



Meeting Packet

Regular Meeting

Meeting No. 322

Wednesday, December 4, 2019 - 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

Elizabeth Lewis, Roundtable Chairperson / James A. Castaneda, AICP, Roundtable Coordinator

2. Public Comments on Items NOT on the Agenda

INFORMATION

Speakers are limited to two minutes. Roundtable members cannot discuss or take action on any matter raised under this item.

CONSENT AGENDA

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. Airport Director's Reports for July and August 2019, and 2Q 2019 FlyQuiet Report

ACTION

1. September 2019 Director's Report pg. 9

4. Action Minutes from the August 7, 2019 and October 2, 2019

ACTION

1. August 7, 2019 Regular Meeting Action Minutes pg. 15
2. October 2, 2019 Regular Meeting Action Minutes pg. 19

REGULAR AGENDA – GENERAL AIRPORT

5. SFO Updates

INFORMATION

Ivar Satero, Airport Director – San Francisco International Airport

Regular Meeting Packet

December 4, 2019 / Meeting No. 322

REGULAR AGENDA – GENERAL AIRPORT (continued)

6. Noise Tracker New Website Overview

INFORMATION

Bert Ganoung, Noise Abatement Manager – San Francisco International Airport

7. Legislative Update from Congresswoman Speier’s Office

INFORMATION

Kathleen Wentworth, Senior Advisor – Office of Congresswoman Jackie Speier

REGULAR AGENDA – GROUND-BASED NOISE

8. Report from Ground-Based Noise Ad-Hoc Subcommittee November 18, 2019

- **Availability of Spectral Data Analysis**

INFORMATION

Ricardo Ortiz, City of Burlingame Representative

1. Meeting Summary Memo

pg. 23

9. Update, Ground-Based Noise Reports Format and Feedback Timeline

INFORMATION

Bert Ganoung, Noise Abatement Manager – San Francisco International Airport

10. Discussion, Policy of Placement of Portable Noise Monitors

INFORMATION

Elizabeth Lewis, Roundtable Chairperson

11. Additional Matters Related to Ground-Based Noise Discussion

INFORMATION

Elizabeth Lewis, Roundtable Chairperson

REGULAR AGENDA – DEPARTURES

12. NIITE/HUSSH Procedure Status

INFORMATION

Elizabeth Lewis, Roundtable Chairperson

13. Additional Matters Related to Departures Discussion

INFORMATION

Elizabeth Lewis, Roundtable Chairperson

REGULAR AGENDA – ARRIVALS

14. PIRAT TWO Status

INFORMATION

Justin Cook, Roundtable Technical Consultant

15. Additional Matters Related to Arrivals Discussion

INFORMATION

Elizabeth Lewis, Roundtable Chairperson

Regular Meeting Packet

December 4, 2019 / Meeting No. 322

OTHER MATTERS

16. Formal coordination with other Bay Area Roundtables status

INFORMATION/ACTION

Ann Wengert, Town of Portola Valley

17. Aviation Noise News and Updates

INFORMATION

Justin Cook, Roundtable Technical Consultant

18. Member Communications / Announcements

INFORMATION

Roundtable Members and Staff

19. Adjourn

ACTION

Elizabeth Lewis, Roundtable Chairperson

Correspondences / Additional Reports

1. Brisbane 4Q 2019 Noise Monitoring Report pg. 25
2. FAA Instrument Flight Procedures (IFP) Information Gateway Review Updates pg. 31



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, Meeting 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:

ELIZABETH LEWIS
Representative, Town of Atherton
elewis@ci.atherton.ca.us

Vice-Chairperson:

RICARDO ORTIZ
Representative, City of BURLINGAME
rortiz@burlingame.org

Roundtable Coordinator:

JAMES A. CASTAÑEDA, AICP
County of San Mateo
Planning & Building Department
jcastaneda@sforoundtable.org



About the Roundtable

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. In 2019, the Roundtable is scheduled to meet on the first Wednesday of the following months: February, April, June, August, October and December. 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** unless noted. 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:

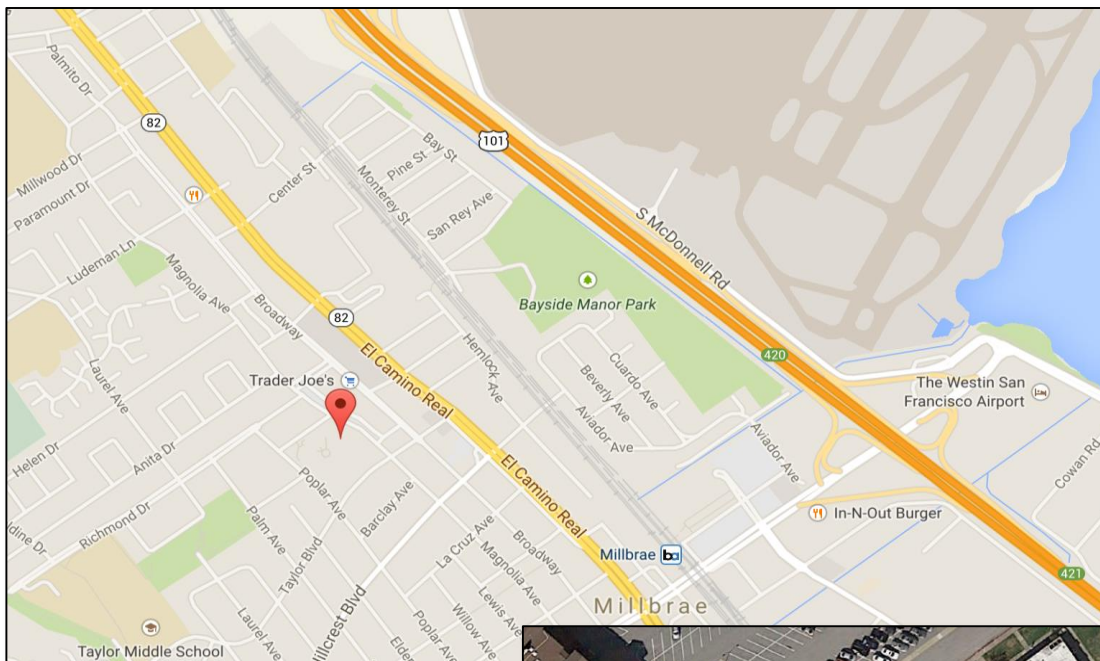
“No state or political subdivision thereof and no interstate agency or other political agency of two or more states shall enact or enforce any law, rule, regulation, standard, or other provision having the force and effect of law, relating to rates, routes, or services of any air carrier having authority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

(Source: 49 U.S.C. A. Section 1302(a)(1)).

Meeting Location

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

Access through Millbrae Library parking lot on Poplar Avenue





Member Roster

December 2019

**CITY AND COUNTY OF SAN FRANCISCO
BOARD OF SUPERVISORS**
Ahsha Safai, Supervisor

**CITY AND COUNTY OF SAN FRANCISCO MAYOR'S
OFFICE**
Edward McCaffrey, (Appointed)

**CITY AND COUNTY OF SAN FRANCISCO AIRPORT
COMMISSION REPRESENTATIVE**
Ivar Satero, 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
AIRPORT LAND USE COMMITTEE (ALUC)**
Carol Ford, ALUC Chairperson (Appointed)

TOWN OF ATHERTON
Elizabeth Lewis, Council Member
Alternate: Bill Widmer, Mayor

CITY OF BELMONT
Julia Mates Council Member
Alternate: Douglas Kim, Council Member

CITY OF BRISBANE
Terry O'Connell, Council Member
Alternate: Madison Davis, Council Member

CITY OF BURLINGAME
Ricardo Ortiz, Council Member

CITY OF DALY CITY
Pamela DiGiovanni, Council Member

CITY OF FOSTER CITY
Sanjay Gehani, Council Member
Alternate: Sam Hindi, Mayor

CITY OF HALF MOON BAY
Adam Eisen, Council Member
Alternate: Harvey Rarback, Council Member

TOWN OF HILLSBOROUGH
Alvin Royse, Council Member
Alternate: Shawn Christianson, Council Member

CITY OF MENLO PARK
Ray Mueller, Mayor
Cecilia Taylor, Mayor Pro Tem

CITY OF MILLBRAE
Ann Schneider, Council Member
Alternate: Wayne Lee, Mayor

CITY OF PACIFICA
Mike O'Neill, Council Member
Alternate: Deirdre Martin, Council Member

TOWN OF PORTOLA VALLEY
Ann Wengert, Council Member
Alternate: Maryann Derwin, Council Member

CITY OF REDWOOD CITY
Giselle Hale, Council Member

CITY OF SAN BRUNO
Marty Medina, Council Member
Alternate: Rico Medina, Council Member

CITY OF SAN CARLOS
Adam Rak: Council Member
Alternate: Mark Olbert, Council Member

CITY OF SAN MATEO
Joe Goethals, Council Members
Alternate: Diane Papan, Council Member

CITY OF SOUTH SAN FRANCISCO
Mark Addiego, Council Member
Alternate: Mark Nagales, Council Member

TOWN OF WOODSIDE
Thomas Livermore, Council Member

ROUNDTABLE ADVISORY MEMBERS

AIRLINES/FLIGHT OPERATIONS
Captain James Abell, United Airlines
Glenn Morse, United Airlines

FEDERAL AVIATION ADMINISTRATION
Thann McLeod, NORCAL TRACON
Tony DiBernardo, FAA Sierra-Pacific District

ROUNDTABLE STAFF
James A. Castañeda, AICP, Roundtable Coordinator
Gene Reindel, Technical Consultant (HMMH)
Justin Cook, Technical Consultant (HMMH)
Adam Scholten, Technical Consultant (HMMH)

**SAN FRANCISCO INTERNATIONAL AIRPORT
NOISE ABATEMENT STAFF**
Bert Ganoung, Noise Abatement Manager
David Ong, Noise Systems Manager
Nastasja von Conta, Senior Noise Abatement Specialist
Anthony Carpeneti, Noise Abatement Specialist
Anneliese Taing, Noise Abatement Specialist

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Airport Director's Report

Presented at the December 4, 2019
Airport Community Roundtable Meeting

Aircraft Noise Abatement Office
September 2019



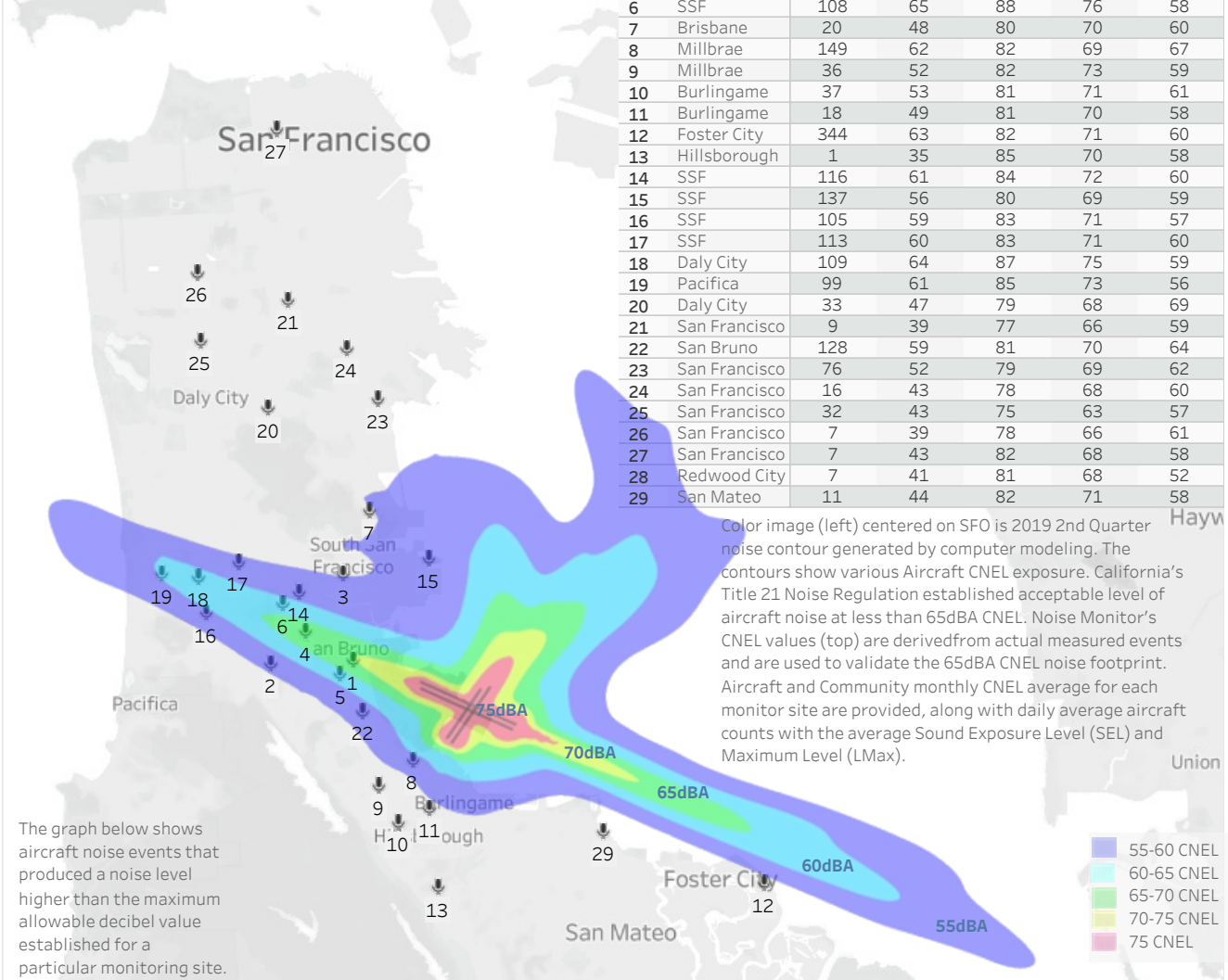
San Francisco
International
Airport

Aircraft Noise Levels

September 2019

The map shows 29 aircraft noise monitoring locations that keep track of noise levels in the communities around the airport. Image centered on SFO airport shows quarterly aircraft noise levels (dBA) exposure. The green zone marks 65dBA Community Noise Exposure Level (CNEL). The CNEL metric is used to assess and regulate aircraft noise exposure in communities surrounding the airport.

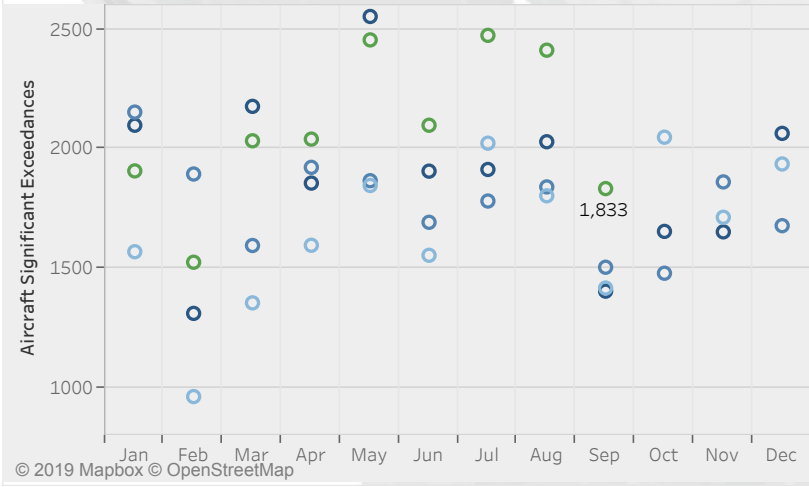
Site	City	Noise Events (AVG Day)	Aircraft			Community
			CNEL (dBA)	SEL (dBA)	LMax (dBA)	CNEL (dBA)
1	San Bruno	159	73	93	79	67
3	SSF	60	54	80	69	62
4	SSF	125	68	90	78	61
5	San Bruno	129	66	88	76	63
6	SSF	108	65	88	76	58
7	Brisbane	20	48	80	70	60
8	Millbrae	149	62	82	69	67
9	Millbrae	36	52	82	73	59
10	Burlingame	37	53	81	71	61
11	Burlingame	18	49	81	70	58
12	Foster City	344	63	82	71	60
13	Hillsborough	1	35	85	70	58
14	SSF	116	61	84	72	60
15	SSF	137	56	80	69	59
16	SSF	105	59	83	71	57
17	SSF	113	60	83	71	60
18	Daly City	109	64	87	75	59
19	Pacifica	99	61	85	73	56
20	Daly City	33	47	79	68	69
21	San Francisco	9	39	77	66	59
22	San Bruno	128	59	81	70	64
23	San Francisco	76	52	79	69	62
24	San Francisco	16	43	78	68	60
25	San Francisco	32	43	75	63	57
26	San Francisco	7	39	78	66	61
27	San Francisco	7	43	82	68	58
28	Redwood City	7	41	81	68	52
29	San Mateo	11	44	82	71	58



Color image (left) centered on SFO is 2019 2nd Quarter noise contour generated by computer modeling. The contours show various Aircraft CNEL exposure. California's Title 21 Noise Regulation established acceptable level of aircraft noise at less than 65dBA CNEL. Noise Monitor's CNEL values (top) are derived from actual measured events and are used to validate the 65dBA CNEL noise footprint. Aircraft and Community monthly CNEL average for each monitor site are provided, along with daily average aircraft counts with the average Sound Exposure Level (SEL) and Maximum Level (LMax).

The graph below shows aircraft noise events that produced a noise level higher than the maximum allowable decibel value established for a particular monitoring site.

Significant Exceedances



Note: Site 2 is currently not operational

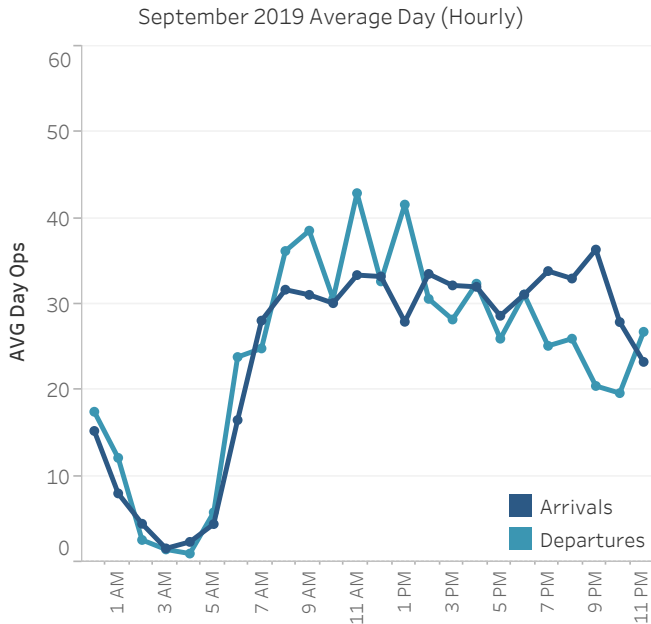
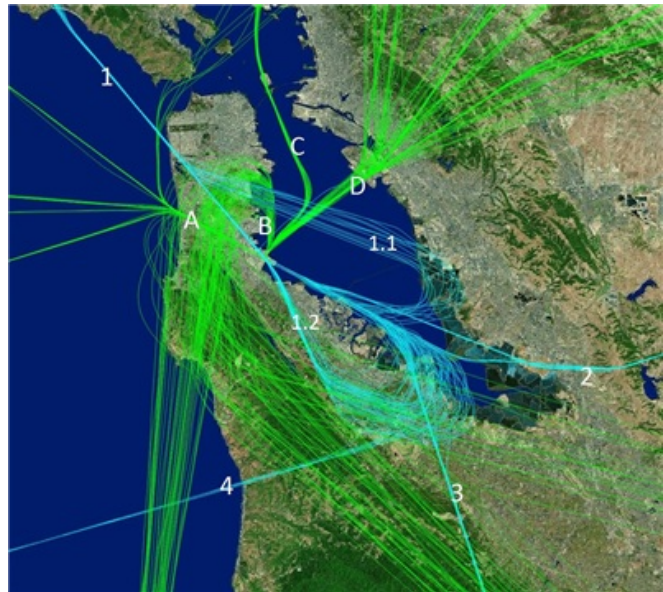
Operations

September 2019

Monthly Ops AVG Daily Ops 12 Month AVG YOY Growth

34,598	1,153	37,804	-9.0%
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Major Arrival and Departure Routes (West Flow)



West Flow is depicted in the above image and is a predominate flow at SFO. West Flow 100%

Top Destinations

Los Angeles	Seattle
6%	6%

Down the Bay vs Peninsula

1.1 BDEGA East	25%
1.2 BDEGA West	75%

Arrival Route

1. BDEGA	29%
2. DYAMD	40%
3. SERFR	25%
4. OCEANIC	6%

Departure Route

A. GAP	20%
B. SSTIK	28%
C. NIITE	8%
D. TRUKN RWY 01	43%
D. TRUKN RWY 28	2%

Airlines with the Most Operations

United	41%
Skywest	19%
Alaska	14%
Delta	10%
Southwest	8%
American	8%

Non Airline

6%



Narrow Body

77%



Wide Body

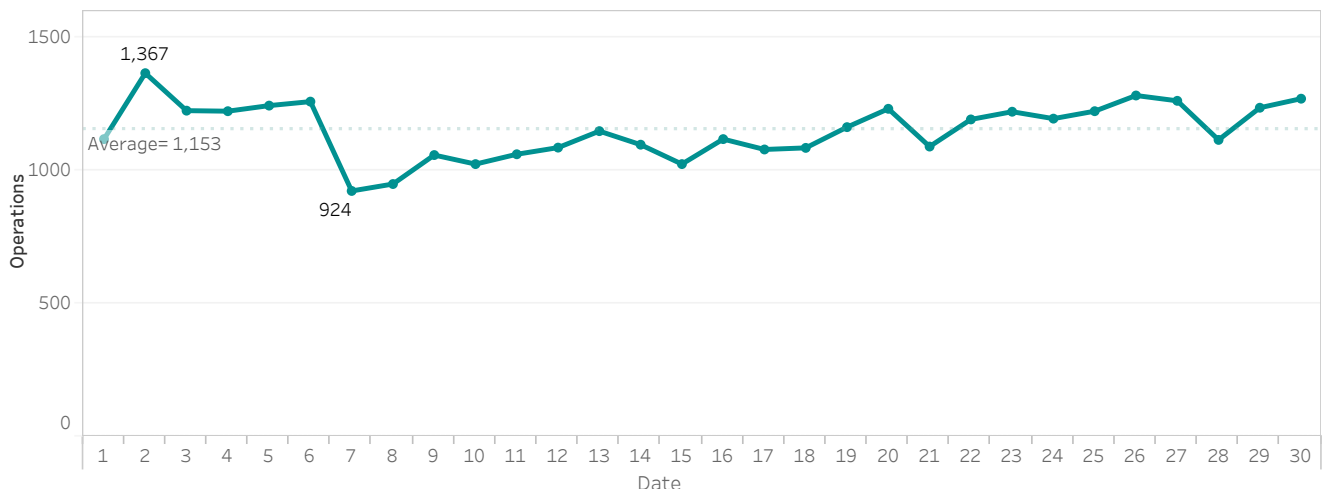
17%



Most Utilized Aircraft Types

Boeing B737	32%
Airbus A320 Family	33%
Embraer E170	11%
Bombardier CRJ2	9%
Boeing B752	6%
Boeing B77W	6%
Airbus A220	2%

Daily Aircraft Operations



Runway Usage and Nighttime Operations

Monthly Runway usage is shown for arrivals and departures, further categorized by all hours and nighttime hours. Graph at the bottom of the page shows hourly nighttime operations for each day. Power Runup locations are depicted on the airport map with airlines nighttime power runup counts shown below. Percent [%] is rounded to the nearest whole number.

Runway Utilization

	Arrivals	Departures
01 L/R		79% 13,119
28 L/R	100% 16,553	21% 3,465

Late Night Preferential Runway Use (1 am - 6 am)

	Departures
10 L/R	0% 1
01 L/R	55% 345
28 L/R	45% 283

Runway Utilization

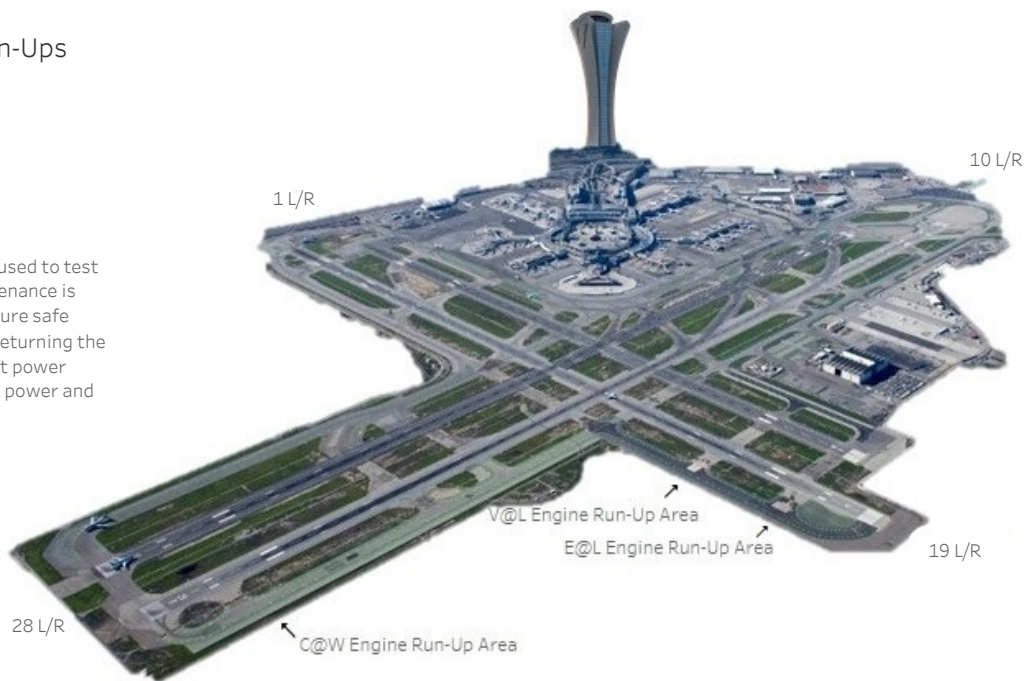
Arrivals	
28L	28R
28%	72%
Night (10pm-7am)	
14%	86%

Nighttime Power Run-Ups

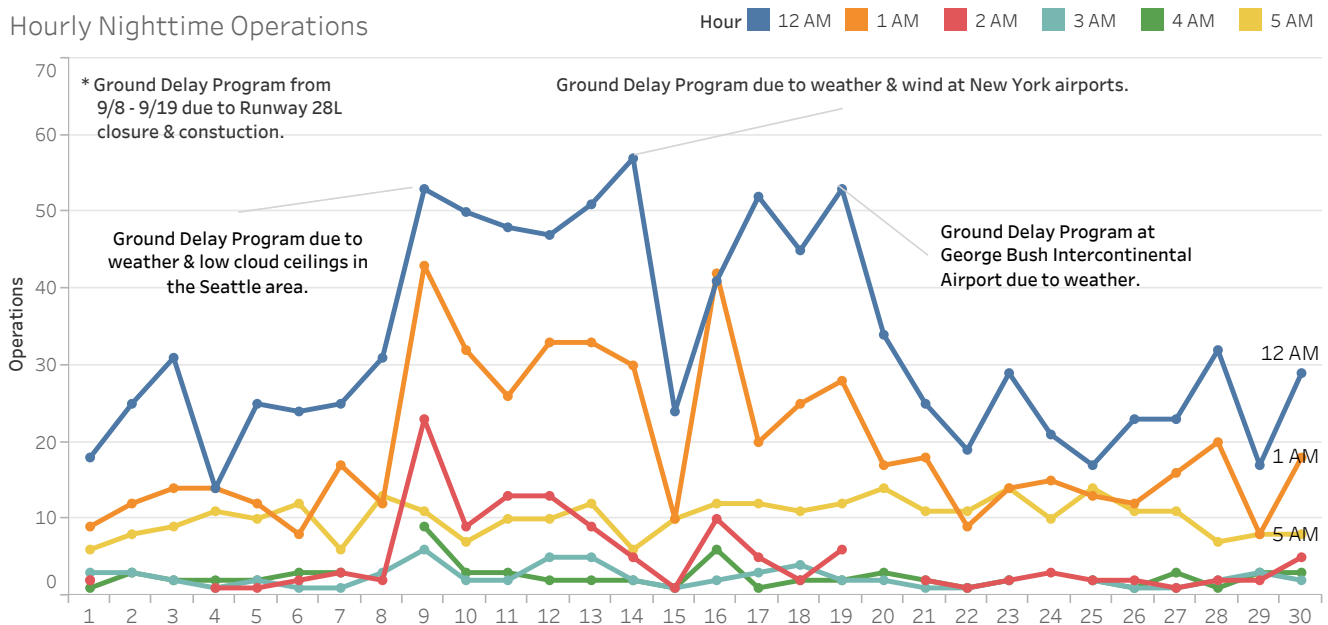
10pm-7am

Alaska Airlines	7
American Airlines	8
Delta Airlines	2
United Airlines	2

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



Hourly Nighttime Operations



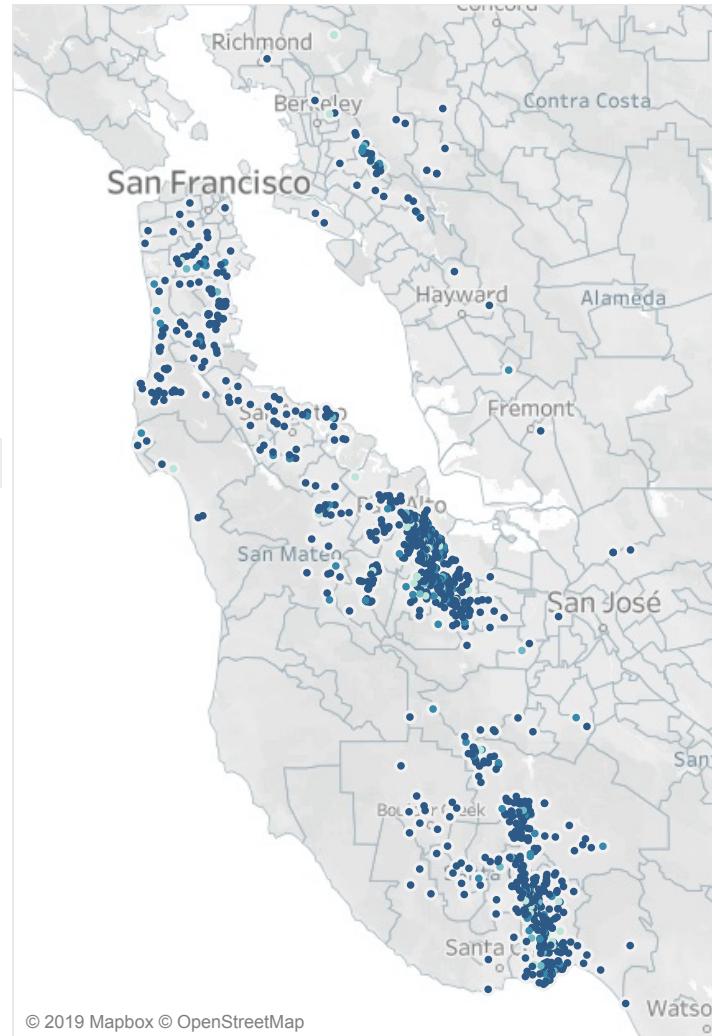
Noise Reports

Noise Reporters / Noise Reports

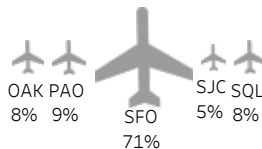
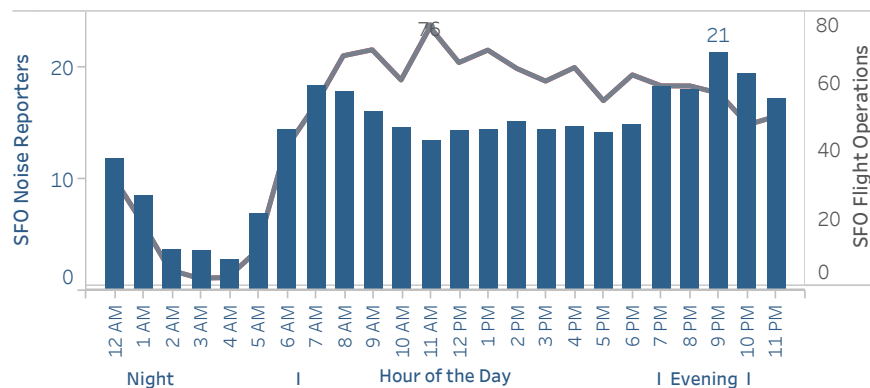
	Reporters	Noise Reports
Roundtable		
Atherton	5	639
Belmont	4	265
Brisbane	22	1,389
Burlingame	5	140
Daly City	8	812
El Granada	2	843
Foster City	10	648
Half Moon Bay	2	41
Hillsborough	2	61
Menlo Park	28	1,112
Millbrae	1	2
Pacifica	32	2,189
Portola Valley	31	7,357
Redwood City	14	1,784
San Bruno	7	288
San Carlos	3	62
San Francisco	34	5,146
San Mateo	19	947
South San Francisco	27	387
Woodside	9	2,249
Other		
Alameda	2	4
Aptos	5	207
Ben Lomond	6	26
Berkeley	5	2,064
Bonny Doon	2	82
Boulder Creek	11	168
Brookdale	1	6
Capitola	18	2,088
Carmel Valley	1	47
Castro Valley	1	2
Cupertino	2	592
East Palo Alto	2	9
Emerald Hills	7	3,968
Felton	10	545
Fremont	1	131
Hayward	1	1
La Selva Beach	1	34
Lafayette	1	71
Los Altos	125	17,125
Los Altos Hills	27	9,743
Los Gatos	110	11,427
Milpitas	2	3
Montara	2	269
Moraga	4	356
Morgan Hill	2	155
Moss Beach	1	1
Mountain View	31	3,504
Oakland	31	8,101
Orinda	2	117
Palo Alto	197	32,656
Penngrove	1	4
Piedmont	1	12
Point Richmond	1	919
Richmond	3	3,057
San Jose	2	5
Santa Clara	1	8
Santa Cruz	111	17,421
Saratoga	5	298
Scotts Valley	60	9,738
Soquel	64	9,123
Stanford	4	693
Sunnyvale	8	95
Union City	1	356
Watsonville	1	156
Grand Total	1,139	161,748*

Reporters Annual AVG	1,203
Reports Annual AVG	184,751
New Reporters	32
New Reporters Top City	South San Francisco
Furthest Report	88 Miles
Reports per SFO Operation	4
Top Aircraft Type	B737 A320 E75L
Top Flight Number	ASA1947 UAL2201 AAL1322

Noise Reporters Location Map



Hourly Noise Reports (Average Day in a Month) ■ Noise Reporters ■ Operations



100% of noise reports correlate to a flight origin/destination airport.

Source: SFO Intl Airport Noise Monitoring System

* Runways 28L & 1L closed from 9/7 - 9/19 for construction.

Notes: Address validation Relies on USPS-provided ZIP Code look up table and USPS-specified default city values.

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SFO Airport/Community Roundtable

Meeting No. 320 Action Minutes

Wednesday, August 7, 2019

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

Roundtable Chairperson, Elizabeth Lewis, called the Regular Meeting of the SFO Airport/Community Roundtable to order, at approximately 7:02 p.m., in the David Chetcuti Community Room at the Millbrae City Hall. James Castañeda, AICP, called the roll. A quorum (at least 12 Regular Members) was present as follows:

REGULAR MEMBERS PRESENT

Doug Yakel – City and County of San Francisco Airport Commission
Dave Pine – County of San Mateo Board of Supervisors
Carol Ford – C/CAG Airport Land Use Committee (ALUC)
Elizabeth Lewis – Town of Atherton
Julia Mates – City of Belmont
Terry O’Connell – City of Brisbane
Ricardo Ortiz – City of Burlingame
Pamela DiGiovanni – City of Daly City
Adam Eisen – City of Half Moon Bay
Al Royse – Town of Hillsborough
Ann Schneider – City of Menlo Park
Mike O’Neill – City of Pacifica
Ann Wengert – Town of Portola Valley
Giselle Hale – City of Redwood City
Joe Goethals – City of San Mateo
Tom Livermore – Town of Woodside

REGULAR MEMBERS ABSENT

City and County of San Francisco Board of Supervisors
City and County of San Francisco Mayor’s Office
City of Foster City
City of Millbrae
City of San Bruno
City of San Carlos
City of South San Francisco

ROUNDTABLE STAFF

James A. Castañeda, AICP – Roundtable Coordinator
Gene Reindel – Roundtable Consultant (HMMH)
Justin Cook – Roundtable Consultant (HMMH)

SAN FRANCISCO INTERNATIONAL AIRPORT STAFF

Bert Ganoung, Noise Abatement Manager
David Ong, Noise Abatement Systems Manager
Anthony Carpeneti, Noise Abatement Specialist

2. Jon C. Long Fly Quiet Awards for 2018, Redux

The item was continued.

3. Public Comments on Items NOT on the Agenda

A total of 12 members of the public spoke during public comments:

Rebecca Ward
Mark Shull
Lilia Rolnan
Elizabeth Lopez
Roise Hayes
Lucy Romoli
Darlene Yaplee
Jason Kerr
Robert Holbrook
Doren Gotelli
Jennifer, Sunnyvale Resident
Rojas, Oakland Resident

4. Review of Roundtable Regular Meeting Action Minutes for April 3, 2019 & June 5, 2019.

5. Airport Director's Reports for May & June 2019

ACTION: Mike O'Neill **MOVED** approval. The motion was seconded by Pamela DiGiovanni and **CARRIED**, unanimously.

6. SFO Updates

Airport Public Information Officer Doug Yakel provided an overview of the general operations at SFO, including an upcoming emergency runway repair closures, status of the Ground-Based Augmentation System testing, and the status of the Second Chance and Replacement Noise Insulation Program. Mr. Satero also provided a status of the discussions related to the NITTE/HUUSH procedures and working with FAA and airlines.

7. SFO Airport Development Plan, Comment Letters regarding Notice of Preparation (NOP)

County of San Mateo Board of Supervisor Dave Pine provided an overview of the CEQA Notice of EIR Preparation process (NOP) and the comment letters that have been provided as part of the recent released SFO Airport Development Plan.

8. Title 21 Overview

Roundtable Technical Consultant Gene Reindel (HMMH) provided a presentation of California Title 21, noise monitor placement requirements, and thresholds requirements. Mr. Reindel responded to questions from the Roundtable members on the topic.

9. Presentation by Brüel & Kjær, New Monitoring System Overview and Discussion

Greg Bracci of Brüel & Kjær provided an overview of the new noise monitors being installed and took questions from the Roundtable members. Bert Ganoung, Noise Abatement Manager at SFO took questions regarding noise monitor location.

10. Report from Ground-Based Noise Ad-Hoc Subcommittee June 25, 2019

Millbrae representative Ann Schneider provided an overview of the discussions from the June 25, 2019 Ground-Based Noise Ad-Hoc Subcommittee meeting.

11. Additional Matters Related to Ground-Based Noise Discussion

No additional items were discussed.

12. NIITE/HUSSH Procedure Status

13. Additional Matters Related to Departures Discussion

Roundtable Chairperson Elizabeth Lewis provided a brief update on developments regarding the NIITE/HUSSH procedures the FAA, industry, SFO and Oakland Airports are currently in discussions. Chairperson Lewis took additional comments from Roundtable members and public regarding both the procedures and departure related topics.

14. PIRAT TWO Status

15. Additional Matters Related to Arrivals Discussion

Roundtable Chairperson Elizabeth Lewis indicated that the FAA reported that PIRAT TWO is still be evaluating. The Chairperson additional comments from Roundtable members and public regarding both the procedures and arrival related topics.

16. Formal coordination with other Bay Area Roundtables

Town of Portola Valley represented Ann Wengert reported on upcoming discussions with the Santa Clara | Santa Cruz Roundtable in regard to formal coordination among the two groups.

17. Upcoming Technical Working Group Items Discussion

Roundtable Coordinator James Castaneda indicated collecting items discussed at the current meeting that have been requested to be included on the next Technical Working Group meeting agenda.

18. Glossary and Website Resources

Roundtable Coordinator James Castaneda announced that the glossary of aviation terms will no longer be included in meeting packet and is available online.

19. Aviation Noise News and Updates

Item was not discussed due to time.

20. Member Communications / Announcements

None

21. Adjourn

Chairperson Lewis adjourned the meeting at approximately 10:30 p.m.

Roundtable action minutes are considered draft until approved by the Roundtable at a regular meeting. A video recording of this meeting is available on the Roundtable's website.

SFO Airport/Community Roundtable

Meeting No. 321 Action Minutes

Wednesday, October 2, 2019

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

Roundtable Chairperson, Elizabeth Lewis, called the Regular Meeting of the SFO Airport/Community Roundtable to order, at approximately 7:00 p.m., in the David Chetcuti Community Room at the Millbrae City Hall. James Castañeda, AICP, called the roll. A quorum (at least 12 Regular Members) was present as follows:

REGULAR MEMBERS PRESENT

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Terry O’Connell – City of Brisbane
Ricardo Ortiz – City of Burlingame
Al Royse – Town of Hillsborough
Ann Schneider – City of Millbrae
Mike O’Neill – City of Pacifica
Ann Wengert – Town of Portola Valley
Giselle Hale – City of Redwood City
Adam Rak – City of San Carlos
Mark Addiego – City of South San Francisco

REGULAR MEMBERS ABSENT

City and County of San Francisco Board of Supervisors
City of Belmont
City of Daly City
City of Foster City
City of Half Moon Bay
City of Menlo Park
City of San Bruno
City of San Mateo
Town of Woodside

ROUNDTABLE STAFF

James A. Castañeda, AICP – Roundtable Coordinator
Justin Cook – Roundtable Consultant (HMMH)

SAN FRANCISCO INTERNATIONAL AIRPORT STAFF

Bert Ganoung, Noise Abatement Manager
David Ong, Noise Abatement Systems Manager
Anneliese Taing, Noise Abatement Specialist
Anthony Carpeneti, Noise Abatement Specialist

2. Public Comments on Items NOT on the Agenda

A total of 6 members of the public spoke during public comments:

Louis Maraviglia
Mark Shull
Ken Miles
Darlene Yaplee
Elizabeth Lopez
Charlie Wambeke

3. Airport Director's Reports for July & August 2019

ACTION: Al Royse **MOVED** approval. The motion was seconded by Ann Schneider and **CARRIED**, unanimously.

4. SFO Updates

Airport Director Ivar Satero provided an overview of the general operations at SFO, including the completion of the emergency runway repair closures, delays with the Ground-Based Augmentation System (GBAS) due to contract negotiation, and the status of the Second Chance and Replacement Noise Insulation Program. Mr. Satero also gave an update as to the discussions regarding NITTE/HUUSH procedures and working with FAA and airlines. Mr. Satero addressed questions from Roundtable members and the public.

5. FAA Work on Noise Initiatives

Airport Director Ivar Satero introduced Jim Hileman from the FAA's Office of Environment and Energy who gave a presentation on the current efforts the FAA efforts to understand and address aviation noise and emissions. Mr. Hileman took questions from the Roundtable members.

6. Report from Technical Working Group September 26, 2019

Roundtable Technical Consultant Justin Cook provided an overview of the Technical Working Group meeting on September 26, 2019 where members of the FAA attended and provided response to questions submitted on August 22, 2019.

7. Report from Ground-Based Noise Ad-Hoc Subcommittee September 16, 2019

Roundtable Vice-Chairperson Ricardo Ortiz provided a briefing from the Ground-Based Noise Ad-Hoc subcommittee meeting held on September 16, 2019.

8. Discussion of Roundtable's Role Regarding SFO Noise Monitors

9. Additional Matters Related to Ground-Based Noise Discussion

Roundtable Chairperson Elizabeth Lewis introduced the topic for discussion among Roundtable members regarding the placement of noise monitors. Roundtable Technical Consultant Justin Cook provided additional information and clarification regarding site location. No other additional ground-based noise items were discussed.

10. NIITE/HUSSH Procedure Status

11. Additional Matters Related to Departures Discussion

Status of the NIITE/HUSSH procedures was provided during the Airport Director's comments during item 4. No additional departure items were discussed by Roundtable members.

12. PIRAT TWO Status

13. Additional Matters Related to Arrivals Discussion

No update was available as the item continues to be monitored. Public comment was taken on this item from residences from Palo Alto. No additional arrivals items were discussed by Roundtable members.

14. Formal coordination with other Bay Area Roundtables

Town of Portola Valley representative Ann Wengert provided an update on the progress regarding the formal coordination. The initial idea at present is to develop a small ad-hoc steering committee with representatives from the Roundtable, Santa Clara/Santa Cruz Roundtable, and the Oakland Noise Forum to discuss the organization details of formalizing coordination among the groups. The goal is to have a meeting by the end of the year.

15. Aviation Noise News and Updates

The item was continued due to time.

16. Member Communications / Announcements

None.

17. Adjourn

Chairperson Lewis adjourned the meeting at approximately 9:30 p.m.

Roundtable action minutes are considered draft until approved by the Roundtable at a regular meeting. A video recording of this meeting is available on the Roundtable's website.

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November 26, 2019

TO: Roundtable Members and Interested Parties

FROM: James A. Castañeda, AICP, Roundtable Coordinator

SUBJECT: Ground-Based Noise (GBN) Ad-Hoc Subcommittee Meeting on November 18, 2019

On Monday, November 18, 2019, the Ground-Based Noise (GBN) Ad-Hoc Subcommittee meet and discussed the following item.

- Follow-Up Discussion on Tree/Plant Species
- Spectral Data Analysis by HMMH
- Data received from SFO Noise Abatement Office for April 2013, April 2014, and September 2014
- Expected Completion and Delivery of Results
- Noise Modeling (SoundPLAN) with Terrain and Manmade Structures

The following bullet points contain the action items from the meeting:

- The GBN subcommittee had continued their discussions regarding vegetation noise attenuation and wish to get further clarification on variables to consider before requesting modeling be conducted. The Roundtable Consultants, HMMH, has been task to produce a white paper on vegetation noise attenuation to help clarify question the subcommittee has been asking and identify areas of research on the topic that have not been explored.
- The spectral data analysis requested by the GBN subcommittee in a prior meeting will be available in early December. As part of the discussion, a Ground-Based Noise "101" presentation was requested to be produced by the next GBN meeting slated for mid/late January 2020.
- The use of the SoundPLAN program was discussed as to how noise modeling could be done specific to aviation ground-based sources and consider future development within the vicinity of SFO. The GBN subcommittee requested a list of materials and preferred format of development plans in order to provide information to be included in modeling. It was also requested to provide information on modeling at other airports/communities in an executive summary of the findings and lessons learned from those studies.
- The Noise Abatement Office is continuing on working on methods on how to report Ground-Based Noise to the Roundtable. And update will be provided at the December 4, 2019 Roundtable Regular Meeting, including timelines of feedback from the Roundtable.

An audio recording of the meeting can be found at the Roundtable's website.

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Dave Ong (AIR)

From: Dave Ong (AIR)
Sent: Tuesday, November 26, 2019 8:50 AM
To: Terry O'Connell; Holstine, Clay
Cc: Audrey Park (AIR); Bert Ganoung (AIR); James A Castañeda; Anneliese Taing (AIR); Anthony Carpeneti (AIR)
Subject: 4Q 2019 Aircraft Noise Monitoring Results for Brisbane
Attachments: 4Q 2019 Brisbane Noise Monitoring Report.pdf

Honorable Terry O'Connell,

Please find attached aircraft noise monitoring results for Fourth Quarter 2019, for noise measurements collected in the City of Brisbane at two locations (Mission Blue Community Center and at the end of Trinity Road). Past reports are also available online at [link](#) in the Quarterly Portable Noise Monitoring section, then Brisbane. The next measurement period will be in January 2020. If you have any questions or like to discuss the information provided, please don't hesitate to call our office at (650) 821-5100.

Thank you,



David Ong

Noise Systems Manager | Planning, Design & Construction
San Francisco International Airport | P.O. Box 8097 | San Francisco, CA 94128
Tel 650-821-5100 | flysfo.com

[Facebook](#) | [Twitter](#) | [YouTube](#) | [Instagram](#) | [LinkedIn](#)

MEMORANDUM

TO: BRISBANE COMMUNITY

FROM: SAN FRANCISCO INTERNATIONAL AIRPORT AIRCRAFT NOISE ABATEMENT OFFICE

SUBJECT: 4Q 2019 BRISBANE NOISE MONITORING REPORT

DATE: NOVEMBER 26, 2019

The San Francisco International Airport (SFO) Aircraft Noise Abatement Office (ANAO) conducts aircraft noise monitoring in the City of Brisbane, California to determine noise levels within the community from aircraft operations at SFO. Noise monitoring occurs every quarter for a 14-day data collection period. This quarter's measurement period was from October 18, 2019, to October 31, 2019. The monitoring is made possible with the assistance of the City Manager, resulting in two temporary sites in Brisbane. The first site was located at the Mission Blue Center (Site 966) and the second site was located above the Brisbane Community Pool at the end of Trinity Road (Site 1001).

Brisbane is located approximately 4 miles from the SFO Airport, and aircraft noise events sources include primarily SFO departures utilizing the SSTIK and OFFSHORE departure procedures. During the monitoring period, there were no changes to departure procedures. Aircraft departing SFO from Runways 01L/R for destinations to the west, south, and southeast typically overfly Brisbane. Occasionally when the winds on the airfield are stronger from the west, the TRUKN or NIITE departures will be utilized for destinations to the northeast and east. Departing aircraft from Runways 28L/R will initiate a right turn once the aircraft reaches the minimum altitude of 520 feet, consequently, this may have some aircraft fly over Brisbane. SFO aircraft arrivals from the north (BDEGA) on a typical day (West Plan) overfly Brisbane at 10,000 feet or higher. The ambient levels within Brisbane during the monitoring period were as follows: Site 966 - 49dBA and Site 1001 - 53dBA. Non-aircraft noise sources included vehicular traffic, wind, lawn mowing and generator noise.

The overall average daily noise level from all Aircraft at 966 was 51dBA and at 1001 was 55dBA. The Community and Total CNEL values, along with other noise metrics are shown in the summary section of the data report. Noise from all aircraft increased the total average daily noise level by 1.6dBA at site 966 and 1.3dBA at site 1001. In comparison, the human ear can detect a 3dB sound change, and a 6dB increase may result in higher annoyance levels due to a doubling of the sound energy.

During the noise-monitoring period, SFO ANAO received noise reports from 14 individuals in Brisbane. The majority of aircraft noise events at both sites occurred between 6 am and 8 pm. Since the monitoring locations in Brisbane are in an urban area with ambient noise in the 50dBA range, any aircraft noise above this threshold may become a nuisance for the residents as evident in the Sound Exposure Level comparison table. Additionally, the frequency of flights due to the proximity of the Airport may increase annoyance levels.

dB - stands for decibel. The decibel measures the loudness of a sound and is computed as the signal-to-noise ratio.

dBA - stands for A-weighted decibel. A-weighting is used to adjust for the frequency range to account for human hearing. California Code of Regulations Title 21 requires the use of A-weighting when assessing aircraft noise exposure.

CNEL - is used to assess and regulate aircraft noise exposure in communities surrounding California airports. California Code of Regulations Title 21 establishes the acceptable level of aircraft noise at 65dBA CNEL.

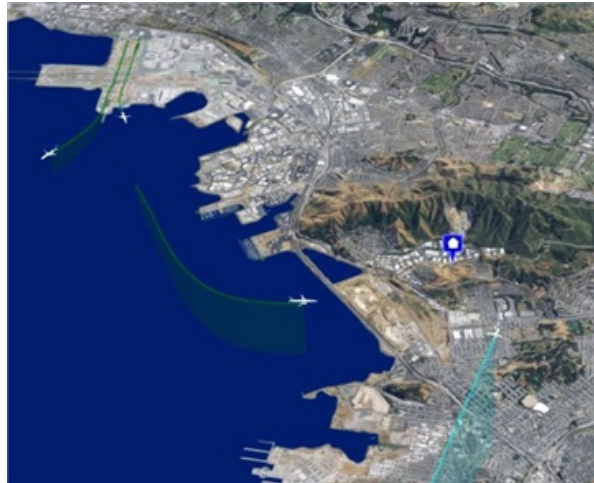
West Plan - Standard operations at the Bay Area International Airports. Aircraft arrive to the west at all three airports. At San Jose and Oakland Airports, aircraft depart to the west. While at San Francisco Airport, aircraft depart either to the north or to the west depending on wind conditions on the airfield.

TRUKN and NIITE - RNAV departure procedures off Runways 28L/R at SFO, has aircraft climb heading of 284° to 520 feet then right turn to initial fix. These procedures replaced the legacy departures procedures SHORELINE and QUIET, respectively.

Mission Blue Center 4Q 2019

October 18 - October 31

Aircraft CNEL: 51dBA
Community CNEL: 53dBA
Total CNEL: 55dBA
Aircraft SEL: 77dBA
Aircraft LMax: 64dBA
Ambient Noise: 49dBA
Noise Monitor Treshold: 57dBA
SFO Aircraft Noise Events: 106 per day
SFO Operations Flow: West Flow
Cause of Aircraft Overflights : SFO SSTIK Departures from Runway 01L/R making a left turn over Brisbane and departures making a right turn from Runways 28L/R performing the TRUKN / NIITE Departure

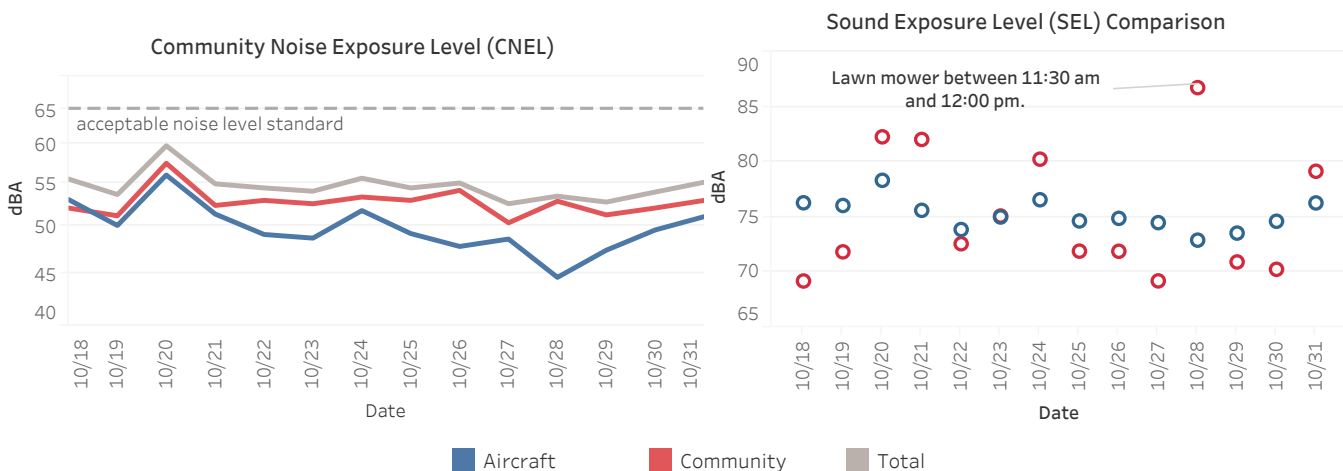


Daily Noise Event Averages

Date	SFO			Non-SFO			Community		
	Noise Events	Avg. SEL (dBA)	Avg. LMax (dB)	Noise Events	Avg. SEL (dBA)	Avg. LMax (dB)	Noise Events	Avg. SEL (dBA)	Avg. LMax (dB)
Oct 18	132	76	65	23	70	60	5	69	63
Oct 19	118	76	64	12	72	61	5	72	65
Oct 20	175	78	65	41	82	65	123*	82	67
Oct 21	100	76	64	14	71	61	7	82	66
Oct 22	92	74	63	12	72	61	17	73	63
Oct 23	113	75	64	24	70	60	31	75	68
Oct 24	110	77	64	23	70	60	29	80	63
Oct 25	98	75	63	15	70	60	22	72	64
Oct 26	70	75	63	14	72	62	39	72	63
Oct 27	87	75	64	9	72	61	7	69	63
Oct 28	90	73	62	3	71	61	13	87	69
Oct 29	95	74	62	8	70	60	7	71	63
Oct 30	106	75	63	13	71	60	11	70	63
Oct 31	92	76	64	19	76	61	37	79	65
Daily AVG	106	75	64	16	72	61	25	75	66

* Regional Meeting of San Francisco Dental Society

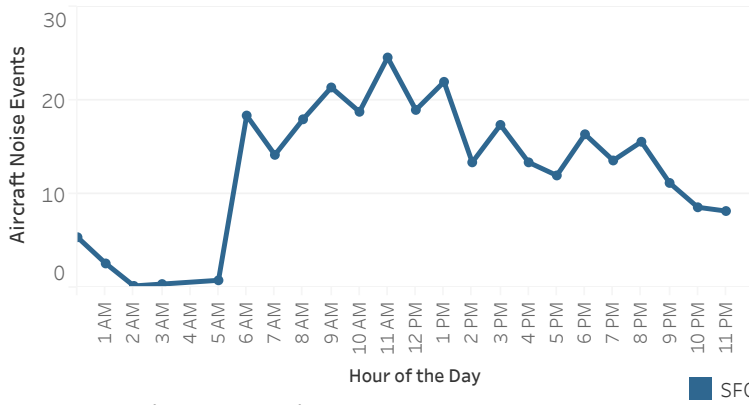
SFO Events are: Single SFO Aircraft, Multiple SFO Aircraft, Simultaneous SFO and Non-SFO Aircraft, and Simultaneous Community and SFO Aircraft.
SEL - Sound Exposure Level of a noise event is measured over time between the initial and final points when the noise level exceeds a predetermined threshold and its energy is compressed into one second.
Lmax - The maximum noise level is a measurement of the peak level of a noise event.
CNEL- This metric is used to assess and regulate aircraft noise exposure in communities surrounding the airport. California Title 21 Noise Regulations established acceptable level of aircraft noise of 65dBA CNEL.



SFO Aircraft Noise Events by Day (7am-7pm), Evening (7pm-10pm) and Night (10pm-7am)

Day	Noise Events	SFO Noise Events (%)	Avg. SEL (dBA)	Min. SEL (dBA)	Max. SEL (dBA)	Avg. LMax (dB)	Min. LMax (dBA)	Max. LMax (dBA)	Avg. Duration (sec)	Min. Duration (sec)	Max. Duration (sec)
Day	1,053	71%	75	63	89	64	57	76	23	4	60
Evening	202	14%	77	64	91	64	57	85	23	5	60
Night	223	15%	76	63	83	64	56	72	24	5	58

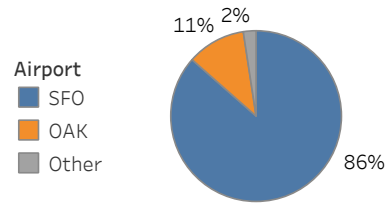
SFO Noise Events by Hour of the Day



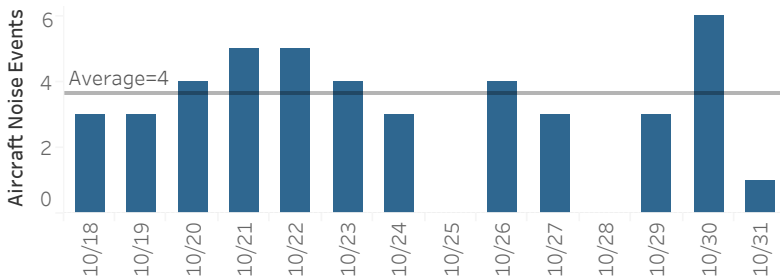
Only aircraft that registered a noise event on the monitor are considered.

SFO Departures Altitude

Altitude	Percentage
≤3500ft	9%
3500ft	20%
4000ft	21%
4500ft	19%
≥5000ft	31%



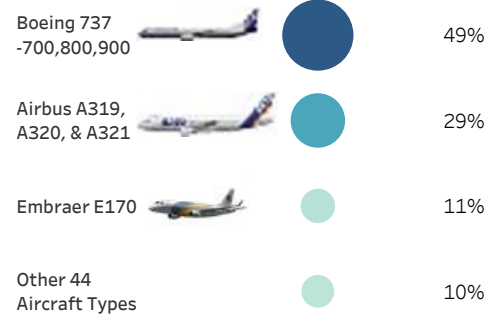
SFO Nighttime (Midnight-6am)



There were no nighttime aircraft events on 10/25 & 10/28.

Operation Type	Percentage
Arrivals	2%
Departures	98%

Aircraft Type



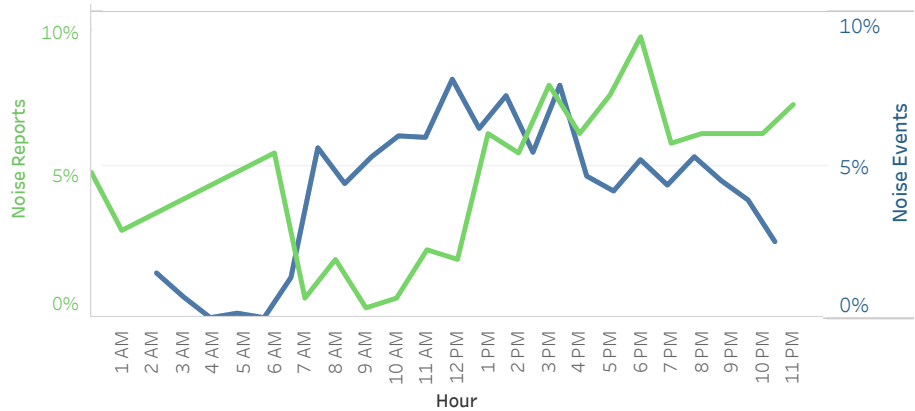
Noise Reporters

Date	Noise Reporters	Noise Reports
Oct 18	7	42
19	5	33
20	3	5
21	4	28
22	3	9
23	1	31
24	3	17
25	2	13
26		
27	2	15
28	1	7
29	2	17
30	3	31
31	8	45
Total	14*	293

24%

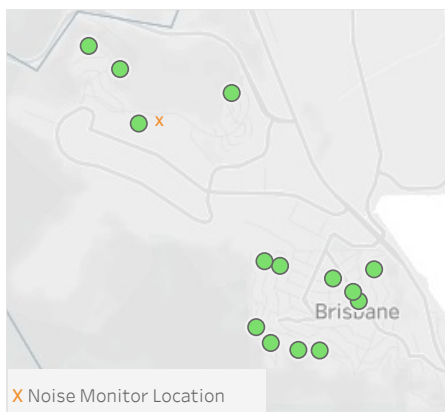
of overflights registered a noise event.
(499 avg daily overflights of which 122 created a noise event)

Noise Reports vs Aircraft Noise Events

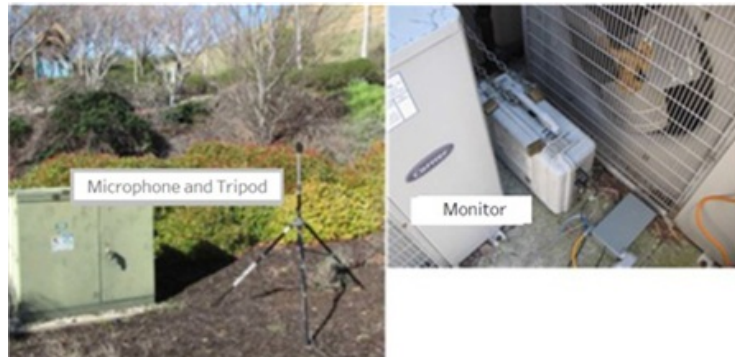


*Individual Reporters

Noise Reporters Location



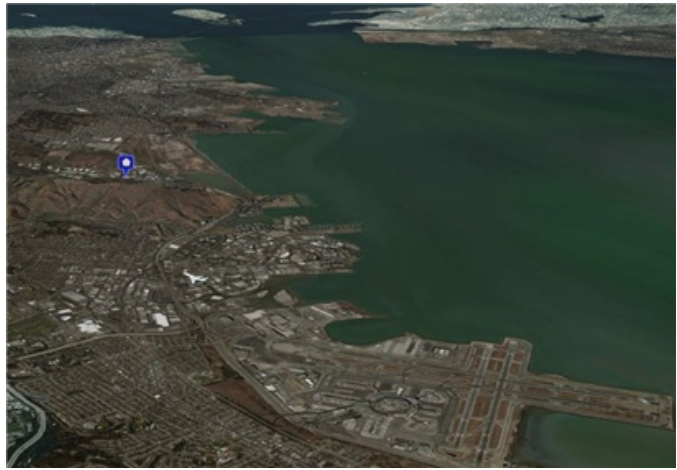
Noise Monitor on Location



Trinity Road 4Q 2019

October 18 - October 31

Aircraft CNEL: 55dBA
Community CNEL: 58dBA
Total CNEL: 59dBA
Aircraft SEL: 77dBA
Aircraft LMax: 64dBA
Ambient Noise: 53dBA
Noise Monitor Treshold: 57dBA
SFO Aircraft Noise Events: 86 per day
SFO Operations Flow: West Flow all days
Cause of Aircraft Overflights : SFO SSTIK Departures from Runway 01L/R making the left turn over Brisbane, departures making a right turn from Runways 28L/R performing the TRUKN / NIITE Departure and BDEGA arrivals from the north entering the right traffic pattern for Runway 28R



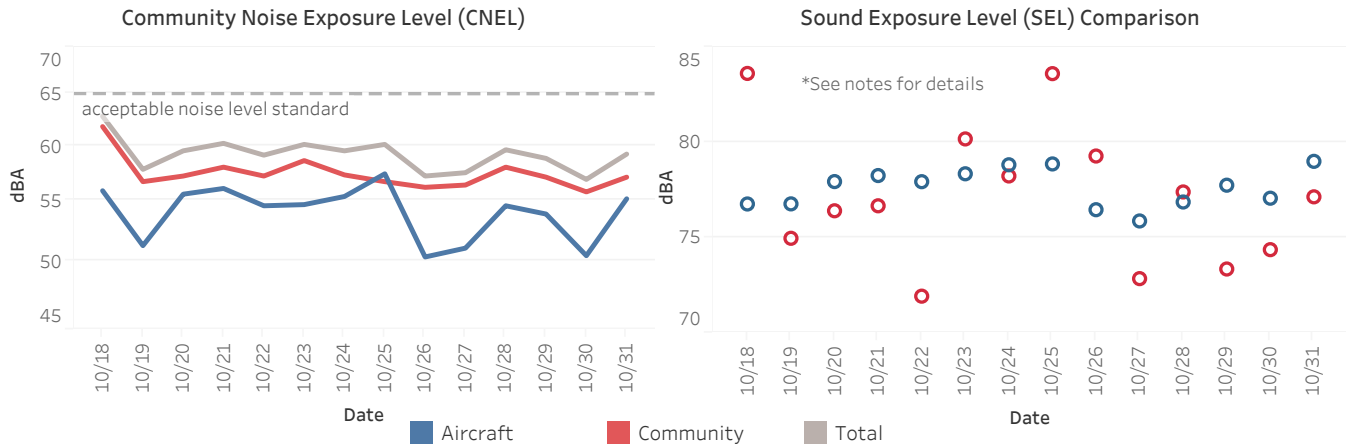
Daily Noise Event Averages

Date	SFO			Non-SFO			Community		
	Noise Events	Avg. SEL (dBA)	Avg. LMax (dB)	Noise Events	Avg. SEL (dBA)	Avg. LMax (dB)	Noise Events	Avg. SEL (dBA)	Avg. LMax (dB)
18	140	77	65	29	73	62	307+	84	65
19	95	77	64	18	72	61	62	75	64
20	134	78	65	48	72	61	84	76	64
21	78	78	65	21	71	61	139	77	61
22	71	78	64	22	69	59	41	72	61
23	78	78	65	33	71	60	166	80	64
24	75	79	66	29	71	60	15	78	65
25	98	79	65	20	70	59	42	84	66
26	56	76	63	13	75	62	26	79	64
27	86	76	65	17	70	61	169	73	63
28	67	77	65	4	75	63	263+	77	63
29	75	78	64	17	71	60	54	73	61
30	74	77	64	15	71	60	32	74	62
31	73	79	65	16	71	60	33	77	62
Daily Average	86	78	65	22	72	61	102	77	64

SFO Events are: Single SFO Aircraft, Multiple SFO Aircraft, Simultaneous SFO and Non-SFO Aircraft, and Simultaneous Community and SFO Aircraft. + wind
SEL - Sound Exposure Level of a noise event is measured over time between the initial and final points when the noise level exceeds a predetermined threshold and its energy is compressed into one second.

Lmax - The maximum noise level is a measurement of the peak level of a noise event.

CNEL - This metric is used to assess and regulate aircraft noise exposure in communities surrounding the airport. California Title 21 Noise Regulations established acceptable level of aircraft noise of 65dBA CNEL.

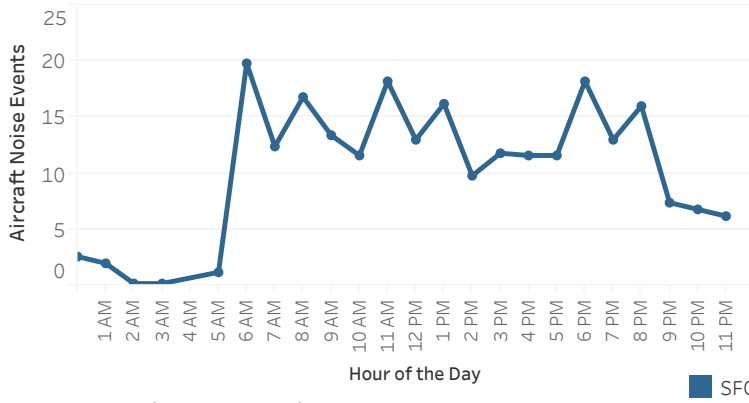


*Notes: 10/18 Wind noise for most of the day. 10/23 Noises from a Generator for 2 hours from 8:53 am to 10:53 am. 10/25 Noises from loud trucks at various points in the day.

SFO Aircraft Noise Events by Day (7am-7pm), Evening (7pm-10pm) and Night (10pm-7am)

Day	Noise Events	SFO Noise Events (%)	Avg. SEL (dBA)	Min. SEL (dBA)	Max. SEL (dBA)	Avg. LMax (dB)	Min. LMax (dBA)	Max. LMax (dBA)	Avg. Duration (sec)	Min. Duration (sec)	Max. Duration (sec)
Day	823	69%	77	63	89	64	57	82	23	4	60
Evening	182	15%	76	63	83	64	57	74	23	5	48
Night	193	16%	81	64	89	68	57	79	28	5	49

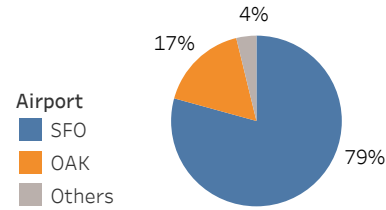
SFO Noise Events by Hour of the Day



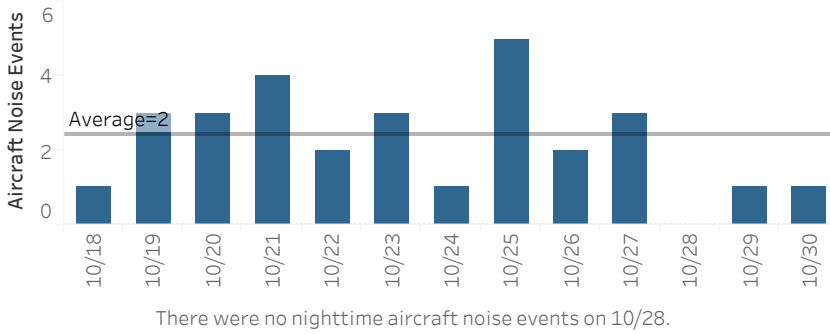
SFO Departures Altitude

Altitude	Percentage
≤3000ft	6%
3000ft	14%
3500ft	26%
4000ft	18%
≥4500ft	37%

Only aircraft that registered a noise event on the monitor are considered.

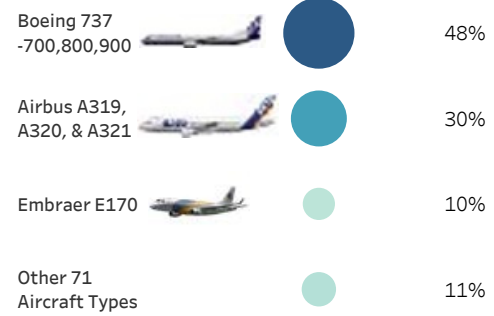


SFO Nighttime (Midnight-6am)



Operation Type	Arrivals	Departures
	2%	98%

Aircraft Type



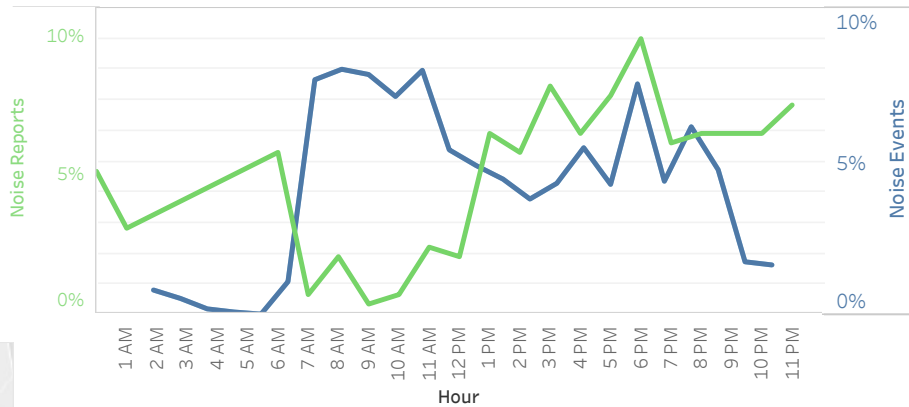
Noise Reporters

Date	Noise Reporters	Noise Reports
October 18	7	42
19	5	33
20	3	5
21	4	28
22	3	9
23	1	31
24	3	17
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29	2	17
30	3	31
31	8	45
Total	14*	293

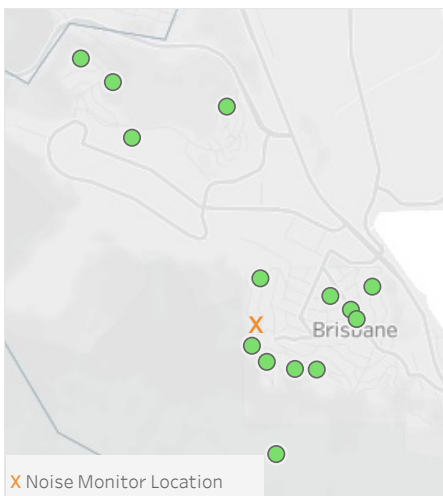
*Individual Reporters

21% of overflights registered a noise event.
459 avg daily overflights of which 98 created a noise event)

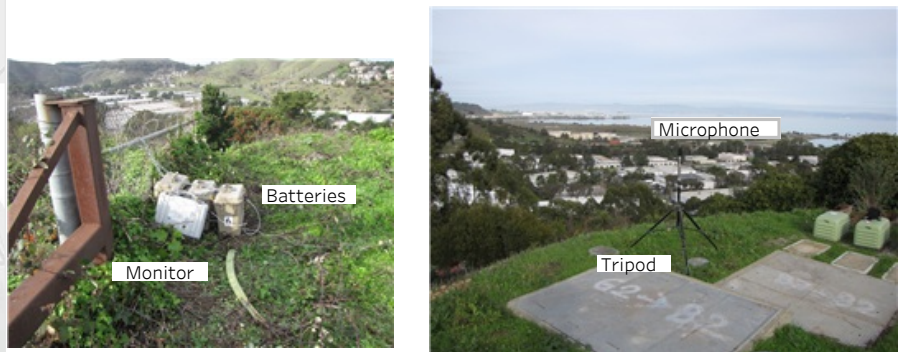
Noise Reports vs Aircraft Noise Events



Noise Reporters Location



Noise Monitor on Location





October 22, 2019

TO: Roundtable Members and Interested Parties

FROM: Sarah C. Yenson, Senior Consultant
Justin W. Cook – INCE, LEED GA, Principal Consultant
Roundtable Technical Consultant - HMMH

SUBJECT: Federal Aviation Administration (FAA) Instrument Flight Procedures (IFP) Information Gateway Review

At the request of the Roundtable, Harris Miller Miller & Hanson Inc. (HMMH) is monitoring and reviewing updates to procedures published onto the FAA's IFP Information Gateway in the regions of San Francisco International Airport (SFO), Metropolitan Oakland International Airport (OAK), and Norman Y. Mineta San Jose International Airport (SJC).

After analyzing the documents posted, HMMH determines proposed changes and the reason for the changes. The FAA IFP Information Gateway has not published updates since the last memorandum. The next publication is expected on November 7, 2019.

Important Terms and Items:

- FAA Stage Definitions
 1. FPT: Procedures are coordinated with Air Traffic, Tech Ops and Airports for feasibility, preparation and priority (FPO)
 2. DEV: Development of the procedures
 3. FC: FAA Flight Inspection of the developed procedures
 4. PIT: Production Integration Team (TS)
 5. CHARTING: Procedures at AeroNav Products Charting for publication (NACO)
- FAA Status Definitions
 1. At Flight Check: At Flight Inspection for procedure validation
 2. Awaiting Publication: At AeroNav Products Charting for publication
 3. Complete: Procedure development action finished
 4. On Hold: Procedure waiting data/information to allow it to proceed/continue to next stage
 5. Pending: Procedure development work on-going
 6. Published: Procedure charted and published
 7. Under Development: Procedure is being worked on by the FAA
 8. Terminated: Procedure/project terminated
- Glossary
 - RNAV: Area Navigation

HMMH FAA IFP Information Gateway Review

October 22, 2019

Page 2 of 3

- IAP: Instrument Approach procedure
- STAR: Standard Terminal Arrival Route
- SID: Standard Instrument Departure
- GPS: Global Positioning System
- ILS: Instrument Landing System
- LOC: Localizer

Low Importance:

- None

High Importance:

- None

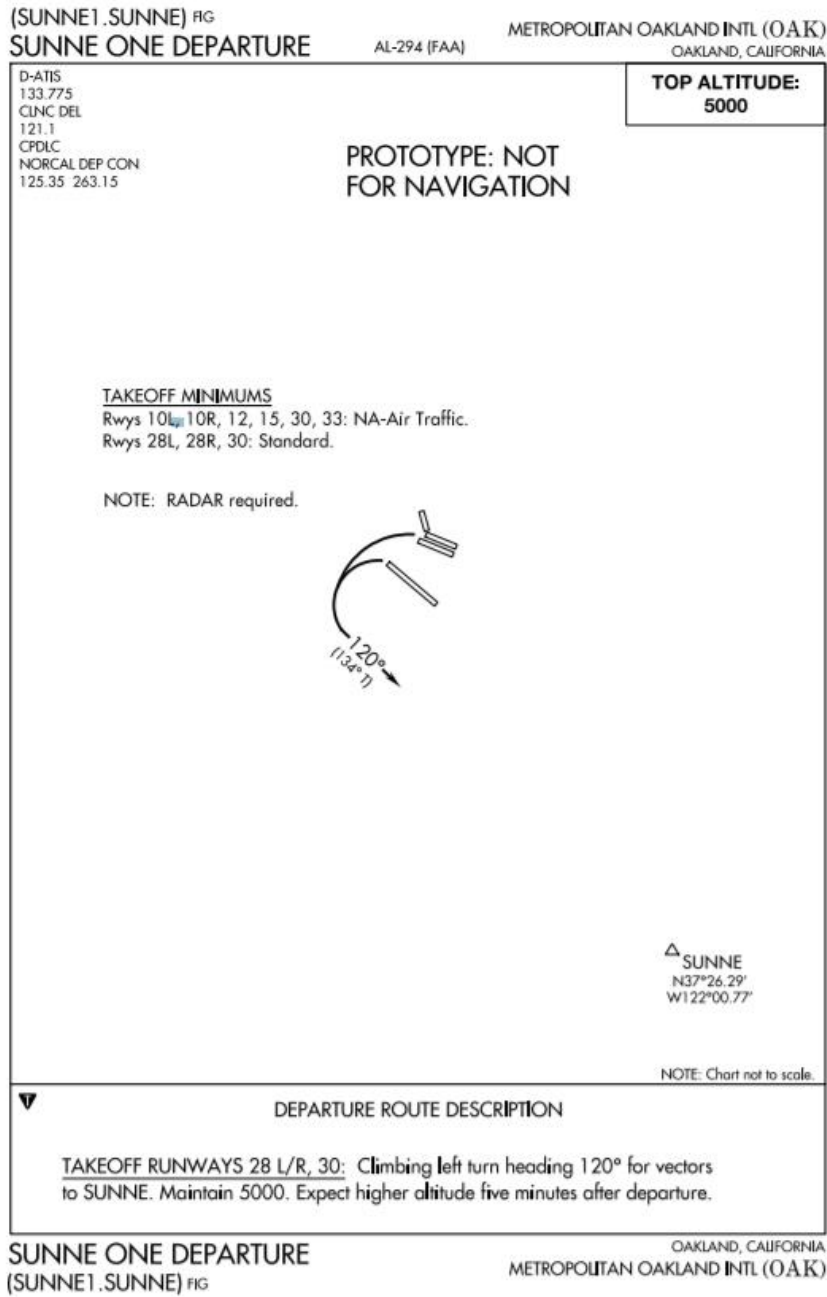
Open Comment Periods:

- SID SUNNE ONE at OAK comment period ends: October 29, 2019
 - Email concerns can be sent here:
https://www.faa.gov/air_traffic/flight_info/aeronav/procedures/application/?event=procedure.results&tab=coordination&nasId=OAK#searchResultsTop
 - Documents regarding the SID SUNNE ONE departure at OAK posted since our last IFP Information Gateway Review Memorandum for September 2019 can be found at the end of this memorandum and also found here:
https://www.faa.gov/air_traffic/flight_info/aeronav/procedures/application/?event=directory&directory=2018030916112302002-OAK&type=acifp&nasId=OAK

Next Publication:

We do not expect to see any Instrument Flight Procedure updates for OAK, SFO, or SJC on the November 7, 2019 publication.

Figure 1. PROPOSED SID SUNNE ONE at OAK



Source: https://www.faa.gov/aero_docs/acifp/2018030916112302002-OAK/CA_KOAK_SID_SUNNE%20ONE_S.pdf