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

ROUNDTABLE REGULAR MEETING

Meeting No. 290
Wednesday, April 2, 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.

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.

3. Review of Airport Director's Reports for: ACTION
January 2014 pg. 11
February 2014 pg. 19

4. Review of Roundtable Regular Meeting Overview for: ACTION
November 6, 2013 pg. 27
January 29, 2014 pg. 33

REGULAR AGENDA – PRESENTATION ITEMS

5. Review of SFO FlyQuiet Report for Q3 2013 ACTION
Bert Ganoung, Manager - Aircraft Noise Abatement Office pg. 39

6. Airport Director's Comments INFORMATION
John Martin, Director – San Francisco International Airport

REGULAR AGENDA – WORK PROGRAM ITEMS

7. Discussion, Optimization of Airspace & Procedures in the Metroplex (OAPM) Environmental Review ACTION
Cliff Lentz, Roundtable Chairperson

OTHER MATTERS

8. Airport Noise Briefing INFORMATION
Cindy Gibbs, Roundtable Aviation Technical Consultant

9. Member Communications / Announcements INFORMATION
Roundtable Members and Staff

10. Adjourn ACTION
Cliff Lentz, Roundtable Chairperson

Correspondences pg. 53
Airport Noise Industry News pg. 69
Glossary of Common Acoustic & Air Traffic Control Terms pg. 79

Next Regular Roundtable Meeting Date: Wednesday, June 4, 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.

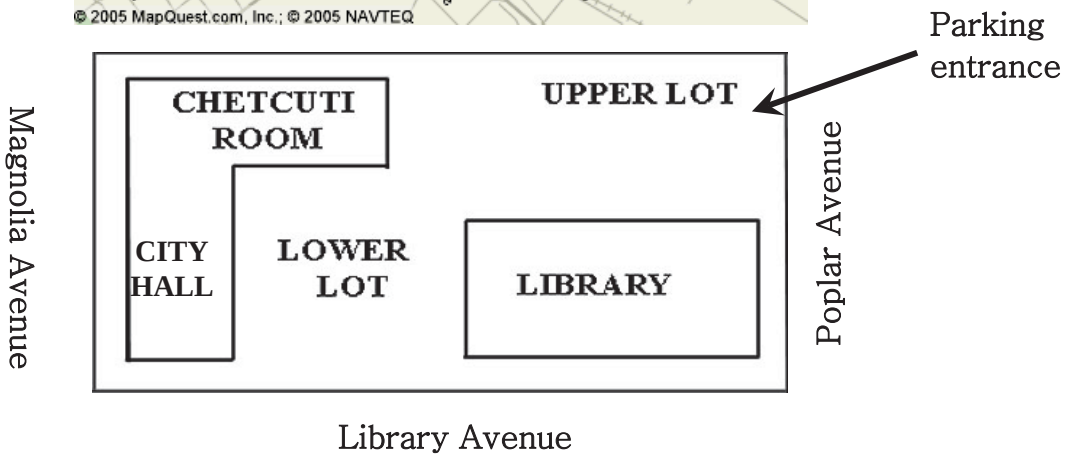
San Francisco International
Airport/Community Roundtable

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

ROUNDTABLE REGULAR MEETING LOCATION

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

Access through Millbrae Library parking lot on Poplar Avenue



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

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)).

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

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
April 2014

Chairperson:
CLIFF LENTZ
Representative, City of Brisbane
clifflentz@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

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

MEMBERSHIP ROSTER APRIL 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 APRIL 2014

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

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 # 290
April 2, 2014

Agenda Items 3 & 4

(This page is left intentionally blank)

SFO

San Francisco International Airport

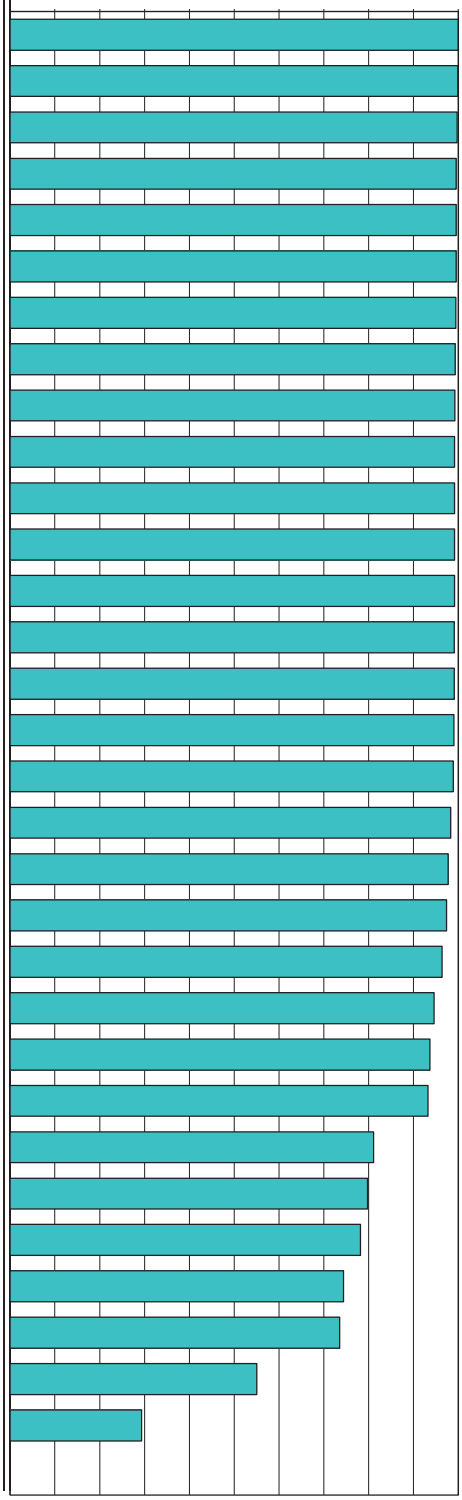
Airport Director's Report

Presented at the April 2, 2014
Airport Community Roundtable Meeting
SFO Aircraft Noise Abatement Office
January 2014

Monthly Noise Exceedance Report
San Francisco International Airport -- Director's Report
Period: **January 2014**

Airline		Noise Exceedances: *Total Noise Exceedances*	*Total Operations per Month*	*Exceedances per 1,000 Operations*	***Score***
Compass Airlines	CPZ	1	828	1	***9.99***
SkyWest Airlines	SKW	18	8,279	2	***9.99***
DELTA	DAL	7	1,265	6	***9.97***
Alaska Airlines	ASA	7	802	9	***9.95***
Lufthansa	DLH	1	114	9	***9.95***
American Airlines	AAL	16	1,697	9	***9.95***
U·S AIRWAYS	AWE	9	838	11	***9.94***
Virgin America	VRD	36	2,894	12	***9.93***
FRONTIER	FFT	3	218	14	***9.93***
AIR NEW ZEALAND	ANZ	1	62	16	***9.91***
BRITISH AIRWAYS	BAW	2	124	16	***9.91***
HAWAIIAN AIRLINES	HAL	1	62	16	***9.91***
SWISS	SWR	1	62	16	***9.91***
AIR CHINA 中国国际航空公司	CCA	1	61	16	***9.91***
jetBlue	JBU	11	658	17	***9.91***
SOUTHWEST AIRLINES	SWA	39	2,211	18	***9.91***
AIR CANADA	ACA	9	433	21	***9.89***
AEROMEXICO.	AMX	6	189	32	***9.83***
UNITED	UAL	378	8,927	42	***9.77***
virgin atlantic	VIR	3	62	48	***9.74***
AirTran	TRS	4	59	68	***9.63***
TACA	TAI	9	89	101	***9.46***
FedEx	FDX	8	68	118	***9.37***
ABX AIR	ABX	11	88	125	***9.33***
CATHAY PACIFIC	CPA	45	128	352	***8.11***
EVA AIR	EVA	47	125	376	***7.98***
NCA Nippon Cargo Airlines	NCA	17	42	405	***7.82***
KOREAN AIR	KAL	57	120	475	***7.44***
SINGAPORE AIRLINES	SIA	61	124	492	***7.35***
ASIANA AIRLINES	AAR	96	115	835	***5.51***
Philippines	PAL	84	64	1,313	***2.93***
CHINA AIRLINES	CAL	195	105	1,857	***0.00***
TOTAL		**1,184**	**30,913**	**6,847**	

Noise Exceedance Quality Rating



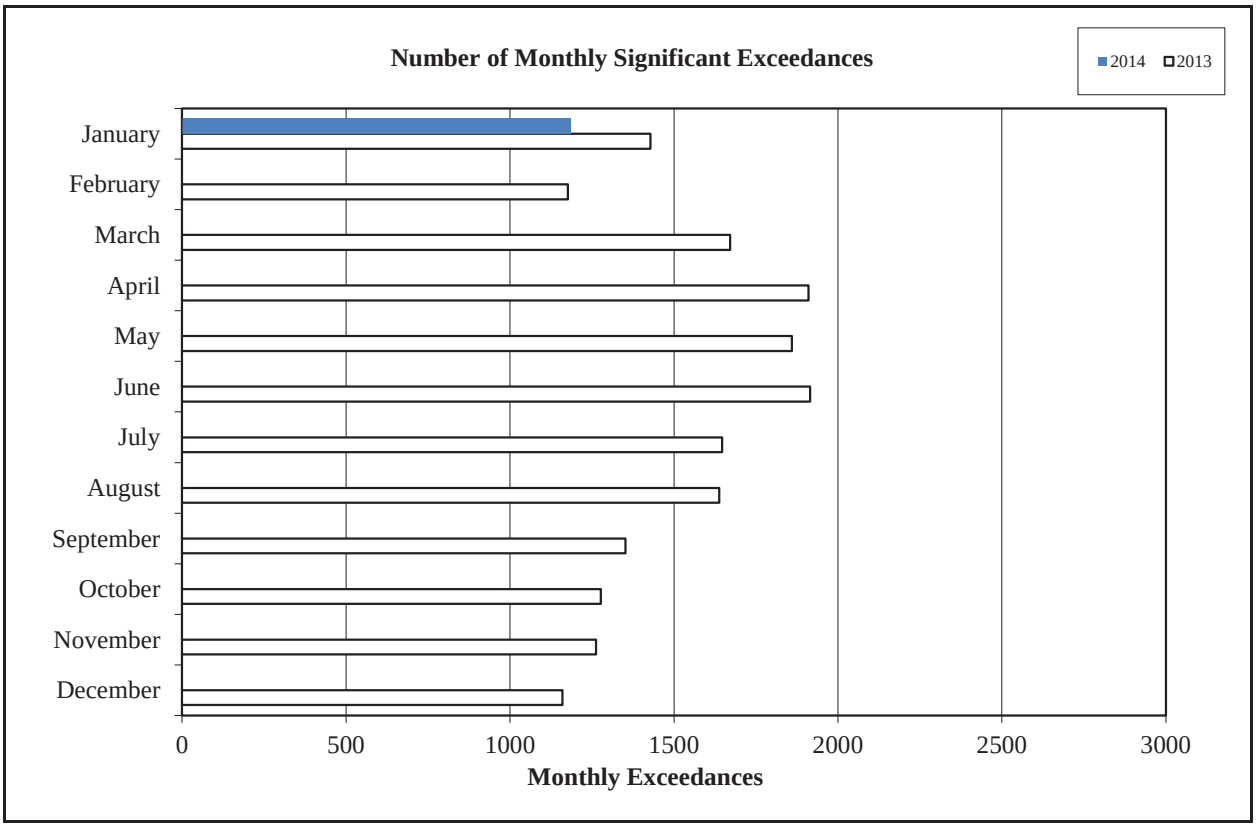
Source: SFO Noise Abatement Office

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

San Francisco International Airport

Month	Number of Monthly Significant Exceedances 2010	2011	2012	2013	2014	Change from Last Year
January	1312*	1580	1378	1428	1184	**-244**
February	1297*	1429	1581	1176		**0**
March	1778	1681	1703	1671		**0**
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	1184	
Year to Date Trend	**20071**	**20628**	**21256**	**18295**	**1184**	**-244**

(#) Number of new noise monitors - EMUs
* 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

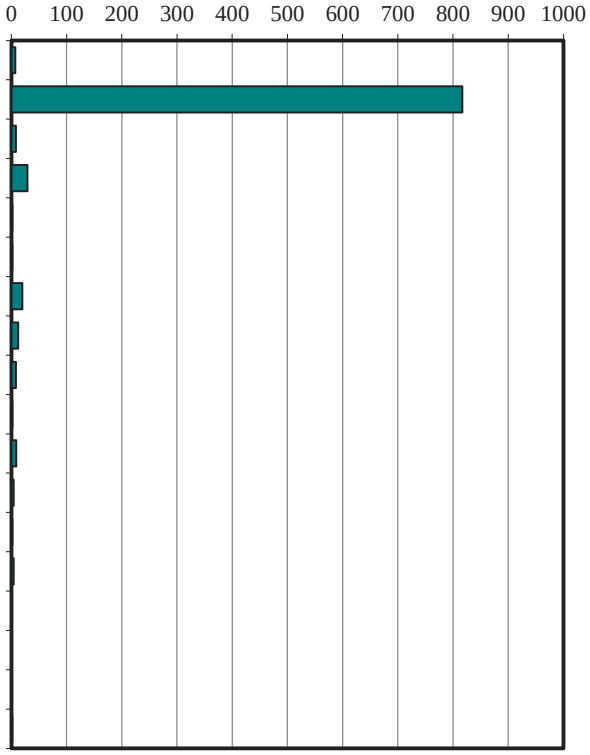


Monthly Calls by Community

Source: Airport Noise Monitoring System

Community	Total Complaints	Total Number of Callers
Roundtable Communities		
Atherton	7	2
Brisbane	817	10
Burlingame	8	6
Daly City	29	3
Foster City	2	1
Menlo Park	2	1
Millbrae	20	7
Pacifica	12	3
Portola Valley	8	4
San Bruno	2	2
San Francisco	9	4
San Mateo	4	3
South San Francisco	2	2
Woodside	4	1
Other Communities		
Berkeley	1	1
Palo Alto	2	2
Total	**929**	**52**

Total Complaints

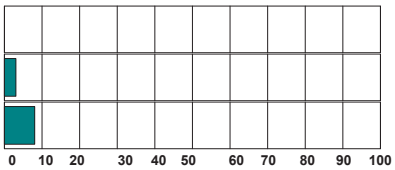


Monthly Noise Complaint Summary Map January 2014

Caller Location and Amount of Complaints

Monthly Nighttime Power Runups Report (85-06-AOB)
San Francisco International Airport -- Director's Report
Period : **January 2014**
Time of Day : From 10 pm through 7 am

Airline	Code	Number of Runups	Runups Per 1,000 Departures	Percentage of Runups
Virgin America	VRD	1	0.7	7%
American Airlines	AAL	4	4.6	29%
UNITED	UAL	9	2.0	64%
Total		**14**		



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.

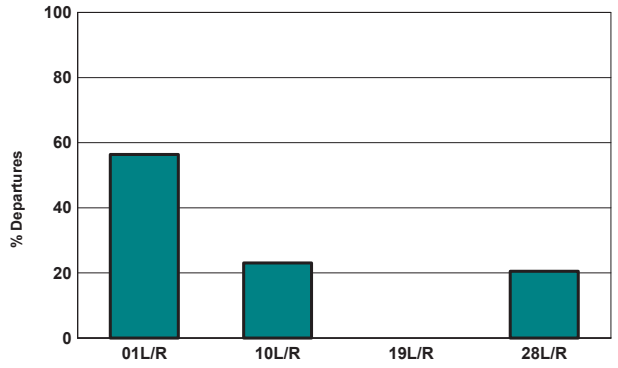
Late Night Preferential Runway Use Report
San Francisco International Airport -- Director's Report
Period: January 2014
Time of Day: Late Night (1 am to 6 am)

Runway Utilization (1 am to 6 am)

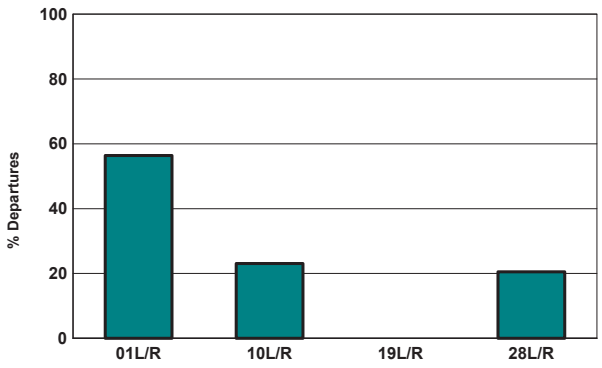
Monthly Jet Departures

	Jan	*Feb*	*Mar*	*Apr*	*May*	*Jun*	*Jul*	*Aug*	*Sep*	*Oct*	*Nov*	*Dec*	*YTD*
01L/R	110	-	-	-	-	-	-	-	-	-	-	-	110
10L/R	45	-	-	-	-	-	-	-	-	-	-	-	45
19L/R	-	-	-	-	-	-	-	-	-	-	-	-	0
28L/R	40	-	-	-	-	-	-	-	-	-	-	-	40
Total	**195**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**195**
01L/R	56%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	56%
10L/R	23%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	23%
19L/R	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
28L/R	21%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	21%

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

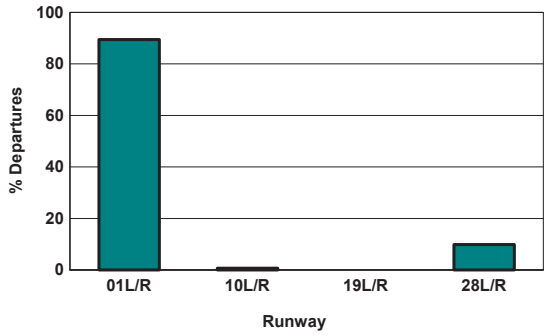
Air Carrier Runway Use Summary Report
San Francisco International Airport -- Director's Report
Period: January 2014
Time of Day : All Hours

Runway Utilization (All Hours)

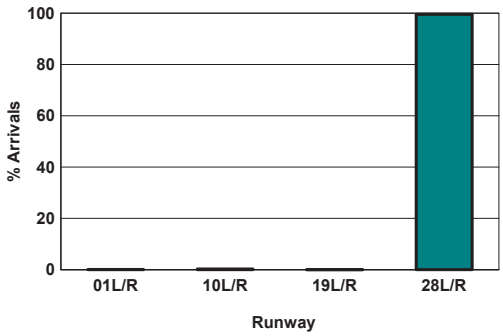
Source: Airport Noise Monitoring System

	Runway Utilization				Total
	01L/R	*10L/R*	*19L/R*	*28L/R*	
Total Monthly Operations					
Departures	14,437	106	0	1,596	16,139
Arrivals	16	47	1	15,683	15,747
Percentage Utilization					
Departures	89.5%	0.7%	0.0%	9.9%	100%
Arrivals	0.1%	0.3%	0.0%	99.6%	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

SFO

San Francisco International Airport

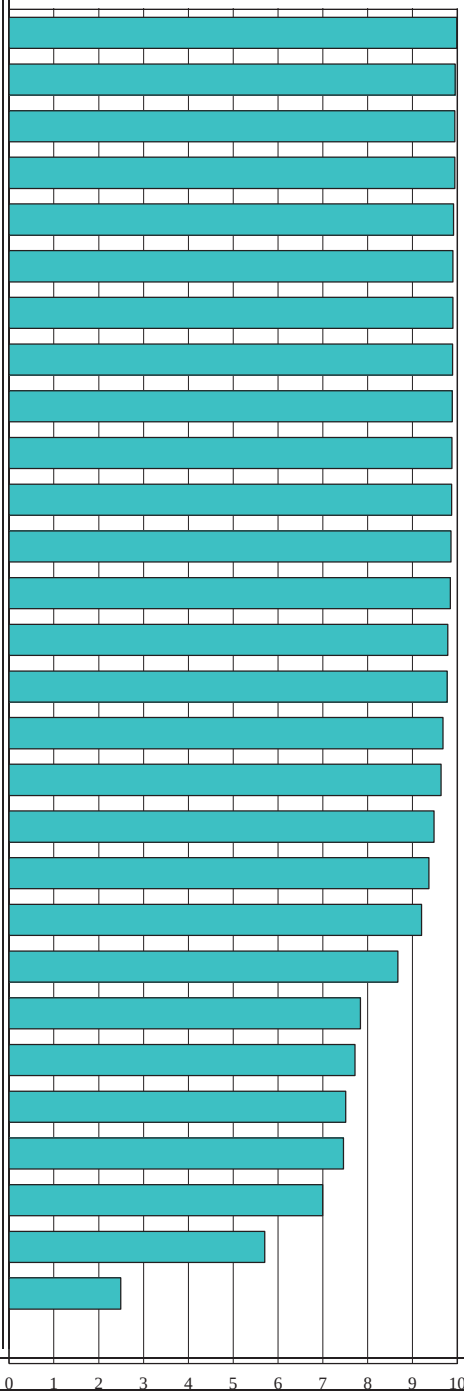
Airport Director's Report

Presented at the April 2, 2014
Airport Community Roundtable Meeting
SFO Aircraft Noise Abatement Office
February 2014

Monthly Noise Exceedance Report
San Francisco International Airport -- Director's Report
Period: **February 2014**

Airline		Noise Exceedances: *Total Noise Exceedances*	*Total Operations per Month*	*Exceedances per 1,000 Operations*	***Score***
SkyWest	SKW	12	6,882	2	***9.99***
British Airways	BAW	1	114	9	***9.95***
Frontier	FFT	2	200	10	***9.94***
Compass Airlines	CPZ	8	767	10	***9.94***
Delta	DAL	16	1,106	14	***9.92***
Air China	CCA	1	57	18	***9.90***
Hawaiian Airlines	HAL	1	56	18	***9.90***
US Airways	AWE	14	719	19	***9.89***
American Airlines	AAL	29	1,488	19	***9.89***
jetBlue	JBU	13	605	21	***9.88***
Virgin America	VRD	58	2,493	23	***9.87***
Alaska Airlines	ASA	18	697	26	***9.86***
Southwest Airlines	SWA	54	1,940	28	***9.84***
Air Canada	ACA	15	392	38	***9.79***
United	UAL	324	8,076	40	***9.78***
Aeromexico	AMX	8	139	58	***9.68***
Taca	TAI	5	78	64	***9.64***
AirTran	TRS	5	54	93	***9.48***
FedEx	FDX	7	62	113	***9.37***
Air New Zealand	ANZ	8	56	143	***9.20***
ABX Air	ABX	18	76	237	***8.67***
Cathay Pacific	CPA	44	114	386	***7.84***
EVA Air	EVA	44	108	407	***7.72***
Nippon Cargo Airlines	NCA	16	36	444	***7.51***
Korean Air	KAL	49	108	454	***7.46***
Singapore Airlines	SIA	60	112	536	***7.00***
Asiana Airlines	AAR	79	103	767	***5.70***
Philippines	PAL	75	56	1,339	***2.49***
China Airlines	CAL	157	88	1,784	***0.00***
TOTAL		**1,141**	**26,782**	**7,121**	

Noise Exceedance Quality Rating



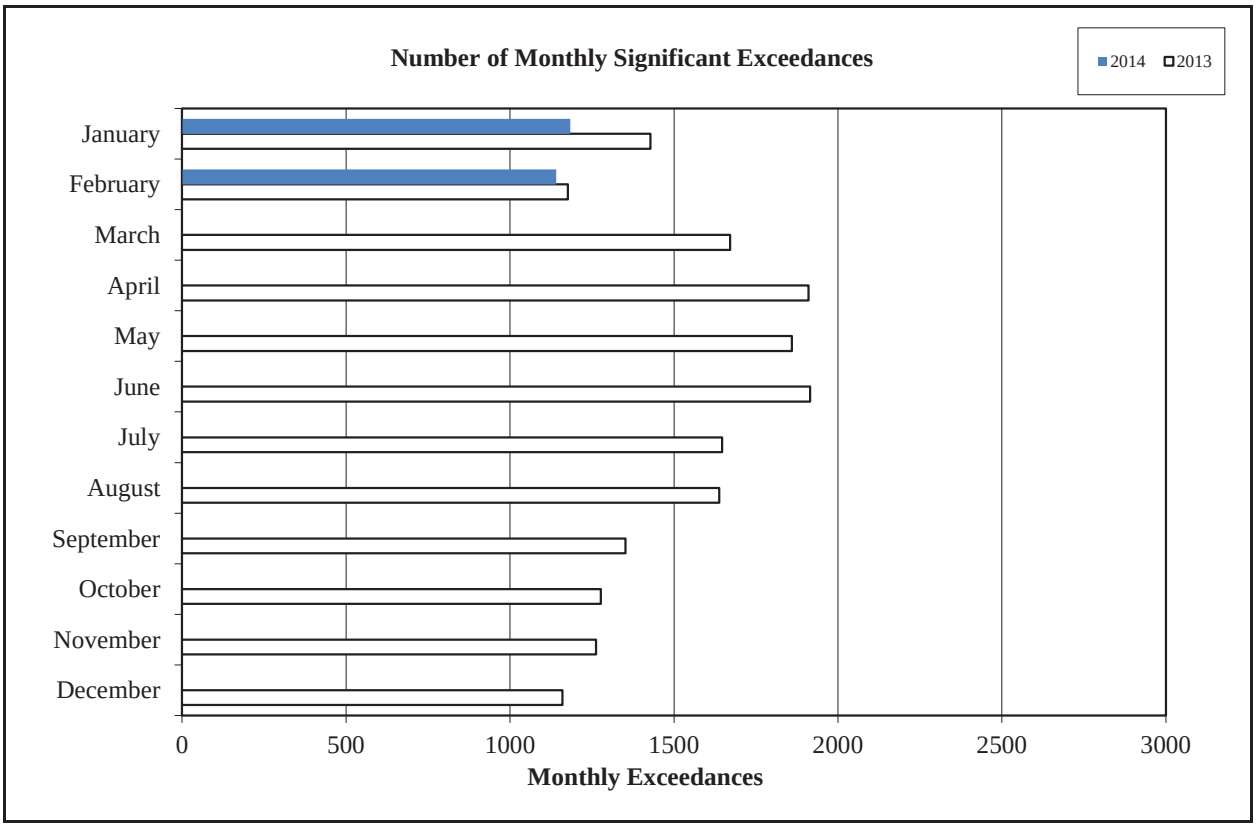
Source: SFO Noise Abatement Office

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

San Francisco International Airport

Month	Number of Monthly Significant Exceedances 2010	2011	2012	2013	2014	Change from Last Year
January	1312*	1580	1378	1428	1184	**-244**
February	1297*	1429	1581	1176	1141	**-35**
March	1778	1681	1703	1671		**0**
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	2325	
Year to Date Trend	**20071**	**20628**	**21256**	**18295**	**2325**	**-279**

* 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 Calls by Community

Source: Airport Noise Monitoring System

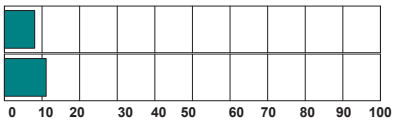
Community	Total Complaints	Total Number of Callers
Roundtable Communities		
Atherton	8	3
Brisbane	701	11
Burlingame	2	2
Daly City	175	3
Foster City	3	2
Millbrae	3	3
Pacifica	2	1
Portola Valley	7	4
Redwood City	2	1
San Bruno	1	1
San Carlos	1	1
San Francisco	9	6
San Mateo	1	1
South San Francisco	3	3
Other Communities		
Alameda	2	2
Belvedere-Tiburon	5	3
Corte Madera	1	1
El Cerrito	2	1
Hayward	1	1
Mill Valley	1	1
Oakland	2	1
Orinda	1	1
Palo Alto	2	1
San Ramon	1	1
Total	**936**	**55**

Total Complaints

Monthly Noise Complaint Summary Map February 2014

Monthly Nighttime Power Runups Report (85-06-AOB)
San Francisco International Airport -- Director's Report
Period : **February 2014**
Time of Day : From 10 pm through 7 am

Airline	Code	Number of Runups	Runups Per 1,000 Departures	Percentage of Runups
UNITED	UAL	9	2.2	43%
American Airlines	AAL	12	15.9	57%
Total		**21**		



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.

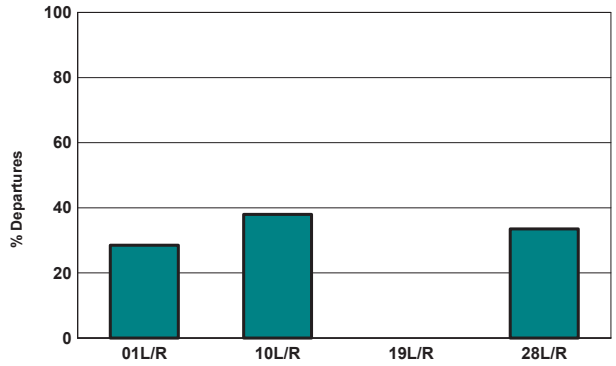
Late Night Preferential Runway Use Report
San Francisco International Airport -- Director's Report
Period: February 2014
Time of Day: Late Night (1 am to 6 am)

Runway Utilization (1 am to 6 am)

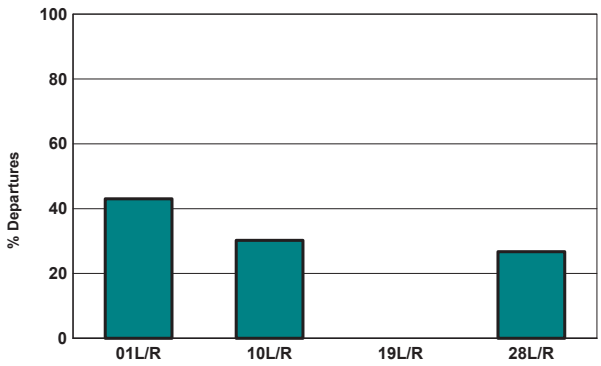
Monthly Jet Departures

	Jan	*Feb*	*Mar*	*Apr*	*May*	*Jun*	*Jul*	*Aug*	*Sep*	*Oct*	*Nov*	*Dec*	*YTD*
01L/R	110	51	-	-	-	-	-	-	-	-	-	-	161
10L/R	45	68	-	-	-	-	-	-	-	-	-	-	113
19L/R	-	-	-	-	-	-	-	-	-	-	-	-	0
28L/R	40	60	-	-	-	-	-	-	-	-	-	-	100
Total	**195**	**179**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**374**
01L/R	56%	28%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	43%
10L/R	23%	38%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	30%
19L/R	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
28L/R	21%	34%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	27%

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

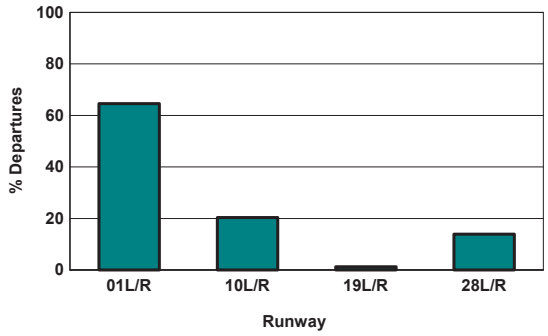
Air Carrier Runway Use Summary Report
San Francisco International Airport -- Director's Report
Period: February 2014
Time of Day : All Hours

Runway Utilization (All Hours)

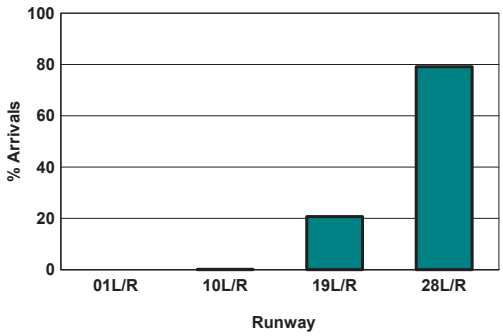
Source: Airport Noise Monitoring System

	Runway Utilization				Total
	01L/R	*10L/R*	*19L/R*	*28L/R*	
Total Monthly Operations					
Departures	9,099	2,870	174	1,957	14,100
Arrivals	0	24	2,849	10,891	13,764
Percentage Utilization					
Departures	64.5%	20.4%	1.2%	13.9%	100%
Arrivals	0.0%	0.2%	20.7%	79.1%	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

SFO Airport/Community Roundtable

Meeting No. 288 Overview
Wednesday, November 6, 2013

1. Call to Order / Roll Call / Declaration of a Quorum Present

Roundtable Chairperson, Jeffrey Gee, called the Regular Meeting of the SFO Airport/ Community Roundtable to order, at approximately 7:04 p.m., in the David Chetcuti Community Room at the Millbrae City Hall. James A. Castañeda, AICP, Roundtable Coordinator, called the roll. A quorum (at least 12 Regular Members) was **NOT** present as follows:

REGULAR MEMBERS PRESENT
John Martin – City and County of San Francisco Airport Commission
Dave Pine – County of San Mateo Board of Supervisors
Cliff Lentz – City of Brisbane
Michael Brownrigg – City of Burlingame
Carol Klatt – City of Daly City
Naomi Patridge, Roundtable Vice-chairperson – City of Half Moon Bay
Sue Digre – City of Pacifica
Ann Wengert – Town of Portola Valley
Jeffrey Gee, Roundtable Chairperson – City of Redwood City
Pradeep Gupta – City of South San Francisco
David Burow – Town of Woodside

REGULAR MEMBERS ABSENT
City and County of San Francisco Board of Supervisors (Vacant)
City and County of San Francisco Mayor's Office
C/CAG Airport Land Use Committee (ALUC)
Town of Atherton
City of Belmont
City of Foster City
Town of Hillsborough
City of Menlo Park
City of Millbrae
City of San Bruno
City of San Carlos
City of San Mateo

ADVISORY MEMBERS PRESENT
Don Kirby – Northern California TRACON
Patty Daniel – Federal Aviation Administration
Dave Foyle – Federal Aviation Administration, Sierra-Pacific District
Glen Morse – United Airlines

ROUNDTABLE STAFF
James A. Castañeda, AICP – Roundtable Coordinator
Cindy Gibbs – Roundtable Technical Support (Consultant)
Harvey Hartmann – Roundtable Technical Support (Consultant)

SAN FRANCISCO INTERNATIONAL AIRPORT STAFF
Bert Ganoung, Noise Abatement Manager
David Ong, Noise Abatement Systems Manager
John Hampel, Noise Abatement Specialist

2. Public Comments on Items NOT on the Agenda

A Millbrae resident by the name of Tanya expressed her concern for the increase of noise and vibration experienced in the last month, and is occurring during the hours between midnight and 6:00 a.m. Airport Director John Martin responded by indicating the Airport Noise Abatement staff was present, and would be more than happy to discuss the issues after the meeting.

CONSENT AGENDA

3. Review of Airport Director's Report for August 2013 and September 2013

4. Review of Roundtable Regular Meeting Overview for September 4, 2013

DISCUSSION: None

ACTION: No action was taken due to lack of a quorum.

REGULAR AGENDA – PRESENTATION ITEMS

5. Review of SFO FlyQuiet Report for Q3 2013

Bert Ganoung, Noise Abatement Manager, provided an overview of the SFO FlyQuiet Report for the third quarter of 2013 included in the meeting packet. Mr. Ganoung mentioned the increased use of the Shoreline Departure procedure, and indicated this is the highest scores since 2008.

DISCUSSION: Woodside representative David Burow questions why United Airlines, with over 2,600 departures utilizing the Gap Departure procedure, is near the bottom of the list. Mr. Ganoung indicated a mix of reasons, ranging from possible seasonal trends, equipment mix, and the Flight Management System programmed for a departure profile that optimizes for fuel economy versus noise abatement. United Airlines representative Glen Morse responded that the Boeing 747, commonly used for long distance flights from SFO, is generally a poor performing aircraft. Mr. Morse confirmed that equipment mix and flight automation is most often the combining cause for the poor Gap Departure performance, but that United is making efforts to transition to newer, better performing aircraft.

ACTION: No action was taken due to lack of a quorum.

6. Airport Director's Comments

Airport Director John Martin indicated that overall trends are flatting out, but seeing a slight drop in domestic traffic, but an increase in international traffic. Mr. Martin reported that the Shoreline Departure procedure has incurred its highest use as of late, which provides relief to the areas of South San Francisco, San Bruno and parts of Brisbane. Roundtable representatives were

encouraged to take advantage of the presentation briefings Airport Public Information Officer Doug Yakel is offering to cities to inform them of the upcoming runway safety construction closures and its impacts. Finally, Mr. Martin indicated that a joint portable noise monitoring effort with Oakland International Airport is currently occurring in Woodside, and a portable noise monitor has been deployed in Portola Valley.

REGULAR AGENDA – WORK PROGRAM ITEMS

7. SFO Construction Update and Departure/Arrival affects

Bert Ganoung, Airport Noise Abatement Manager, reported no new additional news to provide regarding the upcoming runway safety construction. The airport continues to make appearances at City Council meetings to inform and educate of the construction occurring April through September 2014, and the expected impacts. San Mateo County representative Dave Pine praised the airport on their outreach efforts. Airport Public Information Officer Doug Yakel provided an overview of the entire federal mandated process, the multiple steps expected to be completed, as well as the arrival and departure procedures utilized during construction periods.

8. Update on FAA's PORTE Departure Analysis

Roundtable Chairperson Jeffrey Gee gave an overview of the meeting held in September, with Congresswomen Speier and Eshoo where the FAA and representatives of communities of Brisbane and Woodside were in attendance in order to discuss what can be done to provide relief to residences over those respective communities. No definitive answers or conclusions were reached regarding the efforts to do so, but the conversation is ongoing.

DISCUSSION: Cliff Lentz, Brisbane Representative, expressed that it was a productive meeting and great to have both Congresswomen in the room. He indicated initial discussion regarding the upcoming Environmental Assessment for the Optimization of Airspace and Procedures in the Metroplex (OAPM), and a possible additional public engagement "box" in the timeline. Brian Perkins, Congressional Aide to Congresswoman Jackie Speier, indicated that the FAA has a legal constraint to work within, but a "box" will be placed somewhere in the timeline process.

9. Work Program Subcommittee Recommendations, Oceanic Arrivals over the Woodside VOR

Roundtable Technical Consultant Cindy Gibbs provided a brief overview of the October 10, 2013 Work Program subcommittee meeting. The subcommittee agreed to recommend having aircraft monitored on a quarterly basis with deployed semi-portable noise monitors, and establish a noise decibel base level of 52-dB for daytime (7:00 a.m. to 10:00 p.m.) and 42-dB for nighttime readings. The Woodside location, at the OSI Woodside VOR, will also have equipment deployed from the Oakland International Airport Noise Office. The Portola Valley site was selected to be centered around the cluster of noise complaints received, and is located at a Cal Water site in the middle of a residential area.

DISCUSSION: Woodside resident Jim Lyons expressed concern with the underlying data presented in the packet's report, and does not correspond with data recorded from his backyard where over 60 events were greater than 80-dB. It was suggested to the Roundtable to not rely on the data as it is problematic.

10. Report, Optimization of Airspace and Procedures in the Metroplex (OAPM) Environmental Review

Chairperson Gee indicated looking forward to hearing from the FAA regarding how to participate in the OAPM process moving forward. It was indicated that public meetings were held in September; however, the notices were not received by City/County staff until after the meetings had occurred. With the recent Government shutdown, it is hoped that this will have created an opportunity to allow additional involvement and discussion from the Roundtable.

DISCUSSION: Woodside representative Dave Burrow asked what the timeline is now for the Environmental document. Chairperson Gee indicated early 2014, but unclear when the public "box" would be added that was discussed earlier in the meeting. Patty Daniel, Noral OAPM project manager for the FAA, indicated the draft Environmental Assessment is expected to be released in March 2014, and the final to be released in July 2014. When asked about the public "box," she indicated it will be based on the project scope currently being reviewed, and details will be formulating.

ACTION: None.

11. Website Update

Roundtable Coordinator James Castañeda indicated the website is up and running as we speak.

DISCUSSION: None.

12. TRACON Trip Recap

Brisbane representative Cliff Lentz and Portola Valley representative Ann Wengert both shared their experiences of the joint field trip with the Oakland Noise Forum to the NorCal TRACON facility. Mr. Lentz expressed his enthusiasm in collaborating more with the Oakland Noise Forum.

13. Airport Noise Briefing

Roundtable Aviation Technical Consultant Cindy Gibbs indicated the next Aviation Noise Symposium will be held in late February 2014, in Palm Springs. Ms. Gibbs also gave an update on the latest UAV legislation discussions, as well as London-Heathrow's new Fly Quiet program.

14. Member Communications / Announcements

Bert Ganoung, Airport Noise Abatement Manager, indicated that as part of correcting and extending 20 years noise insulation easements, a notice will be published in the San Francisco Chronicle. The airport has attempted to contact 184 homeowners, regarding the easement, by mail and in person.

Mr. Ganoung also took an opportunity to introduce Barbara Lawson, the Noise Abatement Office's newest specialist. Ms. Lawson has been on staff for 22 years, but has transitioned into the noise specialist role, recently.

Airport Director John Martin extended a special invitation to Roundtable members to tour the new Boarding Area E of Terminal 3 at SFO in January 2014.

Daly City alternate representative Carol Klatt asked if the Roundtable could adjourn in memory of former San Mateo County Supervisor and Daly City Councilman William Schumacher, who recently passed away.

14. Adjourn

The meeting was adjourned in memory of William Schumacher at approximately 8:26 p.m.

---

* NOTE: Roundtable meeting overviews are considered draft until approved by the Roundtable at a regular meeting.

JAC:pac - JACY0205_WPB.DOCX

(This page is left intentionally blank)

SFO Airport/Community Roundtable

Meeting No. 289 Overview

Wednesday, January 29, 2014

1. Call to Order / Roll Call / Declaration of a Quorum Present

Roundtable Chairperson, Jeffrey Gee, called the Regular Meeting of the SFO Airport/ Community Roundtable to order, at approximately 7:08 p.m., in the Aviation Library and Museum at the San Francisco International Airport. James A. Castañeda, AICP, Roundtable Coordinator, called the roll. A quorum (at least 12 Regular Members) was present as follows:

REGULAR MEMBERS PRESENT
John Martin – City and County of San Francisco Airport Commission
Dave Pine – County of San Mateo Board of Supervisors
Richard Newman – C/CAG Airport Land Use Committee (ALUC)
Cliff Lentz – City of Brisbane
Michael Brownrigg – City of Burlingame
Ray Buenaventura – City of Daly City
Steve Okamoto – City of Foster City
Naomi Patridge, Roundtable Vice-chairperson – City of Half Moon Bay
Shawn Christianson – Town of Hillsborough
Robert Gottschalk – City of Millbrae
Ann Wengert – Town of Portola Valley
Jeffrey Gee, Roundtable Chairperson – City of Redwood City
Pradeep Gupta – City of South San Francisco

REGULAR MEMBERS ABSENT
City and County of San Francisco Board of Supervisors (Vacant)
City and County of San Francisco Mayor's Office
Town of Atherton
City of Belmont
City of Menlo Park
City of Pacifica
City of San Bruno
City of San Carlos
City of San Mateo
Town of Woodside

ADVISORY MEMBERS PRESENT
Don Kirby – Northern California TRACON
Dave Foyle – Federal Aviation Administration, Sierra-Pacific District
Glen Morse – United Airlines

ROUNDTABLE STAFF
James A. Castañeda, AICP – Roundtable Coordinator
Cindy Gibbs – Roundtable Technical Support (Consultant)
Harvey Hartmann – Roundtable Technical Support (Consultant)

SAN FRANCISCO INTERNATIONAL AIRPORT STAFF
Bert Ganoung, Noise Abatement Manager
Ara Balian, Noise Abatement Specialist
John Hampel, Noise Abatement Specialist

2. 2012-2013 Jon C. Long Fly Quiet Awards

Bert Ganoung, Noise Abatement Manager, provided a history and overview of the Fly Quiet program at San Francisco International Airport. After, Roundtable Chairperson, Jeffrey Gee, introduced the award nominees: All Nippon Airways for the "Quietest Overall Airline," Air New Zealand for "Most Improved Airlines," and United Airlines for the Chairperson's Award.

ACTION: Richard Newman **MOVED** the approval of the selected recipients of the 2012-2013 Fly Quiet Awards. The motion was seconded by Naomi Patridge and **CARRIED**, unanimously.

3. Adoption of Resolutions Recognition of Departing Representatives

Chairperson Gee acknowledged the following departing Roundtable representatives for their service and dedication to the Roundtable: Belmont representative Dave Warden, Belmont alternate representative Coralin Feierbach, Burlingame representative Michael Brownrigg, and City of San Mateo representative Maureen Freschet.

ACTION: Naomi Patridge **MOVED** the adoption of the resolutions. The motion was seconded by Ken Ibarra and **CARRIED**, unanimously.

4. Election of Roundtable Chairperson for Calendar Year 2014

Chairman Gee opened the floor to nominations for Chairperson.

ACTION: Naomi Patridge **MOVED** to nominate Brisbane representative Cliff Lentz for the position of Chairperson of the Roundtable. Dave Pine seconded the nomination. Hearing no additional nominations, a vote was taken and acceptance of Cliff Lentz as Roundtable Chairperson was **CARRIED**, unanimously.

5. Election of Roundtable Vice-Chairperson for Calendar Year 2014

Assuming the role of Chairperson, Cliff Lentz opened the floor to nominations for Vice-Chairperson of the Roundtable.

ACTION: Naomi Patridge **MOVED** to nominate San Mateo County Board of Supervisors representative Dave Pine for the position of Vice-Chairperson of the Roundtable. Jeffrey Gee seconded the nomination. Hearing no additional nominations, a vote was taken and acceptance of Dave Pine as Roundtable Vice-Chairperson was **CARRIED**, unanimously.

6. Public Comments on Items NOT on the Agenda

Foster City resident Derrick Chua discussed the ongoing overflight issues.

CONSENT AGENDA

7. Review of Airport Director's Reports for August 2013, September 2013, October 2013, November 2013, and December 2013

8. Review of Roundtable Regular Meeting Overview for September 4, 2013 and November 6, 2013

DISCUSSION: None.

ACTION: Richard Newman **MOVED** the approval of the Consent Agenda (minus the minutes to the November 6, 2013 Regular Meeting). The motion was seconded by Ken Ibarra and **CARRIED**, unanimously.

REGULAR AGENDA – PRESENTATION ITEMS

9. Review of SFO FlyQuiet Report for Q3 2013

Bert Ganoung, Noise Abatement Manager, provided an overview of the SFO FlyQuiet report for the fourth quarter of 2013 included in the meeting packet.

DISCUSSION: Foster City representative, Steve Okomoto, asked about the "red box" shown around Foster City during Mr. Ganoung's presentation. It was explained that the red box is used to score airlines on their ability to fly the Foster City arrivals, and encourages airlines to avoid flying over the area. Mr. Okomoto asked if the FAA is aware of the box, and what is their obligation to adhere to it. Dave Foyle, FAA Sierra-Pacific District Manager, indicated that while the controllers do not see the red box nor are obligated to adhere to such, the noise abatement procedures do in some cases avoid the areas illustrated in the red box. It was clarified that the FlyQuiet program is a voluntary effort that differs from noise abatement procedures.

10. Airport Director's Comments

Airport Director, John Martin, provided a brief history of the Aviation Museum and Library. It was mentioned that the airport ends 2013 with a 1% increase in domestic traffic, and a 2% increase in international traffic, which is a slower rate of growth of years prior. The upcoming summer months can be expected to have the same number of flights as of 2013. It was indicated that Doug Yakel, Airport Public Information Officer, has continued giving presentations to City officials regarding the forthcoming runway safety improvement construction. It was noted that both Cathay Pacific and Singapore Airlines will no longer be utilizing the Boeing 747-400 at

SFO in favor of the quieter Boeing 777 aircrafts. Cargo carriers operating out of SFO are also replacing the older Boeing 747-400F aircrafts for newer and quieter Boeing 747-800F aircrafts.

REGULAR AGENDA – WORK PROGRAM ITEMS

11. SFO Construction Update and Departure/Arrival Affects

Bert Ganoung, Airport Noise Abatement Manager, reported construction and closures will start this April. Community outreach has continued at the City level, with the ongoing efforts to discuss with city officials.

12. Update on FAA's PORTE Departure Analysis

Brisbane resident Peter Grace provided a presentation reviewing the ongoing noise impacts over the community of Brisbane, and recommendations on how to improve the situation.

13. Work Program Subcommittee Recommendations, Oceanic Arrivals over the Woodside VOR

Roundtable Technical Consultant Cindy Gibbs provided a brief overview of the deployment of the noise monitors in Woodside and Portola Valley. Due to some technical issues with the equipment deployed by Oakland International Airport, data gathering for comparison will be ongoing to have a full period of report and will be presented at a future date. Airport Noise Abatement Manager, Bert Ganoung, gave an overview of the deployment details of the monitoring sites.

DISCUSSION: Chairperson Lentz pointed out the letter from Congresswoman Eshoo's office regarding reduction of noise over the Woodside and Portola Valley area, and asked Mr. Ganoung to explain. It was pointed out that the lack of vectoring was the primary contributor to the reduction of noise over the area in recent months. Portola Valley resident Tina Nguyen indicated that other metrics were not used to look at exceedances, and hoped that they would be in the future.

14. Report, Optimization of Airspace and Procedures in the Metroplex (OAPM) Environmental Review

Roundtable Chairperson, Cliff Lentz, provided an overview of the December 20, 2013 meeting with the FAA, and the follow-up discussion with FAA staff. It was discussed that considerations for community meeting(s) prior to the release of the Environmental Assessment (EA) are being reviewed, but have yet to be approved by the FAA and are waiting to see how the request is being received. The anticipated release of the EA is March 24, 2014.

DISCUSSION: Chairperson Lentz suggested what the various meetings, if approved by the FAA for their participation, would be: (1) a meeting to gather public input on what the FAA should consider as part of the OAPM process; (2) a subcommittee meeting to include representatives from the Roundtable, Oakland Noise Forum, Congressional Offices, and the OAPM Design Team; and (3) a follow-up meeting prior to the release of the EA. Vice-chairperson Pine indicated that any public meeting would require immediate scheduling and coordination. When asked, Roundtable Coordinator, James Castañeda, indicated that the earliest any public meeting involving the Roundtable be coordinated would be mid-February.

Half Moon Bay representative, Naomi Patridge, and Hillsborough representative, Shawn Christianson, both expressed their concerns of hosting any public meeting prior to the release of the EA, given that none of the details of the OAPM will be known until that time. Redwood City representative, Jeffrey Gee, reiterated the goal of the meetings prior to the EA is to provide the FAA with feedback from the community for their consideration, while managing the public's expectation of what the OAPM process will and will not do, if only to keep in mind minor modifications on procedures. Ms. Patridge reiterated her concern about offering a venue for the public to express their concerns, while trying to communicate the constraints and what the Roundtable is unable to accomplish participating in the OAPM process. It was suggestion that, while the public will have an opportunity to express concerns after the EA is released, the Roundtable and its subcommittee should still continue to work and communicate with the FAA. Vice-chairperson Pine indicated that perhaps the Roundtable's efforts be best focused on providing meaningful response to the EA once its release, which would require a coordinated effort on the Roundtable's part in the weeks leading up to the release of the document.

Chairperson Lentz suggested utilizing the Work Program Subcommittee to focus on preparing for the EA in the meantime before its release, and to allow them to determine how to coordinate the Roundtable's efforts to provide meaningful input. It was also suggested investigating the creation of a super-committee consisting of representatives of the Bay Area Noise groups to meet with the OAPM design team. A call for volunteers to participate on the Work Program Subcommittee was made; Chairperson Lentz, Vice-chairperson Pine, Portola Valley representative Ann Wengert, and Foster City representative Steve Okomoto agreed to participate.

ACTION: Naomi Patridge **MOVED** to: (1) assign Chairperson Cliff Lentz, Vice-chairperson Dave Pine, Ann Wengert, and Steve Okomoto to the Work Program Subcommittee; and (2) task the Work Program Subcommittee to effort the OAPM EA review and commenting coordination. The motion was seconded by Ken Ibarra and **CARRIED**, unanimously.

15. Resolution to Set 2014 Roundtable Meeting Dates

DISCUSSION: None.

ACTION: Jeffrey Gee **MOVED** the adoption of the resolution to set the 2014 Roundtable Regular meeting dates. The motion was seconded by Richard Newman and **CARRIED**, unanimously.

16. Airport Noise Briefing

Roundtable Aviation Technical Consultant Cindy Gibbs gave an update on recent voluntary measures regarding helicopter noise impacts in the Los Angeles basin area. An update was also provided on research on making aircraft quieter with consideration to the airframe itself.

17. Member Communications / Announcements

Vice-chairperson Pine expressed thanks to the airport for offering a tour to Roundtable members of the recently opened Boarding Area E of Terminal 3 at SFO on January 17, 2014.

18. Adjourn

The meeting was adjourned at approximately 9:34 p.m.

---

* NOTE: Roundtable meeting overviews are considered draft until approved by the Roundtable at a regular meeting.

JAC:pac – JACY0207_WPB.DOCX

SFO

San Francisco International Airport

Fly Quiet Report

Presented at the January 29, 2014

Airport Community Roundtable Meeting

SFO Aircraft Noise Abatement Office

Fourth Quarter 2013

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.

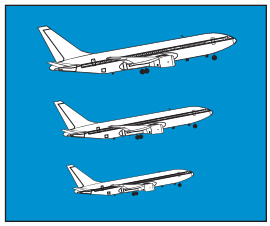
Program Reports

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.

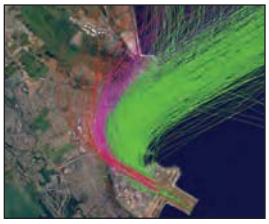
Noise Exceedance

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

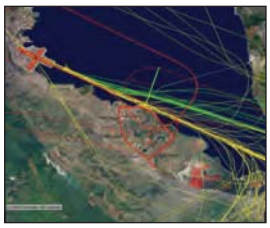
Aircraft departing SFO using Runways 28L and 28R are also considered by the Fly Quiet grading system whenever they use the Shoreline Departure Procedure. This predominately VFR (visual flight rules) departure steers aircraft to the northeast shortly after takeoff in an attempt to keep aircraft and aircraft 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.

Revised date: 5/15/09

Airline Fly Quiet Summary Report - 4th Quarter 2013

October 1 to December 31, 2013

Airline		Fleet Noise Quality	Noise Exceedance	Nighttime Runway Use	Departures Shoreline	Departures Gap	Arrivals Foster City	Final Score
FRONTIER	FFT	6.26	9.99	-	10.00	-	8.53	8.69
WESTJET	WJA	5.82	9.85	-	10.00	-	-	8.56
Sun Country Airlines	SCX	5.82	9.98	6.67	10.00	-	10.00	8.49
SkyWest Airlines	SKW	10.00	9.99	5.33	9.82	8.37	6.31	8.30
Compass Airlines	CPZ	10.00	9.97	3.33	10.00	8.26	7.96	8.25
ANA	ANA	7.15	10.00	-	-	7.47	-	8.21
JAPAN AIRLINES	JAL	10.00	9.97	-	-	4.55	-	8.17
中国東方航空 CHINA EASTERN	CES	4.05	9.88	-	-	9.77	-	7.90
ABX AIR	ABX	4.87	9.29	-	10.00	6.35	7.90	7.68
Scandinavian Airlines	SAS	8.17	9.81	-	-	4.70	-	7.56
US AIRWAYS	AWE	4.79	9.95	3.33	9.74	8.13	9.10	7.51
SOUTHWEST AIRLINES	SWA	5.77	9.92	3.33	9.69	8.03	7.68	7.40
AIR CANADA	ACA	7.14	9.85	-	10.00	1.96	8.02	7.39
AirTran	TRS	5.82	9.90	3.33	10.00	6.25	9.05	7.39
Emirates	UAE	7.15	10.00	-	-	4.99	-	7.38
SWISS	SWR	8.17	9.97	-	-	3.81	-	7.32
Virgin America	VRD	5.36	9.95	3.33	10.00	7.58	7.15	7.23
American Airlines	AAL	5.70	9.95	3.54	9.71	5.51	8.88	7.22
DELTA	DAL	6.63	9.96	3.06	9.58	5.77	8.00	7.17
KLM	KLM	4.46	9.97	-	-	7.05	-	7.16
FedEx	FDX	3.67	9.36	-	8.33	6.25	7.69	7.06
jetBlue	JBU	4.85	9.91	2.67	9.00	7.23	8.26	6.99
AIRFRANCE	AFR	5.99	9.97	-	-	4.35	-	6.77
								6.62 SFO AVERAGE
UNITED	UAL	5.91	9.79	3.62	9.58	3.19	7.47	6.59
AEROMEXICO	AMX	5.82	9.73	3.33	-	7.00	6.67	6.51
HAWAIIAN AIRLINES	HAL	4.04	9.83	-	-	4.38	7.50	6.44
Alaska Airlines	ASA	5.23	9.92	3.33	9.77	4.22	5.23	6.28
NCA Nippon Cargo Airlines	NCA	7.18	7.41	-	-	4.03	6.43	6.26
virgin atlantic	VIR	3.43	9.91	-	-	4.87	-	6.07
AIR CHINA	CCA	3.43	9.68	-	-	4.84	-	5.98
KOREAN AIR	KAL	7.67	7.39	4.18	-	5.41	5.06	5.94
TACA	TAI	5.29	9.42	3.21	-	5.00	6.51	5.88
LAN	LPE	3.84	10.00	-	-	3.39	-	5.74
Lufthansa	DLH	6.64	9.83	0.00	6.67	5.03	5.00	5.53
EVA AIR	EVA	6.63	7.90	0.74	-	5.57	6.67	5.50
SINGAPORE AIRLINES	SIA	7.15	7.70	0.29	-	5.80	5.00	5.19
CATHAY PACIFIC	CPA	5.45	7.85	0.33	-	5.00	5.00	4.73
ASIANA AIRLINES	AAR	4.51	4.45	3.61	-	5.06	5.47	4.62

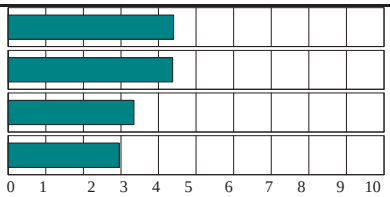
Airline Fly Quiet Rating

Airline Fly Quiet Summary Report - 4th Quarter 2013

October 1 to December 31, 2013

Airline		Fleet Noise Quality	Noise Exceedance	Nighttime Runway Use	Departures Shoreline	Departures Gap	Arrivals Foster City	Final Score
AIR NEW ZEALAND	ANZ	4.10	9.42	0.00	-	4.09	-	4.40
BRITISH AIRWAYS	BAW	3.43	9.79	3.33	-	0.96	-	4.38
Philippines	PAL	4.19	0.00	10.00	-	2.54	0.00	3.35
CHINA AIRLINES	CAL	3.43	1.14	0.86	-	4.35	5.00	2.95
SFO Average		5.83	9.01	3.12	9.55	5.41	6.84	6.62

Airline Fly Quiet Rating



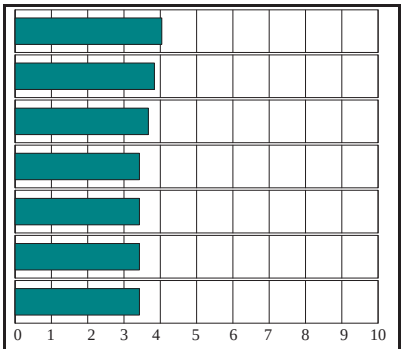
Fleet Noise Quality - 4th Quarter 2013

October 1 to December 31, 2013

Airline		Nationwide Fleet Noise Quality Rating	San Francisco Average Daily Jet Operations	San Francisco Score
JAPAN AIRLINES	JAL	4.20	1	10.00
Compass Airlines	CPZ	10.00	14	10.00
SkyWest Airlines	SKW	10.00	75	10.00
Scandinavian Airlines	SAS	4.96	1	8.17
SWISS	SWR	5.17	1	8.17
KOREAN AIR	KAL	4.05	2	7.67
NCA Nippon Cargo Airlines	NCA	3.90	1	7.18
SINGAPORE AIRLINES	SIA	5.93	2	7.15
Emirates	UAE	7.89	1	7.15
AIR CANADA	ACA	6.75	7	7.14
ANA	ANA	5.43	1	7.13
Lufthansa	DLH	6.09	2	6.64
EVA AIR	EVA	5.05	2	6.63
DELTA	DAL	4.92	24	6.63
FRONTIER	FFT	6.41	4	6.26
AIRFRANCE	AFR	5.49	1	5.99
UNITED	UAL	5.83	157	5.91
				5.83 SFO AVERAGE
AEROMEXICO	AMX	5.54	2	5.82
Sun Country Airlines	SCX	5.82	2	5.82
AirTran	TRS	6.97	2	5.82
WESTJET	WJA	5.82	1	5.82
SOUTHWEST AIRLINES	SWA	5.70	39	5.77
American Airlines	AAL	3.94	29	5.70
CATHAY PACIFIC	CPA	4.18	2	5.45
Virgin America	VRD	5.31	48	5.36
TACA	TAI	5.18	1	5.29
Alaska Airlines	ASA	5.10	13	5.23
ABX AIR	ABX	1.52	1	4.87
jetBlue	JBU	6.13	12	4.85
US AIRWAYS	AWE	5.67	15	4.79
ASIANA AIRLINES	AAR	3.93	2	4.51
KLM	KLM	4.67	1	4.46
Philippines	PAL	5.09	1	4.19
AIR NEW ZEALAND	ANZ	4.00	1	4.10
中國東方航空 CHINA EASTERN	CES	4.63	1	4.05

Fleet Noise Quality Rating

Airline		Nationwide Fleet Noise Quality Rating	San Francisco Average Daily Jet Operations	Score	Fleet Noise Quality Rating
HAWAIIAN AIRLINES	HAL	6.21	1	4.04	
LAN	LPE	4.38	0	3.84	
FedEx	FDX	2.80	1	3.67	
BRITISH AIRWAYS	BAW	4.34	2	3.43	
CHINA AIRLINES	CAL	3.62	2	3.43	
AIR CHINA	CCA	3.46	1	3.43	
virgin atlantic	VIR	5.84	1	3.43	
AVERAGE		**5.28**	**11**	**5.83**	

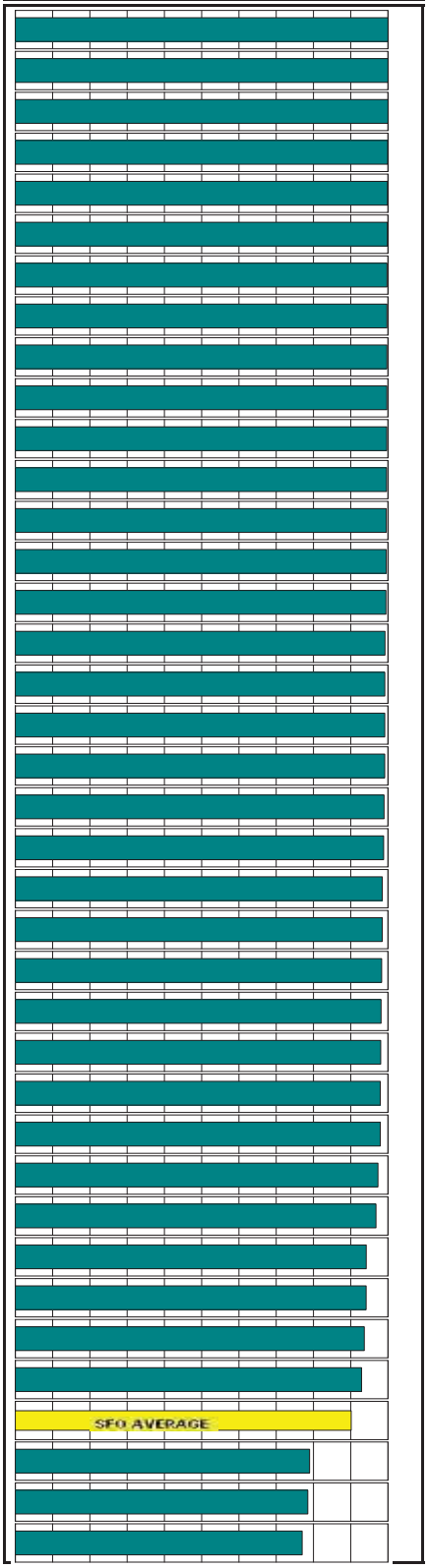


Noise Exceedance Rating Report - 4th Quarter 2013

October 1 to December 31, 2013

Airline		Noise Exceedances: Total Noise Exceedances	Total Quarterly Operations	Exceedances per 1000 Operations	Score
ANA	ANA	0	185	0	10.00
LAN	LPE	0	74	0	10.00
Emirates	UAE	0	184	0	10.00
FRONTIER	FFT	1	750	1	9.99
SkyWest	SKW	34	13,865	2	9.99
Sun Country Airlines	SCX	1	335	3	9.98
AIRFRANCE	AFR	1	202	5	9.97
Compass Airlines	CPZ	14	2,645	5	9.97
JAPAN AIRLINES	JAL	1	184	5	9.97
SWISS	SWR	1	176	6	9.97
KLM	KLM	1	166	6	9.97
DELTA	DAL	31	4,385	7	9.96
U·S AIRWAYS	AWE	23	2,685	9	9.95
American Airlines	AAL	46	5,310	9	9.95
Virgin America	VRD	88	8,753	10	9.95
SOUTHWEST AIRLINES	SWA	106	7,207	15	9.92
Alaska Airlines	ASA	38	2,435	16	9.92
virgin atlantic	VIR	3	185	16	9.91
jetBlue	JBU	35	2,144	16	9.91
AirTran	TRS	6	310	19	9.90
中國東方航空 CHINA EASTERN	CES	4	184	22	9.88
WESTJET	WJA	3	105	29	9.85
AIR CANADA	ACA	39	1,345	29	9.85
HAWAIIAN AIRLINES	HAL	6	190	32	9.83
Lufthansa	DLH	12	346	35	9.81
Scandinavian Airlines	SAS	5	138	36	9.81
UNITED	UAL	1,119	28,836	39	9.79
BRITISH AIRWAYS	BAW	14	360	39	9.79
AEROMEXICO	AMX	22	438	50	9.73
AIR CHINA	CCA	11	183	60	9.68
AIR NEW ZEALAND	ANZ	20	184	109	9.42
TACA	TAI	28	256	109	9.42
FedEx	FDX	22	185	119	9.36
ABX AIR	ABX	34	256	133	9.29
					9.01 (SFO AVERAGE)
EVA AIR	EVA	137	348	394	7.90
CATHAY PACIFIC	CPA	155	385	403	7.85
SINGAPORE AIRLINES	SIA	158	367	431	7.70

Noise Exceedance Quality Rating

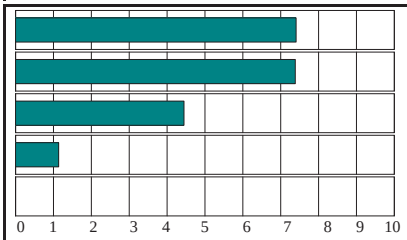


Noise Exceedance Rating Report - 4th Quarter 2013

October 1 to December 31, 2013

Airline		Noise Exceedances: *Total Noise Exceedances*	*Total Quarterly Operations*	*Exceedances per 1000 Operations*	***Score***
NCA Nippon Cargo Airlines	NCA	65	134	485	***7.41***
KOREAN AIR	KAL	179	366	489	***7.39***
ASIANA AIRLINES	AAR	346	333	1039	***4.45***
CHINA AIRLINES	CAL	514	310	1658	***1.14***
Philippines	PAL	348	186	1871	***0.00***
TOTAL		**3,671**	**87,615**		
SFO AVERAGE				**185**	**9.01**

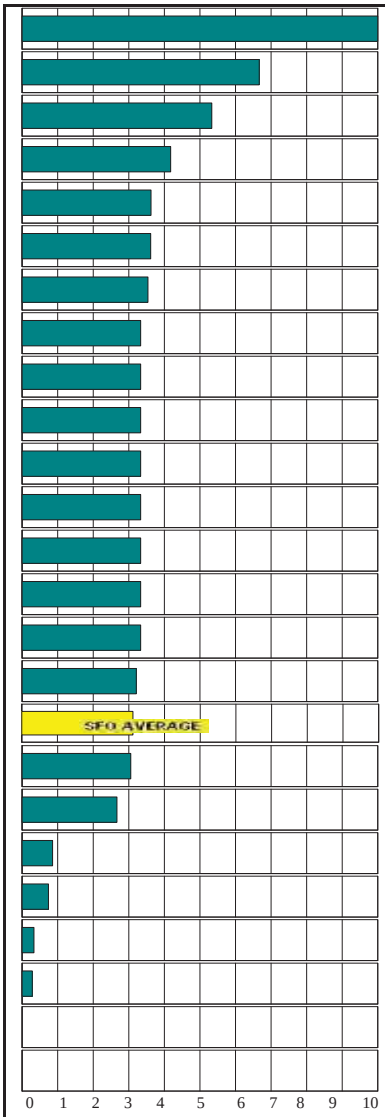
Noise Exceedance Quality Rating



Nighttime Preferential Runway Use - 4th Quarter 2013

October 1 to December 31, 2013

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***	
Philippines	PAL	**1**	100%	0%	0%	0%	***10.00***	
Sun Country Airlines	SCX	**2**	50%	0%	50%	0%	***6.67***	
SkyWest	SKW	**5**	40%	0%	40%	20%	***5.33***	
KOREAN AIR	KAL	**91**	42%	0%	0%	58%	***4.18***	
UNITED	UAL	**103**	7%	4%	81%	9%	***3.62***	
ASIANA AIRLINES	AAR	**83**	36%	0%	0%	64%	***3.61***	
American Airlines	AAL	**65**	3%	2%	94%	2%	***3.54***	
AEROMEXICO	AMX	**76**	3%	0%	92%	5%	***3.33***	
Alaska Airlines	ASA	**1**	0%	0%	100%	0%	***3.33***	
US AIRWAYS	AWE	**1**	0%	0%	100%	0%	***3.33***	
BRITISH AIRWAYS	BAW	**1**	0%	0%	100%	0%	***3.33***	
Compass Airlines	CPZ	**1**	0%	0%	100%	0%	***3.33***	
SOUTHWEST AIRLINES	SWA	**21**	0%	0%	100%	0%	***3.33***	
AirTran	TRS	**2**	0%	0%	100%	0%	***3.33***	
Virgin America	VRD	**7**	0%	43%	14%	43%	***3.33***	
TACA	TAI	**54**	2%	0%	91%	7%	***3.21***	
							3.12	SFO AVERAGE
DELTA	DAL	**12**	0%	0%	92%	8%	***3.06***	
jetBlue	JBU	**10**	0%	0%	80%	20%	***2.67***	
CHINA AIRLINES	CAL	**35**	9%	0%	0%	91%	***0.86***	
EVA AIR	EVA	**54**	7%	0%	0%	93%	***0.74***	
CATHAY PACIFIC	CPA	**30**	3%	0%	0%	97%	***0.33***	
SINGAPORE AIRLINES	SIA	**35**	3%	0%	0%	97%	***0.29***	
AIR NEW ZEALAND	ANZ	**3**	0%	0%	0%	100%	***0.00***	
Lufthansa	DLH	**1**	0%	0%	0%	100%	***0.00***	
TOTAL		**694**						
SFO AVERAGE			**13%**	**2%**	**51%**	**34%**	**3.12**	



Shoreline Departure Rating - 4th Quarter 2013

October 1 to December 31,2013

Airline		Shoreline Departures				
		Total	Successful	Marginal	Poor	Score
ABX/AIR	ABX	2	100%	0%	0%	10.00
AIR CANADA	ACA	17	100%	0%	0%	10.00
Compass Airlines	CPZ	7	100%	0%	0%	10.00
FRONTIER	FFT	8	100%	0%	0%	10.00
Sun Country Airlines	SCX	7	100%	0%	0%	10.00
AirTran	TRS	4	100%	0%	0%	10.00
Virgin America	VRD	55	100%	0%	0%	10.00
WESTJET	WJA	1	100%	0%	0%	10.00
SkyWest	SKW	114	96%	4%	0%	9.82
Alaska Airlines	ASA	22	95%	5%	0%	9.77
US AIRWAYS	AWE	19	95%	5%	0%	9.74
American Airlines	AAL	35	97%	0%	3%	9.71
SOUTHWEST AIRLINES	SWA	16	94%	6%	0%	9.69
DELTA	DAL	48	94%	4%	2%	9.58
UNITED	UAL	224	92%	7%	1%	9.58
						9.55
jetBlue	JBU	15	87%	7%	7%	9.00
FedEx	FDX	3	67%	33%	0%	8.33
Lufthansa	DLH	3	67%	0%	33%	6.67
TOTAL		**600**				
SFO AVERAGE			**94%**	**4%**	**3%**	**9.55**

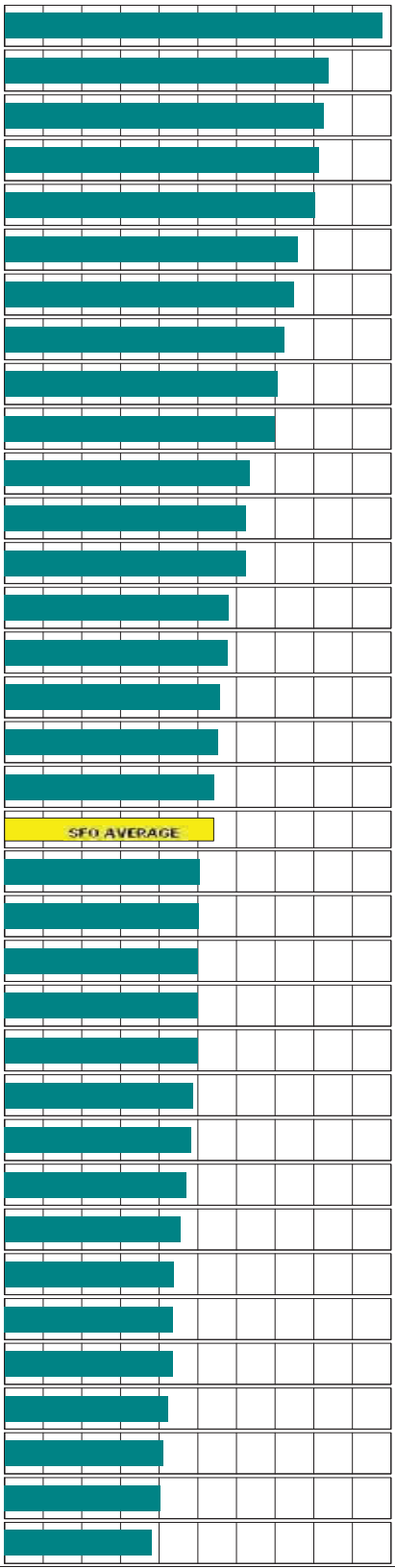
Shoreline Departure Rating

Gap Departure Climb Rating - 4th Quarter 2013

October 1 to December 31, 2013

Airline		Gap Departures Total	Gap Departures Score
CHINA EASTERN	CES	92	9.77
SkyWest	SKW	75	8.37
Compass Airlines	CPZ	33	8.26
U·S AIRWAYS	AWE	22	8.13
SOUTHWEST AIRLINES	SWA	92	8.03
Virgin America	VRD	64	7.58
ANA	ANA	92	7.47
jetBlue	JBU	23	7.23
KLM	KLM	14	7.05
AEROMEXICO	AMX	5	7.00
ABX AIR	ABX	13	6.35
FedEx	FDX	4	6.25
AirTran	TRS	2	6.25
SINGAPORE AIRLINES	SIA	178	5.80
DELTA	DAL	94	5.77
EVA AIR	EVA	167	5.57
American Airlines	AAL	39	5.51
KOREAN AIR	KAL	142	5.41
			5.41
ASIANA AIRLINES	AAR	134	5.06
Lufthansa	DLH	166	5.03
CATHAY PACIFIC	CPA	190	5.00
TACA	TAI	6	5.00
Emirates	UAE	92	4.99
virgin atlantic	VIR	68	4.87
AIR CHINA	CCA	91	4.84
Scandinavian Airlines	SAS	67	4.70
JAPAN AIRLINES	JAL	36	4.55
HAWAIIAN AIRLINES	HAL	4	4.38
CHINA AIRLINES	CAL	147	4.35
AIRFRANCE	AFR	63	4.35
Alaska Airlines	ASA	16	4.22
AIR NEW ZEALAND	ANZ	92	4.09
NCA Nippon Cargo Airlines	NCA	67	4.03
SWISS	SWR	87	3.81

Gap Departure Quality Rating

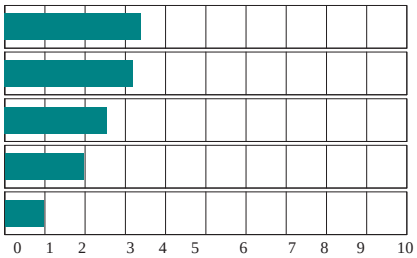


Gap Departure Climb Rating - 4th Quarter 2013

October 1 to December 31, 2013

Airline		Gap Departures Total	Gap Departures Score
LAN	LPE	31	*3.39*
UNITED	UAL	2044	*3.19*
Philippines	PAL	91	*2.54*
AIR CANADA	ACA	7	*1.96*
BRITISH AIRWAYS	BAW	150	*0.96*
TOTAL		**4800**	
SFO Average			**5.41**

Gap Departure Quality Rating

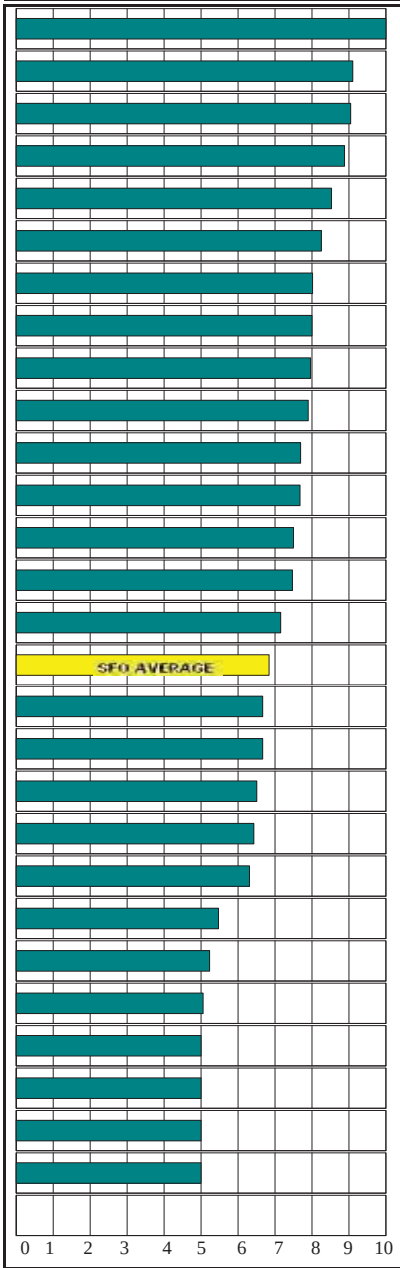


Foster City Arrival Rating - 4th Quarter 2013

October 1 to December 31,2013

Airline		Foster City Arrivals				
		Total	*Successful*	*Marginal*	*Poor*	*Score*
Sun Country Airlines	SCX	**16**	100%	0%	0%	***10.00***
U.S AIRWAYS	AWE	**106**	83%	16%	1%	***9.10***
AirTran	TRS	**42**	81%	19%	0%	***9.05***
American Airlines	AAL	**134**	78%	21%	1%	***8.88***
FRONTIER	FFT	**17**	71%	29%	0%	***8.53***
jetBlue	JBU	**172**	66%	33%	1%	***8.26***
AIR CANADA	ACA	**63**	63%	33%	3%	***8.02***
DELTA	DAL	**70**	60%	40%	0%	***8.00***
Compass Airlines	CPZ	**27**	59%	41%	0%	***7.96***
ABX AIR	ABX	**69**	58%	42%	0%	***7.90***
FedEx	FDX	**52**	54%	46%	0%	***7.69***
SOUTHWEST AIRLINES	SWA	**198**	54%	45%	1%	***7.68***
HAWAIIAN AIRLINES	HAL	**2**	50%	50%	0%	***7.50***
UNITED	UAL	**921**	50%	49%	1%	***7.47***
Virgin America	VRD	**65**	45%	54%	2%	***7.15***
						6.84
EVA AIR	EVA	**3**	33%	67%	0%	***6.67***
AEROMEXICO	AMX	**69**	36%	61%	3%	***6.67***
TACA	TAI	**73**	33%	64%	3%	***6.51***
NCA Nippon Cargo Airlines	NCA	**28**	29%	71%	0%	***6.43***
SkyWest Airlines	SKW	**84**	30%	67%	4%	***6.31***
ASIANA AIRLINES	AAR	**85**	9%	91%	0%	***5.47***
Alaska Airlines	ASA	**65**	5%	95%	0%	***5.23***
KOREAN AIR	KAL	**90**	1%	99%	0%	***5.06***
CHINA AIRLINES	CAL	**2**	0%	100%	0%	***5.00***
CATHAY PACIFIC	CPA	**4**	0%	100%	0%	***5.00***
Lufthansa	DLH	**1**	0%	100%	0%	***5.00***
SINGAPORE AIRLINES	SIA	**1**	0%	100%	0%	***5.00***
Philippines	PAL	**1**	0%	0%	100%	***0.00***
TOTAL		**2,460**				
SFO AVERAGE			**41%**	**55%**	**4%**	**6.84**

Foster City Arrival Rating



CORRESPONDENCES

Regular Meeting # 290
April 2, 2014

(This page is left intentionally blank)

January 24, 2014

Dear Constituent,

I'm writing to provide you with an update on the issue of excessive aircraft noise. Since my last email to you, I've continued to work diligently with the FAA, officials at SFO, community leaders, and with my colleague, Congresswoman Speier, to seek practical solutions to address aircraft noise on your behalf.

Data has been reviewed by the FAA and SFO officials and they confirm what many of you have already reported to my office: there have been fewer planes overhead in the communities of Woodside and Portola Valley since last September. Here are the main reasons for the improvement:

1. The FAA has increased the emphasis on the use of noise abatement procedures for air traffic approaching SFO from multiple directions, including San Mateo County at the Northern California Terminal Radar Approach Control (NCT). NCT continues to stress the importance of complying with noise abatement procedures in all cases, except when safety of aircraft is an issue.

2. On September 30, 2013, FAA and SFO began implementation of a new procedure called Closely Spaced Parallel Runway that reduces the need to utilize delayed vectoring. Early results show a reduction in delays by up to 15% and SFO is the only airport in the country utilizing this procedure.

3. SFO reports the FAA continues to achieve high marks in terms of late night oceanic arrivals at 8,000 feet over Woodside Very High Frequency Omni Directional Range (VOR). VOR is a ground based electronic navigation aid transmitting very high frequency navigation signals which help aircraft determine their position and stay on course.

4. Current weather conditions in the Bay Area, specifically near SFO, are dramatically reducing the need for delayed vectoring which results in far fewer aircraft over Southern San Mateo County. Officials indicate this factor above all has had the most dramatic improvement on reducing aircraft noise over Southern San Mateo County.

I'm grateful to community leaders including Councilwoman Maryann Derwin, Dr. Tina Nguyen, Mr. Victor Schachter and others who have assisted me in addressing this ongoing issue. I encourage you to continue to report any excessive aircraft noise complaints to the SFO Noise Abatement Office so there is a record and

official documentation. You can reach the Noise Abatement Office at (650) 821-4736 or via email at sfo.noise@flysfo.com.

If you have any questions or comments, let me hear from you. I value what my constituents say to me, and I always need your thoughts and benefit from your ideas.

Most gratefully,

Anna G. Eshoo
Member of Congress

DISTRICT OFFICE
698 Emerson Street
Palo Alto, California 94301
(650) 323-2984
(408) 245-2339
(831) 335-2020
(650) 323-3498 fax

WASHINGTON, D.C. OFFICE
241 Cannon Building
Washington, D.C. 20515
(202) 225-8104
(202) 225-8890 fax

WEB SITE
eshoo.house.gov
Facebook
Youtube
Twitter
Newsletter

SFO COMMUNITY ROUNDTABLE

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

February 20, 2014

Ms. Patty Daniel
Federal Aviation Administration
Project Manager
Northern California OAPM Design & Implementation

Re: OAPM Environmental Assessment

Dear Ms. Daniel:

Hope this letter finds you well. I want to thank you for our recent conversation regarding public participation in the OAPM Project and forthcoming Environmental Assessment (EA). Though the status of public outreach beyond the standard EA protocol is still to be determined, it is the goal of the SFO Roundtable that the concerns of our citizens are addressed in a meaningful and constructive manner before and after the publication of the OAPM EA. With this in mind, we would like to work with the FAA to ensure the OAPM Project does not increase noise for existing areas, does not move noise to new areas, and evaluates reduction of current airplane noise over residential areas within San Mateo County.

During the SFO Roundtable's last regular meeting on January 29, 2014, the members deliberated on the best strategy for understanding the OAPM EA's analysis and results, and providing feedback to the document, as well as the Project itself. With the draft EA scheduled to be published on March 24, 2014, the Roundtable members felt there was not enough time to hold its own public meeting prior to the release of the document. Since no details of the OAPM Project have been made available by the FAA, receiving feedback from the public on potential new procedures in the Project didn't seem like a productive process for public engagement.

However, public engagement in the OAPM Project process is a top priority of the Roundtable, and for the communities within the Bay Area. With that, the Roundtable members tasked the Work Program Subcommittee to facilitate a meeting with you and the OAPM Design Team in lieu of a public meeting. The Work Program Subcommittee would allow us to communicate community concerns and propose potential alternatives prior to the release of the EA.

The Roundtable understands that everyone's number one goal is safety. We are aware that the airspace shared by the three major airports in the Bay Area is limited, and because we live in close proximity to the airports, noise impacts are inevitable. The SFO Roundtable also believes that greater efficiency of our air transportation system is an important goal to achieve; however, it should not come at the detriment of our residential communities.

Since the OAPM Project will create the future framework of flight procedures in the Bay Area, it is vital to the ultimate success of the Project that the FAA, elected officials, and the public work together in a collaborative effort. You are the experts, so it will not be the role of the Roundtable to advise how flight procedures should be carried out, but rather to be able to offer suggestions to the procedures, so as to minimize the noise impacts created by them.

I believe the most productive outcomes are achieved when all parties can sit at the table together, exchange ideas and concerns, and walk away feeling that each other's perspective was heard and respected. There are no guarantees that satisfactory change will be the by-product of this meeting, but it does provide an important forum to have our voices heard.

With the scheduled release of the OAPM EA on March 24, 2014, we respectfully request a timely response to the SFO Roundtable with your intentions for a pre-release meeting. If such a meeting is to occur, you will need to provide potential dates as soon as possible, so that we have sufficient time to prepare.

I look forward to working with you and your team to create a final OAPM Project that achieves our goals to the greatest extent possible.

Sincerely,

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

Cc: Senator Boxer
Congresswoman Speier
San Francisco Airport Roundtable

SFO COMMUNITY ROUNDTABLE

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

March 6, 2014

Re: Northern California Optimization of Airspace & Procedures in the Metroplex - NorCal OAPM

Dear Honorable Mayor:

The Federal Aviation Administration is ready to publish a draft Environmental Assessment (EA) related to the NorCal OAPM project; the project is a revision of air traffic routes and procedures in the Northern California region. The area includes routes that serve the four major commercial service airports: San Francisco International Airport (SFO), Oakland Metropolitan International Airport (OAK), Norman Y. Mineta San Jose International Airport (SJC) and Sacramento International Airport (SMF). It is expected this draft will be released the week of March 24, 2014.

The Roundtable has been monitoring the OAPM EA process, which is being prepared by the FAA pursuant to the National Environmental Policy Act (42 U.S.C. 4321 et seq.). The public outreach component of the EA process includes the sponsor to hold a public comment period once the draft document is released. As a well-established airport community group in San Mateo County, we'd like to extend our assistance with the public outreach process to ensure the stakeholders understand the EA. It is anticipated the FAA will send out availability notification of the EA, as well as details of public meetings during the commenting period; the expected comment period will be at least 30 days.

Given the high involvement of stakeholders in the Bay Area, we encourage review of the EA and participation during the commenting period for issues and concerns within your respective cities. The Roundtable at our next Regular Meeting, scheduled for April 2, 2014, will be reviewing and discussing the findings of the EA, with the goal of providing comments prior to the close of the commenting period.

More information on the OAPM can be found at the following link:

http://www.oapmenvironmental.com/norcal_metroplex/norcal_introduction.html.

Regards,

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

Cc: Senator Boxer
Congresswoman Eshoo

(This page is left intentionally blank)

U.S. Department
of Transportation
**Federal Aviation
Administration**

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

MAR 0 5 2014

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 meeting with the Federal Aviation Administration's (FAA) Northern California Optimization of Airspace & Procedures in the Metroplex (NorCal Metroplex) Project Leads on December 20, 2013, and via teleconference on January 14, 2014, to discuss the NorCal Metroplex Project. The NorCal Metroplex team appreciates your interest in the Project. As you are aware, we are currently preparing an Environmental Assessment (EA) to evaluate the potential environmental impacts of implementing the NorCal Metroplex Project's proposed procedures. The draft EA is scheduled to be available for public review shortly after March 25, 2014, with public workshops conducted in early April.

We understand you have requested a meeting with the NorCal Metroplex Leads before the draft EA is published. Unfortunately, we are unable to provide a separate meeting outside of the public participation process we have for the draft EA. The National Environmental Policy Act (NEPA) encourages public involvement in decisions which affect the quality of the human environment. The FAA is committed to a public participation process that is equal and fair for all communities. There are several public workshops tentatively scheduled in a variety of locations throughout the NorCal Metroplex Study Area that provide opportunities for the public to submit comments on the proposed project and the environmental impacts. The comment period will be at least 30 days and those who cannot attend the workshops are encouraged to submit written comments via mail or email.

For over 30 years, the FAA has been involved in efforts to reduce noise impacts associated with San Francisco International Airport (SFO) by working with the SFO Aircraft Noise Abatement Office and congressional staff. Over the past 3 years, we have attended numerous meetings, provided briefings, and conducted analyses on various proposals in an attempt to find agreeable safe solutions to noise issues. As a result of the FAA's engagement, changes have been implemented that have resulted in positive improvements to the community noise environment.

Some examples of FAA involvement are:

- Attending regularly scheduled SFO Community Roundtable meetings where both elected officials and private citizens discuss airport noise issues.

- Hosting numerous facility visits for elected officials and private citizens with presentations regarding the FAA's principle mission, tours of Air Traffic Control facilities, and open discussions of airport noise issues.

- Attending public workshops hosted by the SFO Community Roundtable where community concerns are voiced.

- Attending airport noise related meetings with Congresswomen Speier and Eshoo for open discussions with SFO Community Roundtable members and private citizens.

- Conducting numerous top-down, in-depth, face-to-face briefings with the FAA air traffic workforce regarding community airport noise concerns and proper use of noise mitigation procedures.

- Analyzing proposals submitted by the SFO Community Roundtable for safety, efficiency, Flight Standards criteria, and the potential to shift noise. The proposal is available to review at the following website: http://sforoundtable.org/assets/issues/SFO-Brisbane-v13-5-1-12.pdf

- Significantly reducing the number of San Francisco Peninsula overflights between midnight and 6:00 a.m.

- Hosting meetings for elected officials and key governmental agencies to explain the EA process and introduce the Metroplex Project.

While the NorCal Metroplex Team has designed area navigation procedures to replace some outdated legacy procedures, the team did not change the flow of traffic in or out of the subject airports, nor were they able to design new charted flight procedures to safely and efficiently de-conflict the departures from SFO and Oakland International Airport. These departures require the air traffic controllers to use vectors to safely move air traffic throughout the region.

The San Francisco Bay Area is a busy and complex airspace due to the proximity of 3 international airports, 7 general aviation and Department of Defense airports. It is important for citizens and elected officials to continue to work through the SFO Community Roundtable and the FAA Sierra Pacific Terminal District Manager, Mr. Dave Foyle, to determine what adjustments can safely be made in the future to mitigate noise impacts.

When the draft EA becomes available, we urge you and the citizens you represent to take an active role in the EA process by reviewing the document, attending the public workshops, studying and understanding the proposed changes to procedures and providing valuable feedback during the public review period. The goal of the public workshops is to solicit public comments on the proposed project and the anticipated environmental impacts.

We are currently scheduling the locations for the draft EA public workshops. The workshop venues must be accessible locations that foster maximum public participation. The tentative

locations include: San Mateo, San Jose, Oakland, and Sacramento. If you have suggestions on the meeting locations or ideas regarding the public workshops, the FAA appreciates your input. The meeting notices are expected to be announced in mid-March.

Thank you for your interest in the NorCal Metroplex Project. If you have any questions or require further information, please contact Mr. Mike Barnhart, National Metroplex Program Manager at (202) 267-4296.

Identical letters have been sent to United States Congresswomen Speier and Eshoo.

Sincerely,

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

(This page is left intentionally blank)

JACKIE SPEIER
14TH DISTRICT, CALIFORNIA

211 CANNON HOUSE OFFICE BUILDING
WASHINGTON, DC 20515-0512
(202) 225-3531
FAX: (202) 226-4183

155 BOVET ROAD, SUITE 780
SAN MATEO, CA 94402
(650) 342-0300
FAX: (650) 375-8270

WWW.SPEIER.HOUSE.GOV

Congress of the United States
House of Representatives
Washington, DC 20515-0512

COMMITTEE ON ARMED SERVICES
SUBCOMMITTEES:
READINESS
OVERSIGHT AND INVESTIGATION

COMMITTEE ON OVERSIGHT AND GOVERNMENT REFORM
SUBCOMMITTEES:
RANKING MEMBER, ENERGY POLICY, HEALTH CARE, AND ENTITLEMENTS
NATIONAL SECURITY

GUN VIOLENCE PREVENTION TASK FORCE
Vice Chair

March 10, 2014

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

Dear Ms. Ray:

Thank you for your letter of March 5th regarding the FAA's plans for the environmental assessment relative to the Metroplex project. I am disappointed that public input is not possible prior to the formal release of the assessment but I understand that the law must be followed.

Your letter indicates that the FAA will be scheduling meetings for public comment. I respectfully suggest that at least one meeting be scheduled in northern San Mateo County. While all communities in northern San Mateo County are impacted by airport noise, the most complaints in the past two to three years have been from residents of Brisbane. It has a city council chamber capable of holding a large number of citizens and there are other public buildings that may also be appropriate. The City Manager is Clay Holstine and he may be reached at 415-508-2110. His email address is clayh@ci.brisbane.ca.us . Brisbane is also accessible from other cities in northern San Mateo County.

I also respectfully request that a meeting be held in southern San Mateo County or northern Santa Clara County where there have also been a large number of concerned citizens. Congresswoman Anna Eshoo's office, working with local leaders, will likely be able to assist you in finding a venue. I also have many residents who would like to attend who live in that area and respectfully request that the FAA work with her office to find an appropriate site.

While I do not wish to discourage the FAA from using a facility in the City of San Mateo, there have been very few if any complaints about airport noise or activities from the residents of San Mateo. My understanding is that an earlier meeting by the FAA in the City of San Mateo regarding this project resulted in a single citizen attending the meeting. I am confident that the objective set forth in your letter of "maximum public participation" would be well-served by a meeting in north and south San Mateo County/northern Santa Clara County.

All the best,

Jackie Speier

Jackie Speier

cc: Clay Holstine, City of Brisbane
Congresswoman Anna Eshoo

KJS/bp

PRINTED ON RECYCLED PAPER

(This page is left intentionally blank)

Noise Complaint 3/10 and 3/11

Tina Nguyen <tnps2008@gmail.com> Wed, Mar 12, 2014 at 6:09 PM
To: SFO Noise <SFONoise@flysfo.com>
Cc: karen chapman <Karen.Chapman@mail.house.gov>, dave.foyle@faa.gov, awengert@portolavalley.net, Maryann Moise <maryann@maryannmoise.com>, clifflentz@sbcglobal.net, dpine@smcgov.org, jcastaneda@sforoundtable.org, Jim Lyons <jel1293@yahoo.com>, Victor Schachter <VSchachter@fenwick.com>, Caroline Vertongen <hermantje@aol.com>

Dear SFO Noise Abatement Office,

As you can see from the data sets below, Portola Valley residents have been bombarded with airplane noise the past 2 nights, specifically between the hour of 9 pm to 10 pm. These flights were often times separted by only 1 to 2 minutes. Monday 3/10 we had 13 flights over our homes within the hour. Yesterday 3/11, the weather was perfect without a cloud in sight and flight operations were normal, yet there were 8 loud airplanes within the hour. Portola Valley residents would like to know why planes are still frequently being vectored over our homes rather than, for example, the flights from Los Angeles and San Diego staying on their standard Big Sur arrival route. This is a big issue impacting our sleep and quality of life, and residents living in Portola Valley and near the Woodside VOR wish to not have to shoulder the burden of late night excessive airplane noise.

Respectfully,
Tina Nguyen

Monday 3/10/14	Flight #	Altitudes (ft)	Departing Airport	Arriving Airport
21:04	CPA872	6400	Hong Kong	SFO
21:05	CPZ5856	6000	Los Angeles, CA	SFO
21:14	UAL1059	7700	Kona, HI	SFO
21:19	UAL362	6800	Lihue, HI	SFO
21:33	HHL12	7900	Honolulu, HI	SFO
21:41	UAL770	6000	Orange County, CA	SFO
21:43	VRD913	6200	Las Vegas, NV	SFO
21:44	SWA38	5900	San Diego, CA	SFO
21:47	VRD947	8200	Los Angeles, CA	SFO
21:49	SKW6255	5900	Las Vegas, NV	SFO
21:52	UAL1241	5700	Los Angeles, CA	SFO
21:54	UAL302	4900	Houston, TX	SFO
21:56	SKW5610	5600	Santa Barbara, CA	SFO

Tuesday 3/11/14	Flight #	Altitude (ft)	Departing Airport	Arriving Airport
21:13	CPZ5856	5200	Los Angeles, CA	SFO
21:15	UAL1059	5900	Kona, HI	SFO
21:18	AAL2465	5500	Los Angeles, CA	SFO
21:19	AWE701	5500	Philadelphia, PA	SFO

21:21	UAL362	7300	Lihue, HI	SFO
21:24	UAL1193	5300	Los Angeles, CA	SFO
21:32	SWA38	6400	San Diego, CA	SFO
21:47	HAL12	6700	Honolulu, HI	SFO

AIRPORT NOISE NEWS

Regular Meeting # 290
April 2, 2014

(This page is left intentionally blank)

Notebook: Work
Created: 03/18/2014 08:28 **Updated:** 03/18/2014 08:28
Tags: Roundtable
URL: http://www.27east.com/news/article.cfm/General-Interest-EH/54484/FAAs-New-Rule…

UPDATE: FAA's New Helicopter Rule Clarified

Publication: The East Hampton Press
~~By Erica Thompson~~ Mar 10, 2014 5:27 PM Mar 12, 2014 2:08 PM
~~SEE HOW THE STORY APPEARED IN PRINT~~

UPDATE: Wednesday, 12 p.m.

The confusion over the Federal Aviation Administration's (FAA) new rule, which creates a category of Stage 3 helicopters, can hopefully be put to rest, thanks to David Schaffer, the legal council for the East Hampton Aviation Association.

According to Mr. Schaffer, the new rule only creates the category of Stage 3 helicopters--it does not explicitly require regulations on the helicopters to be approved by the FAA.

"All the rule does is create this category," Mr. Schaffer said in a phone interview on Tuesday morning. "But when it's read in conjunction with the existing law, you need FAA approval."

Furthermore, the necessity of FAA approval for Stage 3 regulations is applicable to grant-obligated as well as non-grant-obligated airports, said Mr. Schaffer.

"All of this concern about being grant-obligated or not is largely besides the point," he said

To regulate Stage 1 and Stage 2 aircrafts, grant-obligated airports must prove that the restrictions are not "unreasonable, arbitrary, or discriminatory," he said, but ultimately it is up to the FAA to determine if the restrictions fit that bill.

"There isn't an application process per se," he said, "but as a practical matter if an airport has promised not to discriminate, it can't discriminate."

Whether an airport is grant-obligated or not is essentially irrelevant to whether or not the

restrictions will be successfully implemented, he added.

"If the town imposes restrictions on helicopters and the FAA rules in their favor, the helicopter companies will most likely take them to court. If the FAA doesn't agree with the town, the town will take the FAA to court," said Mr. Schaffer. "Either way, you end up in front of the same court, which generally ultimately makes the decision."

ORIGINAL STORY:

The Federal Aviation Administration enacted a rule earlier this week that creates a new class of helicopter that only can be regulated in grant-obligated airports, such as East Hampton Airport, with FAA approval, according to a release issued by East Hampton Town Councilwoman Kathee Burke-Gonzalez, liaison to the East Hampton Airport Planning Committee—an "additional hurdle" for the airport, she said.

Stage 3 aircraft, according to the new designation, are those that have the "latest available noise reduction technology" in their design, according to the Federal Register's website. Stage 1 aircraft are the oldest and loudest, while Stage 2 aircraft are about 10 decibels louder than comparably sized Stage 3 aircraft, according to Houston Airport System's website.

As it stands, according to the town's press release, East Hampton Airport can place restrictions on Stage 1 and 2 aircraft without the FAA's approval.

But Quiet Skies Coalition Chairwoman Kathy Cunningham challenged the interpretation of the new rule. Ms. Cunningham said that under Part 161 of the FAA's regulations, grant-obligated airports can only regulate Stage 1 and Stage 2 aircrafts with FAA approval—and she maintains that Stage 3 aircrafts cannot be regulated at all under this part of the FAA's code. "You can't regulate them, through any protocols, through the town while they are grant-obligated," she said.

Ms. Burke-Gonzalez said she was unable to speak about the regulations as they stand or the new rule's implication on East Hampton Airport. Likewise, FAA officials were unable to give any specifics on what can and cannot be regulated—although an official noted that by creating a designation for Stage 3 aircraft, some regulation was implied.

However, the FAA's criteria for grant-obligated airports to regulate Stage 2 and Stage 3 aircrafts seems to be in line with the town's press release, according to the administration's website. It outlines "Notice Requirements for Stage 2 Regulations," which includes guidelines for the notice of proposed restriction, required analysis of proposed restrictions and alternatives, comment by interested parties, among other instructions—but no approval process is noted, nor any suggestion that the FAA must sign off on the town's regulation of those aircraft.

But for regulating Stage 3 aircrafts, the FAA's website explicitly outlines "Notice, Review and

Approval Requirements"—suggesting that FAA approval is necessary for the town to enact regulations.

The rule takes effect May 5, 2014, and the town's status as a grant-obligated airport ends on December 31, 2014.

"The elevation of some helicopters to Stage 3 category reinforces the option for the town to allow grant assurances to expire and re-exert its rights as the owner and operator of the airport," said Ms. Cunningham.

Because the airport is grant-obligated, they cannot deny the landing of any aircraft and must stay open 24 hours a day, 365 days a year, which creates constant noise, Ms. Cunningham said.

The Airport Planning Committee has formed two subcommittees to represent those concerned with noise and those involved in the aviation community, to examine the proposed technical noise analysis to consider all factors and make a fair decision as to how to address the problems.

In terms of renewing their status as grant-obligated, the airport is looking into ways to be self-sufficient and generate revenue, thus alleviating the need to "encumber another 20 years of literally anarchy," said Frank Dalene, co-founder of the Quiet Skies Coalition.

The town is still unsure as to whether or not it will remain grant-obligated in 2015, according to the release.

(This page is left intentionally blank)

Airport Noise Report

A weekly update on litigation, regulations, and technological developments

Volume 26, Number 8 March 14, 2014

Gatwick Airport

AIRPORT OFFERS TO PAY $1,665 EACH YEAR TOWARD LOCAL TAX IF NEW RUNWAY ADDED

In their bid to beat out Heathrow Airport as the site for additional runway capacity in the UK, Gatwick Airport officials on March 10 pledged to pay £1000 ($1,665) annually toward a local Council Tax to all households in the airport's 57 Leq contour, if and when a second runway is added.

The airport estimates that as many as 4,100 households could qualify for the annual monetary compensation, which would be equivalent to the lowest level (Band A) Council Tax. That tax is akin to a local property tax and increases with the Consumer Price Index.

The monetary compensation would only apply to existing housing stock within the 57 dB(A) Leq contour, the point at which significant community annoyance to aircraft noise begins under UK aviation policy. Monetary compensation would not apply to those who move into the contour after Gatwick Airport applies for permission to construct a new runway or to new housing built within the contour.

The monetary compensation also would be in addition to any "statutory compensation and blight schemes we would implement" if Gatwick is selected as the

(Continued on p. 31)

Chicago O'Hare Int'l

CHICAGO RESIDENTS APPEAL PROPERTY TAX; SAY O'HARE NOISE REDUCED PROPERTY VALUE

Several residents of northwest Chicago, whose property has been newly impacted by noise from the realignment of runway operations at O'Hare International Airport but are not eligible for sound insulation, have appealed their property taxes arguing that aircraft noise has reduced their property value.

They are members of the group Fair Allocation in Runways (FAiR), which formed last fall after the opening of a new runway at O'Hare and the realignment of all runway operations to an east-west direction. That realignment moved aircraft noise over portions of northwest Chicago and its suburbs.

"We are still considering the tax protest as one of our strategies," Jac Charlier, one of the leaders of FAiR, told ANR, adding that a decision on whether to seek a mass protest of property values might be made in a month or two.

It may hinge on whether Chicago Mayor Rahm Emanuel finally responds to two attempts by FAiR (with three letters delivered on each attempt) asking the mayor to meet with his constituents to discuss the noise issue.

The fact the mayor has not responded to their letters angers and frustrates mem-

(Continued on p. 33)

In This Issue…

Monetary Compensation ... The idea of compensating residents near airports monetarily for airport noise impact arises on both sides of the Atlantic this month.

... Gatwick Airport in the UK pledges to pay the lowest level of a local property tax to residents in the 57 dB(A) Leq contour if a new runway is added - p. 30

... Chicago residents begin appealing their property tax bills on the ground that aircraft noise impact from a new runway and major runway realignment at O'Hare has devalued their home value - p. 30

NASA ... Shape-changing flap arrives at Dryden Flight Research Center for flight testing - p. 32

Massport ... Airport authority renews, expands its contract with Exelis to deploy comprehensive package of environmental compliance and other tools at Boston Logan International - p. 32

Gatwick, from p. 30

site for a new runway, the airport said.

Brendan Sewell from the Gatwick Conservation Campaign, which represents communities around the airport, told a local radio station that the monetary compensation is "a good thing but it is comparatively small. It only affects people nearest to the airport and we all know that flight paths from a new runway would affect thousands and thousands of people.

"The payment is very small compared to the loss of house values if you are going to have a new flight path over you."

Gatwick Airport is located 28 miles south of London and is the busiest single-runway airport in the world.

An Airport Commission appointed by the UK Government is in the process of determining where to add additional runway capacity in the UK and last December issued a short list that included three options: new runways at Heathrow or Gatwick or an extension of the northern runway at Heathrow.

The commission is concerned about the environmental impact on communities of additional runway capacity.

Monetary Compensation is Cornerstone

Gatwick Airport officials said their offer of monetary compensation to those in the high noise contour – which appears to be unprecedented any where in the world – "represents the next stage of Gatwick's industry-leading approach to noise management at the airport (Minimize, Mitigate, Compensate). It underlines the importance that the airport attaches to addressing environmental issues and acting as a responsible neighbor."

"Expansion at Gatwick would, without doubt, deliver many upsides for our local community in terms of jobs and investment. But we must also recognize the negative noise impacts on local people from more flights," said Stewart Wingate, CEO of Gatwick Airport. "I believe we must do more to help those that would be affected."

"How we best compensate communities affected by major infrastructure projects is an issue facing a growing number of sectors – from aviation to energy. Our proposal would see the people most affected by expansion at Gatwick receiving monetary compensation.

"Environmental issues are at the center of the debate about runway capacity in the South East [of the UK] and noise reduction, mitigation, and compensation are therefore at the heart of our expansion plans. This scheme will be a cornerstone of our planned package of measures for local residents."

Gatwick officials said their airport's location to the south of London means the potential impact on people is at a much lower level than at Heathrow. According to the UK Civil Aviation Authority, 3,650 people living in 1,600 homes around Gatwick are within the airport's 57 dB(A) Leq today.

At Heathrow, on the same basis, almost 240,000 people living in 100,000 homes are impacted by aircraft noise – more than the total number of people impacted by all other major Western European airports combined, according to Gatwick officials.

"Gatwick has long recognized that people who live near airports have concerns about noise and takes its obligations to the environment seriously. The airport is at the forefront of industry noise management initiatives, and its ongoing noise reduction scheme has already set new standards in protecting local communities against noise pollution," airport officials said. For example, they noted:

• Last year Gatwick became the first – and so far the only - UK airport to trial, and get permission to implement, Precision Navigation which allows aircraft to fly on much narrower flight paths rather than in wide swaths enabling aircraft to fly over areas with the least amount of people living under its flight path;

• Gatwick has also recently become the first UK airport to fully consult on modernizing its airspace, which it believes could potentially reduce noise annoyance for over 65 percent of households currently affected; and

• Earlier this year Gatwick announced plans to roll-out one of the largest and most innovative sound insulation schemes of any airport in the UK and across the rest of Europe, offering hundreds more local homes up to £3,000 ($4,981) towards double glazing and loft insulation. Over 1,000 more homes (40 percent more) will be protected from noise than were covered with the old scheme.

Gatwick's sound insulation program will be expanded from the 66 Leq contour to the 60 Leq contour line and will include homes 15 km along the flight paths to the east and west of the airport.

"Addressing the impact of noise on local communities will be a critical issue in winning local support and for the Airports Commission's assessment of its short-listed options. How scheme promoters address noise reduction, mitigation and compensation will be a primary focus of public debate on the benefits and impacts of a new runway being built in London and the South East," Gatwick officials said.

Broad Support for Noise Ombudsman

Meanwhile, advocates and opponents of the expansion of Heathrow Airport have formed an unlikely partnership in support of the idea of establishing an independent noise ombudsman to regulate noise at UK airports.

Establishing a noise ombudsman would require legislation by Parliament and no one has yet defined the exact role the ombudsman would play and powers the position would have. But the fact that both supporters and opponents of the expansion of Heathrow have agreed on the idea is being viewed as a breakthrough in the political logjam over the future of Heathrow.

The business group London First proposed the creation of a noise ombudsman last fall and the idea has picked up support from the aviation group Let Britain Fly, the community group Heathrow Association for the Control of Aircraft Noise (HACAN), members of Parliament, including the chairman of the Energy and Climate Change Select Committee, and the

aviation commission that will determine where new runway capacity will be added.

In a joint letter to the *Guardian* newspaper, supporters said an independent noise ombudsman "could have a fundamental role in further establishing trust and confidence, thus bringing about a fair and reasonable balance between demand for flights and noise control."

They also stressed, "The time has come to adopt a fresh approach, to restore trust and give [those who live near airports] the confidence that their legitimate grievances are being addressed."

Support for the noise ombudsman was reiterated at a first-ever aircraft noise summit held March 11 at London City Hall and organized by Let Britain Fly campaign funded by the airlines and the community group HACAN.

Among the speakers at the summit were the aviation adviser to the Mayor of London, HACAN Chair John Stewart, the Chief Executive of Gatwick Airport Stewart Wingate, and a representative of the Airports Commission.

Gavin Hayes, director of Let Britain Fly, said, "It's vitally important to do everything possible to enhance the quality of life of all of those who live around Britain's airports. This is a golden opportunity to ensure that aircraft noise is managed more effectively, progressively reducing it and the number of people it affects."

HACAN's John Stewart said the airport noise summit "was the first time that organizations from all points of the spectrum in the debate on aircraft noise have cooperated in this way to find solutions. That debate has for many years been challenging, complex and, regrettably, fraught. We believe that the time has come for a fresh start to efforts to break the deadlock."

NASA

SHAPE-CHANGING FLAP ARRIVES AT DRYDEN FOR FLIGHT TESTING

[Following is a Feb. 24 news release by Peter Merlin of the NASA's Dryden Flight Research Center.]

A milestone for the Adaptive Compliant Trailing Edge (ACTE) project at NASA's Dryden Flight Research Center occurred in mid-February with the delivery of two revolutionary experimental flaps designed and built by FlexSys, Inc., of Ann Arbor, Mich., for installation on Dryden's Gulfstream G-III Aerodynamics Research Test Bed aircraft.

Researchers are preparing to replace the airplane's conventional 19-foot-long aluminum flaps with advanced, shapechanging assemblies that form continuous bendable surfaces.

The new flexible flaps arrived at Dryden by truck on Feb. 12 and were immediately unpacked in preparation for ground vibration testing in NASA Dryden's Flight Loads Laboratory, followed by fit checks and eventual installation.

Technicians have begun scanning the G-III with a special laser system to create a computer-generated 3-D model of the airplane.

The flap assemblies will also be scanned so that project engineers can conduct virtual fit checks before actually installing the new flaps. This will reduce the risk of damaging either the airplane or its new control surfaces.

The ACTE experimental flight research project is a joint effort between NASA and the U.S. Air Force Research Laboratory to advance compliant structure technology for use in aircraft to significantly reduce drag, wing weight, and aircraft noise.

The effort is part of NASA's Environmentally Responsible Aviation (ERA) project that explores and documents the feasibility, benefits and technical risk of vehicle concepts and enabling technologies to reduce aviation's impact on the environment.

Boston Logan Int'l

MASSPORT RENEWS, EXPANDS CONTRACT WITH EXELIS

The Massachusetts Port Authority (Massport) has renewed and expanded its contract with Exelis to deploy a comprehensive package of situational awareness, decision-support, operations management and environmental compliance solutions.

Under this contract, Exelis will deliver the Symphony® suite of integrated applications to Boston Logan International Airport and Laurence G. Hanscom Field Airport. Hanscom is the largest general aviation airport in New England.

Symphony enables Air Navigation Service Providers, airports and airlines to proactively manage en route, terminal area, and surface operations, enhancing overall safety and efficiency.

Procured solutions include Exelis Vehicle Movement Area Transmitters for airport ground vehicle surveillance, as well as Symphony® MobileVue™ for displaying aircraft and ground vehicle tracking data on portable devices such as smartphones and tablets.

Massport will continue its use of Symphony OpsVue™ for access to live gate-to-gate flight status information and Symphony EnvironmentalVue™ for enabling noise and operations monitoring.

The Massport contract also includes the deployment of Symphony PublicVue™, an easy-to-use portal for an improved community information exchange.

Symphony PublicVue™ provides visualizations and analytical flight-tracking capabilities to the public. This Web-based application allows the public to see aircraft flight-tracking data and submit feedback and noise complaints for improved community relations. Users can also define their location with a smartphone or tablet and show the relative position of the aircraft to that location.

ANR EDITORIAL ADVISORY BOARD

Peter J. Kirsch, Esq.
Kaplan, Kirsch & Rockwell LLP
Denver

Vincent E. Mestre, P.E.
President, Mestre Greve Associates
Laguna Niguel, CA

Steven F. Pflaum, Esq.
Neal, Gerber & Eisenberg LLP
Chicago

Mary L. Vigilante
President, Synergy Consultants
Seattle

Gregory S. Walden, Esq.
Patton Boggs LLP
Washington, D.C.

"The deployment of the Symphony suite will provide Massport with a comprehensive airport operations management system on a single Web-based platform," said Ted Carniol, general manager of commercial aviation solutions for Exelis.

"Our data and applications will deliver to Massport a critical network of information to improve overall airport resource coordination, safety, system throughput and environmental compliance."

O'Hare, from p. 30

bers of the organization, which claims to be growing rapidly.

Charlier said six letters have been sent to the mayor from FAiR, "three letters each and every time we made a request (one via regular mail, one hand-delivered to his office by me, and one delivered by Chicago Alderman Mary O'Connor)."

"The FAIR Coalition is pro-O'Hare and pro-community," Chalier told Mayor Emanual in a Feb. 11 letter. "This means we understand the economic engine that is our valuable airport neighbor. What we want is a real say in when and where those engines come over our neighborhoods. The changes, foisted upon our communities without substantive community input, as well as the potential negative changes yet to come with future runways, demands that citizens have a real seat at the decision making table."

Mayor Emanuel promised that he would support noise abatement for neighborhoods hit by noise from the new $1.28 billion fourth parallel runway that opened at O'Hare on Oct. 17, 2013. The mayor said he would "make sure the residents around the airport get the resources and support they need for noise abatement."

However, when Schiller Park, IL, Mayor Barbara Piltaver told a recent meeting of the O'Hare Noise Compatibility Commission (ONCC) that insulated windows and doors installed 10 to 15 years ago in her community are now "falling apart," Chicago Department of Aviation officials told her that re-insulating homes was "beyond our means," the *Chicago Sun-Times* reported March 11.

ONCC manages school and residential sound insulation programs in communities near O'Hare International. The sound insulation programs are funded by the City of Chicago.

FAiR members at the ONCC meeting asked the organization to resume publishing a list high-noise events picked up by O'Hare noise monitors that they could use to bolster their tax appeals.

A "very desirable swath of homes" on the Northwest side of Chicago have been impacted by a new flight runway pattern launched in October yet are not eligible for O'Hare sound insulation, she told ONCC, the *Sun-Times* reported. The homes fall outside the 65 DNL contour on the current airport noise exposure map.

AIRPORT NOISE REPORT

Anne H. Kohut, Publisher

Published 44 times a year at 43978 Urbancrest Ct., Ashburn, Va. 20147; Phone: (703) 729-4867; FAX: (703) 729-4528.
e-mail: editor@airportnoisereport.com; Price $850.

Authorization to photocopy items for internal or personal use, or the internal or personal use of specific clients, is granted by Airport Noise Report, provided that the base fee of US$1.03 per page per copy is paid directly to Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923. USA.

San Francisco International Airport

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 thought 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, Environ 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 overflight.

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

Z

how to reach us

SFO Aircraft Noise Abatement Office mailing address is:
P.O. Box 8097, San Francisco, CA 94128

Phone:	**650.821.5100**
Fax:	**650.821.5112**
Noise Complaint Line:	**650.821.4736**
Toll Free Noise Complaint Line:	**877.206.8290**
Noise Complaint E-mail:	**sfo.noise@flysfo.com**
Airport Web Page:	**www.flysfo.com**
Noise Abatement Web Page:	**http://www.flysfo.com/community-environment/noise-abatement**
Roundtable Web Page:	**www.sforoundtable.org**