

# MEETING PACKET

Meeting No. 297

**Wednesday, October 7, 2015 - 7:00 p.m.**

David Chetcuti Community Room – Millbrae City Hall  
450 Poplar 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. Castañeda, 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 May, June, and July 2015**

pg. 11

*ACTION*

### REGULAR AGENDA

**4. Review of SFO FlyQuiet Report for Q2 2015**

pg. 37

*INFORMATION*

Bert Ganoung, Manager - Aircraft Noise Abatement Office

**5. Airport Director's Comments**

*INFORMATION*

John Martin, Director – San Francisco International Airport



REGULAR AGENDA – WORK PROGRAM ITEMS

6. **Strategic Plan for 2016-2018 & Work Program for FY 2015-2016** pg. 51  
*ACTION*  
Cindy Gibbs, Roundtable Aviation Technical Consultant
7. **Budget for FY 2015-2016** pg. 73  
*ACTION*  
James Castañeda, Roundtable Coordinator
8. **Report, Departures Technical Working Group (includes PORTE Departure)** pg. 83  
*INFORMATION*  
Cindy Gibbs, Roundtable Aviation Technical Consultant
9. **Report, Arrivals Technical Working Group (includes Woodside overflights)** pg. 83  
*INFORMATION*  
Cindy Gibbs, Roundtable Aviation Technical Consultant
10. **Update, Metroplex**  
*INFORMATION*  
Cindy Gibbs, Roundtable Aviation Technical Consultant

OTHER MATTERS

11. **Airport Noise Briefing**  
*INFORMATION*  
Cindy Gibbs, Roundtable Aviation Technical Consultant
12. **Member Communications / Announcements**  
*INFORMATION*  
Roundtable Members and Staff
13. **Adjourn**  
*ACTION*  
Cliff Lentz, Roundtable Chairperson

---

Airport Noise Industry News	pg. 89
Glossary of Common Acoustic & Air Traffic Control Terms	pg. 95

**Next Roundtable Regular Meeting Date: Wednesday, December 2, 2015**

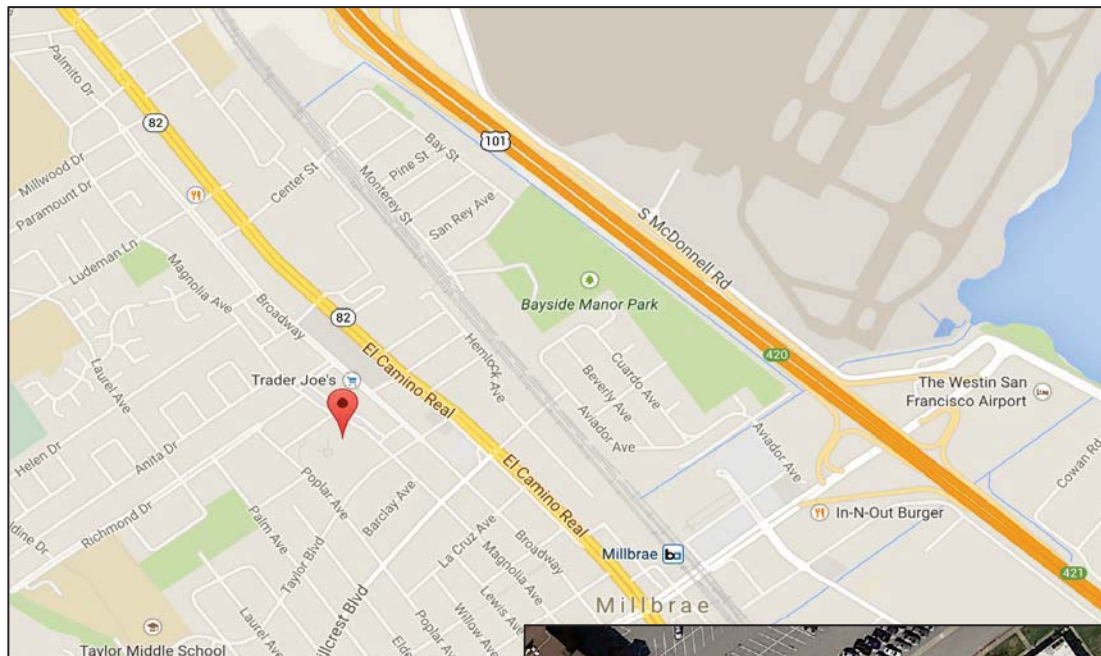
---

**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](http://www.sforoundtable.org).

## REGULAR MEETING LOCATION

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

Access through Millbrae Library parking lot on Poplar Avenue





## ABOUT THE AIRPORT/COMMUNITY ROUNDTABLE

### OVERVIEW

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

### POLICY STATEMENT

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

---

### FEDERAL PREEMPTION, RE: AIRCRAFT FLIGHT PATTERNS

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

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





## WELCOME

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

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

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

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

---

### AIRPORT/COMMUNITY ROUNDTABLE OFFICERS & STAFF

**Chairperson:**

**CLIFF LENTZ**

Representative, City of Brisbane  
[cliff Lentz@ci.brisbane.ca.us](mailto:cliff Lentz@ci.brisbane.ca.us)

**Vice-Chairperson:**

**ELIZABETH LEWIS**

Representative, Town of Atherton  
[el Lewis@ci.atherton.ca.us](mailto:el Lewis@ci.atherton.ca.us)

**Roundtable Coordinator:**

**JAMES A. CASTAÑEDA, AICP**

County of San Mateo  
Planning & Building Department  
[jcastaneda@sforoundtable.org](mailto:jcastaneda@sforoundtable.org)



## **MEMBERSHIP ROSTER OCTOBER 2015 REGULAR MEMBERS**

### **CITY AND COUNTY OF SAN FRANCISCO**

#### **BOARD OF SUPERVISORS**

**Representative:** Vacant

**Alternate:** Vacant

### **CITY AND COUNTY OF SAN FRANCISCO MAYOR'S OFFICE**

**Vacant**, (Appointed)

**Alternate:** Edwin Lee, Mayor

### **CITY AND COUNTY OF SAN FRANCISCO AIRPORT COMMISSION REPRESENTATIVE**

**John L. Martin**, Airport Director (Appointed)

**Alternate:** Doug Yakel, Public Information Officer

### **COUNTY OF SAN MATEO BOARD OF SUPERVISORS**

**Dave Pine**, Supervisor

**Alternate:** Don Horsley, Supervisor

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

#### **AIRPORT LAND USE COMMITTEE (ALUC)**

**Vacant**, ALUC Chairperson (Appointed)

**Alternate:** Carol Ford, Aviation Representative (Appointed)

### **TOWN OF ATHERTON**

**Elizabeth Lewis**, Council Member/**Roundtable Vice-Chairperson**

**Alternate:** Bill Widmer, Council Member

### **CITY OF BELMONT**

**Cathy Wright**, Council Member

**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 OCTOBER 2015**

Page 2 of 3

### **CITY OF DALY CITY**

**Raymond Buenaventura**, Mayor

Alternate: Vacant

### **CITY OF FOSTER CITY**

**Steve Okamoto**, Council Member

Alternate: Vacant

### **CITY OF HALF MOON BAY**

**Deborah Ruddock**, Council Member

Alternate: Marina Fraser, Council Member

### **TOWN OF HILLSBOROUGH**

**Alvin Royse**, Council Member

Alternate: Shawn Christianson, Council Member

### **CITY OF MENLO PARK**

**Peter Ohtaki**, Council Member

Alternate: Vacant

### **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

## **MEMBERSHIP ROSTER OCTOBER 2015**

Page 3 of 3

### **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 James Abell, United Airlines

Glenn Morse, United Airlines

### **FEDERAL AVIATION ADMINISTRATION**

Andy Richards, SFO Air Traffic Control Tower

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

Tony DiBernardo, FAA District Manager – Sierra-Pacific District

---

## **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

John Hampel, Noise Abatement Specialist

Joyce Satow, Noise Abatement Office Administration Secretary



# **CONSENT AGENDA**

Regular Meeting # 297  
October 7, 2015

(This page is left intentionally blank)

# Airport Director's Report

**Presented at the October 7, 2015  
Airport Community Roundtable Meeting  
SFO Aircraft Noise Abatement Office  
May 2015**



# Monthly Noise Exceedance Report

San Francisco International Airport -- Director's Report

Period: May 2015



Airline	Noise Exceedances				Noise Exceedance Quality Rating
	Total Noise Exceedances	Total Operations per Month	Exceedances per 1,000 Operations	Score	
SKW	18	6,486	3	9.99	
BAW	2	122	16	9.92	
CPZ	37	1,404	26	9.87	
VRD	76	2,878	26	9.87	
CES	2	62	32	9.84	
ASA	38	1,108	34	9.83	
SWA	96	2,540	38	9.82	
FFT	14	370	38	9.82	
UAL	390	9,963	39	9.81	
DAL	63	1,538	41	9.80	
JBU	37	895	41	9.80	
AMX	8	175	46	9.78	
ACA	27	581	46	9.78	
VIR	5	107	47	9.77	
ETD	3	62	48	9.77	
KLM	3	62	48	9.77	
AAL	150	2,720	55	9.73	
SWR	4	61	66	9.68	
WJA	8	115	70	9.66	
ASH	1	11	91	9.56	
TAI	9	86	105	9.49	
ABX	6	41	146	9.29	
HAL	27	122	221	8.93	
FDX	21	83	253	8.78	
SIA	38	123	309	8.51	
NCA	16	48	333	8.39	
GTI	15	43	349	8.32	
EVA	55	134	410	8.02	
JAL	28	62	452	7.82	
CPA	56	123	455	7.80	
ANZ	33	61	541	7.39	
AAR	47	86	547	7.36	
KAL	78	121	645	6.89	
PAL	72	90	800	6.14	
CAL	177	109	1,624	2.16	
CKS	58	28	2,071	0.00	
<b>TOTAL</b>	<b>1,718</b>	<b>32,620</b>	<b>10,114</b>		

Source: SFO Noise Abatement Office

**Historical Significant Exceedances Report**  
San Francisco International Airport -- Director's Report  
Period: **May 2015**

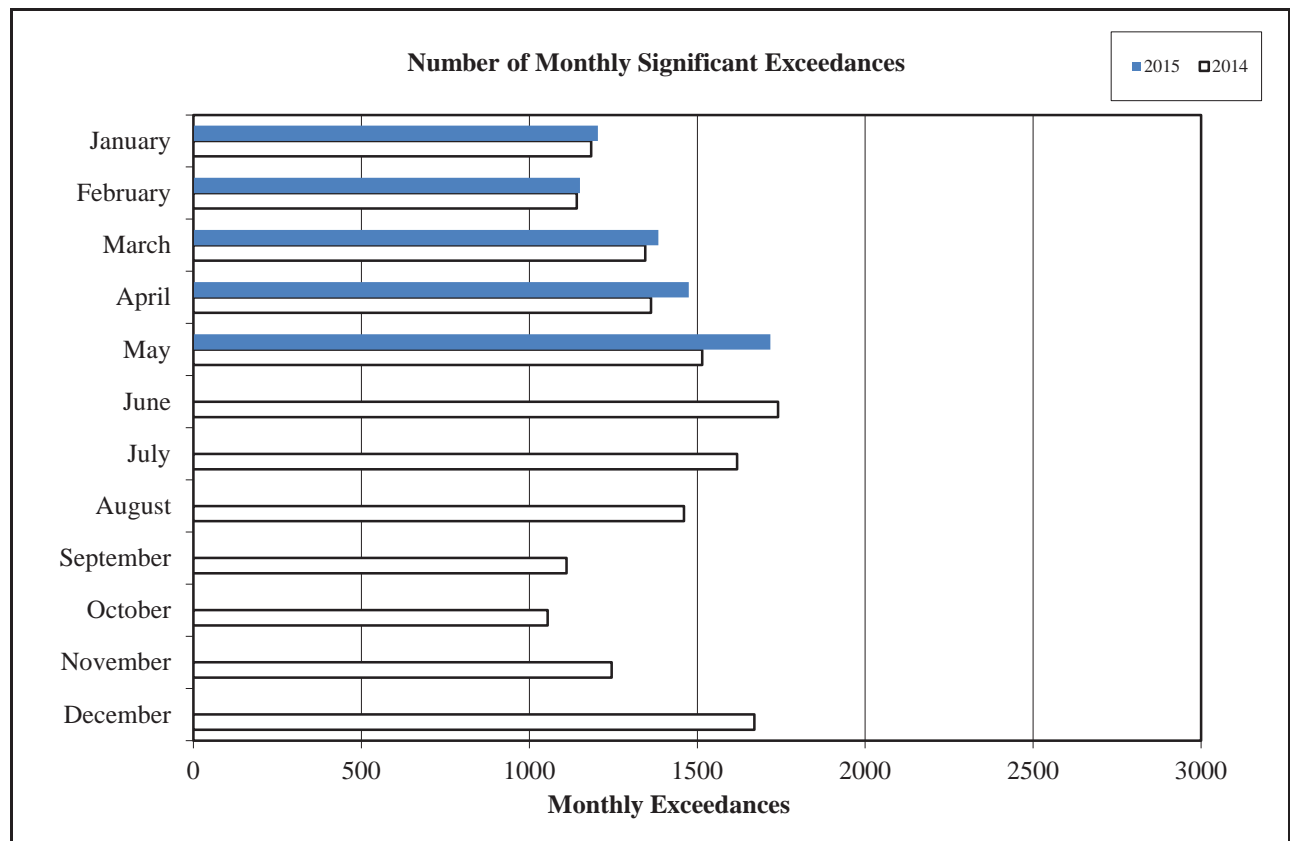


San Francisco International Airport

Month	Number of Monthly Significant Exceedances					Change from Last Year
	2011	2012	2013	2014	2015	
<b>January</b>	1,580	1,378	1,428	1,184	1,204	<b>20</b>
<b>February</b>	1,429	1,581	1,176	1,141	1,151	<b>10</b>
<b>March</b>	1,681	1,703	1,671	1,345	1,384	<b>39</b>
<b>April</b>	1,900	1,870	1,910*	1,362	1,475	<b>113</b>
<b>May</b>	2,024	1,912	1,859*	1,515	1,718	<b>203</b>
<b>June</b>	1,947	2,355	1,915	1,740		<b>0</b>
<b>July</b>	2,017	2,621	1,647	1,619		<b>0</b>
<b>August</b>	1,847	1,823	1,638**	1,460		<b>0</b>
<b>September</b>	1,609	1,464	1,352	1,111		<b>0</b>
<b>October</b>	1,572	1,689	1,277	1,055		<b>0</b>
<b>November</b>	1,575	1,421	1,262	1,245		<b>0</b>
<b>December</b>	1,447	1,439	1,160	1,670		<b>0</b>
<b>Annual Total</b>	20,628	21,256	18,295	16,447	6,932	
<b>Year to Date Trend</b>	<b>20,628</b>	<b>21,256</b>	<b>18,295</b>	<b>16,447</b>	<b>6,932</b>	<b>385</b>

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

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



## Monthly Noise Complaint Summary

San Francisco International Airport -- Director's Report

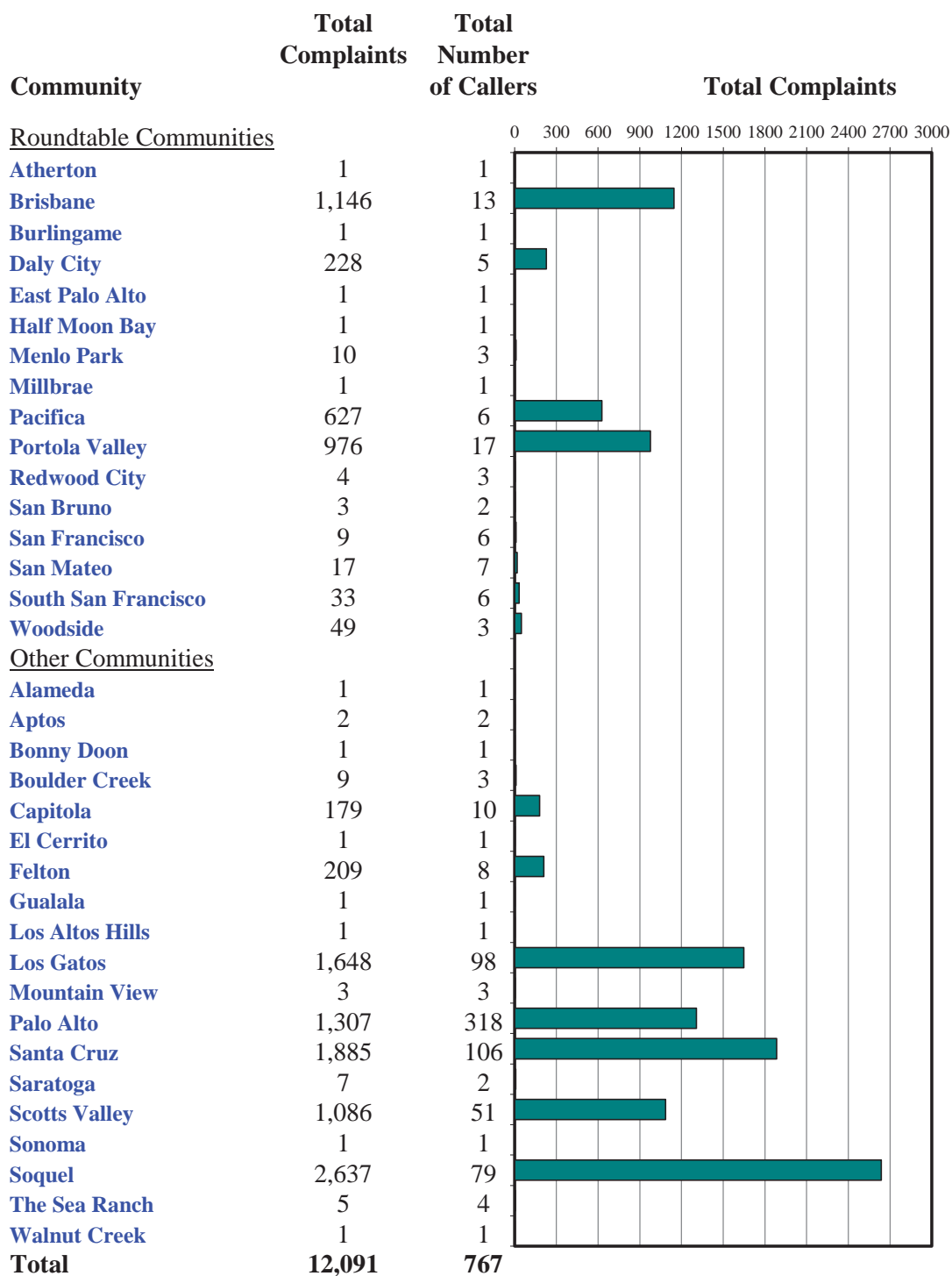
Period: **May 2015**



San Francisco International Airport

### Monthly Calls by Community

Source: Airport Noise Monitoring System





7 complaints from The Sea Ranch (6) and Sonoma (1)

Page 4


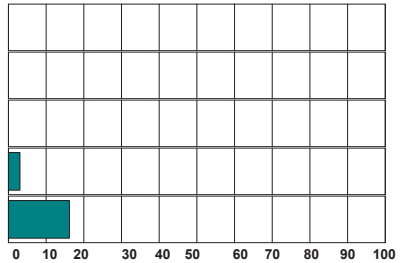




# Monthly Nighttime Power Runups Report (85-06-AOB)

San Francisco International Airport -- Director's Report

Period : **May 2015**

Time of Day : From 10 pm through 7 am



Airline Code		Number of Runups	Runups Per 1,000 Departures	Percentage of Runups	
	DAL	1	1.3	4%	
	SWA	1	0.8	4%	
	VRD	1	0.7	4%	
	UAL	4	0.8	17%	
	AAL	17	12.4	71%	
<b>Total</b>		<b>24</b>			

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

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

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



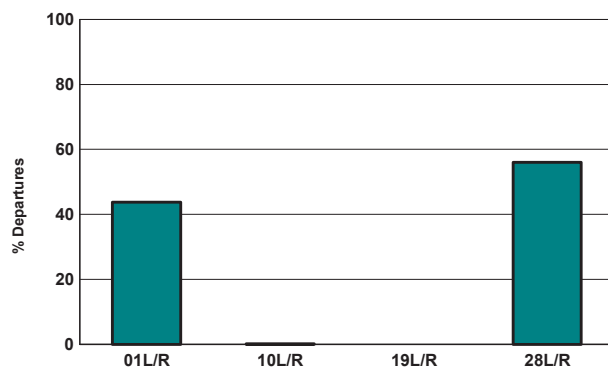
San Francisco International Airport

**Runway Utilization (1 am to 6 am)**

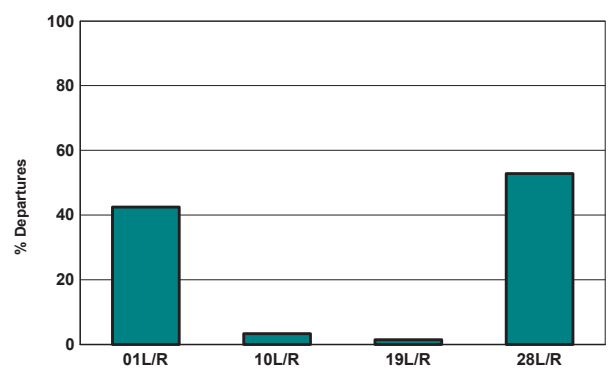
**Monthly Jet Departures**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
01L/R	99	72	114	178	205	-	-	-	-	-	-	-	668
10L/R	5	22	6	18	1	-	-	-	-	-	-	-	52
19L/R	-	22	-	-	-	-	-	-	-	-	-	-	22
28L/R	81	82	181	226	262	-	-	-	-	-	-	-	832
<b>Total</b>	<b>185</b>	<b>198</b>	<b>301</b>	<b>422</b>	<b>468</b>	-	-	-	-	-	-	-	<b>1,574</b>
01L/R	54%	36%	38%	42%	44%	0%	0%	0%	0%	0%	0%	0%	42%
10L/R	3%	11%	2%	4%	0%	0%	0%	0%	0%	0%	0%	0%	3%
19L/R	0%	11%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%
28L/R	44%	41%	60%	54%	56%	0%	0%	0%	0%	0%	0%	0%	53%

**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: May 2015

Time of Day : All Hours



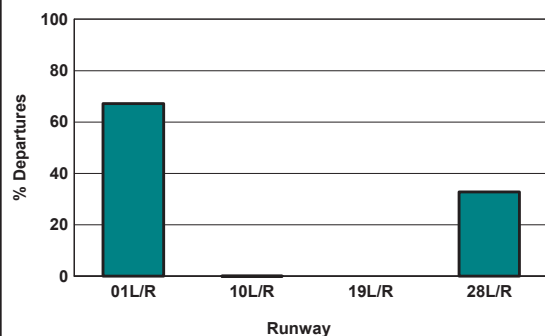
San Francisco International Airport

## Runway Utilization (All Hours)

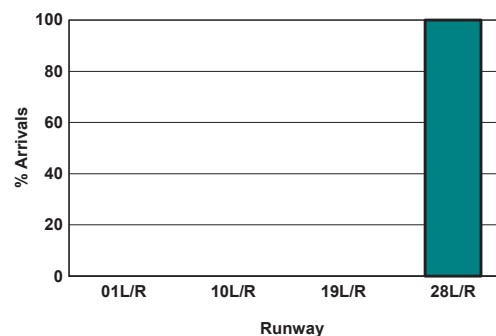
Source: Airport Noise Monitoring System

	Runway Utilization				Total
	01L/R	10L/R	19L/R	28L/R	
Total Monthly Operations					
Departures	11,413	2	0	5,583	16,998
Arrivals	0	0	0	16,441	16,441
Percentage Utilization					
Departures	67.1%	0.0%	0.0%	32.8%	100%
Arrivals	0.0%	0.0%	0.0%	100.0%	100%

## Departures (All Hours)



## Arrivals (All Hours)



## Percentage Departure Utilization



Numbers rounded to nearest whole percentages

## Percentage Arrival Utilization



Numbers rounded to nearest whole percentages

# Airport Director's Report

**Presented at the October 7, 2015  
Airport Community Roundtable Meeting  
SFO Aircraft Noise Abatement Office  
June 2015**



# Monthly Noise Exceedance Report

San Francisco International Airport -- Director's Report

Period: **June 2015**



Airline	Noise Exceedances				Noise Exceedance Quality Rating
	Total Noise Exceedances	Total Operations per Month	Exceedances per 1,000 Operations	Score	
SKW	21	6,270	3	9.98	
SCX	1	153	7	9.96	
DLH	1	119	8	9.95	
VRD	38	2,971	13	9.92	
CES	1	60	17	9.89	
KLM	1	60	17	9.89	
BAW	2	119	17	9.89	
FFT	7	357	20	9.87	
CPZ	23	1,099	21	9.87	
ASA	22	1,049	21	9.87	
SWA	64	2,577	25	9.84	
WJA	3	120	25	9.84	
DAL	52	2,079	25	9.84	
ACA	22	692	32	9.80	
AMX	6	166	36	9.77	
AAL	104	2,777	37	9.76	
JBU	34	884	38	9.75	
UAL	415	10,268	40	9.74	
VIR	6	100	60	9.62	
SAS	4	61	66	9.58	
ETD	4	59	68	9.57	
TAI	13	93	140	9.10	
FDX	16	85	188	8.79	
SIA	23	119	193	8.76	
GTI	26	91	286	8.17	
HAL	39	120	325	7.92	
NCA	17	51	333	7.86	
CPA	58	135	430	7.25	
JAL	26	60	433	7.22	
EVA	59	135	437	7.20	
CKS	4	7	571	6.34	
AAR	82	112	732	5.31	
ANZ	45	60	750	5.19	
PAL	79	85	929	4.04	
KAL	157	119	1,319	1.54	
CAL	170	109	1,560	0.00	
<b>TOTAL</b>	<b>1,645</b>	<b>33,421</b>	<b>9,222</b>		

Source: SFO Noise Abatement Office



**Historical Significant Exceedances Report**  
San Francisco International Airport -- Director's Report  
Period: **June 2015**

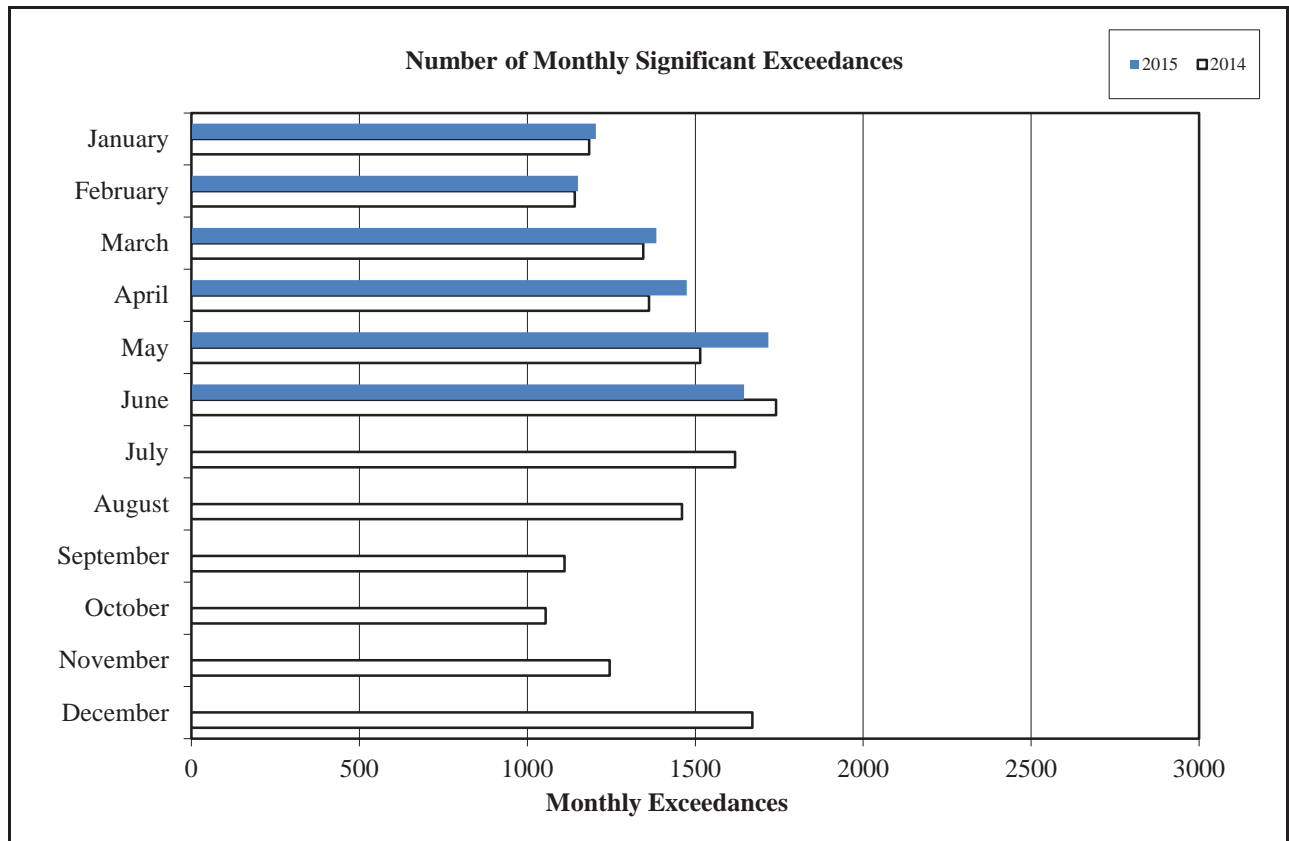


San Francisco International Airport

Month	Number of Monthly Significant Exceedances					Change from Last Year
	2011	2012	2013	2014	2015	
<b>January</b>	1,580	1,378	1,428	1,184	1,204	<b>20</b>
<b>February</b>	1,429	1,581	1,176	1,141	1,151	<b>10</b>
<b>March</b>	1,681	1,703	1,671	1,345	1,384	<b>39</b>
<b>April</b>	1,900	1,870	1,910*	1,362	1,475	<b>113</b>
<b>May</b>	2,024	1,912	1,859*	1,515	1,718	<b>203</b>
<b>June</b>	1,947	2,355	1,915	1,740	1,645	<b>-95</b>
<b>July</b>	2,017	2,621	1,647	1,619		<b>0</b>
<b>August</b>	1,847	1,823	1,638**	1,460		<b>0</b>
<b>September</b>	1,609	1,464	1,352	1,111		<b>0</b>
<b>October</b>	1,572	1,689	1,277	1,055		<b>0</b>
<b>November</b>	1,575	1,421	1,262	1,245		<b>0</b>
<b>December</b>	1,447	1,439	1,160	1,670		<b>0</b>
<b>Annual Total</b>	20,628	21,256	18,295	16,447	8,577	
<b>Year to Date Trend</b>	<b>20,628</b>	<b>21,256</b>	<b>18,295</b>	<b>16,447</b>	<b>8,577</b>	<b>290</b>

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

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



## Monthly Noise Complaint Summary

San Francisco International Airport -- Director's Report

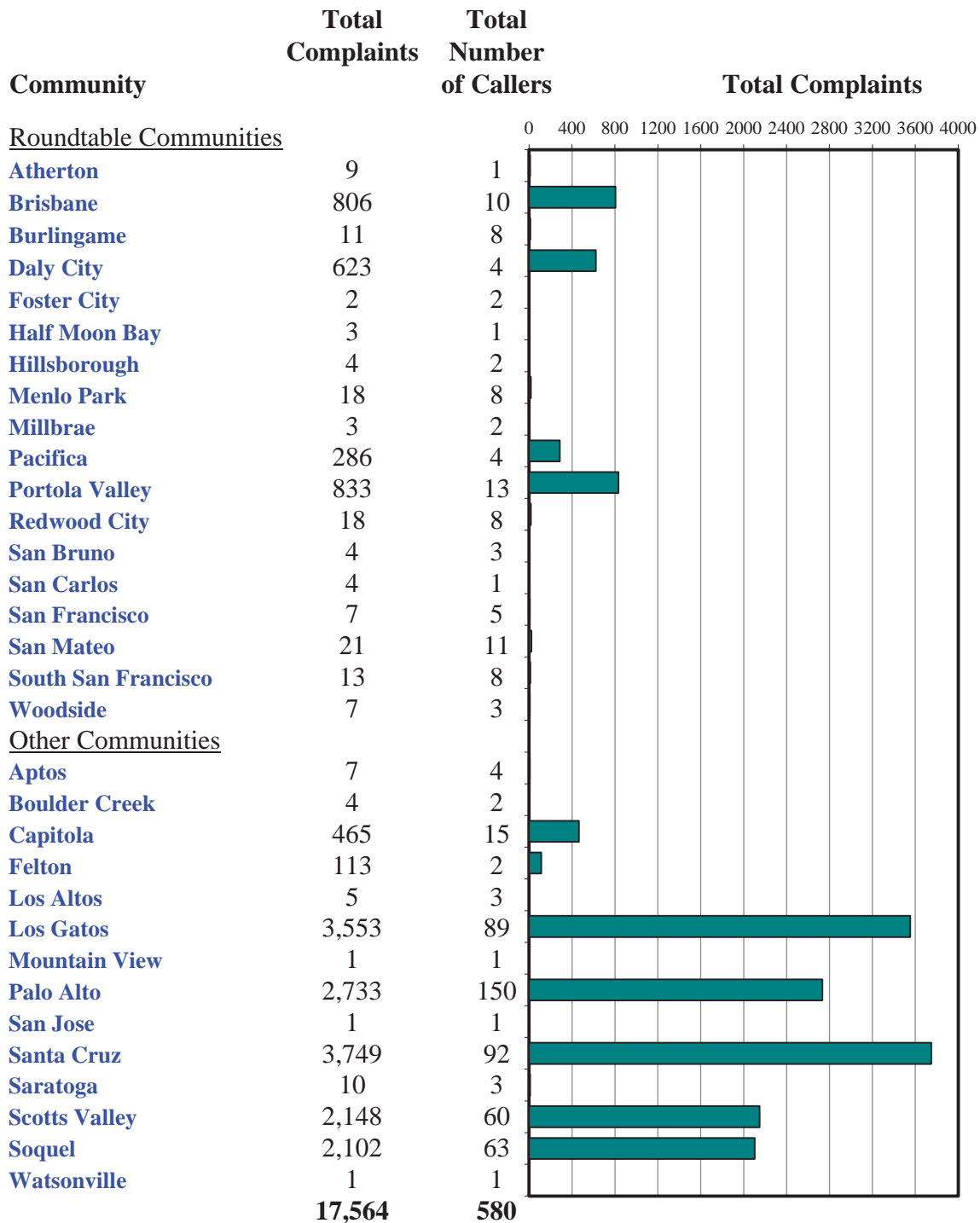
Period: **June 2015**



San Francisco International Airport

### Monthly Calls by Community

Source: Airport Noise Monitoring System



# Monthly Noise Complaint Summary Map June 2015



● Caller Location and Amount of Complaints

Page 4

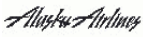
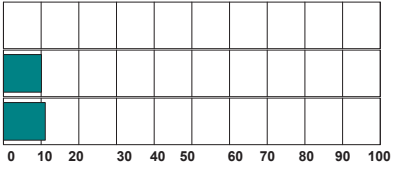


# Monthly Nighttime Power Runups Report (85-06-AOB)

San Francisco International Airport -- Director's Report

Period : **June 2015**

Time of Day : From 10 pm through 7 am



Airline Code		Number of Runups	Runups Per 1,000 Departures	Percentage of Runups	
	ASA	1	1.9	4%	
	UAL	11	2.1	46%	
	AAL	12	8.7	50%	
<b>Total</b>		<b>24</b>			

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

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

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





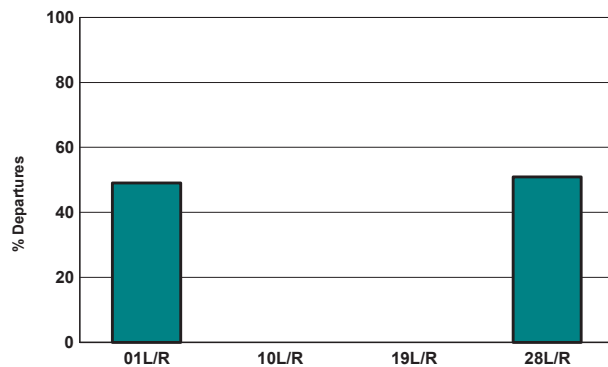
San Francisco International Airport

**Runway Utilization (1 am to 6 am)**

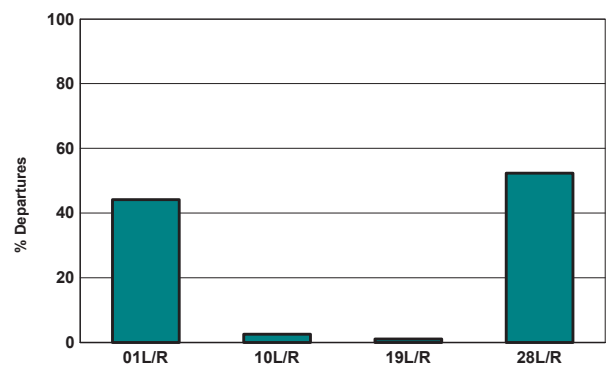
**Monthly Jet Departures**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
01L/R	99	72	114	178	206	259	-	-	-	-	-	-	928
10L/R	5	22	6	18	1	-	-	-	-	-	-	-	52
19L/R	-	22	-	-	-	-	-	-	-	-	-	-	22
28L/R	81	82	181	226	262	269	-	-	-	-	-	-	1,101
<b>Total</b>	<b>185</b>	<b>198</b>	<b>301</b>	<b>422</b>	<b>469</b>	<b>528</b>	-	-	-	-	-	-	<b>2,103</b>
01L/R	54%	36%	38%	42%	44%	49%	0%	0%	0%	0%	0%	0%	44%
10L/R	3%	11%	2%	4%	0%	0%	0%	0%	0%	0%	0%	0%	2%
19L/R	0%	11%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%
28L/R	44%	41%	60%	54%	56%	51%	0%	0%	0%	0%	0%	0%	52%

**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: June 2015

Time of Day : All Hours



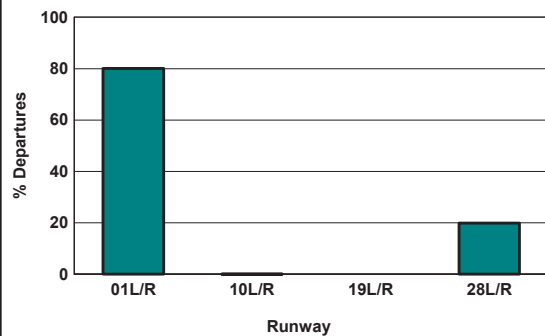
San Francisco International Airport

### Runway Utilization (All Hours)

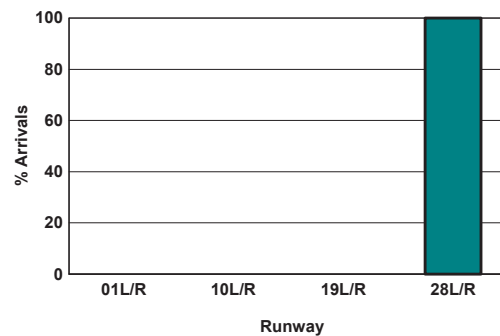
Source: Airport Noise Monitoring System

	Runway Utilization				Total
	01L/R	10L/R	19L/R	28L/R	
<b>Total Monthly Operations</b>					
Departures	13,704	2	0	3,399	17,105
Arrivals	0	0	0	17,181	17,181
<b>Percentage Utilization</b>					
Departures	80.1%	0.0%	0.0%	19.9%	100%
Arrivals	0.0%	0.0%	0.0%	100.0%	100%

### Departures (All Hours)



### Arrivals (All Hours)



### Percentage Departure Utilization



Numbers rounded to nearest whole percentages

### Percentage Arrival Utilization



Numbers rounded to nearest whole percentages



# Airport Director's Report

**Presented at the October 7, 2015  
Airport Community Roundtable Meeting  
SFO Aircraft Noise Abatement Office  
July 2015**



# Monthly Noise Exceedance Report

San Francisco International Airport -- Director's Report

Period: July 2015



Airline	Noise Exceedances				Noise Exceedance Quality Rating
	Total Noise Exceedances	Total Operations per Month	Exceedances per 1,000 Operations	Score	
SKW	31	6,579	5	9.96	
VRD	50	3,116	16	9.88	
FFT	7	372	19	9.86	
ASA	21	1,090	19	9.86	
SCX	4	183	22	9.84	
DAL	58	2,301	25	9.81	
CPZ	29	1,107	26	9.80	
ACA	23	735	31	9.76	
BAW	4	126	32	9.76	
CES	2	63	32	9.76	
SWA	97	2,675	36	9.73	
AAL	122	2,902	42	9.68	
UAL	470	11,020	43	9.68	
JBU	43	922	47	9.65	
AFR	7	125	56	9.58	
WJA	8	126	63	9.52	
AMX	13	183	71	9.47	
VIR	8	107	75	9.44	
TAI	13	126	103	9.22	
FDX	18	93	194	8.55	
ETD	14	61	230	8.27	
SIA	34	125	272	7.96	
NCA	16	54	296	7.77	
GTI	31	94	330	7.52	
EVA	53	144	368	7.23	
JAL	23	62	371	7.21	
HAL	46	123	374	7.19	
AWE	1	2	500	6.24	
CPA	80	152	526	6.04	
CKS	5	9	556	5.82	
CAL	66	115	574	5.69	
PAL	58	90	644	5.16	
ANZ	48	61	787	4.09	
KAL	107	125	856	3.57	
AAR	153	115	1,330	0.00	
<b>TOTAL</b>	<b>1,763</b>	<b>35,283</b>	<b>8,971</b>		

Source: SFO Noise Abatement Office

**Historical Significant Exceedances Report**  
San Francisco International Airport -- Director's Report  
Period: **July 2015**



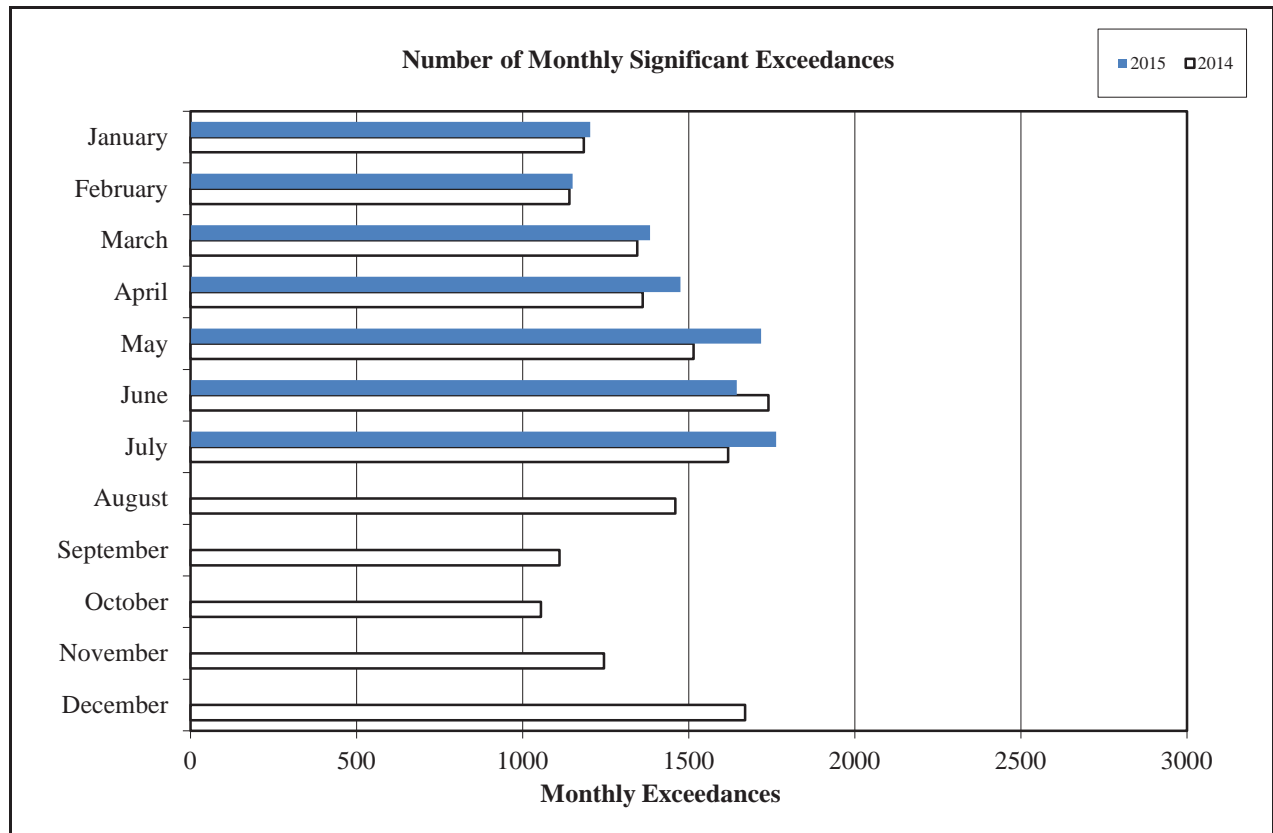
San Francisco International Airport

Month	Number of Monthly Significant Exceedances					Change from Last Year
	2011	2012	2013	2014	2015	
<b>January</b>	1,580	1,378	1,428	1,184	1,204	<b>20</b>
<b>February</b>	1,429	1,581	1,176	1,141	1,151	<b>10</b>
<b>March</b>	1,681	1,703	1,671	1,345	1,384	<b>39</b>
<b>April</b>	1,900	1,870	1,910*	1,362	1,475	<b>113</b>
<b>May</b>	2,024	1,912	1,859*	1,515	1,718	<b>203</b>
<b>June</b>	1,947	2,355	1,915	1,740	1,645	<b>-95</b>
<b>July</b>	2,017	2,621	1,647	1,619	1,763***	<b>144</b>
<b>August</b>	1,847	1,823	1,638**	1,460		<b>0</b>
<b>September</b>	1,609	1,464	1,352	1,111		<b>0</b>
<b>October</b>	1,572	1,689	1,277	1,055		<b>0</b>
<b>November</b>	1,575	1,421	1,262	1,245		<b>0</b>
<b>December</b>	1,447	1,439	1,160	1,670		<b>0</b>
<b>Annual Total</b>	20,628	21,256	18,295	16,447	10,340	
<b>Year to Date Trend</b>	<b>20,628</b>	<b>21,256</b>	<b>18,295</b>	<b>16,447</b>	<b>10,340</b>	<b>434</b>

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

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

\*\*\*No data available from Site 2 starting July 17



## Monthly Noise Complaint Summary

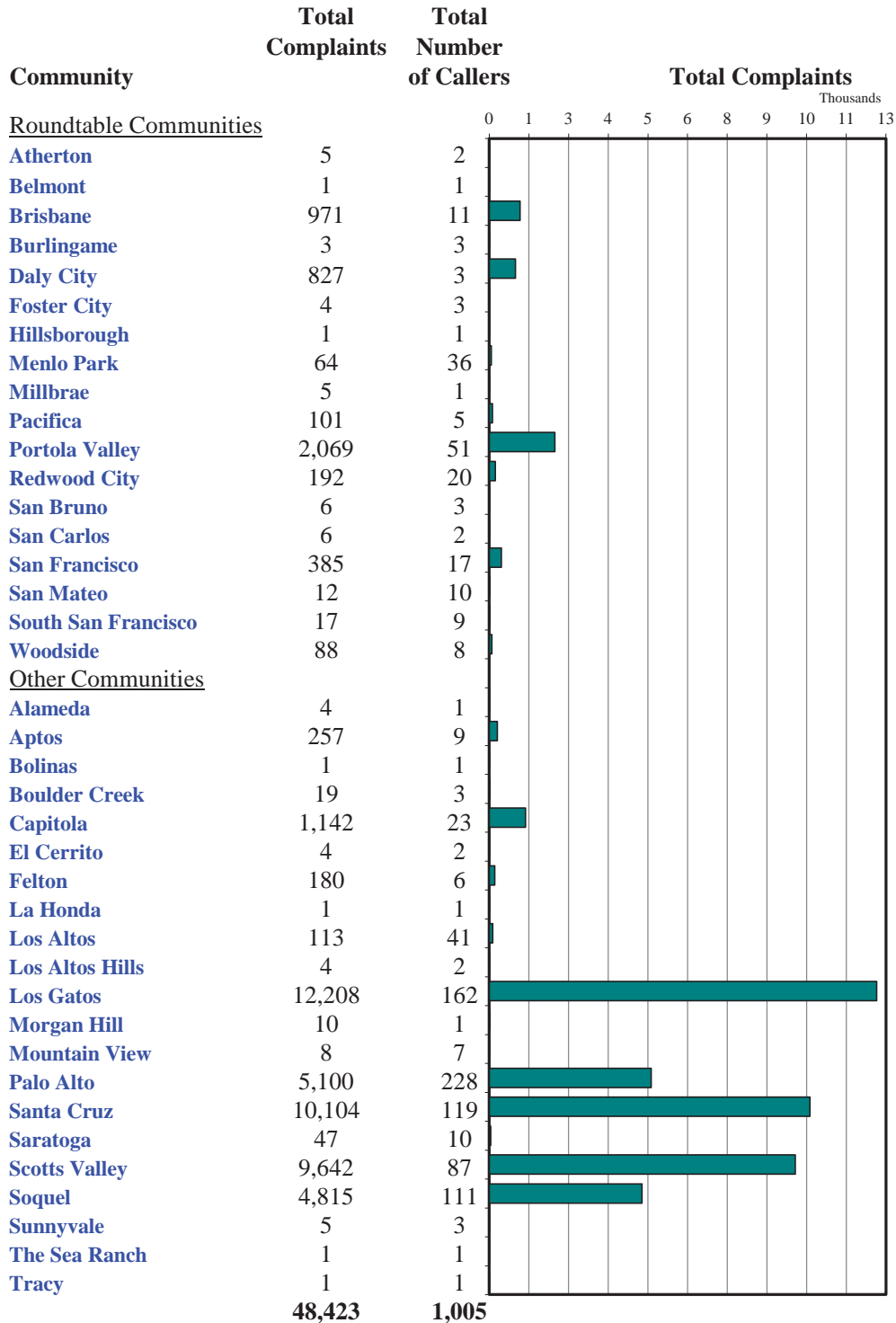
San Francisco International Airport -- Director's Report  
Period: **July 2015**



San Francisco International Airport

### Monthly Calls by Community

Source: Airport Noise Monitoring System





# Monthly Noise Complaint Summary Map July 2015



● Caller Location and Amount of Complaints






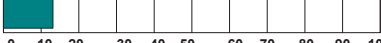
# Monthly Nighttime Power Runups Report (85-06-AOB)

San Francisco International Airport -- Director's Report

Period : **July 2015**

Time of Day : From 10 pm through 7 am



Airline Code		Number of Runups	Runups Per 1,000 Departures	Percentage of Runups	
	VRD	2	1.3	7%	
	UAL	11	2.0	41%	
	AAL	14	9.6	52%	
<b>Total</b>		<b>27</b>			

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

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

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





San Francisco International Airport

**Runway Utilization (1 am to 6 am)**

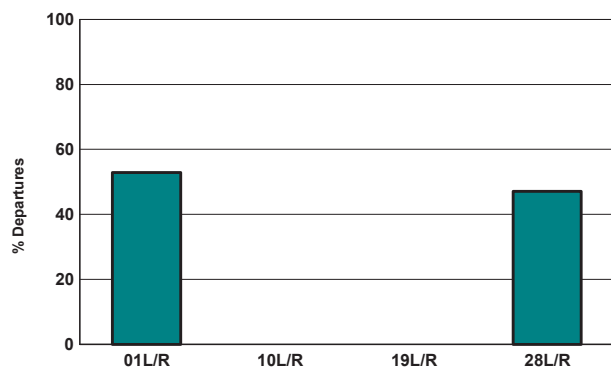
**J onthly Met Departures**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
01L/R	99	72	114	178	206	259	, 0,	-	-	-	-	-	12, 1
10L/R	5	22	6	17	1	-	-	-	-	-	-	-	51
19L/R	-	22	-	-	-	-	-	-	-	-	-	-	22
28L/R	81	82	181	226	262	269	270	-	-	-	-	-	1%71
<b>Total</b>	<b>185</b>	<b>198</b>	<b>301</b>	<b>421</b>	<b>469</b>	<b>528</b>	<b>5- 3</b>	<b>,</b>	<b>,</b>	<b>,</b>	<b>,</b>	<b>,</b>	<b>26- 5</b>

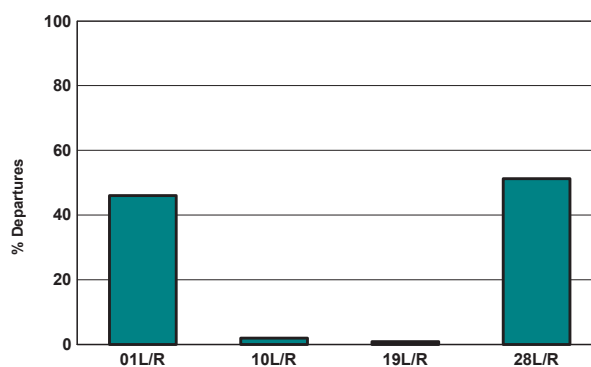
  

01L/R	543	, 63	, 83	423	443	493	5, 3	03	03	03	03	03	463
10L/R	, 3	113	23	43	03	03	03	03	03	03	03	03	23
19L/R	03	113	03	03	03	03	03	03	03	03	03	03	13
28L/R	443	413	603	543	563	513	473	03	03	03	03	03	513

**Current J onth (1 am to 6 am)**



**Year,to,Date (1am to 6 am)**



**Current J onth (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: Jul2 015T

mif e oyDa2 : All Hours



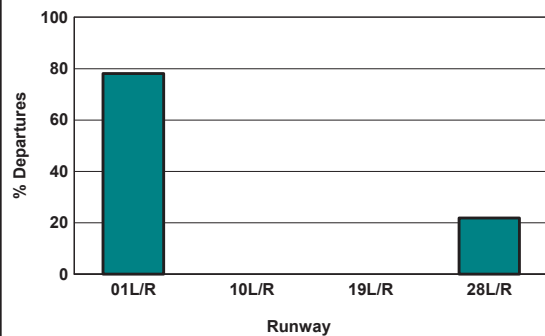
San Francisco International Airport

### Runway Utilization (All Hours)

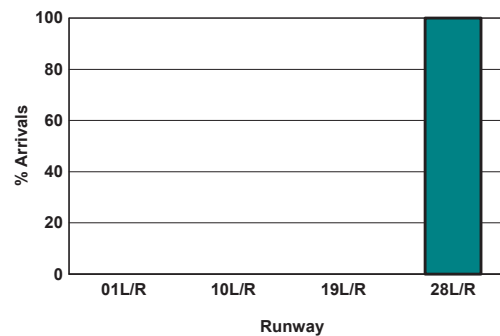
Source: Airport Noise Monitoring System

	Runway Utilization				Total
	01L/R	10L/R	19L/R	28L/R	
Total Monthly Operations					
Departures	53,07T	1	1	7,449	58,070
Arrivals	1	1	1	58,585	58,585
Percentage Utilization					
Departures	98.5%	1.1%	1.1%	05.4%	511%
Arrivals	1.1%	1.1%	1.1%	511.1%	511%

### Departures (All Hours)



### Arrivals (All Hours)



### Percentage Departure Utilization



Numbers rounded to nearest whole percentages

### Percentage Arrival Utilization



Numbers rounded to nearest whole percentages

# **REGULAR AGENDA**

Regular Meeting # 297  
October 7, 2015

(This page is left intentionally blank)



San Francisco International Airport

# Fly Quiet Report

**Presented at the October 7, 2015  
Airport Community Roundtable Meeting**  
SFO Aircraft Noise Abatement Office  
**Second Quarter 2015**





# Fly Quiet Program

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

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

## Program Goals

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

## Program Reports

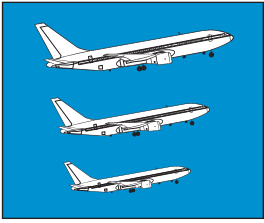
Fly Quiet reports communicate results in a clear, understandable format on a scale of 0-10, zero being poor and ten being good. This allows for an easy comparison between airlines over time. Individual airline scores are computed and reports are generated each quarter. These quantitative scores allow airline management and flight personnel to measure exactly how they stand compared to other operators and how their proactive involvement can positively reduce noise in the Bay Area.

## Program Elements

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



# SFO's Fly Quiet Ratings



## Fleet Noise Quality

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



## Noise Exceedance

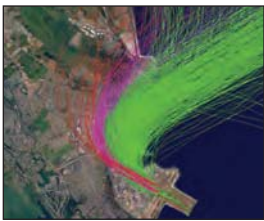
Eliminating high-level noise events is a long-standing goal of the Airport and the Airport Community Roundtable. As a result the Airport has established single event maximum noise level limits at each noise-monitoring site. These thresholds were set to identify aircraft producing noise levels higher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

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



## Nighttime Preferential Runway Use

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



## Shoreline Departure Quality

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

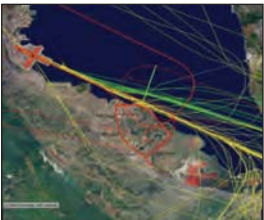
In order to evaluate each airline's performance when flying a Shoreline Departure, a corridor was established using Interstate 101 (green colored flight tracks) as a reference point. The corridor runs north along 101, beginning approximately one-mile north-northwest of the end of Runways 28L and 28R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



## Gap Departure Quality

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

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









































## Foster City Arrival Quality

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





















# Airline Fly Quiet Summary Report - 2nd Quarter 2015

April 1 to June 30, 2015

Airline		Fleet Noise Quality	Noise Exceedance	Nighttime Runway Use	Departures		Arrivals	Final Score	Airline Fly Quiet Rating			
					Shoreline	Gap	Foster City					
	AFR	9.03	10.00	-	10.00	7.00	-	9.01	<div><div></div></div>			
	CCA	9.05	10.00	-	-	7.83	-	8.96	<div><div></div></div>			
	DLH	9.09	9.99	-	10.00	6.58	-	8.91	<div><div></div></div>			
	CSN	10.00	10.00	-	-	5.17	-	8.39	<div><div></div></div>			
	UAE	10.00	10.00	-	-	4.78	-	8.26	<div><div></div></div>			
	SAS	8.17	9.91	-	-	6.28	-	8.12	<div><div></div></div>			
	ANA	7.13	9.98	-	-	7.15	-	8.09	<div><div></div></div>			
	SKW	10.00	9.99	3.33	9.75	7.49	5.45	7.67	<div><div></div></div>			
	AWE	4.75	9.86	-	8.46	6.94	8.33	7.67	<div><div></div></div>			
	XLF	4.05	10.00	-	-	8.33	-	7.46	<div><div></div></div>			
	ASH	10.00	9.83	3.33	-	8.63	5.44	7.45	<div><div></div></div>			
	VRD	5.12	9.93	-	9.51	6.03	6.33	7.38	<div><div></div></div>			
	ABX	4.87	9.53	-	9.71	5.00	6.88	7.20	<div><div></div></div>			
	CPZ	10.00	9.92	1.11	9.92	6.69	5.19	7.14	<div><div></div></div>			
	FFT	6.04	9.90	3.33	9.78	5.60	8.09	7.12	<div><div></div></div>			
	ETD	7.15	9.82	-	-	3.82	-	6.93	<div><div></div></div>			
	SWA	5.72	9.88	3.39	9.77	5.63	6.80	6.87	<div><div></div></div>			
	SCX	5.82	9.99	1.67	10.00	5.00	8.33	6.80	<div><div></div></div>			
	CES	4.05	9.89	-	-	6.44	-	6.79	<div><div></div></div>			
	SWR	8.17	9.82	-	5.00	3.72	-	6.68	<div><div></div></div>			
	VIR	5.28	9.81	-	6.25	5.36	-	6.68	<div><div></div></div>			
	FDX	2.34	9.12	-	8.45	7.22	5.95	6.62	<div><div></div></div>			
	AAL	5.43	9.81	3.69	8.86	4.59	7.21	6.60	<div><div></div></div>			
	BAW	5.64	9.95	-	-	4.11	-	6.57	<div><div></div></div>			
	ACA	5.50	9.88	3.33	9.43	3.75	7.24	6.52	<div><div></div></div>			
								6.48	SFO AVERAGE			
	JBU	4.81	9.86	3.33	7.82	5.70	7.09	6.44	<div><div></div></div>			
	ASA	5.33	9.89	3.33	9.87	4.91	5.04	6.40	<div><div></div></div>			
	UAL	5.67	9.84	3.42	8.26	4.13	6.43	6.29	<div><div></div></div>			
	DAL	6.08	9.86	3.59	8.20	2.71	7.08	6.26	<div><div></div></div>			
	KLM	3.43	9.89	-	5.67	5.70	-	6.17	<div><div></div></div>			
	WJA	5.82	9.81	-	10.00	0.00	5.00	6.13	<div><div></div></div>			
	NCA	9.83	8.81	0.00	-	5.18	6.67	6.10	<div><div></div></div>			
	EIN	4.05	10.00	-	7.50	2.80	-	6.09	<div><div></div></div>			
	GTI	4.85	8.76	0.00	7.50	8.57	5.68	5.89	<div><div></div></div>			
	HAL	4.05	8.89	3.33	-	6.69	6.25	5.84	<div><div></div></div>			
	AMX	5.82	9.85	3.33	-	5.19	5.00	5.84	<div><div></div></div>			
	JAL	7.15	8.24	0.26	-	7.15	-	5.70	<div><div></div></div>			
	TAI	4.97	9.48	3.04	-	4.79	5.33	5.52	<div><div></div></div>			








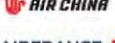



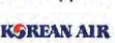


















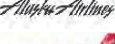



# Airline Fly Quiet Summary Report - 2nd Quarter 2015

April 1 to June 30, 2015



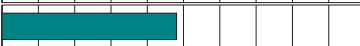

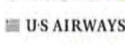






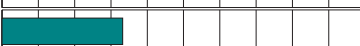

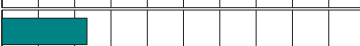
Airline		Fleet Noise Quality	Noise Exceedance	Nighttime Runway Use	Departures Shoreline Gap	Arrivals Foster City	Final Score	Airline Fly Quiet Rating											
	CPA	7.15	8.20	0.11	-	7.09	5.00	5.51											
	THY	7.15	10.00	-	0.00	4.06	-	5.30											
	SIA	7.15	8.98	0.12	-	4.77	5.00	5.20											
	AAR	4.80	7.18	0.43	-	8.27	5.31	5.20											
	KAL	7.41	6.31	0.34	-	6.47	5.05	5.12											
	ANZ	6.95	7.68	0.00	-	5.41	5.00	5.01											
	EVA	6.69	8.39	0.14	2.50	5.10	5.63	4.74											
	PAL	7.44	6.61	0.00	-	4.07	-	4.53											
	CAL	3.43	3.40	0.22	-	6.47	-	3.38											
	CKS	3.32	0.00	0.48	-	3.13	5.68	2.52											
SFO Average		6.37	9.10	1.80	8.09	5.57	6.12	6.48											

# Fleet Noise Quality - 2nd Quarter 2015

April 1 to June 30, 2015


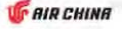





















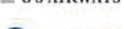
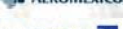












Airline		Nationwide	San Francisco		Fleet Noise Quality Rating
		Fleet Noise Quality Rating	Average Daily Jet Operations	Score	
	UAE	7.89	1	10.00	<div></div>
	CSN	5.64	0	10.00	<div></div>
	ASH	10.00	1	10.00	<div></div>
	CPZ	10.00	20	10.00	<div></div>
	SKW	10.00	101	10.00	<div></div>
	NCA	3.90	1	9.83	<div></div>
	DLH	6.09	2	9.09	<div></div>
	CCA	3.46	1	9.05	<div></div>
	AFR	5.49	1	9.03	<div></div>
	SAS	4.96	1	8.17	<div></div>
	SWR	5.17	1	8.17	<div></div>
	PAL	5.09	1	7.44	<div></div>
	KAL	4.05	2	7.41	<div></div>
	CPA	4.18	2	7.15	<div></div>
	ETD	0.00	1	7.15	<div></div>
	JAL	4.20	1	7.15	<div></div>
	SIA	5.93	2	7.15	<div></div>
	THY	6.80	1	7.15	<div></div>
	ANA	5.43	1	7.13	<div></div>
	ANZ	4.00	1	6.95	<div></div>
	EVA	5.05	2	6.69	<div></div>
				6.37	SFO AVERAGE
	DAL	4.92	28	6.08	<div></div>
	FFT	6.41	6	6.04	<div></div>
	AMX	5.54	3	5.82	<div></div>
	SCX	5.82	2	5.82	<div></div>
	WJA	5.82	1	5.82	<div></div>
	SWA	5.70	42	5.72	<div></div>
	UAL	5.83	161	5.67	<div></div>
	BAW	4.34	2	5.64	<div></div>
	ACA	6.75	9	5.50	<div></div>
	AAL	3.94	43	5.43	<div></div>
	ASA	5.10	18	5.33	<div></div>
	VIR	5.84	2	5.28	<div></div>
	VRD	5.31	47	5.12	<div></div>
	TAI	5.18	1	4.97	<div></div>



Airline	Nationwide	San Francisco		Fleet Noise Quality Rating
	Fleet Noise Quality Rating	Average Daily Jet Operations	Score	
 ABX	1.52	0	4.87	
 GTI	0.93	1	4.85	
 JBU	6.13	14	4.81	
 AAR	3.93	2	4.80	
 AWE	5.67	1	4.75	
 CES	4.63	1	4.05	
 EIN	4.05	1	4.05	
 XLF	4.05	0	4.05	
 HAL	6.21	2	4.05	
 CAL	3.62	2	3.43	
 KLM	4.67	1	3.43	
 CKS	0.60	0	3.32	
 FDX	2.80	1	2.34	
AVERAGE	5.06	11	6.37	






















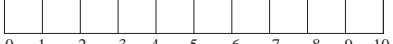
# Noise Exceedance Rating Report - 2nd Quarter 2015

April 1 to June 30, 2015

Airline	Noise Exceedances				Noise Exceedance Quality Rating
	Total Noise Exceedances	Total Quarterly Operations	Exceedances per 1000 Operations	Score	
 AFR	0	229	0	10.00	
 CCA	0	180	0	10.00	
 CSN	0	88	0	10.00	
 EIN	0	163	0	10.00	
 THY	0	142	0	10.00	
 UAE	0	182	0	10.00	
 XLF	0	18	0	10.00	
 DLH	1	363	3	9.99	
 SCX	1	361	3	9.99	
 SKW	52	18,471	3	9.99	
 ANA	1	184	5	9.98	
 BAW	4	362	11	9.95	
 VRD	141	8,621	16	9.93	
 CPZ	73	3,683	20	9.92	
 SAS	4	176	23	9.91	
 FFT	24	1,016	24	9.90	
 ASA	86	3,232	27	9.89	
 CES	5	182	27	9.89	
 KLM	5	182	27	9.89	
 SWA	224	7,617	29	9.88	
 ACA	52	1,698	31	9.88	
 DAL	168	5,064	33	9.86	
 JBU	90	2,614	34	9.86	
 AWE	7	197	36	9.86	
 AMX	19	508	37	9.85	
 UAL	1,133	29,381	39	9.84	
 ASH	5	119	42	9.83	
 ETD	8	181	44	9.82	
 SWR	8	181	44	9.82	
 AAL	357	7,851	45	9.81	
 VIR	14	302	46	9.81	
 WJA	11	235	47	9.81	
 ABX	10	86	116	9.53	
 TAI	34	266	128	9.48	
 FDX	56	259	216	9.12	
				9.10	
					SFO AVERAGE
 SIA	90	360	250	8.98	
 HAL	99	363	273	8.89	













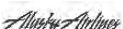










































# Noise Exceedance Rating Report - 2nd Quarter 2015

April 1 to June 30, 2015

Airline	Noise Exceedances				Noise Exceedance Quality Rating
	Total Noise Exceedances	Total Quarterly Operations	Exceedances per 1000 Operations	Score	
 NCA	44	151	291	8.81	
 GTI	54	178	303	8.76	
 EVA	160	406	394	8.39	
 JAL	78	181	431	8.24	
 CPA	166	376	441	8.20	
 ANZ	103	181	569	7.68	
 AAR	200	289	692	7.18	
 PAL	203	244	832	6.61	
 KAL	335	370	905	6.31	
 CAL	517	319	1621	3.40	
 CKS	135	55	2455	0.00	
<b>TOTAL</b>	<b>4,777</b>	<b>97,867</b>			
<b>SFO AVERAGE</b>			<b>221</b>	<b>9.10</b>	


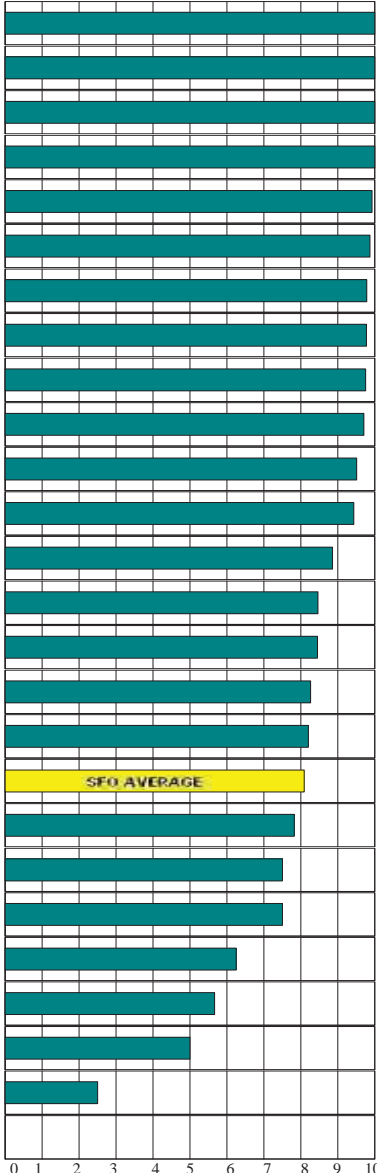



















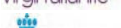




# Nighttime Preferential Runway Use - 2nd Quarter 2015

April 1 to June 30, 2015

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	
	AAL	208	0%	13%	82%	4%	3.69	
	DAL	13	0%	8%	92%	0%	3.59	
	UAL	195	2%	8%	83%	8%	3.42	
	SWA	184	0%	3%	95%	2%	3.39	
	ACA	1	0%	0%	100%	0%	3.33	
	AMX	4	0%	0%	100%	0%	3.33	
	ASA	2	0%	0%	100%	0%	3.33	
	ASH	2	0%	0%	100%	0%	3.33	
	FFT	2	0%	0%	100%	0%	3.33	
	HAL	1	0%	0%	100%	0%	3.33	
	JBU	5	0%	0%	100%	0%	3.33	
	SKW	9	0%	0%	100%	0%	3.33	
	TAI	90	1%	0%	88%	11%	3.04	
							1.80	
	SCX	2	0%	0%	50%	50%	1.67	
	CPZ	3	0%	0%	33%	67%	1.11	
	CKS	21	5%	0%	0%	95%	0.48	
	AAR	47	4%	0%	0%	96%	0.43	
	KAL	88	3%	0%	0%	97%	0.34	
	JAL	90	1%	0%	4%	94%	0.26	
	CAL	90	2%	0%	0%	98%	0.22	
	EVA	117	1%	1%	0%	98%	0.14	
	SIA	86	1%	0%	0%	99%	0.12	
	CPA	93	1%	0%	0%	99%	0.11	
	ANZ	1	0%	0%	0%	100%	0.00	
	GTI	1	0%	0%	0%	100%	0.00	
	NCA	1	0%	0%	0%	100%	0.00	
	PAL	2	0%	0%	0%	100%	0.00	
TOTAL		1,358						
SFO AVERAGE			1%	1%	49%	49%	1.80	

## Shoreline Departure Rating - 2nd Quarter 2015












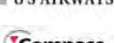



















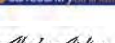


April 1 to June 30, 2015

Airline	Shoreline Departures					Shoreline Departure Rating
	Total	Successful	Marginal	Poor	Score	
 AIRFRANCE AFR	1	100%	0%	0%	10.00	
 Lufthansa DLH	2	100%	0%	0%	10.00	
 sun country airlines SCX	37	100%	0%	0%	10.00	
 WESTJET WJA	15	100%	0%	0%	10.00	
 Compass Airlines CPZ	132	98%	2%	0%	9.92	
 Allegiant Airlines ASA	231	98%	2%	0%	9.87	
 FRONTIER AIRLINES FFT	46	96%	4%	0%	9.78	
 Southwest SWA	110	97%	1%	2%	9.77	
 SkyWest SKW	983	96%	3%	1%	9.75	
 ABX AIR ABX	17	94%	6%	0%	9.71	
 Virgin America VRD	315	90%	9%	0%	9.51	
 AIR CANADA ACA	114	89%	10%	1%	9.43	
 American Airlines AAL	402	78%	22%	0%	8.86	
 US AIRWAYS AWE	13	69%	31%	0%	8.46	
 FedEx FDX	29	76%	17%	7%	8.45	
 UNITED UAL	1,348	70%	26%	4%	8.26	
 DELTA DAL	309	68%	29%	4%	8.20	
					8.09	
					SFO AVERAGE	
 jetBlue JBU	101	57%	42%	1%	7.82	
 Aer Lingus EIN	2	50%	50%	0%	7.50	
 ATLAS AIR GTI	4	50%	50%	0%	7.50	
 virgin atlantic VIR	4	25%	75%	0%	6.25	
 KLM KLM	15	33%	47%	20%	5.67	
 SWISS SWR	1	0%	100%	0%	5.00	
 EVA AIR EVA	2	0%	50%	50%	2.50	
 TURKISH AIRLINES THY	4	0%	0%	100%	0.00	
TOTAL 4,237						
SFO AVERAGE 69% 23% 8% 8.09						










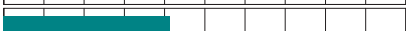







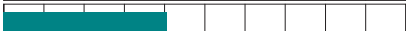



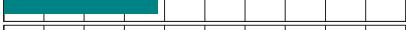








# Gap Departure Climb Rating - 2nd Quarter 2015

April 1 to June 30, 2015

Airline		Gap Departures		Gap Departure Quality Rating
		Total	Score	
	ASH	10	8.63	<div><div></div></div>
	GTI	14	8.57	<div><div></div></div>
	XLF	3	8.33	<div><div></div></div>
	AAR	142	8.27	<div><div></div></div>
	CCA	90	7.83	<div><div></div></div>
	SKW	865	7.49	<div><div></div></div>
	FDX	9	7.22	<div><div></div></div>
	JAL	85	7.15	<div><div></div></div>
	ANA	92	7.15	<div><div></div></div>
	CPA	184	7.09	<div><div></div></div>
	AFR	112	7.00	<div><div></div></div>
	AWE	20	6.94	<div><div></div></div>
	CPZ	272	6.69	<div><div></div></div>
	HAL	20	6.69	<div><div></div></div>
	DLH	175	6.58	<div><div></div></div>
	CAL	160	6.47	<div><div></div></div>
	KAL	180	6.47	<div><div></div></div>
	CES	91	6.44	<div><div></div></div>
	SAS	88	6.28	<div><div></div></div>
	VRD	483	6.03	<div><div></div></div>
	KLM	25	5.70	<div><div></div></div>
	JBU	111	5.70	<div><div></div></div>
	SWA	564	5.63	<div><div></div></div>
	FFT	42	5.60	<div><div></div></div>
			5.57	<div><div>SFO AVERAGE</div></div>
	ANZ	89	5.41	<div><div></div></div>
	VIR	120	5.36	<div><div></div></div>
	AMX	33	5.19	<div><div></div></div>
	NCA	75	5.18	<div><div></div></div>
	CSN	44	5.17	<div><div></div></div>
	EVA	195	5.10	<div><div></div></div>
	ABX	1	5.00	<div><div></div></div>
	SCX	1	5.00	<div><div></div></div>
	ASA	85	4.91	<div><div></div></div>
	TAI	12	4.79	<div><div></div></div>


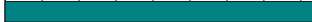

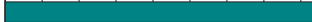

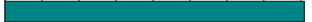

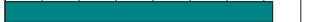

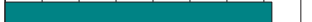



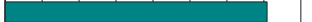

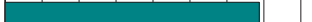












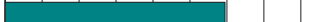






























# Gap Departure Climb Rating - 2nd Quarter 2015

April 1 to June 30, 2015

Airline	Gap Departures		Gap Departure Quality Rating
	Total	Score	
 UAE	89	4.78	
 SIA	176	4.77	
 AAL	387	4.59	
 UAL	3268	4.13	
 BAW	180	4.11	
 PAL	119	4.07	
 THY	64	4.06	
 ETD	88	3.82	
 ACA	16	3.75	
 SWR	87	3.72	
 CKS	26	3.13	
 EIN	79	2.80	
 DAL	132	2.71	
 WJA	1	0.00	
<b>TOTAL</b>			
		9204	
<b>SFO Average</b>		5.57	

# Foster City Arrival Rating - 2nd Quarter 2015

April 1 to June 30, 2015

Airline	Foster City Arrivals					Foster City Arrival Rating
	Total	Successful	Marginal	Poor	Score	
 US AIRWAYS AWE	3	67%	33%	0%	8.33	
 SCX	3	67%	33%	0%	8.33	
 FRONTIER FFT	55	62%	38%	0%	8.09	
 AIR CANADA ACA	85	45%	55%	0%	7.24	
 American Airlines AAL	463	45%	54%	1%	7.21	
 JBU	189	42%	57%	1%	7.09	
 DELTA DAL	288	42%	58%	0%	7.08	
 ABX	8	38%	63%	0%	6.88	
 Southwest SWA	305	38%	61%	2%	6.80	
 NCA	6	33%	67%	0%	6.67	
 UNITED UAL	1,282	30%	69%	1%	6.43	
 VRD	128	27%	73%	0%	6.33	
 HAL	4	25%	75%	0%	6.25	
					6.12	
 FedEx FDX	58	19%	81%	0%	5.95	
 CKS	22	14%	86%	0%	5.68	
 GTI	22	18%	77%	5%	5.68	
 EVA EVA	8	13%	88%	0%	5.63	
 SKW	110	13%	84%	4%	5.45	
 ASH	34	9%	91%	0%	5.44	
 TAI	92	9%	89%	2%	5.33	
 AAR	48	6%	94%	0%	5.31	
 CPZ	131	5%	93%	2%	5.19	
 KAL	92	1%	99%	0%	5.05	
 ASA	128	3%	95%	2%	5.04	
 AMX	1	0%	100%	0%	5.00	
 ANZ	1	0%	100%	0%	5.00	
 CPA	10	0%	100%	0%	5.00	
 SIA	1	0%	100%	0%	5.00	
 WJA	8	0%	100%	0%	5.00	
TOTAL 3,585						
SFO AVERAGE		23%	76%	1%	6.12	

September 29, 2015

**TO:** Roundtable Representatives and Alternates

**FROM:** James A. Castañeda, AICP, Program Coordinator 

**SUBJECT:** Roundtable Strategic Plan 2015-2018 and Work Program for FY2015-2016

On September 28, 2015, the Work Program Subcommittee assembled to discuss the Roundtable's three year Strategic Plan and the Work Program for FY 2015-2016. Every three years the Roundtable reviews and adopts a Strategic Plan that outlines the long-term goals and vision, and provides a framework for the yearly Work Plan - the means to accomplish those goals.

The following illustration summarizes the relationship between the Strategic Plan and the Work Plan:



The Work Program Subcommittee reviewed and discussed the two documents, and is recommending that the Roundtable approval the attached Strategic Plan for 2015-2018 and Work Plan for FY 2015-2016.



# **DRAFT ROUNDTABLE STRATEGIC PLAN**

November 1, 2015 – December 31, 2018

Presented to the Roundtable for consideration on October 7, 2015

## **ORGANIZATION OF THIS STRATEGIC PLAN**

This Strategic Plan is organized as follows:

- Introduction
- Background/History
- Opportunistic Strategy
- Guiding Principles
- Mission Statement
- Goals, Action Items, Resources, and Desired Results
- Strategic Plan Amendment Process
- Appendices: Roundtable Bylaws and Memorandum of Understanding

## **INTRODUCTION**

In 2010, the Roundtable adopted its first Strategic Plan to better serve its membership and provide long-term goals and vision. As a part of its ongoing mission to serve the residents living in the Roundtable communities (County of San Mateo and the City and County of San Francisco) affected by noise from aircraft operating to and from SFO, the Roundtable embarked on a strategic planning process in early 2010 with a goal of developing a Strategic Plan that would guide the Roundtable actions over the next three years. The Roundtable appointed a Strategic Planning Subcommittee to carry out the strategic planning process and to bring a recommended Strategic Plan back to the full Roundtable for its consideration and adoption.

This Strategic Plan represents the work product of the Subcommittee and is the Strategic Plan that was approved by the full Roundtable at its December 2, 2015 Regular Roundtable meeting; this strategic plan is in place today and serves as the basis for future Strategic Plan iterations. This Strategic Plan will guide the Roundtable's actions for the next three years.

Recognizing that the Roundtable needs to respond to changing conditions over time, there are provisions within the Strategic Plan that allow for its revision prior to 2018. In fact, the Strategic Plan update process will begin a year in advance of the expiration of the Plan or sooner if needed. Until that time, the Roundtable will rely on the guidance provided by the Strategic Plan to develop its annual Work Program, prioritize its activities, and guide its efforts to work with SFO, the Federal Aviation Administration, and the airlines to respond to community concerns and to minimize the impact of aircraft noise on Roundtable member communities.

## **BACKGROUND/HISTORY**

The Airport/Community Roundtable was established in 1981 as a voluntary committee of elected officials to address community noise impacts from aircraft operations at SFO. The Roundtable monitors a performance-based noise mitigation program implemented by airport staff, interprets community concerns and attempts to achieve noise mitigation

through a cooperative sharing of authority among the aviation industry, the Federal Aviation Administration (FAA), SFO management and local government.

The authority to control aircraft in flight and on the ground is vested exclusively in the FAA. The FAA, however, cannot control the number of flights or the time of day aircraft operate. Federal law preempts any local government agency from implementing any action that is intended to control the routes of aircraft in flight. Neither the Roundtable, local elected officials nor airport management can control the routes of aircraft in flight or on the ground.

## **OPPORTUNISTIC STRATEGY**

The Roundtable has adopted a three-year strategic plan that incorporates an “Opportunistic Strategy”. This strategy operates on the principle that the Roundtable will use positive, constructive methods to advance its goals and mission.

Under this strategy, the Roundtable will continue to receive reports on its various programs such as the Fly Quiet Program; receive updates on regional aviation planning activities; and determine and present the annual Fly Quiet Program Awards.

The Roundtable will also take advantage of opportunities to respond to proposed federal or state legislative actions related to aircraft noise or land use compatibility. This level of activity may include actively tracking and responding to proposed aircraft noise legislation by writing letters in support of or against proposed legislation. This strategy will also include the active promotion of aircraft noise reduction technologies or compatible land use planning initiatives by participating in research vehicles such as the Airport Cooperative Research Program (ACRP) or providing written support of technology programs designed to reduce aircraft noise. Under this approach, the Roundtable may prepare and submit project statements and/or participate in a relevant ACRP project panel.<sup>1</sup>

This strategy allows the Roundtable to continue with its historical monitoring of SFO's noise abatement programs, while responding to aircraft noise and land use compatibility legislation on an ad hoc basis, which gives the Roundtable a greater voice in these matters. In addition, actively supporting technology programs designed to reduce aircraft noise and ACRP's research efforts will benefit future generations living in Roundtable communities.

## **GUIDING PRINCIPLES**

The following guiding principles define the manner in which the Roundtable will conduct business over the next three-year period:

---

<sup>1</sup> ACRP Panel members provide technical guidance, review workproduct, and approve guidance documents for release to the public.

1. The Roundtable is the preeminent forum for addressing and resolving community concerns related to noise from aircraft operating to and from San Francisco International Airport.
2. The Roundtable fosters and enhances cooperation between the San Francisco International Airport, noise-impacted communities, the federal government, and the airlines with the purpose of developing, evaluating, and implementing reasonable and feasible policies, procedures, and mitigation actions that will further reduce aircraft noise exposure in neighborhoods and communities in San Francisco and San Mateo Counties.
3. The 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.

## **MISSION STATEMENT**

The Roundtable’s mission is to continue to address and resolve community concerns related to SFO aircraft noise, to monitor aircraft operations and conduct airline outreach, to monitor SFO’s aircraft noise abatement programs, to respond to and support aircraft noise related legislation and programs, and to support research that reduces aircraft noise exposure and promotes compatible land use planning for those communities within the members’ jurisdictions.

## **GOALS, ACTION ITEMS, RESOURCES, AND DESIRED RESULTS**

The following goals are listed in priority order, but may be adjusted as needed over time to reflect the community’s needs:

**Goal No. 1 – Aircraft Procedures:** The Roundtable will focus on aircraft arrival and departure procedures. The focus includes multiple facets: monitor adherence to existing procedures (standard and noise abatement); work with SFO Airport Noise Abatement Office (SFO ANAO) to monitor and develop noise abatement procedures; and work with FAA and airlines to advance the goal of noise reduction.

Action item: The Roundtable will monitor aircraft adherence to procedures and provide support to the SFO ANAO for outreach to airlines and FAA.

Resources: No additional resources beyond Roundtable Staff time required.

Desired results: The ongoing utilization of noise abatement procedures and when able, development of noise abatement procedures.

**Goal No. 2 – Airline Outreach:** The Roundtable will conduct airline outreach and education regarding SFO's aircraft noise abatement program through the Fly Quiet Program and other avenues as needed.

Action item: The Roundtable will continue to communicate positively with the airlines regarding the noise sensitive issues in and around the community.

Resources: No additional resources beyond Roundtable Staff time required.

Desired results: Improved airline awareness to aircraft noise issues in the Roundtable communities.

**Goal No. 3 – Support Aircraft Noise Reduction Legislation and Research:** The Roundtable will support appropriate aircraft noise reduction legislation and research.

Action item: The Roundtable will actively review, monitor, and support, when appropriate, research, legislation, and aircraft noise reduction programs.

Resources: No additional resources beyond Roundtable Staff time required.

Desired results: Continued reduction aircraft noise levels.

**Goal No. 4 – Address Community Concerns:** The Roundtable will remain the forum for addressing community concerns regarding noise from aircraft operating to and from SFO affecting its membership. The Roundtable will remain focused on its membership, including the cities within San Mateo County, San Mateo County, and the City and County of San Francisco. While the Roundtable operates to serve those within its membership, it continues to be sensitive and inclusive of noise concerns from operations at SFO beyond its members to the bay area region.

Action item: The Roundtable will continue to actively respond to community concerns regarding aircraft noise issues and provide education opportunities for the bay area and Roundtable membership to learn about airport operations, aircraft noise, and air traffic procedures.

Resources: No additional resources beyond Roundtable Staff time required and budget items for special reports, studies, or professional services.

Desired results: An informed regional community and Roundtable membership regarding aircraft noise issues at SFO.



## **STRATEGIC PLAN AMENDMENT PROCESS**

This Strategic Plan is a long-term plan that is intended to guide the Roundtable over a three-year period. Among other things, the Strategic Plan shall be used to guide the development of the Roundtable's annual Work Program. The Work Program can be tailored to respond to short-term needs, while remaining responsive the Roundtable's long-term goals.

There may be circumstances, however, during which conditions change to a point that require an update of the Strategic Plan. In those instances, the Strategic Planning Subcommittee shall be convened to discuss the required changes to Strategic Plan and, when appropriate, shall make recommendations to the full Roundtable regarding the required updates to the Strategic Plan. If the full Roundtable adopts the Subcommittee's recommendations, the Strategic Plan will be amended to reflect those recommendations.

The foregoing notwithstanding, the Strategic Plan shall be updated no less than every three years. The strategic planning process shall commence no less than one year prior to the expiration plan. The Strategic Planning Subcommittee shall be convened to conduct the strategic planning process and present a recommended Strategic Plan to the full Roundtable for consideration and adoption.

DRAFT

**ROUNDTABLE ANNUAL  
WORK PLAN**

July 1, 2015 through June 30, 2016

Presented to the Roundtable for consideration on October 7, 2015

## **Organization of the Work Program**

The Work Program is organized as follows. Each of the items includes: item description, background, present to Roundtable, staff assigned, Strategic Plan goal and budget allocated.

- Administrative Items
- Legislative Items
- Research Items
- Aircraft Operations/ Airspace

## **Introduction**

The Work Program is part of the Roundtable's overall approach to planning efforts; it is guided by the Roundtable's Strategic Plan. The Strategic Plan has a three-year planning horizon and the Work Program has a one-year planning horizon. The Work Program items are distilled from the overall Strategic Plan goals; each of the Work Program items are associated with a Strategic Plan goal.

While the Work Program is a one-year document, many items will be rolled over through multiple planning cycles. This is due to the longer-term nature of some items, including standing updates and future technologies. These longer-term items remain on the Work Program in order for the Roundtable to maintain their understanding of the issue. The Roundtable appointed a Work Program Subcommittee to carry out the work program planning process and to bring a recommended Work Program back to the full Roundtable for its consideration and adoption.

## **Work Program – Administrative Items**

### **AI1. Roundtable Website Maintenance**

#### **Item Description:**

Maintain the Roundtable website [www.sforoundtable.org](http://www.sforoundtable.org) and update with new information as required for the public.

- Maintain existing website.
- Include historical information as required.
- Upload agendas, agenda packets, and subcommittee meeting information.
- Maintain and continue to populate informational section containing Noise 101 presentations and noise metric videos.

#### **Background:**

The Roundtable updated its website as a Work Program item in 2013 – 2014 and was presented to the Roundtable at its September 2013 meeting.

This is a maintenance item. Roundtable staff and consultant staff will update the website on per-meeting with the agenda and agenda packet, upload subcommittee agendas, and update the website with appropriate documents, links, and tweets.

**Present to Roundtable:** As new information is uploaded.

**Staff Assigned:** Roundtable staff

**Strategic Goal:** 4

**Budget Allocated:** No extra budget effort for RT staff is anticipated; updates will utilize existing staff resources where possible.

#### AI2. Fly Quiet Update

**Item Description:**

Continue receiving updates to the airport's Fly Quiet Program

**Background:**

The Roundtable and SFO launched the Fly Quiet Program in 2001. The Fly Quiet Program is a quarterly report of airline performance in specific categories. The Roundtable holds the Fly Quiet awards at the February meeting each year, inviting the overall winner and category winners to the Roundtable meeting for an official presentation of the awards. The awards presented are: Chairman's Award, Fly Quiet Award, and Most Improved. It is recommended the February meeting be held at the SFO airport museum to present the awards to airlines receiving them to celebrate their accomplishments.

**Present to Roundtable:** This item is anticipated to be presented to the Roundtable at meetings immediately following the closing of each reporting quarter, including information on fleet mix trends at SFO.

**Staff Assigned:** Airport staff

**Strategic Goal:** 2

**Budget Allocated:** Budget expenditure to include refreshments and the existing budget for awards.

#### AI3. Airport Updates

**Item Description:**

Continue receiving updates from the airport Director or other staff on significant airport happenings, traffic levels, operations, and other data from the preceding months

**Background:**

The airport provides information germane to the RT and noise issues at each meeting. The briefing is typically provided by the airport Director.

**Present to Roundtable:** This item is anticipated to be presented to the Roundtable at each meeting.

**Staff Assigned:** Airport staff

**Strategic Goal:** 4

**Budget Allocated:** No extra budget effort anticipated.

AI4. Outreach to OAK Noise Forum and Potential Santa Clara County Noise Forum

**Item Description:**

Continue dialogue with the noise forums within the Bay Area at Oakland International Airport and Mineta San Jose International Airport to share information and best practices, discuss issues relating to Bay Area and national airport noise issues. Assist Santa Clara County with advice on implementing a noise forum and share information with cities regarding aircraft operations.

**Background:**

The SFO RT has a history of maintaining interaction with fellow airport-sponsored noise organizations in the Bay Area. This has led to joint letters to the FAA and other organizations regarding noise mitigation issues, joint trip to NORCAL TRACON, and understanding how all three airports interact with regards to airspace and noise mitigation. Santa Clara County does not currently have a sanctioned group focused on aircraft noise issues, however there are studies being commissioned by municipalities in Santa Clara County regarding SFO-related aircraft operations. Mineta San Jose International Airport used to have a noise forum that met on a quarterly basis; the noise forum stopped meeting and all noise-related issues are heard at the SJC Airport Commission Meeting. The SFO RT, at its September 28, 2015 Subcommittee meeting, proposed to continue outreach to Santa Clara County with regards to SFO overflights and sharing of information from overflight noise from aircraft transitioning the airspace from other regional airports.

**Present to Roundtable:** This item is anticipated to be presented to the Roundtable after any interactions or 'teaming' with OAK, SJC, or related organizations on a regional level.

**Staff Assigned:** RT staff

**Strategic Goal:** 3

**Budget Allocated:** No extra budget effort anticipated.



AI5. Include LAX and ORD Roundtable Groups on SFO RT Distribution List

**Item Description:**

Maintain contact with Roundtable organizations throughout the country via correspondence relating to Roundtable issues on a state and national level.

**Background:**

The SFO RT has a history of maintaining interaction with the fellow airport-sponsored noise organizations in the country through sharing correspondence relating to current noise issues including pending legislation, funding allocation, or new technology.

**Present to Roundtable:** This item is anticipated to be in the correspondence section of the RT packets as required.

**Staff Assigned:** RT staff

**Strategic Goal:** 3

**Budget Allocated:** No extra budget effort anticipated.

AI6. Send RT Member(s) to Noise Forums or Technical Conference

**Item Description:**

Maintain knowledge base of the RT and its members by sending members to technical conferences or other noise forums.

**Background:**

The SFO RT has a history of maintaining a strong knowledge base of aircraft noise theory that is communicated to the membership. This has been done through conducting Noise 101 sessions, sending RT members to NORCAL TRACON, and to industry conferences.

**Present to Roundtable:** Fall 2015 meeting; Post-conference attendance updates

**Staff Assigned:** RT staff

**Strategic Goal:** 4

**Budget Allocated:** Anticipated budget of \$2,000/member to attend the AAAE/ACI conference in San Diego in fall 2016. Local meeting attendance not anticipated to have a budgetary impact.

#### AI7. Send RT Coordinator to LAX Roundtable Meeting

##### **Item Description:**

Continue to correspond and maintain understanding of the LAX Roundtable structure and issues by making a yearly site visit.

##### **Background:**

The SFO RT keeps in contact with other airport noise organizations, including the LAX Roundtable. In the past, the SFO RT has sent the RT Coordinator to an LAX Roundtable meeting to observe their practices and exchange information with their staff. The RT Coordinator and Technical Advisor will attend an LAX Roundtable meeting on an odd-numbered month in 2015.

**Staff Assigned:** RT staff and Technical advisor

**Strategic Goal:** 4

**Budget Allocated:** Anticipated budget of \$1,000 for the RT Coordinator.

#### AI8. National Organization to Insure a Sound Controlled Environment N.O.I.S.E. Membership

##### **Item Description:**

Maintain understanding of regional and national aircraft noise issues and join with a national group to support legislation and research to quieter aircraft, procedures, and technology.

##### **Background:**

The National Organization to Insure a Sound Controlled Environment (N.O.I.S.E.) is an advocacy group focused on reducing noise for communities surrounding airports. The Washington, D.C.-based organization works with major organizations including the National League of Cities to arrange meetings with federal agencies and Congressional offices. The County of San Mateo has historically been involved with N.O.I.S.E. The Roundtable can look for opportunities within N.O.I.S.E. and the League of Cities to make presentations regarding aircraft noise issues. At this time, N.O.I.S.E. is active, but its efficacy isn't fully understood. At the September 28, 2015 Subcommittee meeting, the members recommended staff investigate the pros and cons of membership; approval of this item would be brought to the Roundtable at a subsequent regular meeting.

**Present to Roundtable:** As required and as legislative information is available.

**Staff Assigned:** RT staff

**Strategic Goal:** 3

**Budget Allocated:** Anticipated budget of \$5,000 to join N.O.I.S.E. and \$2,000/member and/or RT staff to attend its Legislative Summit in a yet-to-be-determined location.

## **Work Program – Legislative Items**

### LI1. Research Federal, State, and International Noise Legislation

#### **Item Description:**

The Roundtable will continue its research of federal, state, and international proposed noise legislation, as well as existing legislation as it applies to operations at San Francisco International Airport.

#### **Background:**

The Roundtable keeps track of legislative issues on state, federal, and international level to determine the implications of legislation on operations and noise issues at San Francisco International Airport. This is done through a subscription to the Airport Noise Report (ANR) as well as monitoring legislation through the Federal Register and other list services. In addition to the RT monitoring noise issues on a federal level, the organization will monitor noise regulations suggested by CAEP/ICAO as voluntary or mandatory. The International Civil Aviation Organization (ICAO) is an organization that recommends best practices and adopts standards for the aviation industry, including noise as it relates to aircraft operations. This research could result in correspondence from the RT to the legislative sponsor regarding any positive or negative impact of the legislation.

**Present to Roundtable:** This item will be reviewed by the RT as required.

**Staff Assigned:** Roundtable staff

**Strategic Goal: 3**

**Budget Allocated:** No extra budget effort for RT staff. The yearly subscription to ANR is \$850.

## **Work Program - Research Items**

### RI1. Guest Speaker

#### **Item Description:**

The Roundtable will continue its efforts to have guest speakers invited to RT meetings to present information regarding a topic of interest to the RT.

#### **Background:**

The Roundtable, in an effort to keep current on trends in noise and airports, set up a guest speaker item as part of the 2011-2012 Work Program. It is the goal of the RT to continue inviting speakers to the RT, increasing the membership and public's understanding of current issues. The RT and airport staff will recommend speakers, and the RT membership is encouraged to request experts in a specific topic to speak.

**Present to Roundtable:** This item will be reviewed by the RT as required.

**Staff Assigned:** Roundtable staff

**Strategic Goal:** 3

**Budget Allocated:** No extra budget effort for RT staff, travel costs would be at the expense of the speaker.

### RI2. Noise Effects of Aircraft – Traditional Arrival versus Optimized Procedure Descent (OPD)

#### **Item Description:**

Determine the difference, measured using a single event metric, of traditional aircraft arrivals versus aircraft utilizing published Optimized Procedure Descent (OPD) criteria.

#### **Background:**

As part of NextGen, aircraft will at times execute an OPD approach, which allows an aircraft to descend to an airport using idle power from cruise altitude instead of the standard step-down approach. This type of approach can bring aircraft in lower altitudes above residential areas on the Peninsula. Studies have been conducted in the Woodside area by the Airport Noise Abatement Office, as well as with the Boeing Corporation.

The Roundtable consultant presented a report of aircraft arrivals over the Woodside area comparing traditional to OPD approaches to the Subcommittee in June 2013 and to the full Roundtable in September 2013. This item should be continued as more aircraft become equipped to fly an OPD approach.

**Present to Roundtable:** This item will be reviewed by the RT as required.

**Staff Assigned:** Roundtable staff, in conjunction with Airport staff

**Strategic Goal: 1**

**Budget Allocated:** Budget to be determined if additional studies need to be conducted beyond capabilities of Airport staff.

### RI3. Airport Cooperative Research Program (ACRP) Participation

**Item Description:**

The Roundtable has the option to become involved with ACRP in three ways: submit a problem statement to the Airport Cooperative Research Program (ACRP) for an item to study in depth, submit applications to serve on an ACRP panel, or support research statements to carry forward.

**Background:**

ACRP is a subset of the Transportation Research Board (TRB) that studies issues relating to airport operations, including noise abatement. Each year ACRP solicits problem statements relating to a global issue that affect airports throughout the country. ACRP chooses the problem statements to then turn into research projects. Each research project is comprised of a panel of experts and a consultant that completes the research document under the guidance of the expert panel.

In addition to ACRP soliciting for proposals, expert panel members are also required each year. If there are research projects that are applicable to community noise groups or noise mitigation, members of the RT are encouraged to apply to these expert panels. The expert panels meet 2-3 times per project in Washington, D.C.

**Present to Roundtable:** ACRP Problem Statements are solicited in the spring and applications to serve on an ACRP panel open up in the fall.

**Staff Assigned:** Roundtable staff

**Strategic Goal: 3**

**Budget Allocated:** No extra budget effort; all travel is paid by ACRP.

### RI4. CNEL Noise Insulation Boundary Update

**Item Description:**

The Roundtable will receive updates on the status of the residential sound insulation program at SFO on a biannual basis to include items such as: number of homes within the currently-



approved Noise Exposure Map that are not insulated, number of homes that declined participation in the program, and estimated number of homes being insulated.

**Background:**

The Roundtable has received updates from the airport over the course of the sound insulation program. The program's focus is to find and inform eligible homeowners that their residence can receive sound insulation treatments for being within the 65 CNEL noise contour, or Noise Exposure Map. The airport is in the process of updating its NEM.

**Present to Roundtable:** This item will be reviewed by the RT as required.

**Staff Assigned:** Roundtable and airport staff

**Strategic Goal:** 4

**Budget Allocated:** No extra budget effort for RT staff.

RI5. Use of Single Event Noise Metrics to Evaluate Noise Outside of the 65 CNEL

**Item Description:**

The Roundtable will research the feasibility of using supplemental noise metrics outside of the 65 CNEL to determine the impact of aircraft operations.

**Background:**

The 65 CNEL is the federally and state accepted metric to determine impacts from aircraft noise as well as eligibility for sound insulation programs. As aircraft become quieter, the 65 CNEL noise contour has become smaller in size, reducing the "affected areas" as defined by federal and state standards. As a response to this, airports have studied utilizing supplemental metrics, which show noise levels at various locations in the community utilizing metrics including Lmax and SENEL.

**Present to Roundtable:** This item will be reviewed by the RT as required.

**Staff Assigned:** Roundtable staff

**Strategic Goal:** 3

**Budget Allocated:** No extra budget effort for RT staff.

## RI6. Use of Unmanned Aerial System in the National Airspace System

### **Item Description:**

The Roundtable will monitor legislation and research related to Unmanned Aerial Systems (UAS) within the National Airspace System (NAS) that is controlled by the Federal Aviation Administration.

### **Background:**

UAS are any unmanned aerial vehicle, drone, or system that is flown remotely by a pilot or via an onboard computer system. Rules and regulations for UAS operations are in its infancy; there are no noise regulations on their use. This program item will monitor uses of UAS and FAA regulations regarding their use and noise abatement regulations.

**Present to Roundtable:** This item will be reviewed by the RT as required.

**Staff Assigned:** Roundtable staff

**Strategic Goal: 4**

**Budget Allocated:** No extra budget effort for RT staff.

### **Work Program – Aircraft Operations/ Airspace**

#### AO1. NorCal Optimization of Airspace and Procedures in the Metroplex (Metroplex)

### **Item Description:**

The Roundtable will monitor implementation of flight procedures in the NorCal Metroplex project specific to procedures and operations at San Francisco International Airport. This program, formerly referred to as “OAPM”, is now “Metroplex.”

### **Background:**

The NorCal Metroplex is the update of the airspace in the bay area. Federal regulations required the FAA complete an Environmental Assessment (EA) for the project, determining any environmental impacts to the project study area. The EA was released in March 2014; the Record of Decision on the EA was published July 2014; all Metroplex procedures related to SFO operations are operational.

The Roundtable staff and its consultant will monitor implementation of the 14 new or enhanced procedures for SFO, with specific attention on the following:

- NIITE procedure enhancing the QUIET Standard Instrument Departure (SID)
- SERFR enhancing the BIG SUR & HADLY arrivals
- SSTIK procedure enhancing the PORTE and OFFSHORE SID

**Present to Roundtable:** This item will be reviewed by the RT as required and updates to the RT will be from RT staff or the FAA.

**Staff Assigned:** Roundtable staff

**Strategic Goal:** 1

**Budget Allocated:** No extra budget effort for RT staff.

#### AO2. Woodside Optimized Profile Descents (OPD)

##### **Item Description:**

The Roundtable will receive briefings on the Woodside OPD

##### **Background:**

The Airport currently publishes the weekly Woodside VOR report on its website. This report shows the number of aircraft that flew over the Woodside VOR between the hours of 10:30 p.m. – 6:30 a.m. This Work Program item would require the Airport to provide a report on aircraft that utilized the OPD approach between these hours.

**Present to Roundtable:** This item will be reviewed by the RT as required.

**Staff Assigned:** Roundtable staff

**Strategic Goal:** 1

**Budget Allocated:** No extra budget effort for RT staff.

#### AO3. SSTIK and PORTE 5 Departures

##### **Item Description:**

The Roundtable will continue to monitor operations on the SSTIK and PORTE 5 departures.

##### **Background:**

As part of the Metroplex, the SSTIK departure procedure replaced the PORTE departure for all aircraft equipped to fly RNAV procedures. Both departures fly over portions of the City of Brisbane. In 2012-2013, the Roundtable resumed its work with NORCAL TRACON, SFO Tower, airlines, and SFO staff to determine why the number of aircraft flying over southern portions of Brisbane increased. This Work Program item will continue to monitor this issue and initiate outreach to stakeholders that can assist with mitigation.

**Present to Roundtable:** This item will be reviewed by the RT as required.

**Staff Assigned:** Roundtable staff

**Strategic Goal:** 1

**Budget Allocated:** No extra budget effort for RT staff.

#### AO4. Visit NORCAL TRACON

**Item Description:**

The Roundtable membership will visit the NORCAL TRACON facility in Mather, California.

**Background:**

NORCAL TRACON is a radar approach facility that controls aircraft movements in the bay area and other portions of Northern California and Nevada. NORCAL TRACON is a key stakeholder for the RT and has historically worked with the RT to implement noise abatement procedures when traffic allows. This site visit will provide members of the RT with an understanding of how NORCAL TRACON operates and watch aircraft movements in real time. The OAK Noise Office has coordinate this effort; the Roundtable proposes to coordinate this effort for the spring 2016 trip.

**Present to Roundtable:** Schedule trip in spring 2016; present a trip report to the Roundtable following the trip.

**Staff Assigned:** Roundtable staff

**Strategic Goal:** 4

**Budget Allocated:** The Roundtable's contribution on previous joint trips with the Oakland Noise Forum has been approximately \$550, which included transportation and meals for up to 10-12 Roundtable members. For the spring 2016 trip, the Roundtable's contribution would be approximately \$1,000 for transportation and meals as the primary coordinator of the trip.

#### AO5. Aircraft Use of Satellite Procedures

**Item Description:**

Monitor additional uses of satellite-based procedures to enhance operations as they are applicable to SFO.

**Background:**

As referenced in Work Program Item AO1, the airspace related to operations at SFO was part of the Metroplex airspace project. This project identified numerous Area Navigation (RNAV) procedures to enhance existing arrival and departure procedures. This Work Program item will

further define procedures to help noise abatement efforts at SFO, including Required Navigation Performance (RNP). This item would be collaborative with the SFO Noise Abatement Office and at least one airline to assist with procedure enhancements. This item has moved from information to research/action.

**Present to Roundtable:** As required.

**Staff Assigned:** Roundtable staff

**Strategic Goal:** 1

**Budget Allocated:** No extra budget effort for RT staff.

#### AO6. Airbus A320 Aircraft Vortex Generator

##### **Item Description:**

Work with the SFO Noise Abatement Office to equip carriers that use the Airbus A320/319 family of aircraft with vortex generators for the underwing fuel vent.

##### **Background:**

Research has shown that Airbus A320 aircraft have a fuel vent on the underside of each wing. At certain altitudes and speeds, air coming in contact with these vents results in a wind vortex that emits a high-pitched whine noise. This is typically heard 20 – 30 miles away from an airport on arrival. The SFO noise abatement office has researched the solution, which is approximately \$3,000.00, includes labor and parts to install. The Roundtable will work with the noise office to advance this effort.

**Present to Roundtable:** As required.

**Staff Assigned:** Roundtable staff

**Strategic Goal:** 2

**Budget Allocated:** No extra budget effort for RT staff.




(This page is left intentionally blank)



September 29, 2015

**TO:** Roundtable members and Interested Persons

**FROM:** James A. Castañeda, AICP, Roundtable Coordinator 

**SUBJECT:** Service Performance Report and Proposed Roundtable Budget for FY 2014-2015

---

Staff has prepared a draft Roundtable Budget for the current FY 2015-2016 for the Roundtable to review and consider at the October 7, 2015 Regular Meeting.

On September 28, 2015, the Work Program Subcommittee reviewed and discussed the draft budget, and recommending the Roundtable consider and adopt the budget contained within this memorandum.

As part of preparing the draft budget, staff also has prepared a brief review of the work and services provided by staff during the previous fiscal year, as well as an overview of the expenditures incurred during that time.

## **COUNTY SERVICE REPORT**

### **BACKGROUND**

On July 1, 2012, the City and County of San Francisco and the County of San Mateo entered into a three year agreement to provide coordinating services for the SFO Airport/Community Roundtable ("Roundtable") in their role to identify noise impacts and reduction measures. The agreement contract required the following from the County of San Mateo:

- Planner (half-time position) as Program Coordinator
- Retain qualified technical consultant for technical support
- Administrative Support to the Program Coordinator
- Roundtable Media Program, Media Support and Website Content
- Provide operating needs of the Roundtable (postage, photocopying, office equipment/supplies, website support, etc.)

San Mateo County ("County") is compensated for the aforementioned requirements from the Roundtable Trust Fund, which the funding is contributed partially from the City and County of San Francisco Airport Commission ("SFO") and the Roundtable membership's annual dues.

As part of this agreement, the County is to provide a report to SFO that generally describes the work performed for the Roundtable by County staff. That report is as follows:

## **SERVICE DETIALS**

### **A. Planner (half-time position) - Program Coordinator**

Per the established agreement, San Mateo County assigns a Planner from the Planning & Building Department to act as Program Coordinator at a half-time (20 hours/week, or 1,040 hours annually) position. The typical assigned Coordinator tasks performed and completed in FY 2013-2014 by the Coordinator include (but not limited) to the following:

- Maintain communications with Airport staff regarding Roundtable agenda items, Work Program items, noise complaints, monthly noise reports, quarterly reports, and related items.
- Retain and manage a technical consultant to provide technical support to the Roundtable (BridgeNet International).
- Coordinate, review, and approve the work products and monthly billing per the scopes of work of the technical consultant.
- Directs/assigns administrative assistance work to available County Planning & Building administrative staff when needed.
- Administrative support to Roundtable including preparation of materials for agenda items, annual draft budget, meeting summaries, and preparation and distribution of monthly agenda packets.
- Attend all Regular Roundtable Meetings, workshops and subcommittee meetings.
- Update website as necessary.

In addition to the listed tasks necessary for typical Roundtable operations, the following tasks have also have either been completed or ongoing:

- Implementation of an "eNews" email distribution general Roundtable announcements and aircraft noise related news and information
- Modernization of meeting packet presentation and distribution

**B. Retain qualified technical consultant for technical support**

This effort was conducted and completed in September 2012. On October 3, 2012, the Roundtable accepted a three-year agreement with BridgeNet International, who began technical support services to the Roundtable November 2012, and will continue to do so through January 31, 2016. At that time, staff will circulate a Request for Proposal to review and evaluate potential qualified technical consultants.

**C. Administrative Support to the Program Coordinator**

As part of the County service structure, the Program Coordinator has utilized County Planning administrative staff to assist the Roundtable when necessary.

**D. Roundtable Media Program, Media Support and Website Content**

During the course of the current fiscal year, staff has maintained and updated the Roundtable's website where necessary with agendas, minutes, published reports, and other relevant information. Staff has created an e-mail distribution to lists to cities and other interested parties for important noise impact announcements. Earlier this summer, staff implemented an "eNews" distribution designed to give periodic updates, news and information to Roundtable members and interested parties between meetings and other events. Staff will continue explore other media opportunities with resources available.

**E. Provide operating needs of the Roundtable (postage, photocopying, office equipment/supplies, website support, etc.)**

County staff over the course of the current fiscal year has provided all materials necessary for the Roundtable's operations. This includes expenses incurred related to the Fly Quiet Awards expenses, meeting supplies, as well as independent data services and storage.

**BUDGET EXPENDITURES FY 2014-2015**

**A. Income**

In the previous fiscal year, all excepted sources of funding with the exceptions of three cities were received (staff is following up with those outstanding dues). This included contributions from SFO, Roundtable member cities, County of San Mateo and C/CAG Airport Land Use Committee. A remaining balance of \$118,881 from FY 2013-2014 was carried over as a result of the allocated contingencies funds being utilized. Total funded balance in FY 2014-2015 was \$249,131.

As a result of the large surplus due to unused contingency funds and other allocations, SFO requested that staff evaluate options to reduce the surplus. Staff elected to collect half of SFO contributions for FY 2014-2015 only, resulting in a total contribution of \$110,000. All other contributions remained at half of the normal dues as practiced since FY 2011-2012 on a year-by-year temporary basis.

## **B. Expenditures**

At the end of FY 2014-2015, the Roundtable Trust Fund incurred approximately \$169,119 in expenditures.

The expenditures included the allocated staff and consulting support cost of \$163,529, which did not exceed allocated amounts as set from the adopted FY2014-2015 budget.

Roundtable administration/operational costs accounts for \$1,496 of the allocated \$4,300. Postage and printing did not meet or exceed the allocation, as no additional meetings were required, but also staff reduced cost by limiting printing of packets in black and white, limiting printed distribution, and encouraging use of the electronic version of the meeting packets. Website allocations were utilized to renew the Roundtable's domain, as well as pay the annual dues for webhosting. A total of \$633 was used for general supplies, equipment exclusive for Roundtable's use, mileage reimbursements, FlyQuiet Awards trophies, and meeting supplies.

During FY 2014-2015, allocations were established to allow the Roundtable coordinator and interested Roundtable members to attend the UC Davis Noise Symposium. This year, the Roundtable Chair and Vice-Chair attended the meeting, and funds were allocated for such. The Roundtable coordinator was not in attendance.

Starting with the adoption of the budget for FY 2012-2013, contingency funds were allocated in order to cover unanticipated costs associated with additional work required of the technical consultants or other expenses not originally accounted for with the adoption of the budget during the course of the upcoming fiscal year. During the FY 2014-2015, staff utilized funds from the General contingency to purchase a new projector to use at subcommittee meetings. No funds were utilized from the Aviation Consultant Contingency. All unused amounts will roll over as additional funds for FY 2015-2016.

## **PROPOSED FY 2015-2016 BUDGET**

### **BACKGROUND**

The Roundtable is funded by its membership. The annual membership contributions are maintained in a Roundtable Trust Fund. The County of San Mateo Planning and Building Department, on behalf of the Roundtable, administer the fund. All Roundtable expenses, such as staff support, technical support consultant contracts, office supplies/equipment, mailing/photocopying costs, etc. are paid from that Fund. Any monies that are not spent each year (Roundtable Fund Balance) are added as revenue to the budget for the following fiscal year. All staff support and professional consultant services are provided to the Roundtable through the County of San Mateo Planning and Building Department. The amounts for these support services are shown as budgeted expenditures in the annual Roundtable budget.

### **BUDGET DISCUSSION**

The expected funding sources for the FY 2015-2016 include the following: 1) the San Francisco Airport Commission, 2) Roundtable member cities (18 cities), 3) the County of San Mateo, and 4) the City/County Association of Governments of San Mateo County (C/CAG), for a representative of the C/CAG Airport Land Use Commission (ALUC), and 5) the estimated Roundtable fund balance from FY 2012-2013.

This summer, SFO and the County agreed on a new three year contract to provide the same services agreed upon with the 2012-2015 contract. As part of this new contract, the amounts contributed by SFO were reduced from \$220,000 per year, to \$175,000 in light of the Roundtable's large unallocated year-to-year surplus. SFO has supported the Roundtable through fiscally difficult years allowing for the Roundtable to temporarily reduce member cities' dues in order to provide financial relief to encourage ongoing participation. For FY 2015-2016, the Work Program Subcommittee is recommending that the dues remain at the temporary 50% dues for member cities, the County of San Mateo, and C/CAG. The contributions are as follows:

San Francisco Int'l Airport:	\$175,000
Member Cities (18 cities):	\$750
County of San Mateo:	\$6,000
C/CAG:	\$750

### **Expected Funding Sources**

#### **A. Annual Funding from the San Francisco Airport Commission**

The Commission's contribution for FY 2014-2015 is \$175,000.



**B. Annual Funding from Other Roundtable Members**

The annual funding amounts from the other Roundtable members (18 cities, the County of San Mateo, and C/CAG for the C/CAG Airport Land Use Committee (ALUC)) will be at the original normal fees, resulting in the following dues: Cities - \$750 each; County - \$6,000, and C/CAG - \$750.

**C. Estimated Roundtable Fund Balance from the Prior Fiscal Year**

The estimated Roundtable fund balance from the previous fiscal year (FY 2014-2015) is \$77,431. This is the balance after closeout of all prior contract obligations from that fiscal year, as well as contingencies funds that were not utilized.

**Potential Funding Allocations for FY 2015-2016**

**A. Staff and Consultant Support Services - \$183,000**

Funding for staff support to the Roundtable will consist of the following:

1. **Roundtable Coordinator (\$113,000).** This amount represents a reimbursement to the County of San Mateo to provide half-time Planner support to the Roundtable. This fee is the half-time loaded wage rate for a Planner III provided from the county. This includes all administrative support to the coordinator. This amount is unchanged from FY 2014-2015.
2. **Roundtable Aviation Consultant for Technical Support (\$70,000).** This is not to exceed contract amount to provide the Roundtable with Aviation Technical Support. This amount is unchanged from FY 2014-2015.

**B. Roundtable Administration/Operations - \$3,500**

1. **Postage/Photocopying (\$2,500).** This amount represents a reimbursement to the County of San Mateo for costs associated with reproduction of meeting materials and postage. This amount is considerate of electronic distribution of materials to offset costs when possible. This amount is lowered from the allocated amount from FY 2014-2015, as cost for publication has been lower than expected. The proposed reduction still allows for packets for additional meetings the Roundtable may elect to have as necessary.
2. **Website (\$200).** This amount represents a reimbursement to the County of San Mateo for costs associated with paying website hosting dues and renewal of domain registration. Maintenance of the website will be performed by the Roundtable Coordinator. This amount is unchanged from FY 2014-2015.

3. **Data Storage and Conference Services (\$800).** This amount represents a reimbursement to the County of San Mateo for the cost associated with maintaining all of the Roundtable's files and archives to Internet based storage. In the last year, the need for online conference services has risen due to expanding subcommittee meeting services for remote members. As a result, this amount is an increase of \$400 from FY 2014-2015 in order to offer expanded remote meeting services to members.
4. **Supplies/Equipment (\$1,200).** This amount represents a reimbursement to the County of San Mateo to provide supplies and equipment to the Roundtable Coordinator and administrative support staff when needed, as well as supplies used during meetings, including the FlyQuiet Awards in the spring. This amount is unchanged from FY 2014-2015.

**C. Projects, Programs, and Additional Allocations - \$13,850**

For FY 2014-2015, the Roundtable allocated additional funds to cover expenses associated with attendance at noise conferences, TRACON field trips, and subscription to aircraft noise publications. With the Roundtable's 35<sup>th</sup> Anniversary occurring in 2016, funds are also proposed for allocation to hold a special event as in the past for the 25<sup>th</sup> and 30<sup>th</sup> Anniversary's.

1. **Noise Conference Attendance, Coordinator (\$3,000).** This amount represents a reimbursement to the Coordinator for attendance to the annual UC Davis Noise Symposium held in the spring, National Organization to Insure a sound Control Environment (N.O.I.S.E.) legislative summit, and/or other aircraft noise related conferences that would be beneficial to the Roundtable. This amount is unchanged from FY 2014-2015.
2. **Additional Noise Conferences Attendees (\$4,000).** This amount represents the cost associated with additional Roundtable member attendance of the UC Davis Noise Symposium held in the spring, the National Organization to Insure a sound Control Environment (N.O.I.S.E.) legislative summit, and/or other aircraft noise related conferences that would be beneficial to the Roundtable. Estimated cost per person is \$2,000 and allows for up to two members to attend one conference. This amount is unchanged from FY 2014-2015.
3. **TRACON Field Trip (\$1,500).** This amount represents the estimated cost associated with providing transportation and lunch to members for a field trip to the NorCal TRACON facility, normally in conjunction with the Oakland Noise Forum. This amount is unchanged from FY 2014-2015.

4. **Airport Noise Report newsletter subscription (\$850).** This amount represents the annual subscription dues for the Roundtable to receive the Airport Noise Report to help keep Roundtable staff and members informed of news related to aircraft noise. This amount is unchanged from FY 2014-2015.
5. **LAX Roundtable Attendance, Coordinator (\$1,000).** This amount represents a reimbursement to the Coordinator to attend an LAX Roundtable meeting. In the past, the Roundtable has sent the Coordinator to observe their practices and exchange information with their staff. This item was introduced last year as part of the adopted Work Program for FY 2014-2015. This amount is unchanged from FY 2014-2015
6. **Join National Organization to Insure A Sound Control Environment (\$0).** This amount represents the cost associated with membership with National Organization to Insure a sound Control Environment (N.O.I.S.E.). While funds were allocated in FY 2014-2015 to joining pending investigation, allocations were not utilized to participate in that fiscal year. The Work Program Subcommittee recommended as part of the proposed Work Plan for FY 2015-2016 for staff to continue to investigate the benefits of the Roundtable's participation with the organization, and present to the Roundtable at a future date for their consideration. At this time the amount allocated is zero until the Roundtable has committed to participation with organization.
7. **Roundtable 35<sup>th</sup> Anniversary Event (\$1,000).** On June 1, 2016, the Roundtable will celebrate its 35<sup>th</sup> year since its first meeting held on June 1, 1981. The Roundtable has traditionally celebrated landmark years, such as the 25<sup>th</sup> and 30<sup>th</sup> anniversaries, during the June regular meeting by honoring the the accomplishments and diligent work the Roundtable has done over the years. The event normally includes guest speakers and other commemorative activities. The proposed allocation covers food and beverages to be provided, any associated venue cost, as well as publication materials to be distributed at the event.

**D. Contingency Funds - \$40,000**

This amount will be reserved as a contingency for any unforeseen costs associated with any work that is unanticipated/out-of-scope for Roundtable staff and Aviation consultants for Technical Support. The total estimated amount is \$40,000, which is split equally between a contingency for the Aviation Consultant and a General Contingency. This amount is unchanged from FY 2014-2015.

**Attachments:**

Proposed FY 2015-2016 Budget

## SFO Airport/Community Roundtable - Proposed Budget FY 2015-2016

### A EXPECTED FUNDING

	2012-2013	2013-2014	2014-2015	2015-2016
<b>FUND SOURCE</b>				
1 San Francisco Airport Commission	\$222,000	\$220,000	\$110,000	\$175,000
2 Roundtable Member Cities (18 Cities)	\$13,500	\$13,500	\$13,500	\$13,500
3 County of San Mateo	\$6,000	\$6,000	\$6,000	\$6,000
4 C/CAG Airport Land Use Committee	\$750	\$750	\$750	\$750
5 Estimated Fund Balance from Previous Year	\$2,124	\$69,457	\$118,881	\$77,762
<b>TOTAL:</b>	<b>\$242,374</b>	<b>\$309,707</b>	<b>\$249,131</b>	<b>\$273,012</b>

### B POTENTIAL FUNDING ALLOCATIONS

	2012-2013	2012-2013	2013-2014	2015-2016
<b>STAFF/CONSULTANT SUPPORT</b>	<b>\$190,016</b>	<b>\$183,000</b>	<b>\$183,000</b>	<b>\$183,000</b>
1 Count of San Mateo Coordination Services	\$120,016	\$113,000	\$113,000	\$113,000
2 Roundtable Aviation Technical Consultant	\$70,000	\$70,000	\$70,000	\$70,000
<b>ADMINISTRATION / OPERATIONS</b>	<b>\$4,800</b>	<b>\$4,100</b>	<b>\$4,300</b>	<b>\$3,500</b>
1 Postage / Printing	\$3,500	\$2,500	\$2,500	\$1,500
2 Website	\$200	\$200	\$200	\$200
3 Data Storage & Conference Services	\$300	\$400	\$400	\$800
4 Miscellaneous Office Expenses/Equipment	\$800	\$1,000	\$1,200	\$1,000
<b>PROJECTS, PROGRAMS, &amp; ADDITIONAL ALLOCATION</b>	<b>\$0</b>	<b>\$15,350</b>	<b>\$15,350</b>	<b>\$10,850</b>
1 Noise Conferences Attendance, Coordinator	\$0	\$2,000	\$3,000	\$3,000
2 Noise Conferences Attendance, Members	\$0	\$12,000	\$4,000	\$4,000
3 TRACON Field Trip(s)	\$0	\$500	\$1,500	\$1,000
4 Airport Noise Report subscription	\$0	\$850	\$850	\$850
5 N.O.I.S.E.			\$5,000	\$0
6 LAX Roundtable Attendance, Coordinator/Staff			\$1,000	\$1,000
7 35th Roundtable Anniversary Event				\$1,000
<b>CONTINGENCY FUND</b>	<b>\$47,558</b>	<b>\$40,000</b>	<b>\$40,000</b>	<b>\$40,000</b>
1 Aviation Consultant Contingency	\$20,000	\$20,000	\$20,000	\$20,000
2 General Contingency	\$27,558	\$20,000	\$20,000	\$20,000
<b>SUBTOTAL</b>	<b>\$242,374</b>	<b>\$242,450</b>	<b>\$242,650</b>	<b>\$237,350</b>
<b>UNCOMMITTED FUNDS / YEAR END BALANCE</b>	<b>\$0</b>	<b>\$69,457</b>	<b>\$6,481</b>	<b>\$35,662</b>

(This page is left intentionally blank)



September 28, 2015

**TO:** Roundtable Members and Interested Persons

**FROM:** Cindy Gibbs, Roundtable Technical Consultant (BridgeNet International)

**SUBJECT:** Subcommittee Summary, Departures and Arrivals Technical Working Group Meetings

---

## INTRODUCTION

### Introduction & History of Noise Mitigation Efforts

The San Francisco International Airport Noise Abatement Office (SFO ANAO), and the Roundtable have worked together since 1981 on issues related to noise at SFO. The Roundtable members, staff and SFO ANAO worked tirelessly with the FAA, airlines, and other stakeholders to make meaningful changes that would enhance the quality of life for citizens in San Francisco and San Mateo Counties. These work efforts took place at the regular Roundtable meetings as well as at subcommittees. Over the years, many issues were mitigated, including but not limited to:

- Nighttime preferential runway use,
- Shoreline departures,
- Standard Offset Instrument Arrivals for Foster City,
- Fly Quiet reporting, and
- Increasing height above Menlo intersection for visual conditions.

In the past 5 – 6 years, changes have occurred in the noise mitigation landscape that have affected these mitigation efforts. With the advent of the Northern California Metroplex and new federal regulations, some of the airport's long-standing noise abatement regulations should be revisited due to new regulations or new procedures. For example, the preferred nighttime runway is Runway 10, operating "opposite direction operations." FAA regulations regarding opposite direction operations changed in 2008, making use of this noise abatement procedure at night much more difficult. To counteract this, the airport encouraged use of Runway 1 and aircraft turn right on departure to go down the bay instead of along the shoreline.



The Roundtable and SFO ANAO will continue to work together with key stakeholders to ensure these long-standing mitigation efforts will be carried forward in the new airspace. Subsequent to the Roundtable's technical working groups that met in August, use of Runway 10 for nighttime departures increased.

#### Subcommittee Meeting Information

There were two subcommittee meetings, Arrivals and Departures Technical Working Groups, held on August 19, 2015. This was the second meeting for the newly-formed technical working groups to review flight track data and define goals.

The purpose of the subcommittees is to serve as a technical working groups that are a forum for stakeholders to deal with specific issues in greater detail. Members will learn about specific issues of concern in the counties of San Mateo and San Francisco.

#### Departures Technical Working Group

##### Members Present

Cliff Lentz	City of Brisbane
Mark Addiego	City of South San Francisco
Sue Digre	City of Pacifica
Ken Ibarra	City of San Bruno

##### Staff Present

James Castañeda	Roundtable Coordinator, County of San Mateo
Cindy Gibbs	Roundtable Technical Consultant, BridgeNet International
Harvey Hartmann	Roundtable Technical Consultant
Bert Ganoung	Airport Noise Abatement Office, San Francisco Int'l Airport
Kathleen Wentworth	Deputy District Director, Congresswoman Jackie Speier
Don Kirby	Northern California TRACON
Glenn Morse	Government Affairs, United Airlines

##### Public Present

Peter Graves	City of Brisbane
Grant Weseman	City of Santa Cruz

##### Meeting Summary

The meeting was opened by James Castañeda and introduced Kathleen Wentworth, retired airline captain and deputy district director for Congresswoman Jackie Speier. Kathleen gave a presentation about departure procedures from the cockpit. She described the actions required for a commercial aircraft departure, including those by dispatch, cockpit flight crew, and cabin crew. She noted the interaction between dispatch and pilot, with dispatch relaying the initial weather information as well as the recommended departure procedure to file with the FAA.

Cindy Gibbs, Roundtable technical consultant, provided an overview of departure procedures, focusing on nighttime procedures and use of the SSTIK and PORTE.

Cindy noted that use of SFO's preferential nighttime runway use program has dropped significantly in the past 10 years. This is due in part to FAA regulations changing on opposite direction operations (aircraft departing and landing in the same direction), weather, and air carrier runway preference. Don Kirby, NorCal TRACON, stated the TRACON supports use of opposite direction operations, which aircraft depart on Runway 10 L/R and land on Runway 28 L/R between the hours of 1 am – 6 am, traffic permitting. This noise abatement measure has been in place since 1988. Cindy indicated she will follow up with SFO ATC and specific airlines that operate during those hours to discuss making the nighttime preferential runway use program more prominent. Bert Ganuong, SFO ANAO, noted that aircraft can depart Runway 01 L/R and fly a 050 heading down the bay that helps alleviate noise for those communities under the departure flight path. NorCal TRACON noted this and will relay the information to the controllers.

Cindy reviewed use of the SSTIK and PORTE departure procedures which are satellite- and ground-based procedures, respectively. She noted use of the SSTIK since its implementation in early January 2015 versus use of the PORTE. For each month from October 2014 – August 2015, a sample of 1,000 flights per month were reviewed to understand the overall use of these procedures. A review of these flights shows that aircraft are using the procedure unless they are vectored. Vectoring can occur to accommodate air traffic and ensure safety regulations are met. Aircraft that are vectored cross over the shoreline at varying altitudes depending on aircraft capabilities. From Cindy's analysis, it showed that on average there were 16 nighttime flights that used the SSIK procedure, of these approximately 8% of the PORTE flights turned before passing the SEPDY waypoint in the bay, and approximately 7% of the SSTIK flights turned before passing the SSTIK waypoint in the bay. Aircraft that turn before the way point are typically going to south-bound destinations such as Los Angeles, San Diego, and Phoenix.

This was followed up by a discussion between the Roundtable members and staff regarding next steps of the subcommittee. The following items were included as follow-up:

- Discuss use of Runway 10 L/R with specific airlines that depart between 1 am – 6 am.
- Discuss possibility of including noise abatement training for airline dispatch centers.
- Determine percentage of flights that turn before the Point of Closest Approach (PCA) established in Brisbane used by the FAA and SFO ANAO.

These items will be presented to the Roundtable at its October 7, 2015 meeting.

### **Arrivals Technical Working Group**

#### **Members Present**

Cliff Lentz	City of Brisbane
Dave Burrow	Town of Woodside
Steve Okamoto	City of Foster City

#### **Staff Present**

James Castañeda	Roundtable Coordinator, County of San Mateo
Cindy Gibbs	Roundtable Technical Consultant, BridgeNet International
Harvey Hartmann	Roundtable Technical Consultant
Bert Ganoung	Airport Noise Abatement Office, San Francisco Int'l Airport
Kathleen Wentworth	Deputy District Director, Congresswoman Jackie Speier
Don Kirby	Northern California TRACON
Glenn Morse	Government Affairs, United Airlines
Andy Swanson	City of Palo Alto

#### **Public Present**

Rachel Kellerman	City of Palo Alto
Kerry Yavkin	City of Palo Alto
Grant Weseman	City of Santa Cruz
Debbie Pedro	Town of Portola Valley Planning Department

### **Meeting Summary**

The meeting was opened by James Castañeda and introduced Cindy Gibbs, Roundtable technical consultant that provided an overview of arrival procedures, focusing on the SERFR1 and BIGSUR, which included information on how aircraft navigate from the termination of the standard terminal arrival route (STAR) to the runway end. STARs typically do not end at the runway and aircraft must be vectored from that point to the runway. A sample of 1,000 flight tracks for all arrivals from the south, east and oceanic were reviewed for August 2014 and August 2015. A review of these flight tracks showed aircraft are still vectoring off of the SERFR1 published procedure, as well as the arrivals from the east. Aircraft are vectored due to the amount of traffic, required spacing regulations and weather. NorCal TRACON noted they get information from members of the public regarding aircraft trends of being quieter or louder from residents in Santa Cruz. They noted this helps them look at flight tracks to determine what made those weeks quieter.

Bert Ganoung, SFO ANAO, gave a review of the Airport's efforts to have airlines equip their Airbus A320 family of aircraft with wake vortex generators. There are four inlets on the underside of the wings that act as wind tunnels, generating a loud tone that can be irritating and heard most distinctly at least 20 miles from an airport when an aircraft is landing. Bert noted the Airport is exploring if they can offer incentives to airlines that install the vortex generator.

The cost for the four vortex generators is approximately \$3,000.00, required the aircraft to be off-line for a half of a day and must not have full fuel tanks. The airport is working with other airports that have a large percentage of A320 aircraft operating at their airports to see if they can work together to convince airlines to use the vortex generators. New A320 aircraft going into service have the vortex generators installed; as they start service at SFO, the noise office will monitor and see if the noise improves.

This was followed up by a discussion between the Roundtable members and staff regarding next steps of the subcommittee.

The following items were included as follow-up:

- Ask the SFO ANAO to review the percentage of aircraft that flew over the Menlo intersection below 5,000 feet, as well as the percentage that were above 5,000 feet at the Menlo intersection.
- Continue work on the vortex generators.

These items will be presented to the Roundtable at its October 7, 2015 meeting.

(This page is left intentionally blank)

# **AIRPORT NOISE NEWS**

Regular Meeting # 297  
October 7, 2015



(This page is left intentionally blank)

# Airport Noise Report



A weekly update on litigation, regulations, and technological developments

Volume 27, Number 33

September 25, 2015

## Guidance

### ACI, CANSO JOINTLY PUBLISH GUIDANCE ON MANAGING IMPACTS OF AVIATION NOISE

The Airports Council International and CANSO (the Civil Air Navigation Services Organization) announced Sept. 23 that they have collaborated closely to launch a new initiative to help reduce noise from aviation.

They have published “Managing the Impacts of Aviation Noise,” a best practice guide for reducing aviation noise, especially for communities near airports. The initiative is to be rolled out to airports and air traffic management organizations across the globe.

Said Jeff Poole, CANSO’s Director General, “The aviation industry has achieved substantial and measurable reductions in noise over the last 50 years through a mixture of airframe and engine technology and operational efforts. But the problem still exists and we must make every effort to mitigate the impact of aviation noise for people on the ground, especially those living around airports.

“This excellent publication provides airport operators, air navigation service providers (ANSP) and other aviation stakeholders with the tools to take further action on this vital issue for our industry. Key to our success in reducing noise is part-

*(Continued on p. 133)*

## AIP Grants

### 25 AIRPORTS GET TOTAL OF \$132.5 MILLION IN AIP NOISE GRANTS THUS FAR IN FY 2015

As of Sept. 21 – just nine days short of the end of fiscal year 2015 – some 25 airports have received at total of \$132.5 million in federal Airport Improvement Program (AIP) grants for noise mitigation projects, according to newly-released Federal Aviation Administration data.

That is an \$11 million increase over the \$121.5 million that 22 airports received for noise mitigation projects in fiscal 2014 (26 ANR 159).

Following are the airports that have received AIP noise grants thus far in fiscal year 2015:

- Phoenix Sky Harbor International Airport received a \$5 million AIP grant to conduct a noise compatibility plan study;
- Hawthorne (CA) Municipal Airport received a \$4 million AIP grant to conduct a noise compatibility plan study;

*(Continued on p. 134)*

## In This Issue...

**Noise Guidance ...** ACI and CANSO jointly publish a 60-page best practice guide for airports, air navigation service providers, and others to use in reducing aviation noise, especially on communities near airports - p. 132

**AIP Noise Grants ...** Some 25 airports have received a total of \$132.5 million in AIP noise mitigation grants thus far in fy 2015, FAA data show. That is an \$11 million increase over fiscal 2014 AIP noise mitigation grant awards - p. 132

**Midway Airport ...** FAA adds over \$2.8 million to previously announced sound insulation grant - p. 133

**Chicago O’Hare ...** ONCC appoints *ad hoc* committee to recommend modifications to nighttime noise abatement program - p. 133

**Aircraft ...** Bombardier’s new CS100 aircraft is the quietest in-production aircraft in its class, company says - p. 134

### ***Guidance, from p. 132***

nership and joint action among airports, airlines, and air traffic management, engaging with local communities, to deliver measurable results.

“We are now rolling this initiative out to CANSO members through the aid of regional expert champions and through workshops at CANSO regional conferences, as well as other global and regional events.”

The 60-page guide examines the challenge of aviation noise and describes methods that airport operators and ANSPs can use to manage and reduce its impact.

It reviews four current approaches for managing noise: reducing noise at the source; land use planning; noise-reducing operational procedures; and operating restrictions. Operational procedures include techniques such as tailored arrivals, continuous descent operations, arrival or departure path alteration and managing thrust. The noise mitigation measures described in the guide can be collaboratively implemented by ANSPs, airports, and aircraft operators.

Angela Gittens, Director General ACI, said the aviation industry “needs to address the concerns of local communities about aviation noise to maintain the support of governments and the general public and to maintain our license to operate. The industry must do more – work collaboratively and pool its collective ingenuity and innovative capabilities – to develop solutions that address the noise challenge. This publication provides a template for action on noise.”

The guide provides key principles and recommended actions for better community interactions, including effective communication, transparency, and education. Eleven case studies highlight actual experience in dealing with airport noise issues along with solutions and examples of stakeholder collaboration essential to reduce the impact of aviation noise.

While the guide’s primary focus is airports and ANSPs, it also provides useful information to other aviation stakeholders, including aircraft operators, regulators, and the general public.

“Managing the Impacts of Aviation Noise: A guide for Airport Operators and Air Navigation Service Providers,” can be downloaded at [https://www.canso.org/sites/default/files/Managing%20the%20Impacts%20of%20Aviation%20Noise\\_HQ.pdf](https://www.canso.org/sites/default/files/Managing%20the%20Impacts%20of%20Aviation%20Noise_HQ.pdf)

### ***Midway Airport***

## **FAA AWARDS ADDITIONAL GRANT FOR HOME SOUND INSULATION**

The Federal Aviation Administration has added an over \$2.8 million grant to a previously announced \$10 million grant for sound insulation in homes around Midway Airport, Rep. Daniel Lipinski (D-IL) announced Sept. 18.

The grant will provide funding for phase two of a three phase project, which includes insulation for a total of 917 eli-

gible residences, improving the quality of life for over two thousand people that live near the airport.

“Midway Airport plays an important role in both the regional and local economy, but – having grown up less than a mile from Midway – I know that issues such as airplane noise can be extremely frustrating,” Rep. Lipinski said.

“In response to a number of Midway-related noise complaints, additional sound monitors have been placed in communities around the airport. I will continue to strive to make the airport better for everyone.”

Lipinski is the senior member from Illinois on the House Transportation and Infrastructure Committee and serves on its Aviation Subcommittee.

### ***Chicago O’Hare Int’l***

## **ONCC GROUP TO REVIEW NIGHT NOISE ABATEMENT PROGRAM**

On Sept. 18, the O’Hare Noise Compatibility Commission (ONCC) appointed nine members representing Chicago and suburban communities near O’Hare International Airport to an ONCC *Ad Hoc* Fly Quiet Committee to review and recommend modifications to the airport’s voluntary nighttime noise abatement program.

The members were appointed by ONCC Chair Arlene A. Juracek, mayor of Mount Prospect, IL. Joseph Annunzio, ONCC vice-chair and Niles village attorney, will lead the *ad hoc* committee.

In July, Chicago Aviation Commissioner Ginger Evans rejected noise mitigation measures proposed by the Fair Allocation in Runways (FAiR) community coalition – including imposing a mandatory Fly Quiet Program – to address new noise impact caused by a major runway realignment made under the O’Hare Modernization Program (27 ANR 104).

However, Evans did propose that a test be conducted of the idea of rotating the runways used late a night at O’Hare – possibly on a weekly basis – in order to spread aircraft noise impact over a wider number of communities.

The new ONCC *Ad Hoc* Fly Quiet Committee members include ONCC Technical Committee Chair Catherine Dunlap, Chicago Ward 41; ONCC Technical Committee Vice-Chair Dennis Ryan, River Grove; Harwood Heights Mayor Arlene Jezierny; Schiller Park Mayor and Suburban O’Hare Commission (SOC) member Barbara Piltaver; Bensenville Mayor Frank Soto, SOC; Des Plaines Alderman Malcolm Chester; Schaumburg Director of Transportation Karyn Robles; and the Chicago Ward 45 designee.

“This ad hoc committee is a balanced representation of the citizens we serve,” said Mayor Juracek. “The FAA tasked us with the responsibility to oversee O’Hare noise mitigation efforts. We have carefully reviewed the FAA’s environmental re-evaluation, as well as CDA recommendations for ways to modify nighttime noise abatement procedures. Committee members are ready to tackle the complicated noise abatement

program modification process.”

ONCC has extended an invitation to the Fair Allocation in Runways (FAiR) Coalition to serve as a non-voting guest participant on the *ad hoc* committee with the promise of a standing agenda item at each committee meeting for direct citizen input.

“The sole purpose for this *ad hoc* committee is to look at the Fly Quiet Program and find ways we can provide relief for residents who are impacted by noise,” said ONCC Vice-Chair Joseph Annunzio.

“We will call upon both SOC and CDA consultants for their recommendations, as well as O’Hare Air Traffic Control, airlines, and their pilots. We won’t compromise safety, but stay focused to reach a consensus and present our modifications to the FAA,” he said.

## Aircraft

### BOMBARDIER SAYS ITS NEW CS100 IS QUIETEST AIRCRAFT IN CLASS

Bombardier’s all-new CS100 aircraft has successfully completed all noise performance testing and preliminary data confirm that it is the quietest in-production commercial jet in its class of narrow body, twin-engine, medium range aircraft, the company said Sept. 10.

“The aircraft’s noise performance and its outstanding short-field capability make it ideal for city center operations,” Bombardier stressed.

The first production CS100 aircraft will soon begin function and reliability testing, signaling the start of the final flight-testing phase. For these tests, the aircraft will operate on a commercial airline type of schedule from key airports in North America.

Bombardier’s announcements were made on the occasion of a CS100 flight demonstration at Bombardier’s Toronto site where the aircraft performed for employees, local government representatives, business leaders, media, and Toronto-based C Series customer and long-time Q400 operator, Porter Airlines.

The demonstration aircraft – flight test vehicle five (FTV5) – was painted in the livery of launch operator SWISS.

“It’s always a thrill to see the C Series aircraft in a new city and today marks a proud achievement as we experience the aircraft’s Toronto debut,” said Fred Cromer, President, Bombardier Commercial Aircraft.

“With a solid plan targeting certification by year-end 2015, and entry into service with SWISS in the first half of 2016, we are working with existing and potential customers as they explore opportunities and develop business cases around the C Series jetliners.”

“The excitement around the C Series grows every time we meet or surpass our performance targets,” said Rob Dewar, Vice President, C Series Aircraft Program, Bom-

bardier Commercial Aircraft.

“We announced previously that the C Series aircraft are exceeding their original targets for fuel burn, payload, range and airfield performance. Now we are delighted that the CS100 aircraft’s noise performance tests have confirmed it as the quietest in-production commercial jet in its class.

“The C Series certification program is now over 85 per cent complete,” added Dewar, who provided no specific noise date on the CS100 noise performance.

Earlier this year, Bombardier announced that the C Series aircraft, fitted with Pratt & Whitney PurePower(R) PW1500G engines, is delivering more than a 20 percent fuel burn advantage compared to in-production aircraft, and a greater than 10 percent advantage compared to re-engined aircraft.

## Guidance, from p. 132

- Los Angeles International Airport – City of Inglewood (CA) received an \$8 million AIP grant to provide noise mitigation measures for residences in the 65-69 DNL noise contour of LAX;
- San Diego International Airport received a \$12 million AIP grant to provide noise mitigation measures for residences in the 65-69 DNL contour;
- Centennial (CO) Airport received a \$500,000 AIP grant to conduct a noise compatibility plan study;
- Tweed New Haven (CT) Airport received a \$569,842 AIP grant for noise mitigation measures for residences in the 65-69 DNL contour;
- Ft. Lauderdale-Hollywood International Airport received a \$20 million AIP grant for noise mitigation measures for residences in the 65-69 DNL contour;
- Key West International Airport received a \$25,835 AIP grant for noise mitigation measures for residences in the 65-69 DNL contour;
- Atlanta Hartsfield-Jackson International Airport received a \$10 million AIP grant for noise mitigation measures for residences in the 65-69 DNL contour;
- Guam International Airport received a \$2 million AIP grant for noise mitigation measures for residences in the 65-69 DNL contour;
- Honolulu International Airport received a \$262,000 AIP grant to install a noise monitoring system;
- Chicago Midway International Airport received a \$12,845,171 AIP grant for noise mitigation measures for residences in the 65-69 DNL contour;

## 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.**

Akin Gump Strauss Hauer & Feld  
Washington, D.C.

- Indianapolis International Airport received a \$138,475 AIP grant to conduct a noise compatibility plan study;

- Alexandria (LA) International Airport received a \$7 million AIP grant for noise mitigation measures for residences in the 65-69 DNL contour;

- Westover Air Reserve Base in Chicopee, MA, received a \$2.5 million AIP grant to acquire land for noise compatibility in the 65-69 DNL contour;

- Westfield Barnes Regional Airport in Westfield, MA, received a \$2,499,999 AIP grant to acquire land for noise compatibility in the 70-74 DNL contour;

- Gulfport-Biloxi (MS) International Airport received a \$3.42 million AIP grant for noise mitigation measure for residences in the 65-69 DNL contour;

- Piedmont Triad International Airport in Greensboro, NC, received a \$2.7 million AIP grant for noise mitigation measures for residences in the 65-69 DNL contour;

- Newark (NJ) Liberty Airport received a \$2,942,178 AIP grant to conduct a noise compatibility plan study;

- Teterboro (NJ) Airport received a \$2,410,881 AIP grant to conduct a noise compatibility plan study;

- T.F. Green Airport in Warwick, RI, received a \$7,862,919 AIP grant for noise mitigation measures for residences in the 65-69 DNL contour;

- Laredo (TX) International Airport received a \$6 million AIP grant for noise mitigation measures for residences in the 65-69 DNL contour;

- San Antonio International Airport received a \$15 million AIP grant for noise mitigation measures for residences in the 65-69 DNL contour;

- Burlington (VT) International Airport received a \$1,101,150 AIP grant to acquire land within the 65-69 DNL contour;

- Seattle-Tacoma International Airport received a \$3,778,402 AIP grant to conduct a noise compatibility plan study.

## 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](mailto: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.



## Aircraft Noise Abatement Office

# Glossary of common Acoustic and Air Traffic Control terms

**A**

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

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

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

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

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

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

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

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

**Arrival** – The act of landing at an airport.

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

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

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

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

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

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

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

**B**

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

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

**C**

**Center** – See ARTCC.

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



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

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

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

## D

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

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

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

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

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

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

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

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

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

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

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

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

## E

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

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

## F

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

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

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

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

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

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

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

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

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

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

## G

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

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

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

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

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

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

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

## H

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

## I

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

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

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

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

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

## J

## K

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

## L

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

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

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

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

## M

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

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

## N

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

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

**Navaid** – Navigational Aid.

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

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

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

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

**NMS** – See RMS

**Noise Contour** – See CNEL and DNL Contour.

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

## O

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

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

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

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

## P

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

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

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

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

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

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

## Q

## R

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

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

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

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

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

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

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

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

## S

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

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

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

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

### SOIA – Simultaneous Offset Instrument Approach

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

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

## T

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

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

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

**Threshold** – Specified boundary.

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

## U

## V

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

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

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

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

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

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

## W

## X

## Y

# how to reach us

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

<b>Phone:</b>	<b>650.821.5100</b>
<b>Fax:</b>	<b>650.821.5112</b>
<b>Noise Complaint Line:</b>	<b>650.821.4736</b>
<b>Toll Free Noise Complaint Line:</b>	<b>877.206.8290</b>
<b>Noise Complaint E-mail:</b>	<b><a href="mailto:sfo.noise@flysfo.com">sfo.noise@flysfo.com</a></b>
<b>Airport Web Page:</b>	<b><a href="http://www.flysfo.com">www.flysfo.com</a></b>
<b>Noise Abatement Web Page:</b>	<b><a href="http://www.flysfo.com/community-environment/noise-abatement">http://www.flysfo.com/community-environment/noise-abatement</a></b>
<b>Roundtable Web Page:</b>	<b><a href="http://www.sforoundtable.org">www.sforoundtable.org</a></b>