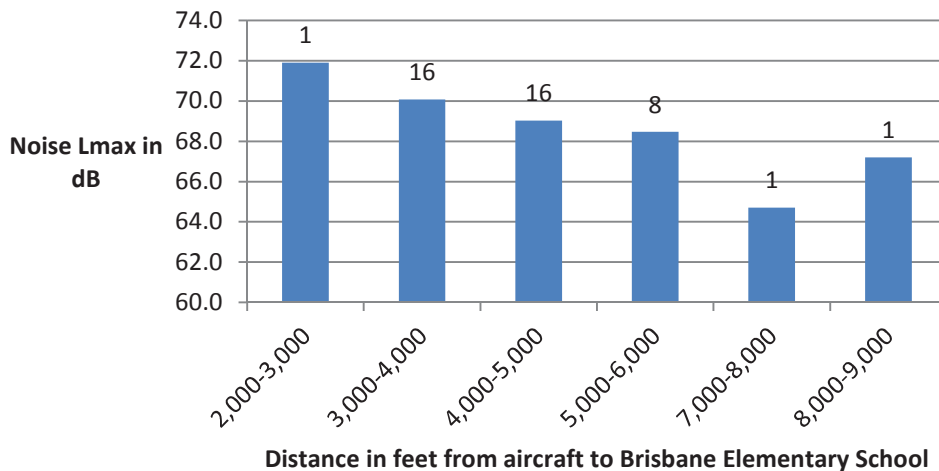
PCA Origin (lat)	PCA Origin (long)
37.680747	-122.399944

This point, PCA is on the Brisbane Elementary School Playing field.



Note how there is a strong cut off of events when the flight is over 6,000 feet from the Elementary School. Also note how the size of the noise event seems to fall with distance. This is born out when we group the events by distance and take an average:

Average LMax by distance from aircraft to Brisbane Elementary School 11/21/2013 >65dB



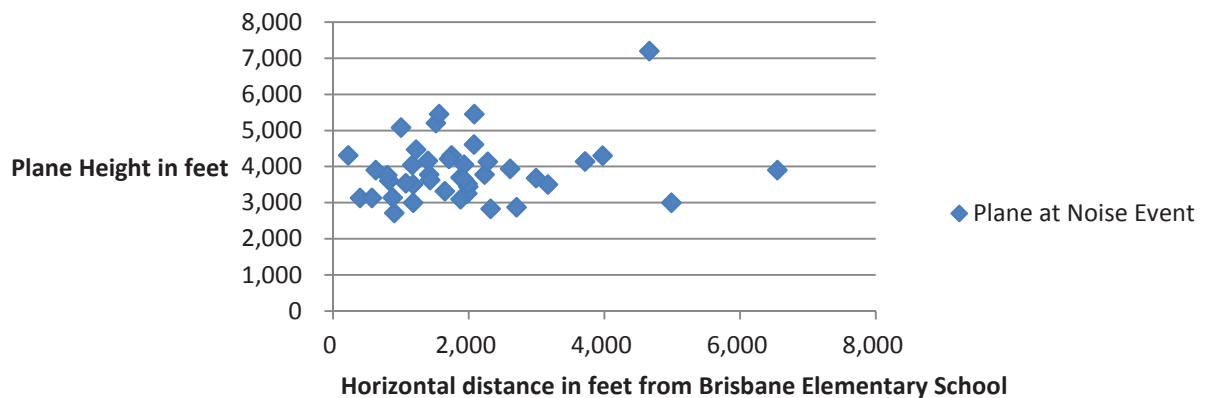
Note how the Lmax average drops with distance as one would expect with an inverse square law.

Now let's look at the same data but looking at the horizontal distance centered on the Brisbane Elementary School. The yellow rings radiate out at 1,000 foot intervals. The red rings are at 5,000 foot intervals. Please also note the:

- Three Residential areas outlined in red
 - o Brisbane
 - o Ridge
 - o Lower Ridge
- Two schools
 - o Brisbane Elementary
 - o Lipman Middle School
- SEPDY marker to the east 10,000 feet to the east



Relationship between height, distance from Brisbane Elementary School and noise event 11/21/2013 >65dB



Note how for these >65dB events:

- Of the 43 events, at least 40 were the result of the TRACON Controllers instructing the pilot to vector.
- In 8 of the 43 noise events planes passed less than 1,000 feet horizontally from the Brisbane Elementary school
- One plane was 225 feet horizontally from the school
- Three planes were below 3,000 feet above sea level. The Elementary school is at 200 feet above sea level. For ten of flights there was less than 3,000 feet over the Elementary School. This is 25% of the flights that created noise events.
 - o Section 4.3.8 of the report only addresses pollution 3,000 feet and above. It does not address pollution under 3,000 feet and in particular above schools, a vulnerable population

The close and low flying planes are safety concerns for the City and cause disruption to the classes at the Elementary School.

- The plane at 7,000 feet is a SWA 737 from Oakland. It was a surprise that Oakland's high flying flights are creating noise events at the nose monitor in Brisbane. Investigations on other days confirm that aircraft from Oakland regularly create noise events greater than 65dB at the Brisbane noise monitor.
- There is a cut off with very few events >65dB where the plane is more than 4,000 feet horizontally away.
- There are no events where the flight is above 6,000 feet. Analysis of flights on 10/5/2011 suggest that this is because planes from SFO are not being operated to climb to above 6,000 feet in such a short distance rather than there were there were no noise events from SFO departing planes over 6,000 feet.

This graph highlights:

- That if Brisbane is offered a tradeoff between raising the flights so they fly higher over Brisbane versus moving them further away, moving them further away has a greater benefit to the community. Remember these are flights that create noise events >65dB. All the other 170 flights through the Brisbane Gate that do not create >65dB events, are also heard in Brisbane. The level of noise is just less. Resident feedback is that all the departures from 01L and 01R are heard in the upper parts of Brisbane. The only time when no aircraft noise is heard is when flights descend and land on runways 01L and 01R or there are no departures on 01L and 01R. The former is less than 5% of the time.

The noise tradeoffs are a little more nuanced. SFO Noise put three portable noise monitors in Brisbane between October 28 and November 2010. They were:

Noise Monitoring Locations

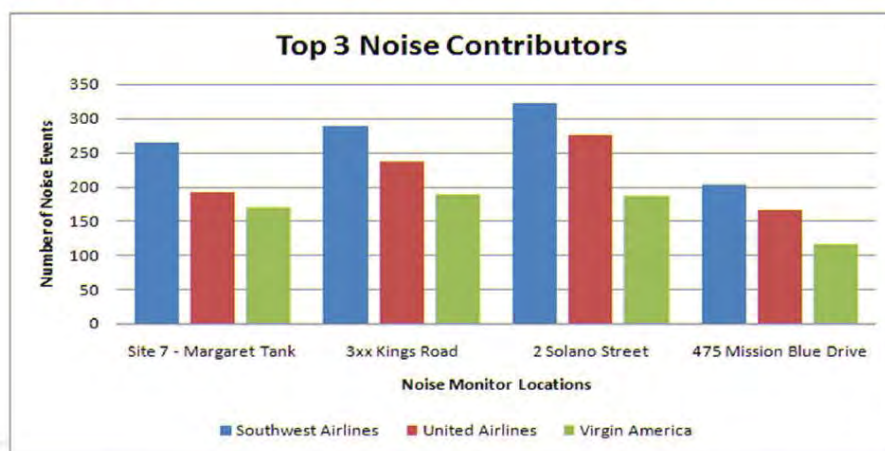


9

Note how the monitors spread from Site 7, the permanent noise monitor to the North West. 2 Solano is the address of Lipman Middle School. 475 Mission is a residential area and shown on the google map as the Lower Ridge Residential area.

Top Three Noise Contributing Airlines

Airlines	Site 7 - Margaret Tank	3xx Kings Road	2 Solano Street	475 Mission Blue Drive
Southwest Airlines	265	288	323	202
United Airlines	191	236	276	166
Virgin America	170	188	186	115



Note how there were:

- 25% more noise events at 2 Solano Street, Lipman Middle School than at Site 7, the permanent noise station
- 77% less events at 475 Mission Blue Drive

The reduction in noise events at 475 Mission Blue may be due to planes being higher. Further study is needed.

While we have highlighted classroom disruption at the Elementary School, classroom disruption also happens at the Lipman Middle School. The conscious choice of the Controllers to turn the planes early has the unintended consequence of disrupting our two schools. This is of concern to our City.

Overall comment

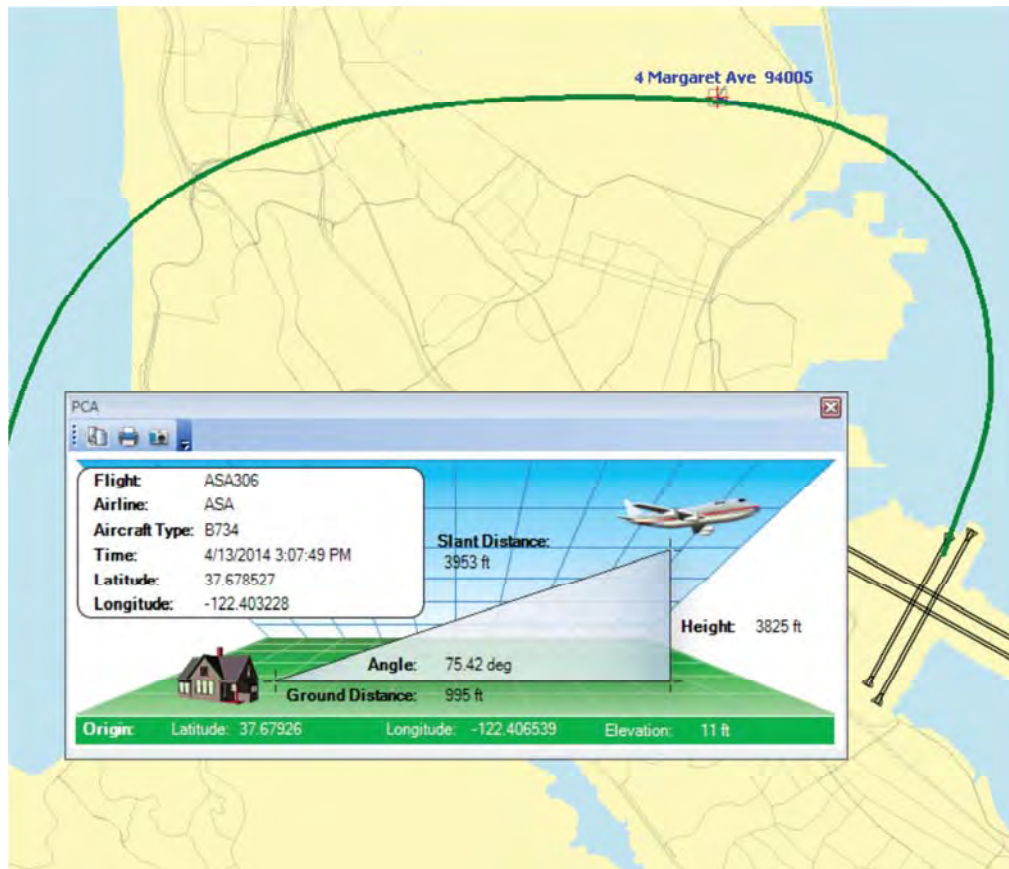
We have insufficient information to determine whether there will be an insignificant noise impact on our community. The information presented is inadequate and this needs to be addressed in the Environmental Impact Report. We do know that the TRACON controllers' decision to vector departures from SFO runways 01L and 01R is increasing safety concerns to our city, affecting our school and our health and creating more noise in our City. We do not know how the conflict with the SFO and Oakland flights will be resolved and thus have little confidence in being told that it will be. The noise model is based on data that includes vectored flights, with more than 60% of the flights through the Brisbane Gate, being vectored. To use this vectored data in the model is to formalize a system that does not work without manual involvement. The noise model should exclude vectored data and then run against the Proposed Action to see the difference. The Noise model map shows the average track moving towards Brisbane. We can only assume from analysis of past flight tracks data, that this will increase noise and be to the detriment of our city.

The DEA should be withdrawn and resubmitted with the additional information needed to allow the public to make a meaningful contribution, adequate time to analyze and respond to the findings. Further public meeting should be held in places that affected citizens can easily attend. The FAA has attended meetings in Brisbane in the past. Brisbane is one of the most affected communities.

Barb Bouchard ⁹	Brisbane CA
Jim Charas	Brisbane CA
Emily Citraro	Brisbane CA
Karen Cunningham	Brisbane CA
Peter Grace	Brisbane CA
Angel Ibarra	Brisbane CA
Bernadette & Thales Oliveira	Brisbane CA
Virginia Porte	Brisbane CA
Steve Rodrigues	Brisbane CA
Amy Titus	Brisbane CA
Constance Veilleux	Brisbane CA
Concerned Citizens of Brisbane	

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Virginia Porte	deedee@deedeeper.com
Steve Rodrigues	steve@skypuppy.us
Amy Titus	titus@smccd.edu
Constance Veilleux	cav54@yahoo.com

See Footnote 4 under Comment 6 for the discussion on why this flight was vectored.



Recent Overflights Adversely Impacting Portola Valley Residents

1 message

Tina Nguyen <tnps2008@gmail.com>

Tue, May 20, 2014 at 4:33 PM

To: patty.daniel@faa.gov, ray.towles@faa.gov, dave.foyle@faa.gov, glen.martin@faa.gov, dale.bouffiu@faa.gov, donna.warren@faa.gov, michael.huerta@faa.gov, SFO Noise <SFONoise@flysfo.com>

Cc: karen.chapman@mail.house.gov, "Perkins, Brian (Speier)" <brian.perkins@mail.house.gov>, Jim Lyons <jel1293@yahoo.com>, Victor Schachter <VSchachter@fenwick.com>, cliffentz@sbcglobal.net, dpine@smcgov.org, "James A. Castañeda" <jcastaneda@sforoundtable.org>, awengert@portolavalley.net, Nick Pegueros <npegueros@portolavalley.net>, mderwin@portolavalley.net, chughes@portolavalley.net

To Members of the FAA and SFO Airport:

On behalf of Portola Valley residents, I am submitting this data set as evidence of the severe, ongoing noise problem due to SFO arriving flights constantly being shifted over to our residential neighborhoods. The data below for 5/8 encompasses a whole day of flights (160 flights in fact!) while those for 4/29, 4/30, 5/5 and 5/19 document only those in the evening after 7:15 pm i.e. when I arrive home from work. There were many other days and time periods during this 3 week period in which the airplane noise was extremely disruptive, but this is the extent of which I can provide given the time intensive nature of having to enter the data manually from reviewing the flight information available through the SJC Webtrak. Residents who work from home or are retired have reiterated that the noise can be non-stop all day, and this is supported by the flight data from 5/8 or if one looks at other days during this year.

4/29 and 4/30: Both days had perfectly clear skies, yet there was massive vector trafficking with an average of 17 flights per hour and as many as 20 to 21 flights per hour (i.e. a flight every 3 minutes) between the hours of 7:30 pm to 9:30 pm both days. Furthermore, greater than 63% of these flights flew over Portola Valley at or less than 6000 feet above sea level (or 5300 feet above ground level), including the Oceanic arrivals.

5/5: There was also high traffic over Portola Valley due to vector trafficking that extended well after 11 pm. As many as 13 flights per hour were directed over our homes and 50% were at altitudes of 6000 feet or less above sea level.

5/8: Air traffic controllers re-routed 160 flights (!) over to Portola Valley; 58% of these flights were at altitudes of less than or equal to 6000 feet above sea level and 7 of the SFO arriving flights were at less than 5000 feet above sea level.

7-8 am, there were 14 flights/hour

8-9 am: 10 flight/hour

9-10 am: 15 flights/hour

10-11 am: 11 flights/hour

Noon-1 pm: 16 flight/hour

1-2 pm: 10 flights/hour

2-3 pm: 11 flights/hour

10-11 pm: 13 flights/hour

During the other hours, there were at least 6 flights/hour up until 35 minutes past midnight.

Yesterday 5/19: 42 SFO arriving flights flew over our Portola Valley within a 4 hour window (7:56 pm to 11:56 pm) including 17 flights within a one hour period and 64% having altitudes of 6000 feet or less above sea

level . I have made the attached video capture file to show:

- (1) how the commercial aircraft are shifted from their standard arrival routes- namely, Point Reyes and Big Sur- to over PV
- (2) how these planes make sharp turns as they rapidly descend over our communities which contribute to the piercing noise we hear day and night , and
- (3) that the neighborhoods of Portola Valley, Skyline Blvd./La Honda areas, Los Altos, and Palo Alto are disproportionately impacted by vector trafficking when compared to other cities and towns along the Peninsula.

The residents of Portola Valley and nearby communities are furious that SFO's expansion into an already congested airspace comes at the expense of our health, quality of life, and safety as well as the recreational value of the surrounding nature preserves. We respectfully ask the leaders of the FAA and SFO to embrace the challenge set forth by Congresswomen Anna Eshoo and Jackie Speier at the September 23, 2013 joint meeting to develop long-term strategies to reverse this oppressive noise pollution.

Thank you for your time and consideration.

Sincerely,

Tina Nguyen

Portola Valley Resident and Co-Chair of the Ad Hoc Committee for Noise Abatement in the South Bay

4/29/14

Time	Flight #	Altitude (ft) ASL over PV	Aircraft Type	Departing City/County	Arriving Airport	SFO Arrival Route
19:33	HAL24	5600	B763	Maui	OAK	
19:37	SWA4208	8200	B737	Seattle	SJC	
19:57	PAL104	5500	B744	Manila, Philippines	SFO	Oceanic
19:59	CPZ5854	6600	E170	Los Angeles	SFO	V- Big Sur
20:01	UAL1204	6400	B738	Houston	SFO	V- Big Sur
20:02	EVA28	7600	B77W	Taipei, Taiwan	SFO	V- Pt Reyes
20:07	SKW6290	6000	CRJ2	Palm Springs	SFO	V-Big Sur
20:10	SKW5233	5900	CRJ2	San Luis Obispo, Ca	SFO	V- Big Sur
20:14	UAL508	5200	A320	Seattle	SFO	V- Pt Reyes
20:16	CAL004	7700	B744	Taipei, Taiwan	SFO	Oceanic
20:20	ASA302	6000	B734	Seattle	SFO	V- Pt Reyes
20:21	URF64	5400	PC12	KSQL	BUR	
20:27	ASA328	7700	B738	Seattle	SJC	
20:32	SKW5268	4900	CRJ2	Palm Springs	SFO	V- Big Sur
20:34	SKW5609	5400	E120	Monterey	SFO	V- Big Sur
20:40	JBW415	7200	A320	New York City	SFO	V- Pt Reyes
20:43	SWA3755	5600	B737	Phoenix	SFO	V- Big Sur
20:48	UAL1422	7000	B753	Honolulu	SFO	Oceanic
20:50	SIA2	9300	B77W	Hong Kong	SFO	Oceanic
20:53	VRD945	5900	A320	Los Angeles	SFO	V- Big Sur
20:55	UAL841	5644	A319	Los Angeles	SFO	V-Big Sur
20:57	SIA2	5684	B77W	Hong Kong	SFO	Oceanic

20:59UAL362	5610	B752	Kauai	SFO	Oceanic	20 flights within an hour
21:00N77865	7547		Not Identified	SFO		
21:02VRD969	5655	A319	San Diego	SFO	V- Big Sur	
21:06CPZ5856	5800	E170	Los Angeles	SFO	V- Big Sur	
21:08SKW5567	5200	E120	Santa Barbara, CA	SFO	V- Big Sur	
21:10UAL1613	6000	B739	Portland	SFO	V- Pt Reyes	
21:12SWA2783	5100	B733	San Diego, CA	SFO	V- Big Sur	
21:14N268GS	5600	F2TH	Santa Monica	SFO	V- Big Sur	
21:16ASA404	8200	B734	Portland	SJC		
21:16AAL2465	5900	B738	Los Angeles	SFO	V- Big Sur	
21:17WJA1776	6900	B737	Vancouver	SFO	V- Pt Reyes	
21:21EJA600	6600	C56X	Santa Monica	SFO	V- Big Sur	
21:38HAL12	7200	A332	Honolulu	SFO	Oceanic	13 flights within an hour
21:57HAL48	7700	B763	Honolulu	OAK		
22:00ASA226	12000	B738	Seattle	SJC		
22:19ASA482	7300	B738	Lihue	OAK		
22:41SWA2080	7000	B737	Portland	SJC		
22:47EJA758	5000	GALX	SFO	SJC		

4/30/14

Time	Flight #	Altitude (ft) ASL over PV	Aircraft Type	Departing City/County	Arriving Airport	SFO Arrival Route
19:49	EVA28	6000	B77W	Taipei, Taiwan	SFO	V- Pt. Reyes
19:51	ASA223	5900	B739	Puerto Vallarta, Mexico	SFO	V- Big Sur
19:55	PAL104	6000	B744	Manila, Philippines	SFO	Oceanic
19:57	TAI564	5900	A320	San Salvador, El Salvador	SFO	V-Big Sur
19:58	SKW5615	6100	E120	Santa Barbara	SFO	V-Big Sur
20:00	ASA317	6000	B734	Palm Springs	SFO	V-Big Sur
20:01	URF64	4100	PC12	San Carlos	BUR	
20:02	AAL219	5900	B738	Los Angeles	SFO	V-Big Sur
20:03	SKW5363	7000	CRJ2	Ontario	SFO	V-Big Sur
20:09	PA24	5200	PA24	Sacramento	SFO	V-Big Sur
20:12	SWA3481	5900	B737	Orange County	SFO	V-Big Sur
20:14	SIA2	6200	B77W	Hong Kong	SFO	Oceanic
20:17	UAL724	5900	B772	Honolulu	SFO	Oceanic
20:20	UAL1255	5900	B738	Los Angeles	SFO	V-Big Sur
20:22	CAL004	5500	B744	Taipei, Taiwan	SFO	Oceanic
20:24	SKW6432	5700	CRJ7	Orange County	SFO	V-Big Sur
20:24	ASA328	7800	B738	Seattle	SFO	V-Pt Reyes
20:26	SKW5609	5400	E120	Monterey	SFO	V-Big Sur
20:27	UAL508	5900	A320	Seattle	SFO	V-Pt Reyes
20:45	UAL1728	5600	B753	Maui	SFO	Oceanic

20:49	UAL1706	6300	B753	Kona, Big Island	SFO	Oceanic	21 flights within the hour
20:51	VRD941	5900	A320	Los Angeles	SFO	V-Big Sur	
20:53	SKW5303	5900	E120	Los Angeles	SFO	V-Big Sur	
20:55	SKW5601	5800	CRJ2	Phoenix	SFO	V-Big Sur	
20:56	UAL498	6900	A319	Vancouver	SFO	V-Pt Reyes	
20:58	SKW5384	5700	E120	San Luis Obispo	SFO	V-Big Sur	
21:05	N551UA	5896		Not Identified	SFO		
21:10	HAL12	7500	A332	Honolulu	SFO	Oceanic	
21:12	VRD969	6100	A310	San Diego	SFO	V-Big Sur	
21:14	UAL2149	6210	B752	Los Angeles	SFO	V-Big Sur	
21:15	N791AS	8942	B734	Portland	SJC		
21:20	FDX78	5304	B77L	Kansai Int'l Airport	OAK		
21:23	SKW5567	5187	E120	Santa Barbara	SFO	V-Big Sur	
22:04	ASA226	8700	B734	Seattle	SJC		
22:24	CPA872	7800	B77W	Hong Kong	SFO	Oceanic	

5/5/14

Time	Flight #	Altitude (ft) ASL over PV	Aircraft Type	Departing City/County	Arriving Airport	SFO Arrival Route	
19:22	VRD813	9000	A320	Portland	SFO	V- Pt Reyes	
19:25	SKW5528	10000	CRJ2	Reno	SFO	V- Pt Reyes	
19:28	URF24	4500	PC12	San Carlos	KSQ		
19:28	VRD221	8000	A319	Austin	SFO	V- Pt Reyes	
19:31	SKW6410	5800	CRJ2	Burbank	SFO	V- Big Sur	
19:35	SKW5528	5700	CRJ2	Reno	SFO	V- Pt Reyes	
19:42	SKW5553	7600	CRJ2	Portland	SFO	V- Pt Reyes	
19:51	VRD941	5500	A320	Los Angeles	SFO	V- Big Sur	
19:51	UAL927	7300	B744	Frankfurt, Germany	SFO	V- Pt Reyes	
19:55	SKW5601	7000	CRJ2	Phoenix	SFO	V- Big Sur	
20:02	SWA3504	6000	B733	San Diego	SFO	V- Big Sur	
20:04	SWA4211	5800	B737	Orange County	SFO	V- Big Sur	
20:18	SKW6290	5400	CRJ2	Palm Springs	SFO	V- Big Sur	13 flights within hour
20:25	SWA3755	6400	B737	Phoenix	SFO	V- Big Sur	
20:28	DAL2209	5400	MD90	Minneapolis	SFO	V- Pt Reyes	
20:30	ASA328	8500	B739	Seattle	SJC		
20:31	ASA302	5200	B734	Seattle	SFO	V- Big Sur	
20:36	ASA386	5700	B734	Portland	SFO	V- Pt Reyes	
20:45	SWA2744	9200	B737	Seattle	SFO	V-Pt Reyes	
20:48	AMX662	6000	B738	Guadalajara	SFO	V- Big Sur	
20:54	SIA2	5800	B77W	Hong Kong	SFO	Oceanic	
21:00	UAL1706	6100	B753	Kona, HI	SFO	Oceanic	
21:08	UAL1145	7600	B739	Seattle	SFO	V- Pt Reyes	
21:18	UAL1017	5600	B739	Houston	SFO	V- Big Sur	
21:22	ASA404	6900	B738	Portland	SFO	V- Pt Reyes	12 flights within

hour

21:32	UAL2135	7000	B744	Honolulu	SFO	Oceanic
21:41	VRD969	5700	A319	San Diego	SFO	V- Big Sur
22:08	ASA226	6700	B738	Seattle	SFO	V- Pt Reyes
22:24	ASA842	5200	B738	Lihue, HI	OAK	
22:32	UAL770	6200	A319	Orange County	SFO	V- Big Sur
22:46	SKW5600	5100	CRJ2	Burbank	SFO	V- Big Sur
22:46	7001	10300		Not identified		
23:08	SWA374	6000	B733	Los Angeles	SFO	V- Big Sur
23:12	SWA4284	5200	B737	Los Angeles	SFO	V- Big Sur
23:14	SWA2080	8100	B737	Phoenix	SFO	V- Big Sur
23:18	ASA840	7000	B738	Honolulu	SFO	Oceanic

5 flights
within
hour

5/8/14

Time	Flight #	Altitude (ft) ASL over PV	Aircraft Type	Departing City/County	Arriving Airport	
6:50	UAL1722	5800	B739	Honolulu	SFO	Oceanic
7:00	SKW5458	4600	E120	San Luis Obispo	SFO	V-Big Sur
7:08	SKW5632	5800	E120	Santa Barbara	SFO	V-Big Sur
7:12	UAL872	6000	B772	Taipei	SFO	Oceanic
7:16	SKW5467	6200	CRJ2	Ontario	SFO	V-Big Sur
7:18	HGT412	9000	E45X	Hillsboro,OR	SJC	
7:19	SWA3667	6000	B737	Los Angeles	SFO	V-Big Sur
7:21	URF22	4900	PC12	San Carlos	SBA	
7:24	ASA406	7600	B734	Portland	SJC	
7:28	SWA1015	9200	B737	Portland	SJC	
7:36	N425F	5400	C425	San Carlos	MYF	
7:45	SKW5308	5800	E120	Bakersfield	SFO	V-Big Sur
7:47	SWA4214	5700	B737	San Diego	SFO	V-Big Sur
7:49	GDG802	5900	LJ55	Long Beach	SFO	V-Big Sur
7:56	EJA937	9800	C750	Portland	SJC	
8:18	VRD1951	6000	A320	San Diego	SFO	V- Big Sur
8:20	AAL108	6000	B738	Los Angeles	SFO	V- Big Sur
8:21	UAL1725	5900	B739	Los Angeles	SFO	V- Big Sur
8:27	SKW6502	6000	CRJ2	Orange County	SFO	V- Big Sur
8:30	SWA3328	6000	B737	Orange County	SFO	V- Big Sur
8:31	CES589	9000	A332	Shanghai	SFO	V- Pt Reyes
8:36	SWA563	6000	B733	Los Angeles	SFO	V- Big Sur
8:37	CES589	7000	A332	Shanghai	SFO	V-Pt Reyes
8:39	SKW6315	7100	CRJ2	Victoria, Canada	SFO	V- Pt Reyes
8:41	ASA334	7100	B738	Seattle	SJC	
9:03	ASA222	5800	B739	Seattle	SFO	V-Pt Reyes
9:06	SWA3043	6000	B737	San Diego	SFO	V-Big Sur
9:10	UAL816	6000	A319	Seattle	SFO	V- Pt Reyes
9:29	UAL1093	5900	B739	Portland	SFO	V-Pt Reyes

14
flights/hour10
flights/hr

9:31	4260	4900		Not Identified	SJC		
9:36	JBU1413	6100	A320	Austin	SFO	V-Big Sur	
9:38	ASA899	4600	B738	SJC	Kona		
9:39	SKW6369	5800	CRJ2	Tucson	SFO	V-Big Sur	
9:42	SKW5646	5900	CRJ2	Palm Springs	SFO	V-Big Sur	
9:44	UAL562	6000	A320	Los Angeles	SFO	V-Big Sur	
9:45	SKW6487	5900	E120	Santa Barbara	SFO	V-Big Sur	
9:47	CPZ5832	6000	E170	Los Angeles	SFO	V-Big Sur	
9:47	SKW6421	8200	CRJ7	Edmonton, Canada	SFO	V-Pt Reyes	
9:49	N854UA	6000	A319	Not Identified	SFO	V-Big Sur	
9:53	SKW6421	5700	CRJ7	Edmonton, Canada	SFO	V-Pt Reyes	15 flights/hr
10:14	VRD935	6200	A320	Los Angeles	SFO	V-Big Sur	
10:16	ACA560	7400	E190	Vancouver, CA	SFO	V-Pt Reyes	
10:20	ANA8	6000	B77W	Narita/Tokyo	SFO	V-Pt Reyes	
10:24	SKW6329	4000	E120	Eureka	SFO	V-Pt Reyes	
10:30	UAL699	8900	A319	Portland	SFO	V-Pt Reyes	
10:35	SWA9000	8900	B737	Seattle	SJC		
10:37	AAR212	4900	B772	South Korea	SFO	V-Pt Reyes	
10:41	UAL852	8500	B774	Narita/Tokyo	SFO	V-Pt Reyes	
10:47	EJA162	5300	GLEX	Van Nuys	SFO	V-Big Sur	
10:50	UAL892	6100	B744	South Korea	SFO	V-Pt Reyes	
10:50	N494CA	8000	CL60	Not Identified	SFO	V-Pt Reyes	11 flights/hr
11:05	CPA870	6400	B744	Hong Kong	SFO	V-Pt Reyes	
11:07	UAL870	6500	B772	Sydney	SFO	Oceanic	
11:33	SKW6282	5200	CRJ2	Orange County	SFO	V-Big Sur	
11:35	SKW6197	6100	CRJ2	Burbank	SFO	V-Big Sur	
11:38	UAL1088	5300	B738	San Diego	SFO	V-Big Sur	5 flights/hr
12:03	SWA9006	5900	B737	Phoenix	SFO	V-Big Sur	
12:08	1377	5900		Not Identified	SFO	V-Pt Reyes	
12:11	ANZ8	5400	B772	Aukland, New Zealand	SFO	Oceanic	
12:12	UAL991	7800	B763	Paris	SFO	V-Pt Reyes	
12:15	ASA885	5000	B738	SJC	Maui		
12:18	SKW5640	6800	E120	Santa Barbara	SFO	V-Big Sur	
12:24	CCA985	5600	B77W	Peking	SFO	V-Pt Reyes	
12:26	UAL447	5800	A319	Los Angeles	SFO	V-Pt Reyes	
12:28	4277	6000		Not Identified	SFO	V-Big Sur	
12:33	ASA318	6800	B734	Seattle	SFO	V-Pt Reyes	
12:35	DHL454	8200	B744	Frankfurt	SFO	V-Pt Reyes	
12:36	OPT736	8200	C750	Santa Rosa	SJC		
12:39	N1630	5400	G280	SJC	SFO		
12:49	SKW6404	7100	CRJ2	Eugene	SFO	V-Pt Reyes	
12:51	EJA677	5900	C56X	Santa Barbara	SFO	V-Big Sur	
12:56	UAE225	6800	UAE225	Dubai	SFO	V-Pt Reyes	16 flights/hr
13:00	SKW5543	5900	CRJ2	Boise	SFO	V-Pt Reyes	
13:02	SKW5490	6900	CRJ2	Palm Springs	SFO	V-Big Sur	

13:13	VRD927	6000	A320	Los Angeles	SFO	V-Big Sur	
13:34	N669TF	4900	C172	Palo Alto	HAF		
13:36	UAL900	6500	B772	London	SFO	V-Pt Reyes	
13:39	UAL649	6100	A319	Seattle	SFO	V-Pt Reyes	
13:43	SKW5197	5900	CRJ2	Portland	SFO	V-Pt Reyes	
13:47	VRD817	5900	A320	Portland	SFO	V-Pt Reyes	
13:55	UAL1454	5900	B739	Houston	SFO	V-Big Sur	
13:58	CPZ5840	5900	E170	Los Angeles	SFO	V-Big Sur	10 flights/hr
14:00	SKW6406	5900	CRJ2	Eugene	SFO	V-Pt Reyes	
14:04	WJA1508	4900	B737	Calgary	SFO	V-Pt Reyes	
14:11	SWA1006	5200	B737	San Diego	SFO	V-Big Sur	
14:12	EJA807	5900	C560	Seattle	SFO	V-Pt Reyes	
14:18	4562	5900		Not Identified	SFO		
14:23	CPZ5844	7000	E170	Los Angeles	SFO	V-Big Sur	
14:30	BAW11M	4000	B744	London	SFO	V-Pt Reyes	
14:32	VRD961	5300	A319	San Diego	SFO	V-Big Sur	
14:36	UAL353	8100	A320	Portland	SFO	V-Pt Reyes	
14:36	ASA324	10000	B734	Seattle	SJC		
14:39	URF14	5300	PC12	San Carlos	HHR		11 flights/hr
15:16	CAL5107	7000	B744	Los Angeles	SFO	V-Big Sur	
15:16	SWA1716	8900	B733	Seattle	SJC		
15:23	SWA2882	5700	B733	Los Angeles	SFO	V-Big Sur	
15:26	SKW6359	6000	E120	Monterey	SFO	V-Big Sur	
15:29	VIR19F	7500	B744	London	SFO	V-Pt Reyes	
15:33	CPZ5736	7400	E170	Seattle	SFO	V-Pt Reyes	
15:51	SKW5656	7200	CRJ2	Victoria, Canada	SFO	V-Pt Reyes	7 flights/hr
16:25	N813UA	7100	A319	Not Identified	SFO	V-Big Sur	
16:30	UAL1195	4800	B739	Los Angeles	SFO	V-Big Sur	
16:32	SKW6265	5900	CRJ2	Edmonton, Canada	SFO	V-Pt Reyes	
16:37	CPZ5846	5900	E170	Los Angeles	SFO	V-Big Sur	
16:40	JAL2	5500	B788	Haneda/Tokyo	SFO	Oceanic	
16:45	UAL609	8200	A320	Chicago	SFO	V-Pt Reyes	6 flights/hr
17:20	UAL868	6600	A320	Los Cabos, Mexico	SFO	V-Big Sur	
17:32	SKW6287	6900	E120	Santa Barbara	SFO	V-Big Sur	
17:50	SWA590	5800	B737	Los Angeles	SFO	V-Big Sur	
17:51	ASA402	10000	B737	Portland	SJC		
17:54	UAL1127	6000	B739	San Diego	SFO	V-Big Sur	
17:56	SKW5645	6000	E120	Santa Barbara	SFO	V-Big Sur	6 flights/hr
18:09	SWA1255	6000	B733	San Diego	SFO	V-Big Sur	
18:10	SWA344	9000	B733	Portland	SJC		
18:12	SKW5636	4000	E120	Medford, OR	SFO	V-Pt Reyes	
18:20	UAL508	6000	A320	Seattle	SFO	V-Pt Reyes	
18:34	SKW6490	5900	CRJ2	Palm Springs	SFO	V-Big Sur	
18:36	VRD963	6000	A320	San Diego	SFO	V-Big Sur	
18:49	SKW5418	6900	E120	San Luis Obispo	SFO	V-Big Sur	7 flights/hr
19:14	URF26	5600	PC12	San Carlos	SBA		

19:30	UAL257	7500	B752	New York	SFO	V-Pt Reyes	
19:34	UAL927	7100	B744	Frankfurt	SFO	V-Pt Reyes	
19:39	SWA4741	5500	B737	Orange County	SFO	V-Big Sur	
19:53	VRD755	5843	A320	Seattle	SFO	V-Pt Reyes	
19:55	N807SA	5034		Not Identified			6 flights/hr
20:03	UAL391	5130	A320	Los Angeles	SFO	V-Big Sur	
20:09	ASA317	5900	B734	Palm Springs	SFO	V-Big Sur	
20:11	CPZ5852	6000	E170	Los Angeles	SFO	V-Big Sur	
20:14	N472CA	5116		Not Identified	SFO	V-Big Sur	
20:27	VRD813	6900	A320	Portland	SFO	V-Pt Reyes	
20:49	ASA328	9000	B739	Seattle	SJC		6 flights/hr
21:09	N727SK	6956		Not Identified	SFO	V-Pt Reyes	
21:12	ASA378	6385	B737	Seattle	SFO	V-Pt Reyes	
21:14	UAL362	6100	B752	Lihue	SFO	Oceanic	
21:16	SWA4211	5900	B737	Orange County	SFO	V-Big Sur	
21:18	VRD941	5100	A320	Los Angeles	SFO	V-Big Sur	
21:35	N382A	7144		Not Identified	SFO	Oceanic?	
21:47	JBU633	8400	A320	Boston	SFO	V-Pt Reyes	
21:47	N809JB	8351		Not Identified	SFO	V-Pt Reyes	8 flights/hour
22:10	ASA404	8800	B738	Portland	SJC		
22:18	CPA872	6000	B77W	Hong Kong	SFO	V-Pt Reyes	
22:23	ASA842	5900	B738	Kauai	OAK		
22:26	UAL384	5900	A320	San Diego	SFO	V-Big Sur	
22:28	UAL389	7600	B752	New York	SFO	V-Pt Reyes	
22:33	XAACR	5900	C25B	Toluca, Mexico	SFO	V-Big Sur	
22:41	CPZ5856	5900	E170	Los Angeles	SFO	V-Big Sur	
22:43	UAL426	5700	A320	Houston	SFO	V-Big Sur	
22:47	SWA4284	6800	B733	Los Angeles	SFO	V-Big Sur	
22:50	UAL770	6900	A319	Orange County	SFO	V-Big Sur	
22:53	VRD947	5500	A320	Los Angeles	SFO	V-Big Sur	
22:56	SWA1726	6100	B737	Orange County	SFO	V-Big Sur	
22:59	SKW5303	5800	E120	Bakersfield	SFO	V-Big Sur	13 flights/hr
23:14	CPZ5817	7800	E170	Seattle	SFO	V-Pt Reyes	
23:18	UAL741	7000	A320	Chicago	SFO	V-Pt Reyes	
23:21	ASA300	7400	B734	Seattle	SFO	V-Pt Reyes	
23:24	DAL434	9300	B752	New York	SFO	V-Pt Reyes	
23:30	WJA1776	8400	B737	Vancouver	SFO	V-Pt Reyes	
23:33	SKW5210	8900	CRJ2	Portland	SFO	V-Pt Reyes	
23:44	JBU415	6100	A320	New York	SFO	V-Pt Reyes	7 flights/hr
0:35	KAL213	4700	B748	Los Angeles	SFO	V-Big Sur	

5/19/14

Time	Flight #	Altitude (ft) ASL over PV	Aircraft Type	Departing City/County	Arriving Airport
19:56	EVA28	7000	B77W	Taipei	Oceanic
19:58	SKW5486	8000	CRJ2	Vancouver	V- Pt Reyes
20:02	UAL391	6100	A320	Los Angeles	V-Big Sur

20:04SKW5486	5700	CRJ2	Vancouver	SFO	V- Pt Reyes	
20:066766	5400		Unidentified	SFO		
20:08VRD941	5900	A320	Los Angeles	SFO	V-Big Sur	
20:10N821TT	6000	C421	Montgomery/San Diego	SFO	V-Big Sur	
20:17ACA562	5600	E190	Vancouver	SFO	V-Pt Reyes	
20:19CAL004	6000	B744	Taipei	SFO	Oceanic	
20:23SKW6269	8000	CRJ7	Calgary	SFO	V-Pt Reyes	
20:24SWA4211	5900	B737	Orange County	SFO	V-Big Sur	
20:25						
ASA328	10300	B739	Seattle	SJC		
20:27SKW6269	6000	CRJ7	Calgary	SFO	V-Pt Reyes	
20:27SWA4208	9100	B737	Seattle	SJC	V-Pt Reyes	
20:30CPZ5854	6000	E170	Los Angeles	SFO	V-Big Sur	
20:46SIA2	7200	B77W	Hong Kong	SFO	V-Big Sur	
20:48SKW5645	5700	E120	Santa Barbara	SFO	V-Big Sur	17 flights/hr
21:14ASA404	7600	B738	Portland	SJC		
21:24HAL12	6800	A332	Honolulu	SFO	Oceanic	
21:257026	7000		Unidentified	SFO		
21:32UAL782	8800	A320	Seattle	SFO	V-Pt Reyes	
21:35UAL724	6000	B772	Honolulu	SFO	Oceanic	
21:39VRD969	6300	A319	San Diego	SFO	V-Big Sur	
21:42CPA872	6000	B77W	Hong Kong	SFO	Oceanic	
21:45UAL418	5000	B752	Newark	SFO	V-Pt Reyes	
21:48UAL770	4900	A319	Boston	SFO	V-Pt Reyes	
21:51UAL220	6000	A320	Los Angeles	SFO	V-Big Sur	
21:57UAL731	5500	A319	Los Angeles	SFO	V-Big Sur	
21:59N57857	6470		Unidentified	SFO		
22:02UAL234	6100	A319	Austin	SFO	V-Big Sur	
22:06SWA1726	6700	B737	Orange County	SFO	V-Big Sur	14 flights/hr
22:17SKW6294	7800	E120	Medford, OR	SFO	V-Pt Reyes	
22:21VRD945	5900	A320	Los Angeles	SFO	V-Big Sur	
22:26ASA386	6000	B737	Portland	SFO	V-Pt Reyes	
22:33WJA1776	4600	B737	Vancouver	SFO	V-Pt Reyes	
22:43ACA564	8000	E190	Vancouver	SFO	V-Pt Reyes	
22:50CPZ5787	7900	E170	Seattle	SFO	V-Pt Reyes	
22:55CPZ5687	8000	E170	Salt Lake City	SFO	V-Pt Reyes	
23:00CPZ5687	6000	E170	Salt Lake City	SFO	V-Pt Reyes	
23:03UAL1052	5700	B739	San Diego	SFO	V-Big Sur	
23:09AMX664	6000	B737	Mexico City	SFO	V-Big Sur	
23:17SWA2784	5900	B733	San Diego	SFO	V-Big Sur	11 flights/hr
23:34UAL263	5900	A319	Los Angeles	SFO	V-Big Sur	
23:37UAL372	5900	A319	Minneapolis	SFO	V-Pt Reyes	

23:54JBU277	5000	A320	Fort Lauderdale	SFO	V-Big Sur
23:56SKW5451	5900	E120	San Luis Obispo	SFO	V-Big Sur

 **Video_2014-05-19.wmv**
2300K

Addendum

2 messages

Tina Nguyen <tnps2008@gmail.com>

Wed, May 21, 2014 at 10:44 AM

To: michael.huerta@faa.gov, patty.daniel@faa.gov, ray.towles@faa.gov, dave.foyle@faa.gov, glen.martin@faa.gov, dale.bouffiou@faa.gov, donna.warren@faa.gov

Cc: karen.chapman@mail.house.gov, "Perkins, Brian (Speier)" <brian.perkins@mail.house.gov>, Jim Lyons <jel1293@yahoo.com>, Victor Schachter <VSchachter@fenwick.com>, cliffrentz@sbcglobal.net, dpine@smcgov.org, "James A. Castañeda" <jcastaneda@sforoundtable.org>, awengert@portolavalley.net, Nick Pegueros <npegueros@portolavalley.net>, mderwin@portolavalley.net

Dear FAA Leaders,

I would like to add the data set below to the ones that I sent to you yesterday as well as draw your attention to the fact over 100 Portola Valley residents had responded to the Environmental Assessment Draft on the NorCal OAPM project.

I hope you took/take the time to read these letters and come to realize that my fellow residents are also deeply disturbed by the noise intrusions. In their own words, residents have described the airplane noise as "incessant", "nonstop", and "a psychological torture" that has led to "increased stress levels" and caused them to be "awakened at night and startled during the day". Portola Valley has very little ambient noise so the change from having 35 SFO arriving flights per day in 2000 to now having as many as 160 flights per day over our communities has been very noticeable. Nancy Benson commented on this change in her letter to the FAA: "I have lived in Ladera for 22 years, during the last 10 years especially, the air traffic noise has increased in the evening and very early morning hours, enough so that my sleep has been impacted by that noise." Likewise so did Carl Stritter: "I have lived in Portola Valley since 1981. During that time, Portola Valley went from a quiet rural area with little air traffic to one of the busiest air lanes in the country due to SFO arriving flights being frequently rerouted from their standard arrival paths and into my community."

The data sets lend support to residents' observation. Yesterday evening was yet another night in which air traffic controllers shifted most of the SFO incoming traffic that was originally on the Big Sur route, as well as many that was supposed to be on Point Reyes route, over to our noise-sensitive residential communities. From 9 pm to 10 pm, there were 13 SFO arriving flights over Portola Valley. Then, between 10:30 pm to 11:30 pm, when most residents are in bed trying to fall asleep, 17 SFO arriving commercial jets created relentless, excruciating noise. At all other times yesterday

evening, there were at least 10 flights per hour.

Obviously I am writing this email because I still have hope that you will take our concerns under consideration and intervene so that we can have evenings in which our conversations, thoughts, and sleep are not interrupted by one screeching airplane after the other. I hope you find this to be a reasonable request.

Thanks again for your time and attention.

Respectfully,

Tina Nguyen

5/19/14

Time	Flight #	Altitude (ft) ASL over PV	Aircraft Type	Departing City/County	Arriving Airport	SFO Arrival Route
19:24	UAL783	6300	A319	New Orleans	SFO	V-Big Sur
19:26	VRD941	5900	A320	Los Angeles	SFO	V-Big Sur
19:34	UAL1204	5900	B739	Houston	SFO	V-Big Sur
19:51	SKW6223	4900	E120	Santa Barbara	SFO	V-Big Sur
19:55	UAL391	4800	A320	Los Angeles	SFO	V-Big Sur
19:58	CPZ5854	5900	E170	Los Angeles	SFO	V-Big Sur
20:03	SKW6410	5200	CRJ2	Burbank	SFO	V-Big Sur
20:04	EJA587	5600	C56X	Van Nuys	SFO	V-Big Sur
20:06	SKW6290	6500	CRJ2	Palm Springs	SFO	V-Big Sur
20:09	UAL1428	6000	B738	Atlanta	SFO	V-Big Sur
20:14	URF64	4800	PC12	KSQ	BUR	
20:21	ASA328	9100	B739	Seattle	SJC	
20:33	ASA386	5900	B734	Portland	SFO	V-Pt Reyes
No Flight Info Available from SJC Webtrak from 20:36 to 20:43						
20:46	UAL234	5800	A320	Austin	SFO	V-Big Sur
20:50	VRD945	5600	A320	Los Angeles	SFO	V-Big Sur
21:08	UAL841	5100	A319	Los Angeles	SFO	V-Big Sur
21:16	ASA304	8400	B738	Portland	SJC	
21:19	SKW5303	6000	E120	Bakersfield	SFO	V-Big Sur
21:22	UAL770	6000	A319	Orange County	SFO	V-Big Sur
21:29	UAL1175	5900	B763	Honolulu	SFO	Oceanic
21:31	UAL416	6900	A320	Portland	SFO	V-Pt Reyes
21:33	UAL782	9000	A319	Seattle	SFO	V-Pt Reyes
21:35	WJA1776	6000	B737	Vancouver	SFO	V-Pt Reyes
21:35	EJA745	5000	GALX	SFO	SJC	

21:38	AAL177	7900	A321	New York	SFO	V-Pt Reyes
21:41	SWA374	5900	B733	Los Angeles	SFO	V-Big Sur
21:43	HAL12	4900	A332	Honolulu	SFO	Oceanic
21:47	UAL782	5000	A319	Seattle	SFO	V-Pt Reyes
21:53	AAL177	7900	A321	New York	SFO	V-Pt Reyes
21:59	SWA3755	4800	B737	Phoenix	SFO	V-Big Sur
22:06	VRD969	5000	A319	San Diego	SFO	V-Big Sur
22:17	UAL1629	6000	B739	Vancouver	SFO	V-Pt Reyes
22:21	SKW5451	6000	E120	Santa Barbara	SFO	V-Big Sur
22:33	UAL8298	6900	B772	Peking	SFO	V-Pt Reyes
22:35	UAL1142	6400	B739	Los Angeles	SFO	V-Big Sur
22:40	SWA2080	8100	B737	Portland	SJC	
22:42	CPZ5858	4800	E170	Los Angeles	SFO	V-Pt Reyes
22:46	SWA4284	5200	B733	Los Angeles	SFO	V- Big Sur
22:50	UAL681	4900	A320	Orlando	SFO	V-Big Sur
22:53	SWA1726	6000	B737	Orange County	SFO	V-Big Sur
22:59	AMX664	6000	B738	Mexico City	SFO	V-Big Sur
23:03	AAL2457	5600	B738	Orlando	SFO	V-Big Sur
23:06	X AUSZ	5200	LJ60	Not Identified	SFO	
23:09	SKW5418	5900	CRJ2	Ontario	SFO	V-Big Sur
23:12	UAL2083	4900	B752	Lihue	SFO	Oceanic
23:15	AAL275	5200	B738	Miami	SFO	V-Big Sur
23:18	CPZ5787	5300	E170	Seattle	SFO	V-Pt Reyes
23:21	VRD947	5900	A320	Los Angeles	SFO	V-Big Sur
23:24	UAL496	6200	A320	San Diego	SFO	V-Big Sur
23:26	ASA300	5900	B734	Seattle	SFO	V-Pt Reyes
23:30	SWA554	5900	B737	Phoenix	SFO	V-Big Sur
23:34	UAL263	5100	A319	Los Angeles	SFO	V-Big Sur
0:24	EJA996	6200	C750	Boston	SFO	V-Pt Reyes
5:26	UAL1726	7200	B753	Kahului, Maui	SFO	Oceanic

Tina Nguyen <tnps2008@gmail.com>

Wed, May 21, 2014 at 10:53 AM

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Correction the data set below lists the flights over Portola Valley during the evening of 5/20/14. Data set for 5/19/14 was already sent to you.

Thanks!

Sent from my iPhone

[Quoted text hidden]

AIRPORT NOISE NEWS

Regular Meeting # 291
June 4, 2014

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Airport Noise Report



A weekly update on litigation, regulations, and technological developments

Volume 26, Number 16

May 16, 2014

Heathrow Airport

\$922.7 MILLION PROMISED FOR INSULATION, HOME BUYOUTS IF THIRD RUNWAY ADDED

In a heated competition to be selected as the site of a new runway in the UK, Heathrow and Gatwick airport officials this week submitted final runway proposals to the government commission that will decide where new capacity will be added.

Recognizing that aircraft noise is the main barrier to the addition of a third runway at Heathrow, airport officials there unveiled a revised expansion plan that includes £550 million (\$922.7 million) for residential sound insulation and buyouts of 750 homes.

That amount is six times more generous than the previous UK Labour Government offered when it proposed adding a new runway at Heathrow.

Homeowners near the airport whose homes would need to be acquired would be offered 25 percent above market value plus “stamp duty costs” [a type of property tax in the UK] and legal costs.

In their revised runway plan, Heathrow officials also moved the original site for the third runway – on the northwest side of the airport – slightly to the south, where aircraft could fly over a major highway on arrival. Using such a noise abatement
(Continued on p. 63)

LAX

LAWA MAKES SECOND ATTEMPT TO GET FAA TO DEEM ITS 161 APPLICATION ‘COMPLETE’

On May 9, Los Angeles World Airport (LAWA) submitted to the Federal Aviation Administration a revised Part 161 application for a runway use restriction at Los Angeles International Airport which supplements parts of the original application FAA deemed to be incomplete last August.

If approved, the LAX ban on night departures to the east under certain conditions would be the first restriction on Stage 3 aircraft to be imposed since passage of the Airport Noise and Capacity Act of 1990 (ANCA).

LAWA submitted its original Part 161 application to FAA on Jan. 28, 2013, but it has not yet passed the first hurdle in the review process of being deemed “complete” by the agency.

LAWA’s Part 161 application proposes to restrict easterly departures of all aircraft at LAX, with certain limited exemptions, between midnight and 6:30 a.m. when the airport is in over-ocean and westerly operations during those hours. The restriction would not be in effect when LAX is in easterly operations, which occurs when winds reach 10 knots or greater from the east.

Pilots of heavily loaded aircraft occasionally request easterly departures when

(Continued on p. 64)

In This Issue...

Heathrow ... Airport officials promise to spend \$922.7 million for sound insulation and buyouts of homes near the airport if the UK’s Airport Commission selects Heathrow as the site of a new runway - p. 62

Part 161 ... LAWA resubmits its Part 161 application supporting a runway use restriction at LAX in response to FAA criticism of the original application. LAWA drops data showing sleep awakenings in areas beyond 65 dB CNEL, the boundary of the noise study area - p. 62

Chicago O’Hare ... State lawmakers file legislation calling for Illinois EPA, DOT to study impacts of runway reconfiguration on residents’ quality of life - p. 64

Awards ... The White House honors Flavio Leo, Massport’s deputy director of aviation planning and strategy, with a “local hero” award for leadership in implementing community noise mitigation strategies - p. 65

Heathrow, from p. 62

path and newer technology aircraft would reduce the number of people significantly impacted by noise (located in the airport's 57 dB(A) Leq contour) from the original estimate of 206,550 to 170,000 by 2030, airport officials said. Currently 243,000 people reside within in the 57 dB(A) Leq contour.

"We are committed to treating those most affected by a third runway fairly," said Heathrow's Chief Executive Colin Matthews. "Since the previous runway plan was rejected in 2010, we have listened to ideas for how we could improve our proposals.

"People have told us that we should provide more generous compensation and go further in insulating homes against noise.

"We recognize that the expansion of Heathrow deserves an exceptional compensation scheme. That's why we're going further than statutory schemes or government guidance. People will receive fair compensation in the event that Heathrow expansion goes ahead."

The Aviation Environmental Federation, which has over 120 affiliated members in the UK representing community and environmental groups, local authorities, parish councils, businesses and consultancies and individuals, said, "Even if Heathrow managed to achieve the unlikely feat of reducing noise despite increasing the number of flights by around 50 percent, the reduction in noise around the airport and under flights paths would fall far short of the level the World Health Organization describes as necessary to avoid negative health impacts.

"The scale of the noise problem around Heathrow is so great, meanwhile, that the most generous noise compensation scheme in the world would be insufficient to compensate everybody affected."

The Airports Commission deciding where the new UK runway will be built is considering three options: a second runway at Gatwick, a third runway at Heathrow to the north-west proposed by the airport, or extension of the current north runway at Heathrow proposed by a group of civil engineers.

The Commission also is considering a greenfield site in the Thames Estuary east of London for which London Mayor Boris Johnson has been strongly lobbying.

The Commission will announce where the new UK runway will be added next year after the general election.

Less Noise Impact at Gatwick

In their revised proposal to the Airports Commission, Gatwick officials argued that a second runway at their airport would impact only 14,000 people compared to the 240,000 people impacted by noise from Heathrow today.

In March, Gatwick officials pledged to pay \$1,665 annually toward a local UK property tax to all households in the airport's 57 dB(A) Leq contour, if and when a second runway was added (26 ANR 30).

Stewart Wingate, Gatwick's chief executive, said: "As we reach this critical point in the aviation debate it is clear that

the Airports Commission has a very real choice to make: expand Gatwick and create genuine competition in the market with lower fares for everyone, or move back to a London airport market dominated by a single player and saddle the next generation with higher air fares.

"Why would you choose to fly a quarter of a million more planes every year over one of the world's most densely populated cities when instead you can fly them mostly over fields?"

"Why tunnel part of the busiest motorway in Europe – the M25 – causing serious traffic disruption, when you can build on land already set aside for expansion? The choice is an obvious one. Expand the best and only deliverable option – Gatwick – and create a market that serves everyone."

The new third Heathrow runway would intersect the M25 highway and require construction of a 1,968-foot tunnel to take cars under the runway.

Gatwick officials also argue that their new runway would be cheaper to construct than Heathrow's (\$13.09 billion v. \$28.1 billion) and could be delivered five years earlier.

Heathrow North Runway Extension

Heathrow Hub is the name of the group of engineers proposing to extend the north runway at Heathrow to 19,685 feet to create two separate sections: one for taking off and one for landing.

The group said it is developing a "world-class" noise mitigation strategy for Heathrow that includes:

- Potentially curtailing or ending night quota flights arriving after 4.30 a.m. and before 6 a.m. by making available more capacity later in the morning;
- Or moving the touchdown point two miles to the west on the new runway extension in the critical early morning arrival period, thereby removing large areas of West London from the noise footprint;
- An enhanced respite mitigation strategy, harnessing existing technology to create targeted and varied approaches and alternation in order to further disperse noise;
- No new households would be brought into the noise footprint under the Heathrow Hub proposal, a significant benefit to the hundreds of thousands of people in West London areas including Hammersmith, Chiswick, Brentford and Ealing;
- A much lower number of local homeowners affected compared to Heathrow Airport's proposal. Heathrow Hub estimate is that 250 dwellings would have to be compulsorily purchased to extend the north runway, which the group called "a fraction of those in Heathrow Airport's proposal."

Meanwhile, London Mayor Boris Johnson's chief airport adviser said Heathrow's bid was "lunacy" and Gatwick's bid for a second runway was a "humongous red herring."

Johnson wants Heathrow razed and relocated to the Thames Estuary and a new town built on its current site, which the mayor believes can support 90,000 jobs and homes for 190,000 people. In early May, he hired three architectural firms to propose potential plans for the town.

LAX, from p. 62

winds are slightly below the 10-knot threshold because the departure runway has a slight downward slope in the easterly direction and pilots want to take advantage of that and take off into the wind.

The proposed Part 161 restriction is intended to stop pilots of heavily loaded aircraft from making easterly departures over neighborhoods near LAX where they disturb sleep and provoke complaints.

In an Aug. 2, 2013, letter to LAWA, FAA said the Part 161 application remained incomplete as long as LAWA did not use CNEL contours to depict noise beyond the 65 dB CNEL contour; did not include CNEL values for census grid points beyond 65 dB CNEL; and did not provide additional flight track data and cost/benefit analysis (25 ANR 70).

Supplemental Noise Data Deleted

LAWA's revised Part 161 submission addresses these concerns. It deletes supplemental noise data about sleep awakenings in a large geographic area beyond the 65 CNEL contour – the boundary of the Airport Noise Study Area (ANSA) – that had been presented to FAA for consideration as a Noise Induced Awakening Change Contour, which FAA said could not be used in lieu of DNL (CNEL).

However, limiting the analysis to within the 65 CNEL study area reduced the number of awakenings to approximately 11 percent of those identified in the original application.

Regarding cost/benefit, LAWA said, "Unlike many restrictions that have been analyzed under Part 161, the runway use restriction proposed by LAWA would not ban any flights from using LAX. The proposed restriction, if approved, would merely require that all operators conform to Over-Ocean Operations or Westerly Operations protocols when they are in effect at LAX between the hours of midnight and 6:30 a.m.

"Based on feedback during interviews, air carriers are unlikely to reschedule or cancel any flights as a result of the proposed restriction. Some carriers are likely to limit their payloads or occasionally delay individual flights until more favorable wind conditions exist, but the impacts on air carrier operations and associated costs are expected to be small.

"There are, however, measurable benefits of the proposed restriction. Non-conforming flights are expected to cause an estimated 18,000 awakenings per year, disrupting the sleep of residents who live in nearby communities within the ANSA. Given the limited impact of the proposed restriction on air carrier operations, LAWA believes that the quality-of-life benefits from the restriction outweigh the estimated costs to air carriers."

LAWA told FAA that the benefit-cost analysis of its proposed restriction is based largely on information exchanges with eight airlines that accounted for 85 percent of the recent (46 of 54) non-conforming operations conducted at LAX.

"The proposed restriction is not expected to cause sub-

stantial flight delays because airlines have the ability to plan in advance for circumstances that currently lead to non-conforming operations, and will have the ability to plan for and minimize the impacts of the proposed restriction."

FAA has 30 days to deem LAWA's revised submission "complete." If that happens, the FAA has 150 days to approve or disapprove the application.

O'Hare Int'l**ILLINOIS STATE LAWMAKERS
CALL FOR O'HARE NOISE STUDY**

In response to continued public concerns over new take-off and landing patterns at O'Hare International Airport, IL state Reps. Dennis Reboletti (R-Elmhurst), and Michael McAuliffe (R-Chicago) have filed legislation to conduct a new study of the environmental and human health impacts caused by runways and air traffic around O'Hare.

The legislation instructs the Illinois Environmental Protection Agency (IEPA), with the assistance of the Illinois Department of Transportation (IDOT), to study the levels of noise pollution, air pollution, the emission of gasses and fluids by aircraft, property values, and similar factors on the quality of life of people who live near O'Hare Airport.

In October 2013, Runway 10C/28C opened at O'Hare in an effort to reduce flight delays, reduce the risk of collisions, and increase overall efficiency at the airport, while also moving the airport from dated, crisscrossing runways in favor of modern, parallel ones. In addition to the new runway configuration, more recent air-traffic changes implemented by the Federal Aviation Administration in April to reduce the risk of mid-air collisions are expected to increase jet noise for suburbs west and southwest of the airport.

Since the runway operation was implemented, Rep. Reboletti said residents in his district have voiced concerns regarding the patterns' heavy impact in the newly affected zones.

"Because of the new runway configuration and flight traffic patterns, different neighborhoods are being exposed to aircraft noise and possibly more emissions from the airport than in the past," explained Reboletti. "This study would take a more exhaustive, controlled look at the potential impact on residents' health and their quality of life, with special attention on whether or not to expand the footprint of homes eligible for existing sound mitigation programs."

A 2004 environmental impact study of the new runway configuration was based on computer models of what the airplane flight paths would be. It predicted that nearly 16,000 people would be newly impacted by jet noise to a level that would normally qualify them for soundproofing programs; however, to date no subsequent study based on observed data has been conducted.

Rep. McAuliffe said there is a need in the community for a supplemental study on the effects of plane emissions and air and noise pollution.

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“A follow-up noise study, utilizing not only computer models, but also actual microphones positioned in actual locations around the airport, is needed to maximize the effectiveness of existing programs. Our goal is to make sure that local residents’ health and well-being are given full consideration, particularly those who now live adjacent to the new flight paths,” said McAuliffe.

If adopted, the legislation requires IEPA and IDOT to deliver a single written report of their findings to the Illinois General Assembly by no later than Oct. 31, 2014.

Awards

WHITE HOUSE HONORS FLAVIO LEO WITH AWARD FOR NOISE MITIGATION

Flavio Leo, Massport’s deputy director of aviation planning and strategy, was one of 11 “local heroes” honored by the White House on May 13 as “Champions of Change” for their exemplary leadership to ensure that transportation facilities, services, and jobs help individuals and their communities connect to 21st century opportunities.

“These individuals are leading the charge across the country building connectivity, strengthening transportation career pathways, and making connections between transportation and economic growth,” the White House said.

The Champions of Change program was created as an opportunity for the White House to feature individuals doing extraordinary things to empower and inspire members of their communities.

The White House said, “Flavio has played a key role applying innovative transportation technology to enhance airport safety, security and equitable access at MassPort Airport in Boston. This includes the implementation of aircraft related noise mitigation strategies for the surrounding urban communities and the greater Boston region, leading to an enhanced quality of life.

“Through his leadership, transparency and enhanced public participation, he has established a relationship with over 30 diverse communities, which have had a long history of engagement with Massport and the FAA. He has been the leader and “face of Massport” on an innovative program to address airport noise and other safety and technology improvements, which can be applied nationwide.

“Flavio was selected for his leadership and coordination for the implementation of a set of noise reduction strategies created with extensive community participation and implemented that will reduce aircraft noise impacts to the greater Boston area including to nearby disadvantaged communities.”

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Aircraft Noise Abatement Office

Glossary of common Acoustic and Air Traffic Control terms

A

ADS-B - Automatic Dependent Surveillance – Broadcast – ADS-B uses ground based antennas and in-aircraft displays to alert pilots to the position of other aircraft relative to their flight path. ADS-B is a key element of NextGen.

Air Carrier - A commercial airline with published schedules operating at least five round trips per week.

Air Taxi – An aircraft certificated for commercial service available for hire on demand.

ALP - Airport Layout Plan – The official, FAA approved map of an airport's facilities.

ALS – Approach Lighting System - Radiating light beams guiding pilots to the extended centerline of the runway on final approach and landing.

Ambient Noise Level – The existing background noise level characteristic of an environment.

Approach Lights – High intensity lights located along the approach path at the end of an instrument runway. Approach lights aid the pilot as he transitions from instrument flight conditions to visual conditions at the end of an instrument approach.

APU - Auxiliary Power Unit – A self-contained generator in an aircraft that produces power for ground operations of the electrical and ventilation systems and for starting the engines.

Arrival – The act of landing at an airport.

Arrival Procedure - A series of directions on a published approach plate or from air traffic control personnel, using fixes and procedures, to guide an aircraft from the en route environment to an airport for landing.

Arrival Stream – A flow of aircraft that are following similar arrival procedures.

ARTCC – Air Route Traffic Control Center - A facility providing air traffic control to aircraft on an IFR flight plan within controlled airspace and principally during the enroute phase of flight.

ATC - Air Traffic Control - The control of aircraft traffic, in the vicinity of airports from control towers, and in the airways between airports from control centers.

ATCT – Air Traffic Control Tower - A central operations tower in the terminal air traffic control system with an associated IFR room if radar equipped, using air/ground communications and/or radar, visual signaling and other devices to provide safe, expeditious movement of air traffic.

Avionics – Airborne navigation, communications, and data display equipment required for operation under specific air traffic control procedures.

Altitude MSL – Aircraft altitude measured in feet above mean sea level.

B

Backblast - Low frequency noise and high velocity air generated by jet engines on takeoff.

Base Leg – A flight path at right angles to the landing runway. The base leg normally extends from the downwind leg to the intersection of the extended runway centerline.

C

Center – See ARTCC.

CNEL – Community Noise Equivalent Level - A noise metric required by the California Airport Noise Standards for use by airport proprietors to measure aircraft noise levels. CNEL includes an additional weighting for each event occurring during the evening (7:00 PM – 9:59 PM) and nighttime (10 pm – 6:59 am) periods to account for increased sensitivity to noise during these periods. Evening events are treated as though there were three and nighttime events are treated as though there were ten. This results in a 4.77 and 10 decibel penalty

penalty for operations occurring in the evening and nighttime periods, respectively.

CNEL Contour - The "map" of noise exposure around an airport as expressed using the CNEL metric. A CNEL contour is computed using the FAA-approved Integrated Noise Model (INM), which calculates the aircraft noise exposure near an airport.

Commuter Airline – Operator of small aircraft (maximum size of 30 seats) performing scheduled (maximum size of 30 seats) performing service between two or more points.

D

Decibel (dB) - In sound, decibels measure a scale from the threshold of human hearing, 0 dB, upward towards the threshold of pain, about 120-140 dB. Because decibels are such a small measure, they are computed logarithmically and cannot be added arithmetically. An increase of ten dB is perceived by human ears as a doubling of noise.

dBA - A-weighted decibels adjust sound pressure towards the frequency range of human hearing.

dBc - C-weighted decibels adjust sound pressure towards the low frequency end of the spectrum. Although less consistent with human hearing than A-weighting, dBc can be used to consider the impacts of certain low frequency operations.

Decision Height – The height at which a decision must be made during an instrument approach either to continue the approach or to execute a missed approach.

Departure – The act of an aircraft taking off from an airport.

Departure Procedure – A published IFR departure procedure describing specific criteria for climb, routing, and communications for a specific runway at an airport.

Displaced Threshold - A threshold that is located at a point on the runway other than the physical beginning. Aircraft can begin departure roll before the threshold, but cannot land before it.

DME - Distance Measuring Equipment - Equipment (airborne and ground) used to measure, in nautical miles, a slant range distance of an aircraft from the DME navigational aid.

DNL - Day/Night Average Sound Level - The daily average noise metric in which that noise occurring between 10:00 p.m. and 7:00 a.m. is penalized by 10 dB. DNL is often expressed as the annual-average noise level.

DNL Contour - The "map" of noise exposure around an airport as expressed using the DNL metric. A DNL contour is computed using the FAA-approved Integrated Noise Model (INM), which calculates the aircraft noise exposure near an airport.

Downwind Leg – A flight path parallel to the landing runway in the direction opposite the landing direction.

Duration - The length of time in seconds that a noise event lasts. Duration is usually measured in time above a specific noise threshold.

E

En route – The portion of a flight between departure and arrival terminal areas.

Exceedance— Whenever an aircraft overflight produces a noise level higher than the maximum decibel value established for a particular monitoring site, the noise threshold is surpassed and a noise exceedance occurs. An exceedance may take place during approach, takeoff, or possibly during departure ground roll before lifting off.

F

FAA - The Federal Aviation Administration is the agency responsible for aircraft safety, movement and controls. FAA also administers grants for noise mitigation projects and approves certain aviation studies including FAR Part 150 studies, Environmental Assessments, Environmental studies, Environmental Assessments, Environmental Impact Statements, and Airport Layout Plans.

FAR – Federal Aviation Regulations are the rules and regulations, which govern the operation of aircraft, airways, and airmen.

FAR Part 36 – A Federal Aviation Regulation defining maximum noise emissions for aircraft.

FAR Part 91 – A Federal Aviation Regulation governing the phase out of Stage 1 and 2 aircraft as defined under FAR Part 36.

FAR Part 150 – A Federal Aviation Regulation governing noise and land use compatibility studies and programs.

FAR Part 161 – A Federal Aviation Regulation governing aircraft noise and access restrictions.

Fix – A geographical position determined by visual references to the surface, by reference to one or more NavAids, or by other navigational methods.

Fleet Mix – The mix or differing aircraft types operated at a particular airport or by an airline.

Flight Plan – Specific information related to the intended flight of an aircraft. A flight plan is filed with a Flight Service Station or Air Traffic Control facility.

FMS – Flight Management System - a specialized computer system in an aircraft that automates a number of in-flight tasks, which reduces flight crew workload and improves the precision of the procedures being flown.

G

GA - General Aviation – Civil aviation excluding air carriers, commercial operators and military aircraft.

GAP Departure – An aircraft departure via Runways 28 at San Francisco International Airport to the west over San Bruno, South San Francisco, Daly City, and Pacifica.

Glide Slope – Generally a 3-degree angle of approach to a runway established by means of airborne instruments during instrument approaches, or visual ground aids for the visual portion of an instrument approach and landing.

GPS - Global Positioning System – A satellite based radio positioning, navigation, and time-transfer system.

GPU - Ground Power Unit – A source of power, generally from the terminals, for aircraft to use while their engines are off to power the electrical and ventilation systems on the aircraft.

Ground Effect – The excess attenuation attributed to absorption or reflection of noise by manmade or natural features on the ground surface.

Ground Track – is the path an aircraft would follow on the ground if its airborne flight path were plotted on the ground the terrain.

H

High Speed Exit Taxiway – A taxiway designed and provided with lighting or marking to define the path of aircraft traveling at high speed from the runway center to a point on the center of the taxiway.

I

IDP - Instrument Departure Procedure - An aeronautical chart designed to expedite clearance delivery and to facilitate transition between takeoff and en route operations. IDPs were formerly known as SIDs or Standard Instrument Departure Procedures.

IFR - Instrument Flight Rules -Rules and regulations established by the FAA to govern flight under conditions in which flight by visual reference is not safe.

ILS - Instrument Landing System – A precision instrument approach system which normally consists of a localizer, glide slope, outer marker, middle marker, and approach lights.

IMC – Instrument Meteorological Conditions - Weather conditions expressed in terms of visibility, distance from clouds, and cloud ceilings during which all aircraft are required to operate using instrument flight rules.

Instrument Approach – A series of predetermined maneuvers for the orderly transfer of an aircraft under instrument flight conditions from the beginning of the initial approach to a landing, or to a point from which a landing may be made visually.

J

K

Knots – A measure of speed used in aerial navigation. One knot is equal to one nautical mile per hour (100 knots = 115 miles per hour).

L

Load Factor – The percentage of seats occupied in an aircraft.

Lmax – The peak noise level reached by a single aircraft event.

Localizer – A navigational aid that consists of a directional pattern of radio waves modulated by two signals which, when receding with equal intensity, are displayed by compatible airborne equipment as an “on-course” indication, and when received in unequal intensity are displayed as an “off-course” indication.

LDA – Localizer Type Directional Aid – A facility of comparable utility and accuracy to a localizer, but not part of a complete ILS and not aligned with the runway.

M

Middle Marker - A beacon that defines a point along the glide slope of an ILS, normally located at or near the point of decision height.

Missed Approach Procedure – A procedure used to redirect a landing aircraft back around to attempt another landing. This may be due to visual contact not established at authorized minimums or instructions from air traffic control, or for other reasons.

N

NAS – National Airspace System - The common network of U.S. airspace; air navigation facilities, equipment and services, airports or landing areas; aeronautical charts, information and services; rules, regulations and procedures, technical information, manpower and material.

Nautical Mile – A measure of distance used in air and sea navigation. One nautical mile is equal to the length of one minute of latitude along the earth's equator. The nautical mile was officially set as 6076.115 feet. (100 nautical miles = 115 statute miles)

Navaid – Navigational Aid.

NCT – Northern California TRACON – The air traffic control facility that guides aircraft into and out of San Francisco Bay Area airspace.

NDB – Non-Directional Beacon - Signal that can be read by pilots of aircraft with direction finding equipment. Used to determine bearing and can “home” in or track to or from the desired point.

NEM – Noise Exposure Map – A FAR Part 150 requirement prepared by airports to depict noise contours. NEMs also take into account potential land use changes around airports.

NextGen – The Next Generation of the national air transportation system. NextGen represents the movement from ground-based navigation aids to satellite-based navigation.

NMS – See RMS

Noise Contour – See CNEL and DNL Contour.

Non-Precision Approach Procedure – A standard instrument approach procedure in which no electronic glide slope is provided.

O

Offset ILS – Offset Parallel Runways – Staggered runways having centerlines that are parallel.

Operation – A take-off, departure or overflight of an aircraft. Every flight requires at least two operations, a take-off and landing.

Outer Marker – An ILS navigation facility in the terminal area navigation system located four to seven miles from the runways edge on the extended centerline indicating the beginning of final approach.

Overflight – Aircraft whose flights originate or terminate outside the metropolitan area that transit the airspace without landing.

P

PASSUR System – Passive Surveillance Receiver - A system capable of collecting and plotting radar tracks of individual aircraft in flight by passively receiving transponder signals.

PAPI – Precision Approach Path Indicator - An airport lighting facility in the terminal area used under VFR conditions. It is a single row of two to four lights, radiating high intensity red or white beams to indicate whether the pilot is above or below the required runway approach path.

PBN –Performance Based Navigation - Area navigation based on performance requirements for aircraft operating along an IFR route, on an instrument approach procedure or in a designated airspace.

Preferential Runways - The most desirable runways from a noise abatement perspective to be assigned whenever safety, weather, and operational efficiency permits.

Precision Approach Procedure – A standard instrument approach procedure in which an electronic glide slope is provided, such as an ILS. GPS precision approaches may be provided in the future.

PRM – Precision Runway Monitoring – A system of high-resolution monitors for air traffic controllers to use in landing aircraft on parallel runways separated by less than 4,300’.

Q

R

Radar Vectoring – Navigational guidance where air traffic controller issues a compass heading to a pilot.

Reliever Airport – An airport for general aviation and other aircraft that would otherwise use a larger and busier air carrier airport.

RMS – Remote Monitoring Site - A microphone placed in a community and recorded at San Francisco International Airport's Noise Monitoring Center. A network of 29 RMS's generate data used in preparation of the airport's Noise Exposure Map.

RNAV – Area Navigation - A method of IFR navigation that allows an aircraft to choose any course within a network of navigation beacons, rather than navigating directly to and from the beacons. This can conserve flight distance, reduce congestion, and allow flights into airports without beacons.

RNP – Required Navigation Performance - A type of performance-based navigation (PBN) that allows an aircraft to fly a specific path between two 3- dimensionally defined points in space. RNAV and RNP systems are fundamentally similar. The key difference between them is the requirement for on- board performance monitoring and alerting. A navigation specification that includes a requirement for on-board navigation performance monitoring and alerting is referred to as an RNP specification. One not having such a requirement is referred to as an RNAV specification.

Run-up – A procedure used to test aircraft engines after maintenance to ensure safe operation prior to returning the aircraft to service. The power settings tested range from idle to full power and may vary in duration.

Run-up Locations - Specified areas on the airfield where scheduled run-ups may occur. These locations are sited, so as to produce minimum noise impact in surrounding neighborhoods.

Runway – A long strip of land or water used by aircraft to land on or to take off from.

S

Sequencing Process – Procedure in which air traffic is merged into a single flow, and/or in which adequate separation is maintained between aircraft.

Shoreline Departure – Departure via Runways 28 that utilizes a right turn toward San Francisco Bay as soon as feasible. The Shoreline Departure is considered a noise abatement departure procedure.

SENEL – Single Event Noise Exposure Level - The noise exposure level of a single aircraft event measured over the time between the initial and final points when the noise level exceeds a predetermined threshold. It is important to distinguish single event noise levels from cumulative noise levels such as CNEL. Single event noise level numbers are generally higher than CNEL numbers, because CNEL represents an average noise level over a period of time, usually a year.

Single Event – Noise generated by a single aircraft over-flight.

SOIA – Simultaneous Offset Instrument Approach

Is an approach system permitting simultaneous Instrument Landing System approaches to airports having staggered but parallel runways. SOIA combines Offset ILS and regular ILS definitions.

STAR – Standard Terminal Arrival Route is a published IFR arrival procedure describing specific criteria for descent, routing, and communications for a specific runway at an airport.

T

Taxiway – A paved strip that connects runways and terminals providing the ability to move aircraft so they will not interfere with takeoffs or landings.

Terminal Airspace - The air space that is controlled by a TRACON.

Terminal Area – A general term used to describe airspace in which approach control service or airport traffic control service is provided.

Threshold – Specified boundary.

TRACON -Terminal Radar Approach Control – is an FAA air traffic control service to aircraft arriving and departing or transiting airspace controlled by the facility. TRACONS control IFR and participating VFR flights. TRACONS control the airspace from Center down to the ATCT.

U

V

Vector – A heading issued to a pilot to provide navigational guidance by radar. Vectors are assigned verbally by FAA air traffic controllers.

VFR – Visual Flight Rules are rules governing procedures for conducting flight under visual meteorological conditions, or weather conditions with a ceiling of 1,000 feet above ground level and visibility of three miles or greater. It is the pilot's responsibility to maintain visual separation, not the air traffic controller's, under VFR.

Visual Approach – Wherein an aircraft on an IFR flight plan, operating in VFR conditions under the control of an air traffic facility and having an air traffic control authorization, may proceed to destination airport under VFR.

VASI – Visual Approach Slope Indicator - An airport lighting facility in the terminal area navigation system used primarily under VFR conditions. It provides vertical visual guidance to aircraft during approach and landing, by radiating a pattern of high intensity red and white focused light beams, which indicate to the pilot that he/she is above, on, or below the glide path.

VMC – Visual Meteorological Conditions - weather conditions equal to or greater than those specified for aircraft operations under Visual Flight Rules (VFR).

VOR - Very High Frequency Omni-directional Range – A ground based electronic navigation aid transmitting navigation signals for 360 degrees oriented from magnetic north. VOR is the historic basis for navigation in the national airspace system.

W

X

Y

how to reach us

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