



Meeting Packet

Regular Meeting

Jon C. Long Fly Quiet Awards

Meeting No. 312

Wednesday, April 4, 2018 - 7:00 p.m.

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

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

AGENDA

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

ACTION

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

2. Jon C. Long Fly Quiet Awards for 2015-2016 and 2017

ACTION

Elizabeth Lewis, Roundtable Chairperson
Bert Ganoung, Noise Abatement Manager

1. Awards Recipients pg. 15

3. 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.

4. Review of Roundtable Meeting Action Minutes for December 6, 2017 and February 7, 2018

ACTION

1. December 6, 2018 Action Minutes pg. 17
2. February 7, 2018 Action Minutes pg. 21

5. Airport Director's Reports for January and February 2018

ACTION

1. January 2018 Airport Director's Report pg. 57
2. February 2018 Airport Director's Report pg. 63

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REGULAR AGENDA

6. SFO Updates

INFORMATION

Ivar Satero, Director – San Francisco International Airport

Doug Yakel, Public Information Officer – San Francisco International Airport

7. Report and Recommendation from Work Program Subcommittee of FY2017-2018 Budget

ACTION

James Castañeda, Roundtable Coordinator

1. Memo pg. 25

8. Status/Update, FAA Initiative Phase 2 / Technical Working Group Meeting Follow-up

INFORMATION

Elizabeth Lewis, Roundtable Chairperson

Gene Reindel, Roundtable Technical Consultant

1. Meeting Summary Memo pg. 33

9. Update from the Roundtable's Legislative Subcommittee Meeting

ACTION

Janet Borgens, Legislative Subcommittee Chairperson (City of Redwood City Representative)

1. Meeting Summary Memo pg. 43
2. Draft Letter re: NIITE/HUSSH South Transition (GOBBS) pg. 45
3. N.O.I.S.E. Membership Summary pg. 47

10. Discussion, Health Effects of Aircraft Noise on People

INFORMATION

Mary Ellen Eagan, HMMH

11. Follow-up, Expand Roundtable membership to include 2 additional members; one representative from each Santa Clara County and Santa Cruz County

INFORMATION

Elizabeth Lewis, Roundtable Chairperson

12. Upcoming 3-Year Strategic Plan and 2018-2019 Work Plan development, Member Appointment to Work Program Subcommittee

ACTION

James Castañeda, Roundtable Coordinator

OTHER MATTERS

13. Aviation Noise News and Updates

INFORMATION

Gene Reindel, Roundtable Technical Consultant

14. Member Communications / Announcements

INFORMATION

Roundtable Members and Staff

15. Adjourn

ACTION

Elizabeth Lewis, Roundtable Chairperson

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Correspondences / Additional Reports

1. Millbrae Short-Term Monitoring Report pg. 68

Additional Resources

1. Welcome pg. 4
2. About the Roundtable pg. 5
3. Roundtable Member Roster pg. 7
4. Glossary of Acoustic & Air Traffic Control Terms pg. 8

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.



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 2017, 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:

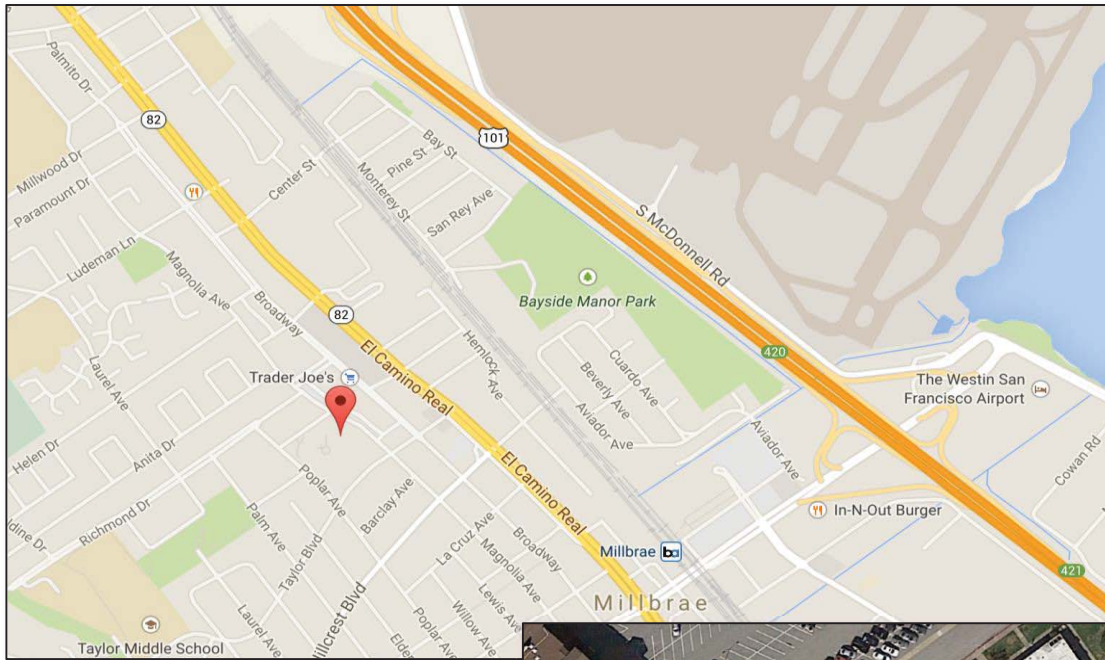
“No state or political subdivision thereof and no interstate agency or other political agency of two or more states shall enact or enforce any law, rule, regulation, standard, or other provision having the force and effect of law, relating to rates, routes, or services of any air carrier having authority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

April 2018

CITY AND COUNTY OF SAN FRANCISCO BOARD OF SUPERVISORS

Ahsha Safai, Supervisor

CITY AND COUNTY OF SAN FRANCISCO MAYOR'S OFFICE

David Takashima, (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)

Adam Kelly, ALUC Chairperson (Appointed)

TOWN OF ATHERTON

Elizabeth Lewis, Mayor

Alternate: Bill Widmer, Council Member

CITY OF BELMONT

Douglas Kim, Council Member

Alternate: Eric Reed, 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

Glenn Sylvester, Mayor

CITY OF FOSTER CITY

Sam Hindi, Council Member

CITY OF HALF MOON BAY

Harvey Rarback, Council Member

TOWN OF HILLSBOROUGH

Alvin Royse, Council Member

Alternate: Shawn Christianson, Council Member

CITY OF MENLO PARK

Peter Ohtaki, Council Member

CITY OF MILLBRAE

Anne Oliva, Council Member

Alternate: Ann Schneider, Council Member

CITY OF PACIFICA

Sue Digre, Council Member

Alternate: John Keener, Mayor

TOWN OF PORTOLA VALLEY

Ann Wengert, Council Member

Alternate: Maryann Derwin, Council Member

CITY OF REDWOOD CITY

Janet Borgens, Council Member

CITY OF SAN BRUNO

Marty Medina, Council Member

Alternate: Rico Medina, Council Member

CITY OF SAN CARLOS

Ron Collins: Council Member

Alternate: Matt Grocott, Council Member

CITY OF SAN MATEO

Diane Papan, Council Member

CITY OF SOUTH SAN FRANCISCO

Mark Addiego, Council Member

Alternate: Pradeep Gupta, Council Member

TOWN OF WOODSIDE

Chris Shaw, Council Member

Alternate: Deborah Gordon, 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 Abatement Systems Manager

Ara Balian, Senior Noise Abatement Specialist

Nastasja von Contra, Senior Noise Abatement Specialist

Anthony Carpeneti, Noise Abatement Specialist

Joyce Satow, Administration Secretary

Aircraft Noise Abatement Office

Glossary of common Acoustic and Air Traffic Control

terms

A

ADS-B - Automatic Dependent Surveillance – Broadcast

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

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

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

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

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

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

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

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

Arrival – The act of landing at an airport.

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

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

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

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

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

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

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

B

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

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

C

Center – See ARTCC.

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

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

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

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

D

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

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

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

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

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

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

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

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

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

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

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

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

E

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

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

F

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

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

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Jon C. Long Fly Quiet Awards

San Francisco International Airport's Fly Quiet Program is a 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. 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.

2015 – 2016 Fly Quiet Awards

Most Improved
VIRGIN ATLANTIC

Quietest Overall Airline
CHINA SOUTHERN AIRLINES

Chairperson's Awards
VIRGIN AMERICA

2017 Fly Quiet Awards

Most Improved
TURKISH AIRLINES

Quietest Overall Airline
AIR CHINA

Chairperson's Awards
AIR NEW ZEALAND

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SFO Airport/Community Roundtable

Meeting No. 310 Action Minutes

Wednesday, December 6, 2017

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 7:05 p.m., in the David Chetcuti Community Room at the Millbrae City Hall. James A. Castañeda, AICP, Roundtable Coordinator, called the roll. A quorum (at least 12 Regular Members) was present as follows:

REGULAR MEMBERS PRESENT

Ahsha Safaí – City and County of San Francisco Board of Supervisors

Ivar Satero – City and County of San Francisco Airport Commission

David Pine – County of San Mateo Board of Supervisors

Elizabeth Lewis – Town of Atherton

Douglas Kim – City of Belmont

Terry O’Connell – City of Brisbane

Glenn Sylvester – City of Daly City

Alvin Royse – Town of Hillsborough

Peter Ohtaki – City of Menlo Park

Ann Schneider – City of Millbrae

Sue Digre – City of Pacifica

Ann Wengert – Town of Portola Valley

Ken Ibarra – City of San Bruno

Rick Bonilla – City of San Mateo

Mark Addiego – City of South San Francisco

Diane Papen – City of San Mateo

REGULAR MEMBERS ABSENT

City and County of San Francisco Mayor’s Office

C/CAG Airport Land Use Committee (ALUC)

City of Burlingame

City of Foster City

City of Half Moon Bay

City of Redwood City

City of San Carlos

Town of Woodside

ROUNDTABLE STAFF

James A. Castañeda, AICP – Roundtable Coordinator

Gene Reindel – Roundtable Consultant (HMMH)

SAN FRANCISCO INTERNATIONAL AIRPORT STAFF

Bert Ganoung, Noise Abatement Manager

Nastasja von Contra, Senior Noise Abatement Specialist

Anthony Carpeneti, Noise Abatement Specialist

2. Public Comments on Items NOT on the Agenda

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

Ray Ramos
Charlie Wambeke

3. Review of Roundtable Meeting Overview for August 2, 2017

4. Airport Director's Reports for September & October 2017, Fly Quiet Report for Q3 2017

ACTION: Alvin Royse **MOVED** approval of the meeting overview for August 2, 2017, Airport Director's Reports for September and October 2017, and Fly Quiet Report for Q3. The motion was seconded by Terry O'Connell and **CARRIED**, unanimously.

5. SFO Updates

Airport Public Information Officer Doug provided a update as to the operations at SFO and summary of noise trends for the prior months. Airport Director Ivar Satero provided additional comments.

6. Presentation on GBAS

Bill Peterson of Boeing provided an overview of the Ground Base Augmentation System (GBAS), and what to expect with its implementation at SFO.

7. Status/Update, FAA Initiative Phase 2 – Technical Working Group follow-up and next steps

Roundtable Chairperson Lewis provided a brief update on the Technical Working Group's November meeting and the release of the final version of the Phase 2 document. Thann McLeod of the NORCAL TRACON facility was in attendance and provided feedback to Roundtable members questions. Further discussion will occur at the next Technical Working Group meeting in January.

8. Discussion, Adverse Health Effects of Airplanes Noise, Holding Panel Workshop with Medical Professionals

Roundtable Chairperson Lewis discussed the possibilities of holding a panel workshop with medical professional to discuss the adverse health effects of airplane noise. Further discussion/details to be provided at a future meeting.

9. Update, South Bay Roundtable

Roundtable Chairperson Lewis provided a brief update on the progress with the creation of a South Bay Roundtable group.

10. Discussion, Expand Roundtable membership to include 2 additional members; one representative from each Santa Clara County and Santa Cruz County

Roundtable Chairperson Lewis introduced the idea and purpose behind proposing one representative from Santa Clara County and Santa Cruz County to have a voting seat on the Roundtable. Additional discussions will be conducted as part of an ad-hoc subcommittee to review the matter and report back to the Roundtable at the next regular meeting.

11. Discussion, Direction to Noise Abatement Office to Create an “easy-to-read” instructions to request a community noise monitor.

Airport Noise Abatement Manager Bert Ganoung provided a background on community noise monitor and process to request.

12. Aviation Noise News and Updates

Roundtable Technical Consultant Gene Reindel provided a brief recap of relevant aviation noise news to the Roundtable.

13. Member Communications / Announcements

San Bruno representative Ken Ibarra announced this will be his last Roundtable meeting.

14. Adjourn

Chairperson Lewis adjourned the meeting at 9:25 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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SFO Airport/Community Roundtable

Meeting No. 311 Action Minutes

Wednesday, February 7, 2018

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 7:05 p.m., in the David Chetcuti Community Room at the Millbrae City Hall. James A. Castañeda, AICP, Roundtable Coordinator, called the roll. A quorum (at least 12 Regular Members) was present as follows:

REGULAR MEMBERS PRESENT

Ahsha Safaí – City and County of San Francisco Board of Supervisors
Ivar Satero – City and County of San Francisco Airport Commission
David Pine – County of San Mateo Board of Supervisors
Elizabeth Lewis – Town of Atherton
Madison Davis – City of Brisbane
Ricardo Ortiz – City of Burlingame
Sam Hindi – City of Foster City
Harvey Rarback – City of Half Moon Bay
Anne Oliva – City of Millbrae
Sue Digre – City of Pacifica
Ann Wengert – Town of Portola Valley
Janet Borgens – City of Redwood City
Ron Collins – City of San Carlos
Diane Papen – City of San Mateo

REGULAR MEMBERS ABSENT

City and County of San Francisco Mayor's Office
C/CAG Airport Land Use Committee (ALUC)
City of Belmont
City of Daly City
Town of Hillsborough
City of Menlo Park
City of San Bruno
City of South San Francisco
Town of Woodside

ROUNDTABLE STAFF

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

SAN FRANCISCO INTERNATIONAL AIRPORT STAFF

Bert Ganoung, Noise Abatement Manager
David Ong, Noise Abatement Systems Manager
Ara Balian, Senior Noise Abatement Specialist

2. Adoption of a Resolution Recognizing Ken Ibarra

ACTION: Janet Borgens **MOVED** approval of the resolution. The motion was seconded by Ricardo Ortiz and **CARRIED**, unanimously.

3. Elections of Roundtable Chairperson for Calendar Year 2018

ACTION: Janet Borgens **MOVED** to nominate Town of Atherton representative Elizabeth Lewis for the position of Chairperson of the Roundtable. Ann Wengert seconded the nomination. Hearing no additional nominations, a vote was taken, and the acceptance of **Elizabeth Lewis** as Roundtable Chairperson was **CARRIED**, unanimously.

4. Elections of Roundtable Vice-Chairperson for Calendar Year 2018

ACTION: Diane Papan **MOVED** to nominate City of Burlingame representative Ricardo Ortiz for the position of Vice-Chairperson of the Roundtable. Janet Borgens seconded the nomination. Hearing no additional nominations, a vote was taken and acceptance of **Ricardo Ortiz** as Roundtable Vice-Chairperson was **CARRIED**, unanimously.

5. Approval of Resolution 18-01: Designating Roundtable Meeting Dates, Time and Place for Calendar Year 2018

ACTION: Sam Hindi **MOVED** approval of the resolution. The motion was seconded by Janet Borgens and **CARRIED**, unanimously.

6. Public Comments on Items NOT on the Agenda

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

Ray Ramos
Judith Keenan
Robert Holbrook
Charlie Wambeke
Lydia Kou
Liz Lopez

7. Review of Roundtable Meeting Overview for October 4, 2017

8. Airport Director's Reports for November and December 2017, Fly Quiet Report Q4

ACTION: Janet Borgens **MOVED** approval of the meeting overview for October 4, 2017, Airport Director's Reports for November and December 2017, and Fly Quiet Report for Q4. The motion was seconded by Janet Borgens and **CARRIED**, unanimously.

9. SFO Updates

Airport Director Ivar Satero provided an update as to the operations at SFO, including residential noise insulation, vortex generators retrofits, portable noise monitoring, Ground Based Augmentation System (GBAS), and noise abatement office staff attending other community group meetings.

10. Status/Update, FAA Initiative Phase 2 – Technical Working Group follow-up and next steps

Update and overview provided by Roundtable Technical Consultant Gene Reindel. Half Moon Bay representative Harvey Rarback requested a follow-up on the letter discussed at that meeting regarding the Roundtable recommendation of the NIITE/HUSSH south transition (GOBBS) over the bay.

11. Discussion, Adverse Health Effects of Airplanes Noise – Current Findings

Roundtable Technical Consultant Gene Reindel indicated Mary Ellen Eagan, President of HMMH, can be available to provide an overview of current research on the adverse of health effect of airplane noise. The Roundtable members asked to have her present at the next meeting in April.

12. Call for Work Program Subcommittee to Review FY2017-2018 Budget

Roundtable Chairperson Lewis indicated the Work Program Subcommittee will convene to review the FY2017-2018 for the Roundtable's consideration and approval at the April meeting.

13. Discussion, Work Plan and follow-up items on future meeting agendas, including prioritizing and potential action on topics raised by members of the public

Roundtable Coordinator James Castañeda discussed getting the Roundtable back on track to leverage their annual Work Plan to provide guidance and priorities for group's work and how future meetings will be structured around work plan items.

14. Discussion, Meeting Overview Format to Streamline to "Action" Format

ACTION: Anne Oliva **MOVED** approval of implementing streamline action minutes to memorialize actions taken at Roundtable regular meetings. The motion was seconded by Janet Borgens and **CARRIED**, unanimously.

15. Follow-up, Expand Roundtable membership to include 2 additional members; one representative from each Santa Clara County and Santa Cruz County

Roundtable Chairperson Lewis provided an update on the discussions with the Cities Association of Santa Clara County on January 24, 2018 regarding the proposal of inviting Santa Clara County and Santa Cruz County to request Roundtable membership. The invitation is being considered and additional information will be provided at a future meeting.

16. Aviation Noise News and Updates

Roundtable Technical Consultant Gene Reindel provided a brief recap of relevant aviation noise news to the Roundtable.

17. Member Communications / Announcements

Roundtable Coordinator James Castañeda announced upcoming Noise 101 for Roundtable members to attend.

18. Adjourn

Chairperson Lewis adjourned the meeting at 9:18 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.



March 28, 2018

TO: Roundtable Work Program Subcommittee
FROM: James A. Castañeda, AICP, Roundtable Coordinator *JAC*
SUBJECT: Proposed Roundtable Budget for FY 2017-2018

On March 6, 2018, the Work Program Subcommittee meet to review the proposed Fiscal Year 2017-2018 Budget. Staff has prepared the following memo to outline the various elements of the proposed budget based on results from the close of the FY2016-2017 budget, as well as the current status of expenditures for FY 2017-2018. The document also reflects edits and changes provided by the Work Program Subcommittee for the Roundtable's consideration and approval.

In order to provide a clear, streamline evaluation of the budget, this memo is structured by examining each major budget category by evaluating last fiscal year's performance, and current performance and proposed budget allocation to adopt. Further discussion of the County's service report and background proceeds the budget overview.

INCOME

In FY 2016-2017, the Roundtable had received all expected funding with the exception of the dues from C/CAG Airport Land Use Commission. Staff will work with the department's fiscal specialist to follow-up with that. For FY2017-2018, staff is proposing to maintain last year's dues in order to fund the expected expenditures (outlined in the next section). Below is the table that outlines the last two fiscal years, and the proposed funding for FY 2017-2018.

EXPECTED FUNDING FUND SOURCE	2015-2016		2016-2017		2017-2018
	EXPECTED	RECEIVED	EXPECTED	RECEIVED	PROPOSE
1 San Francisco Airport	\$175,000	\$0	\$220,000	\$220,000	\$220,000
2 Roundtable Member Cities (18 Cities)	\$13,500	\$13,500	\$13,500	\$13,500	\$13,500
3 County of San Mateo	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000
4 C/CAG Airport Land Use Committee	\$750	\$750	\$750	\$0	\$750
5 Unused Fund Balance from Previous Year	\$88,809	\$88,809	\$0	\$42,435	\$28,613
TOTAL :	\$276,890	\$109,059	\$240,250	\$281,935	\$268,863

As summarized, the sources of funding are from the following:

1. Annual Funding from the San Francisco Airport Commission

Every three years, the City and County of San Francisco and the County of San Mateo renew their contact to have coordination services provided to the Roundtable in their role to identify noise impacts and reduction measures. The contract requires the County of San Mateo provide 1) Planner (half-time position) as Program Coordinator, 2) retain qualified technical consultant for technical support, 3) administrative support to the Program Coordinator, 4) Roundtable Media Program, Media Support and Website Content, and 5) provide operating supply needs of the Roundtable (additional details on page 7 of this memo). The Airport's contribution for FY 2016-2017 was \$220,000 (which has been the norm since FY 2012-2013). In FY 2015-2016, the airport withheld their contribution in order to draw down the Roundtable's unused surplus in order to avoid the appearance of a revenue diversion situation with airport funds.

2. 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 half the original normal fees, resulting in the following dues: Cities - \$750 each; County - \$6,000, and C/CAG - \$750. In 2010, the Roundtable approved a 50% reduction in annual Roundtable membership fees for all member agencies, except the Airport Commission's contributions. This was done in order to provide some minor finance relief to those agencies and encourage active Roundtable membership and participation during the economic downturn of the time. Since, the Roundtable has maintained those half fees. It is anticipated that for the FY2018-2019 the contributions will return back to normal dues - \$1,500 for member cities and C/CAG, and \$12,000 for San Mateo County.

3. Roundtable Fund Balance from the Prior Fiscal Year

The Roundtable fund balance from the previous fiscal year (FY 2016-2017) is \$28.613. This is the balance after closeout of all prior contract obligations from that fiscal year.

PROPOSED ALLOCATIONS AND EXPENDITURES

Staff and Consultant Support Services - \$203,000

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

1. **Roundtable Coordinator** (\$113,000 per year). This amount represents a reimbursement to the County of San Mateo for FY 2017-2018 to provide half-time Planner support to the Roundtable. This cost is the half-time loaded wage rate for a Planner III provided from San Mateo County that includes overhead cost of the position to conduct meetings and Roundtable business for one year. This amount allocated per year is unchanged from prior years. Note the table below the dues for FY 2015-2016 were reimbursed in FY 2016-2017, and as result shows an amount that is twice the unchanged amount (\$226,000).
2. **Roundtable Aviation Consultant for Technical Support** (\$90,000). This allocation is to cover the work performed by the Roundtable's Aviation Technical Support. In July 2017, the

Proposed Budget for FY 2017-2018

March 28, 2018

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County contracted with HMMH to provide services (as selected by the Roundtable) at a cost of \$90,000 per year. Current the allocation proposal is on track for FY2017-2018, however a continuous fund (discussed later) is available if additional work is required beyond the scope of work.

STAFF/CONSULTANT SUPPORT	2015-2016		2016-2017		2017-2018	
	EXPECTED	EXPENDED	EXPECTED	EXPENDED	PROPOSE	CURRENT
1 County of San Mateo Coordination	\$113,000	\$0	\$226,000	\$226,000	\$113,000	\$113,000
2 Roundtable Consultant	\$70,000	\$62,934	\$43,000	\$19,668	\$90,000	\$67,881
TOTAL :	\$183,000	\$62,934	\$269,000	\$245,668	\$203,000	\$180,881

Roundtable Administration/Operations - \$10,507

3. **Postage/Photocopying** (\$3,000). This amount represents a reimbursement to the County of San Mateo for costs associated with reproduction of meeting materials and postage. This amount is an increase from FY 2016-2017, as staff has started to print packets in color to take advantage of the new Airport Director’s Reports use of color.
4. **Website** (\$107). This amount represents a reimbursement to the County of San Mateo for costs associated with paying website hosting dues and renewal of domain registration. This amount is reduced from FY 2016-2017 to match the registration cost associated with the website.
5. **Data Storage and Conference Services** (\$900). This amount represents a reimbursement to the County of San Mateo for the cost associated with maintaining all of the Roundtable's email system, digital files and archives to Internet based storage. The Roundtable offers online conference services at subcommittee meeting for remote members when the location logistics allow. This amount is unchanged from FY 2016-2017.
6. **Supplies/Equipment** (\$1,500). 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. This amount is a slight reduction from FY 2016-2017.
7. **Video Services** (\$5,000). This amount represents a reimbursement to the County of San Mateo to contract video streaming services for Roundtable meetings for the six regular for FY 2017-2018. The average cost of video services for each meeting is \$833.

2015-2016

2016-2017

2017-2018

Proposed Budget for FY 2017-2018

March 28, 2018

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ADMINISTRATION / OPERATIONS	EXPECTED	EXPENDED	EXPECTED	EXPENDED	PROPOSE	CURRENT
3 Postage / Printing	\$1,500	\$184	\$600	\$603	\$3,000	\$1,417
4 Website	\$200	\$107	\$200	\$107	\$107	\$107
5 Data Storage/Conference Services	\$800	\$806	\$900	\$847	\$900	\$681
6 Misc Office Expenses/Equipment	\$1,000	\$1,074	\$1,585	\$1,627	\$1,500	\$119
7 Video Services			\$3,000	\$2,160	\$5,000	\$2,880
TOTAL :	\$3,500	\$2,171	\$6,285	\$5,345	\$10,507	\$5,205

Projects, Programs, and Additional Allocations - \$12,000

8. **Noise Conference Attendance, Coordinator** (\$1,800). This amount represents a reimbursement to the Coordinator for attendance to Aircraft Noise related conferences such as the annual UC Davis Noise Symposium held in the spring. This amount will also be used attendance to other Roundtable meetings on an annual basis (such as the LAX Roundtable meeting). This amount is reflective what has been currently utilized for attendance to the LAX Roundtable meeting in September 2017 and the 2018 UC Davis Noise Symposium in February 2018, as well as any remaining proposed events remaining in the fiscal year.
9. **Additional Noise Conferences Attendees** (\$4,000). This amount represents the cost associated with additional Roundtable member attendance to Aircraft Noise related conferences such as 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 should allow two to three members to attend one conference. This amount is unchanged from the prior fiscal year.
10. **TRACON Field Trip** (\$750). 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 a reduction from FY 2016-2017, as past trends have shown the average cost to be below \$750.
11. **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 the prior fiscal year.
12. **Join National Organization to Insure A Sound Control Environment** (\$4,300). This amount represents the cost associated with membership with National Organization to Insure a sound Control Environment (N.O.I.S.E.). In late 2017, staff investigates the cost in joining N.O.I.S.E., and is still under consideration and discussion with the Legislative Subcommittee.
13. **Special Events** (\$300). This amount represents the cost associated with the Roundtable hosting special events, such as the 35th Anniversary meeting and Fly Quiet Awards. The amount estimated to provide snacks and refreshments at the April 2018 Fly Quiet Awards is no more than \$300.

2015 - 2016

2016 - 2017

2017 - 2018

Proposed Budget for FY 2017-2018
March 28, 2018
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PROJECTS & PROGRAMS	EXPECTED	EXPENDED	EXPECTED	EXPENDED	PROPOSE	CURRENT
8 Noise Conferences, Coordinator	\$3,000	\$0	\$1,800	\$1,109	\$1,800	\$1,230
9 Noise Conferences, Members	\$4,000	\$0	\$4,000	\$0	\$4,000	\$0
10 TRACON Field Trip	\$1,000	\$0	\$1,000	\$350	\$750	\$0
11 Airport Noise Report Subscript	\$850	\$850	\$850	\$850	\$850	\$850
12 N.O.I.S.E.	\$0	\$0	\$0	\$0	\$4,300	\$0
13 Special Events	\$0	\$0	\$0	\$0	\$300	\$0
TOTAL :	\$10,850	\$1,518	\$7,400	\$2,309	\$12,000	\$2,080

Contingency Funds - \$40,000

Starting in FY 2012-2013, the Roundtable allocated the remaining uncommitted funds to be used as a contingency reserve for unanticipated work for either Roundtable staff or the Aviation consultant. While no funds were utilized in prior years (or no allocations made in the prior fiscal year), staff is recommending to allocate the uncommitted funds in these contingency categories to allow for any possible overruns from the consultant, but also the addition of an dedicated administrative support position that is currently being investigated from the County.

PROJECTS & PROGRAMS	2015-2016		2016-2017		2017-2018	
	EXPECTED	EXPENDED	EXPECTED	EXPENDED	PROPOSE	CURRENT
15 Consultant Contingency	\$20,000	\$0	\$0	\$0	\$20,000	\$0
16 General Contingency	\$20,000	\$0	\$0	\$0	\$20,000	\$0
TOTAL :	\$40,000	\$0	\$0	\$0	\$40,000	\$0

OVERALL CLOSING

With the proposed funding allocation, its estimated that the Roundtable budget will close with an approximate year-end balance of \$3,356.

	2015-2016		2016-2017		2017-2018
	EXPECTED	ACTUAL	EXPECTED	ACTUAL	PROPOSE
Expected Funding	\$276,890	\$109,059	\$282,685	\$281,935	\$268,863
Proposed Allocation	\$237,350	\$66,624	\$282,685	\$253,322	\$265,507
YEAR END:	\$39,540	\$42,435	\$0	\$28,613	\$3,356

The complete spreadsheet is on the following page. Additional background information follows.

Proposed Budget for FY 2017-2018
March 28, 2018
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SFO Airport/Community Roundtable - Expense Report & Proposed Budget FY 2017-2018

A EXPECTED FUNDING

FUND SOURCE	2015-2016		2016-2017		2017-2018 PROPOSED
	EXPECTED	RECEIVED	EXPECTED	RECEIVED	PROPOSED
1 San Francisco Airport Commission	\$175,000	\$0	\$220,000	\$220,000	\$220,000
2 Roundtable Member Cities (18 Cities)	\$13,500	\$13,500	\$13,500	\$13,500	\$13,500
3 County of San Mateo	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000
4 C/CAG Airport Land Use Committee	\$750	\$750	\$750	\$0	\$750
5 Unused Fund Balance from Previous Year	\$88,809	\$88,809	\$42,435	\$42,435	\$28,613
TOTAL:	\$276,890	\$109,059	\$282,685	\$281,935	\$268,863

B POTENTIAL FUNDING ALLOCATIONS

STAFF/CONSULTANT SUPPORT	2015-2016		2016-2017		2017-2018 PROPOSED	
	ALLOCATED	EXPENDED	ALLOCATED	EXPENDED	PROPOSED	CURRENT
	\$183,000	\$62,934	\$269,000	\$245,668	\$203,000	\$180,881
1 County of San Mateo Coordination Services	\$113,000	\$0	\$226,000	\$226,000	\$113,000	\$113,000
2 Roundtable Aviation Technical Consultant	\$70,000	\$62,934	\$43,000	\$19,668	\$90,000	\$67,881
ADMINISTRATION / OPERATIONS	\$3,500	\$2,171	\$6,285	\$5,345	\$10,507	\$5,205
3 Postage / Printing	\$1,500	\$184	\$600	\$603	\$3,000	\$1,417
4 Website	\$200	\$107	\$200	\$107	\$107	\$107
5 Data Storage & Conference Services	\$800	\$806	\$900	\$847	\$900	\$681
6 Miscellaneous Office Expenses/Equipment	\$1,000	\$1,074	\$1,585	\$1,627	\$1,500	\$119
7 Video Services			\$3,000	\$2,160	\$5,000	\$2,880
PROJECTS, PROGRAMS, & ADDITIONAL ALLOCATIONS	\$9,850	\$1,518	\$7,400	\$2,309	\$12,000	\$2,080
8 Noise Conferences Attendance, Coordinator	\$3,000	\$0	\$1,800	\$1,109	\$1,800	\$1,230
9 Noise Conferences Attendance, Members	\$4,000	\$0	\$4,000	\$0	\$4,000	\$0
10 TRACON Field Trip(s)	\$1,000	\$0	\$750	\$350	\$750	\$0
11 Airport Noise Report subscription	\$850	\$850	\$850	\$850	\$850	\$850
12 N.O.I.S.E.	\$0	\$0	\$0	\$0	\$4,300	\$0
13 Special Events	\$1,000	\$668			\$300	\$0
CONTINGENCY FUND	\$40,000	\$0	\$0	\$0	\$40,000	\$0
15 Aviation Consultant Contingency	\$20,000	\$0	\$0	\$0	\$20,000	\$0
16 General Contingency	\$20,000	\$0	\$0	\$0	\$20,000	\$0
EXPENSES SUBTOTAL	\$236,350	\$66,624	\$282,685	\$253,322	\$265,507	\$188,165
UNCOMMITTED FUNDS / YEAR END BALANCE	PROJECTED	ACTUAL	PROJECTED	ACTUAL	PROJECTED	
	\$40,540	\$42,435	\$0	\$28,613	\$3,356	

SUPPLEMENTAL INFORMATION/DISCUSSION

The following is a discussion on the background information regarding the contracted services provided to the Roundtable.

County Service and Background

On July 1, 2016, the City and County of San Francisco and the County of San Mateo entered a three-year agreement to provide coordinating services for the Roundtable in their role to identify noise impacts and reduction measures. The contract requires 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 is compensated for the aforementioned requirements from the Roundtable Trust Fund, which is funded from contributions by the City and County of San Francisco Airport Commission (Airport) and the Roundtable membership cities' annual dues.

As part of this agreement, the San Mateo 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:

The Roundtable is funded by SFO and 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, manage 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 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.

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 assigned Coordinator tasks performed 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.
- Manage a technical consultant to provide technical support to the Roundtable.
- 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.
- Provide technical and logistical support at all meetings.

B. Retain qualified technical consultant for technical support

In June 2017, the Roundtable accepted a three-year agreement with HMMH, who began technical support services to the Roundtable July 2017.

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. Due to the increased work load, a dedicated half-time administrative support is being explored to assist the Program Coordinator with meeting coordination and logistics, as well as assistance at Roundtable meetings.

D. Roundtable Media Program, Media Support and Website Content

Staff has maintained and updated the Roundtable's website with agendas, minutes, published reports, and other relevant information. Staff also manages e-mail distribution to lists to cities and other interested parties for important noise impact announcements. 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, storage, and equipment.



March 28, 2018

TO: Roundtable Members and Interested Parties

FROM: Justin W. Cook – INCE, LEED GA
Roundtable Technical Consultant - HMMH

SUBJECT: Summary of the 3rd Technical Working Group (TWG) Meeting on Thursday, March 8, 2018

The 1st Technical Working Group (TWG) meeting was held August 15, 2017 and focused on reviewing the Federal Aviation Administration's (FAA) Phase 2 Initiative Document¹ and compared the Roundtable's recommendations to the FAA responses that were dated November 2016.

The purpose of 2nd and 3rd TWG meetings was to review and analyze the FAA's Update on Phase 2 Initiative Document² to: 1) determine how the Roundtable should go about monitoring those measures the FAA will implement and 2) determine if there are any opportunities to work with the FAA on items they found not feasible.

The FAA Update on Phase 2 Initiative Document was released in November 2017 and is an update to the interim Phase 2 Initiative Document released in July 2017. The update provides details on 203 items, which consists of the original 104 recommendations and their associated sub-recommendations.

Below is the agenda for the 3rd TWG meeting held on Thursday, March 8, 2018. It is expected that future TWG meetings will follow a similar agenda until the TWG has completed their review and analysis of all FAA responses.

1. Introductions and Brief Overview of the Framework for the Review/Analysis Process
2. Complete Review/Analyze Topic 1 – Nighttime Aircraft Operations
3. Review/Analysis of Topic 2 – Near Bay Daytime Operations – Runway 1 Departures
4. Summarize Action Items
5. Discuss and Set Next Technical Working Group Meeting Date(s)
6. Public Comments on Items NOT on the Agenda
7. Adjourn

¹ FAA Initiative to Address Noise Concerns of Santa Cruz/Santa Clara/San Mateo/San Francisco Counties, Phase Two, Compiled at the Requests of Representatives Farr (Panetta), Eshoo and Speier, July 2017

² FAA Initiative to Address Noise Concerns of Santa Cruz/Santa Clara/San Mateo/San Francisco Counties, Update on Phase Two, Compiled at the Requests of Representatives Farr (Panetta), Eshoo and Speier, November 2017

The following section provides a summary of the 3rd TWG discussions for Topic 1, “Nighttime Aircraft Operations.”

Nighttime Aircraft Operations

Nighttime aircraft operations are generally most concerning to communities near airports and these operations contribute to the aircraft noise exposure due to the 10 decibel penalty added to the noise levels from 10 pm to 7 am in calculating the Community Noise Equivalent Level (CNEL) used for land use compatibility assessments in California. This section provides brief descriptions of the recommended nighttime measures, the FAA responses provided to date and the recommendations resulting from the TWG review grouped into the three areas: recommendations the FAA has or will address, recommendations requiring further analysis/information for the FAA to address and recommendations the FAA determined they would not address.

Recommendations the FAA Determined They Will Not Address

The following recommended measures include those that the FAA rejected and stated changes to their ongoing implementation of the Northern California Metroplex will not occur:

11. Runway 10 Departures to Use NIITE

FAA’s Update on Phase 2 Initiative Document Reference: Page 27 – Item 21, Page 28 – Item 23

Summary of Recommendations: Determine if Runway 10 take-offs can be authorized to use the NIITE. If not, create a departure to allow Runway 10 take-offs to make a left turn up the Bay to NIITE. While waiting authorization for this, request made that aircraft are vectored to mirror the NIITE departure procedure.

Summary of FAA Responses: The NIITE departure procedure once contained a transition for both Runways 01 and 10, but Runway 10 was removed for safety concerns. Some pilots were not correcting their FMS when the runway changed and thus were turning in the wrong direction. Concerns regarding opposite direction operations as well.

Summary of TWG Discussion: What is the risk to safety? Can you document what are the safety concerns? According to Bert Ganoung of the Aircraft Noise Abatement Office, the FAA calculated it. Consensus to not pursue at this time. Note that heavier aircraft will be taking off from Runway 28.

12. QUIET Departure to GOBBS

FAA’s Update on Phase 2 Initiative Document Reference: Page 28 – Item 22

Summary of Recommendations: Determine if aircraft can file for SFO QUIET departure or the OAK SILIENT departure and then be vectored in accordance with NCT SOPs out to GOBBS and southbound from there.

Summary of FAA Responses: SFO QUIET departure is no longer a published procedure. Refer to Page 102 – 3.23 for route discussions to route via the Pacific Ocean and GOBBS.

Summary of TWG Discussion: Regarding route discussions to route via the Pacific Ocean and GOBBS, the legislative subcommittee is drafting a letter to the FAA/Congressional representatives regarding the NIITE/HUSSH South Transition (GOBBS) Over Bay SFO Roundtable Recommendation. This was an action item from the 2nd TWG meeting.

13. Raise 3,000’ Altitude Straight Out Departure Limit

FAA’s Update on Phase 2 Initiative Document Reference: Page 28 – Item 25, Page 44 – Item 43

Summary of Recommendations: Is there any ability to eliminate or raise the 3,000’ altitude limit on straight-out departures?

Summary of FAA Responses: The GNNRR and WESLA contain a 3,000’ altitude restriction for Runway 28 departures that may be required for safety. This altitude restriction can be waived by ATC

if there is no traffic conflicts. The GAP procedure, which does not have a 3,000' altitude restriction, is used as much as possible. However, when traffic dictates, these aircraft must also be stopped at 3,000'.

Summary of TWG Discussion: All of the departure procedures are capped at 3,000 feet. Question of when they are transferred from the Tower to NCT. Bert Ganoung of the Aircraft Noise Abatement Office said about ¼ mile is when they are transferred. The GAP procedure existed before the introduction of RNAV. Consensus to not pursue at this time.

14. Use Decommissioned DUMBARTON Procedure

FAA's Update on Phase 2 Initiative Document Reference: Page 29 – Item 27

Summary of Recommendations: Using the decommissioned DUMBARTON procedure, either create a RNAV overlay of this procedure or create a new procedure with the same fixes used as waypoints for Runway 10.

Summary of FAA Responses: FAA does not support creating a departure procedure off Runway 10 for nighttime operations. This would counter the current FAA criteria for opposite direction operations.

Summary of TWG Discussion: This is an action item. SFO Roundtable should clarify this recommendation. The DUMBARTON procedure is used predominately in the winter during winds coming from the South. Consensus that the FAA missed the point.

The following section provides a summary of the 3rd TWG discussions for Topic 2, “Near Bay Daytime Operations – Runway 1 Departures Only.”

Near Bay Daytime Operations – Runway 1 Departures Only

This section provides brief descriptions of the recommended measures, the FAA responses provided to date and the recommendations resulting from the TWG review grouped into the three areas: recommendations the FAA has or will address, recommendations requiring further analysis/information for the FAA to address and recommendations the FAA determined they would not address.

Recommendations the FAA Has or Will Address

The following recommended measures include those that the FAA either has or will address through changes to their ongoing implementation of the Northern California Metroplex:

1. CNDEL

FAA’s Update on Phase 2 Initiative Document Reference: Page 30 – Item 30, Page 47 – Page 54, Page 48 – Item 57, Page 56 – Item 4, Page 57 – Item 7, Page 59 – Items 14-15

Summary of Recommendations: The procedure should be flown as charted including over the flyover CNDEL waypoint and flying to the PORTE fly-by waypoint. If vectoring over the Bay and Ocean, use NIITE and GOBBS for routing. Avoid vectoring for non-safety reasons prior to CNDEL waypoint.

Summary of FAA Responses: When departures from SFO and OAK allow aircraft to fly the SSTIK and/or CNDEL procedures as published, to the extent feasible those aircraft are instructed to do so. However, when lateral or vertical separation cannot be maintained, often times the safest and most efficient way to control these aircraft is to use lateral separation – achieved by vectoring the aircraft.

Summary of TWG Discussion: Question of how much higher are the aircraft when they turn prior to CNDEL. Is there a noise difference? Should modeling be conducted to see if there is a difference? This can be monitored within the San Francisco International Airport’s (SFO) Noise and Operations Monitoring System (NOMS) by creating one or more gates and flight density maps.

2. SSTIK

FAA’s Update on Phase 2 Initiative Document Reference: Page 31 – Item 37, Page 51 – Items 66-67, Page 53 – Item 75, Page 55 – Item 2, Page 57 – Item 6, Page 57 – Item 8, Page 58 – Items 10-12, Page 64 – Item 37, Page 67 – Item 49

Summary of Recommendations: Avoid non-safety vectoring prior to SEPDY waypoint. Avoid vectors down the Peninsula to waypoints beyond PORTE. Use the Bay and ocean for overflight as much as possible. Utilize existing areas of compatible land use for overflight. Provide community input to FAA for moving SSTIK waypoint to east and north of its current location; using SEPDY as a guide. Aircraft should be directed to fly as high as possible over SEPDY waypoint. Fly as charted to PORTE waypoint instead of clearing aircraft to subsequent waypoints downstream, bypassing PORTE. Delay assigning a southbound heading toward PORTE as long as feasible including flying to the ocean before turning south.

Summary of FAA Responses: The SSTIK departure, which serves as PORTE and OFFSHORE replacement for nearly all southbound aircraft, does not include the SEPDY reporting point. While not a part of it, the point in space that is SEPDY already sees the majority of SSTIK departures passing through it. 99% of aircraft flying SSTIK departures in October 2016 are within 1NM of the SSTIK waypoint as per the procedure. NCT will continue to reinforce not intervening with aircraft until after the SSTIK waypoint. IFP Gateway entry has been made to move SSTIK waypoint 0.44NM east-southeast.

Summary of TWG Discussion: This is an action item. Consensus that this response by the FAA should not be accepted as such. There should be analysis done on where to move the waypoint.

3. NIITE

FAA's Update on Phase 2 Initiative Document Reference: Page 27 – Item 18, Page 39 – Item 20, Page 40 – Item 25

Summary of Recommendations: The procedure should be flown as charted including flying over the NIITE flyover waypoint. Keep on NIITE procedure as much as possible to reduce vectoring. Provide input regarding the new southbound transition and elicit community input.

Summary of FAA Responses: The requirement for aircraft to remain on the NIITE / HUSSH departure procedures as much as operationally feasible was added to NCT's SOP in February 2017. An analysis of May 2017 traffic data revealed that 99% of NIITE aircraft and 70% of HUSSH aircraft passed within 1 NM of NIITE Waypoint. July 2015 showed 71% NIITE and 68% HUSSH compliance. NCT will continue to reinforce the use of this procedure to personnel through training and briefings.

Summary of TWG Discussion: This recommendation is not as critical as the others are. This can be monitored within the San Francisco International Airport's (SFO) Noise and Operations Monitoring System (NOMS) by creating one or more gates and flight density maps.

4. SEPDY

FAA's Update on Phase 2 Initiative Document Reference: Page 50 – Item 63, Page 50 – Item 64

Summary of Recommendations: Avoid issuing any non-safety vectors to aircraft for as long as feasible and no earlier than when an aircraft is over the SEPDY waypoint. Continue flight up the Bay to attain higher altitude. When left turn made, use a wide dispersion of flight paths to ocean. Fly as high as possible over the SEPDY waypoint and before turning over land.

Summary of FAA Responses: 99% of aircraft flying the SSTIK departures in October 2016 are within 1NM of the SSTIK waypoint, as per the procedure. Aircraft that fly this procedure, as with other procedures, use the aircraft's FMS to follow the procedure's requirements, while also safely accounting for the individual aircraft characteristics, e.g. heavier aircraft typically are slower to climb and take longer to turn than lighter aircraft – the FMS accounts for this. NCT will continue to reinforce not intervening with aircraft until after the SSTIK waypoint to personnel through training and briefings.

Summary of TWG Discussion: This can be lumped together with "SSTIK" above.

5. PORTE

FAA's Update on Phase 2 Initiative Document Reference: Page 48 – Item 58, Page 51 – Item 65

Summary of Recommendations: Assigning southbound vectors should be delayed until aircraft has reached the ocean and PORTE waypoint. Avoid vectoring aircraft down the Peninsula direct to waypoints beyond PORTE.

Summary of FAA Responses: (Similar) The FAA concurs with the recommendation that aircraft fly the CNDEL procedure as published to the extent operationally feasible. Vectoring aircraft is a necessary component to maintaining separation requirements for safety considerations. When departures from SFO and OAK allow for aircraft to fly the SSTIK and/or CNDEL procedures as published, to the extent feasible those are aircraft are instructed to do so. However, when lateral or vertical separation cannot be maintained, oftentimes the safest (with regards to frequency congestion) and most efficient (with regards to airport delays) way to control these aircraft is to use lateral separation - achieved by vectoring the aircraft to maintain lateral separation.

Summary of TWG Discussion: This can be monitored within the San Francisco International Airport's (SFO) Noise and Operations Monitoring System (NOMS).

Recommendations Requiring Further Analysis/Information for the FAA to Address

The following recommended measures include those that the FAA responded that additional analysis, investigations and/or information is required to proceed with changes to their ongoing implementation of the Northern California Metroplex:

6. CNDEL

FAA's Update on Phase 2 Initiative Document Reference: Page 29 – Item 29

Summary of Recommendations: Use Bay and ocean for overflights as much as possible. From CNDEL, direct aircraft to GOBBS and then south.

Summary of FAA Responses: As noted previously by the FAA, while this recommendation is feasible, the FAA will not move forward on this recommendation until issues of Congestion, Noise Shifting and Flying Distance have been addressed with the airline stakeholders and the affected communities by the Select Committee and/or SFO Roundtable. Once implemented, the 050° down the Bay option is still preferred.

Summary of TWG Discussion: The legislative subcommittee is drafting a letter to the FAA/Congressional representatives regarding the NIITE/HUSSH South Transition (GOBBS) Over Bay SFO Roundtable Recommendation. This was an action item from the 2nd TWG meeting. Question if the NIITE/HUSSH South Transition (GOBBS) Over Bay recommendation gets acceptance, is the 050° down the Bay option still preferred.

7. NIITE

FAA's Update on Phase 2 Initiative Document Reference: Page 39 – Item 23, Page 61 – Item 25

Summary of Recommendations: Add a transition to the NIITE departure for southbound aircraft. Once implemented, the 050-degree heading is still preferred. Request timeline from FAA for implementation (NIITE, GOBBS, WAMMY, PORTE), factoring in requirements to run through FAA Order JO 7100.41A.

Summary of FAA Responses: As noted previously by the FAA, while this recommendation is feasible, the FAA will not move forward on this recommendation until issues of Congestion, Noise Shifting and Flying Distance have been addressed with the airline stakeholders and the affected communities by the Select Committee and/or SFO Roundtable. Once implemented, the 050° down the Bay option is still preferred.

Summary of TWG Discussion: The legislative subcommittee is drafting a letter to the FAA/Congressional representatives regarding the NIITE/HUSSH South Transition (GOBBS) Over Bay SFO Roundtable Recommendation. This was an action item from the 2nd TWG meeting. Question if the NIITE/HUSSH South Transition (GOBBS) Over Bay recommendation gets acceptance, is the 050° down the Bay option still preferred.

8. PORTE

FAA's Update on Phase 2 Initiative Document Reference: Page 64 – Item 39

Summary of Recommendations: Define airspace limitations over the Golden Gate and ocean to the west of the peninsula for placement of a waypoint to replace or augment PORTE.

Summary of FAA Responses: The Northern California Metroplex project included a noise analysis and an overall assessment of aircraft noise associated with NCTs procedures, as well as vectoring and compatible land use. During the project, the FAA engaged the public and solicited comments during the environmental review. The FAA has the technical expertise to design safe flight paths that are within criteria, as applicable, and does not expect the public to provide expertise in this manner. If a community requests that an FAA procedure be changed/moved, it is incumbent upon that party to present a suitable alternative for consideration through the FAA Instrument Flight Procedures Gateway online at https://www.faa.gov/air_traffic/flight_info/aeronav/procedures/. NCT will continue to be an active participant in Roundtable meetings, providing subject matter expertise in seeking solutions.

Summary of TWG Discussion: This should be a top priority and is very important. Consensus that the FAA should present a suitable alternative and not the community.

Recommendations the FAA Determined They Will Not Address

The following recommended measures include those that the FAA rejected and stated changes to their ongoing implementation of the Northern California Metroplex will not occur:

9. SSTIK

FAA's Update on Phase 2 Initiative Document Reference: Page 31 – Item 34, Page 32 – Item 38, Page 52 – Item 72, Page 53 – Item 74, Page 54 – Item 79, Page 56 – Item 5, Page 57 – Item 9, Page 58 – Item 13, Page 64 - Item 38

Summary of Recommendations: Use Bay and Pacific Ocean for overflights as much as possible. From SSTIK, direct aircraft to GOBBS and then south. Determine if minimum altitude required at SSTIK can be raised before a left turn. Determine if a reduced airspeed (~220kts) can be required until after established in the left turn from SSTIK so aircraft climb at a higher angle of climb approaching land. Move SSTIK waypoint north and east as much as feasible to allow maximum altitude gain, using SEPDY waypoint as guide. Create SSTIK transition to GOBBS and then GOBBS to WAMMY. Determine any conflicting airspace issues, which would not be available for the location for new SSTIK waypoint.

Summary of FAA Responses: The current SSTIK and CNDEL departures are dependent on each other – making a change to one affects the other procedure. Routing SSTIK aircraft to the west, across the peninsula to the ocean and south would likely necessitate CNDEL departures to be routed up the Bay, over the Golden Gate Bridge to GOBBS, and south. This recommendation would introduce operational strain to an already complex radar environment. See conflicts figure.

Summary of TWG Discussion: Consensus that this needs to be pursued and considered a higher priority. The legislative subcommittee is drafting a letter to the FAA/Congressional representatives regarding the NIITE/HUSSH South Transition (GOBBS) Over Bay SFO Roundtable Recommendation. This was an action item from the 2nd TWG meeting.

10. CNDEL

FAA's Update on Phase 2 Initiative Document Reference: Page 30 – Item 31, Page 30 – Item 32, Page 48 – Item 55, Page 49 – Items 59-60, Page 59 – Item 16

Summary of Recommendations: Determine if a revised southbound transition (over water) for the CNDEL procedure, could “contain” the flight paths further west (GOBBS and south) to allow expanded clear space for possible modification of the SSTIK departure. Use the Bay and ocean for overflight as much as possible. From CNDEL waypoint, go to GOBBS and then WAMMY.

Summary of FAA Responses: The current SSTIK and CNDEL departures are dependent on each other – making a change to one affects the other procedure. Routing SSTIK aircraft to the west, across the peninsula to the ocean and south would likely necessitate CNDEL departures to be routed up the Bay, over the Golden Gate Bridge to GOBBS, and south. This recommendation would introduce operational strain to an already complex radar environment. See conflicts figure.

Summary of TWG Discussion: As with “SSTIK” above, consensus that this needs to be pursued and considered a higher priority. The legislative subcommittee is drafting a letter to the FAA/Congressional representatives regarding the NIITE/HUSSH South Transition (GOBBS) Over Bay SFO Roundtable Recommendation. This was an action item from the 2nd TWG meeting. Suggestion made to have the City of Newport Beach share recent experiences.

11. TRUKN

FAA's Update on Phase 2 Initiative Document Reference: Page 51 – Item 69, Page 54 – Item 78

Summary of Recommendations: For aircraft with southeast destinations use TRUKN departure with at transition at TIPRE or SYRAH. Work with noise office and NCT to research legacy LINDEN

transition to determine why it has not been used and determine which aircraft can utilize this corridor via TIPRE or SYRAH.

Summary of FAA Responses: Capacity of a departure procedure is finite. Capacity cannot be added as you would by adding a lane to a freeway. This recommendation would combine aircraft currently assigned two departure procedures (SSTIK and TRUKN) to one departure procedure (TRUKN). Aircraft departing to the southeast would be restricted to a single departure that conflicts with the prevalent recommendations for wider dispersal of traffic. Additionally, changing an aircraft's departure direction (left turn to a right turn) will result in a shift of aircraft noise. One of the stated goals of NextGen activity is to develop and implement satellite-based arrival/departure procedures. Increasing the use of conventional procedures would be counterproductive to the Agency's vision and is not supported.

Summary of TWG Discussion: OAK has concerns regarding this recommendation. It was suggested that more analysis should be conducted – specifically looking at actual flight tracks and altitudes. This recommendation would be a lower priority than the rest.

12. SEPDY

FAA's Update on Phase 2 Initiative Document Reference: Page 52 – Item 70

Summary of Recommendations: Determine feasibility of depicting the SEPDY waypoint on the scopes in an effort for aircraft to stay over the Bay as long as possible.

Summary of FAA Responses: SEPDY is a reporting point from the conventional PORTE and OFFSHORE departure procedures, which are rarely used. The SSTIK RNAV departure, which serves as PORTE and OFFSHORE's replacement for nearly all southbound aircraft, does not include the SEPDY reporting point. Aircraft that file to fly a published departure enter that departure into their FMS once cleared for it, which happens when the aircraft is still on the ground. Under optimal conditions, once airborne the aircraft flies the departure procedure with little to no ATC intervention. Depicting SEPDY on the controller's scope would not change this. Aircraft that fly the SSTIK departure would still turn, without ATC instruction, at the SSTIK waypoint as published in the procedure. Adding notations and / or symbols to RADAR maps is not a step that is taken lightly in the FAA. Every effort is made by the FAA to reduce RADAR map clutter.

Summary of TWG Discussion: This can be lumped together with "SSTIK" above. It was mentioned that at San Diego International Airport, the controller does have the FAA noise dots on the radar screen for the purpose of reducing early turns, safety permitting.

Summary of the 3rd TWG Meeting on Thursday, March 8, 2018

March 28, 2018

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The following is a list of recommended future meeting topics, in priority order, that were agreed upon to be discussed at upcoming TWG meetings.

Recommended Future TWG Meeting Topics

- Near Bay Daytime Operations – Runway 28 Arrivals)
- Near Bay Daytime Operations – Runway 28 Departures)
- Near Bay Daytime Operations - Runway 10 Departures)
- Other Procedures
 - SERFR (Santa Cruz)
 - HUSSH (Oakland)
- Pilot Outreach Program
- Upgraded Radar Display Equipment
- Land Use and Terrain Height Data to Assist NCT
- Noise Modeling or Other Tools
- Backblast Noise

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March 28, 2018

TO: Roundtable Representatives, Alternates, and Interested Persons

FROM: James A. Castañeda, AICP, Roundtable Coordinator

SUBJECT: Roundtable Legislative Subcommittee March 20, 2018 Meeting Summary

On March 20, 2018, the Legislative Subcommittee convened their first meeting for 2018 at the San Mateo County Planning and Building Department offices in Redwood City at approximately 1:02 p.m.

Roundtable Members Present

Janet Borgens, City of Redwood City (Legislative Subcommittee Chairperson)
Sue Digre, City of Pacifica (Legislative Subcommittee Vice-Chairperson)
Elizabeth Lewis, Town of Atherton (Roundtable Chairperson)

Staff & Advisory Present

James Castañeda, Roundtable Coordinator
Justin Cook, Roundtable Technical Consultant
Bert Ganoung, Noise Abatement Office, San Francisco International Airport
Kathleen Wentworth, Congresswoman Jackie Speier's Office
Linda Wolin, San Mateo County Supervisor Dave Pine's Office

Meeting Summary

The meeting started with an overview and discussion regarding draft letter prepared by Roundtable Technical Consultant Justin Cook. The letter is directed to FAA Acting Administrator Daniel Elwell regarding the Roundtable recommendation of the NIITE/HUSH south transition (GOBBS) over the bay. The group provided feedback for staff to edit, and is presented to the Roundtable for final approval to transmit.

Roundtable Coordinator James Castañeda discussed the benefits of joining N.O.I.S.E. based on a presentation made at the UC Davis Noise Symposium in February. On March 26, 2018, Roundtable Coordinator James Castañeda and Technical Consultant Justin Cook discussed with Emily Tranter, N.O.I.S.E. National Coordinator, some of the items the Roundtable wished to have clarification on (and is summarized in an attachment to this memo).

Kathleen Wentworth, from Congresswoman Jackie Speier's Office, provided background information on the letter from the Members of Congress to the FAA, and the group discussed encouraging Roundtable members to draft and transit letters in an effort to get the FAA to reengage with discussions with community groups.

Follow-up/task items for the group included:

- Edit and present GOBBS/south transition letter to Roundtable.
- Re-investigate exact cost to join N.O.I.S.E. and recommend to the Roundtable to join.

Meeting was adjourned at 2:11 p.m.

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April 5, 2018

Daniel Elwell, Acting Administrator
Federal Aviation Administration
500 Independence Avenue, S.W.
Washington, DC 20591

Re: Roundtable Recommendation "NIITE/HUSSH South Transition (GOBBS) Over Bay"

Dear Mr. Elwell,

The San Francisco International Airport/Community Roundtable (Roundtable) has been actively examining the Federal Aviation Administration's (FAA) *Phase 2 Initiative Document* with the goal of comparing the responses to the Roundtable's November 2016 recommendations provided to the FAA in order to determine if timely noise relief can be provided to the communities in the San Francisco Bay Area. The Roundtable's Technical Working Group (TWG) has been tasked with thoroughly reviewing and analyzing the *Phase 2 Initiative Document* in order to determine how the Roundtable should go about monitoring those measures the FAA has agreed to implement, as well as determining if there are any opportunities to work with the FAA on items they found not feasible.

One of the most important recommendations that the TWG has discussed thus far has been the "NIITE/HUSSH South Transition (GOBBS) Over Bay", which recommends to maximize the use of procedures that route aircraft over the Bay when departing to southerly destinations. The FAA's response to this recommendation was that it is feasible and could be implemented in the long term (more than 2 years), but that they will not move forward until issues of congestion, noise shifting and flying distance have been addressed with the airline stakeholders and the affected communities by the Select Committee on South Bay Arrivals and/or SFO Roundtable. Waiting to move forward is not acceptable to the TWG for a recommendation that would provide a huge noise relief to the communities during nighttime hours.

The TWG response to those issues provided by the FAA regarding this specific recommendation are the following:

1. This recommendation was intended for nighttime operations when traffic volumes are low and can accommodate the suggested procedure out to GOBBS. Therefore, congestion is not an issue.
2. Since the recommendation shifts aircraft operations from land to over the Bay and Pacific Ocean, noise shifting is not an issue.
3. The FAA stated that this recommendation would add 32 miles to the flying distance for which the TWG suggests that this small-added distance compared to the total flight distance is minimal and worth it to provide nighttime noise relief to the communities.

Roundtable Recommendation NIITE/HUSSH South Transition (GOBBS) Over Bay

April 5, 2018

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Therefore, the Roundtable respectfully insists that the FAA move forward with this implementation of this recommendation immediately in order to bring much needed relief from aircraft noise which impacts the health and quality of life our communities.

Regards,

Elizabeth Lewis, Chairperson
San Francisco International Airport/Community Roundtable

cc:

Members, SFO Roundtable

Congresswoman Jackie Speier

Congresswoman Anna Eshoo

Congressman Jimmy Panetta

Dennis Roberts, Regional Administrator – Western Pacific Region, Federal Aviation Administration



March 28, 2018

TO: Roundtable Members and Interested Parties

FROM: Justin W. Cook – INCE, LEED GA
Roundtable Technical Consultant - HMMH

SUBJECT: N.O.I.S.E. Membership

As their website states, the National Association to Insure a Sound Controlled Environment (N.O.I.S.E.), “advocates for federal policies to reduce unreasonable levels of aviation noise through a combination of quieter aircraft, increased noise abatement resources, and the opportunity for local communicates to contribute to airport expansion decisions.”

We recommend that the SFO Community Roundtable consider joining N.O.I.S.E. Some of the benefits of membership include the following:

- Emily Tranter (National Coordinator) is willing to call into legislative subcommittee meetings to provide a summary of current topics and updates as well as answer any questions.
- N.O.I.S.E. coordinates with other organizations such as the National League of Cities (NLC), U.S. Conference of Mayors, and National Association of Counties.
- Members are welcome to attend N.O.I.S.E. meetings at NLC events during the fall and spring. The next meeting is in November 7-10, 2018 in Los Angeles, CA
- They meet with the Quieter Skies Caucus.
- There 2017 legislative priorities, which are in line with SFO Roundtable’s Work Plan items, are the following :
 - Community Engagement/Advocacy
 - Noise Metric Review
 - Health Impacts Studies
 - Sound Insulation Program Funding
 - Air Traffic Control Privatization
 - Supports Efforts to Reinstitute the EPA Office of Noise Abatement and Control (ONAC)
- Emily Tranter and Dennis McGrann (Executive Director) are registered lobbyists for N.O.I.S.E. and advocate on the organization’s legislative priorities listed above.
- Members will receive e-mail publications of current topics and updates as they occur or are set to take place.
- N.O.I.S.E. partners include:
 - National League of Cities
 - EXCOM Aviation Rulemaking Advisory Committee
 - Airport Cooperative Research Program (ACRP)
 - Partnership for Air Transportation Noise and Emissions Reduction (PARTNER)
 - International Civil Aviation Organization (ICAO)

The cost for membership for the SFO Community Roundtable would be \$4,000 per fiscal year.

N.O.I.S.E. Membership

March 28, 2018

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Attachments:

- 1) 2017 Legislative Priorities
- 2) Sample Legislative Briefing
- 3) Sample N.O.I.S.E. Alert (email)
- 4) N.O.I.S.E. Trifold Brochure



NATIONAL ORGANIZATION TO INSURE A SOUND-CONTROLLED ENVIRONMENT
"America's Community Voice on Aviation Noise Issues" • An Affiliate of the National League of Cities

N.O.I.S.E. 2017 Legislative Priorities

1. Community Engagement // Advocacy

N.O.I.S.E. supports expanding community engagement/review and the elimination of Categorical Exclusions (CATEX) when implementing Performance Based Navigation (PBN).

Although N.O.I.S.E. supports NextGen and its goal of modernizing the air traffic control system, Performance Based Navigation (PBN) has the potential to bring significant changes to flight patterns across the country. N.O.I.S.E. contends that the community impacts of aviation noise should be considered as a crucial part of the calculation that determines the overall benefits of the proposed changes. Changes should not be solely based on improved capacity and fuel savings. With the increased concentration of overflights due to the narrowing of flight paths and the decrease in separation between aircraft enabled by PBN, air traffic changes have become even more closely tied to changes on the ground.

Aviation noise is a health issue. Aviation noise is an economic issue. To that end, robust, two-way communication with affected communities is vital to ensuring that the impact and concerns of communities are heard and incorporated into the final design of new airspace as much as fuel savings and efficiency of airspace. This would allow communities under a new or concentrated flight path, guaranteed participation in a due process during the implementation of PBN.

As a part of efforts to ensure adequate community engagement, N.O.I.S.E. believes that both regulatory and legislative Categorical Exclusions or "CATEXes" in current NEPA regulation are not appropriate for the implementation of significant changes to our aviation system. N.O.I.S.E. supports efforts by the FAA and Congress to develop, implement and maintain a more robust community impacts process, in addition to or outside of the traditional NEPA process. This process should insure that ground impacts are considered and community concerns are not only heard, but also incorporated into PBN and traditional track changes that will change noise exposure, even if it does not reach the current FAA threshold of "measurable impacts"

In December of 2016, the following language was included in the National Defense Authorization Act, which promotes this priority: Performance-Based Navigation : This section improves the Federal Aviation Administration's (FAA) advance consultation with communities underneath the flight paths of proposed "NextGen" departure and arrival procedures, and requires the Administrator to reopen his assessment of new NextGen

procedures at Phoenix Sky Harbor International Airport and to mitigate any adverse effects on the human environment that resulted from those procedures."

2. Noise Metrics Review

N.O.I.S.E. supports investigation and review of DNL and its current level of 65 as the only metric used to measure noise impact and expanding noise metrics to take into account the increased concentration of overflights due to the narrowing of flight paths and the decrease in separation between aircraft enabled by PBN procedures to insure that noise impacts are appropriately measured.

In order to adequately understand and address the impacts of aviation noise, we must first establish adequate metrics to measure those impacts. The FAA and Members of Congress are in the process of studying whether 65 is still the appropriate DNL level for measuring noise impacts. As we move forward with NextGen, implement PBN and undertake major airport overhauls, lowering the DNL level may allow for further mitigation for impacted communities and N.O.I.S.E supports investigation of lowering the DNL level, however it will not address impacts that are caused by concentrated flight paths characterized by PBN procedures.

As DNL is an average and humans do not perceive noise in averages but rather as individual events, we believe it is time to investigate alternative metrics that could measure impacts such as:

- The psychological impact of concentrated, extended noise
- The physiological impact of infrequent, significant noise spikes during nighttime hours
- Impact of less audible low frequency noise who's vibration induces audible noise
- The length of each period of frequent, regular noise spikes "rush hours" due to over-flights
- The number of rush hours per day
- The average dB of a rush hour's noise—not day-night average
- The intensity of spikes above the average dB of a rush hour's noise
- The intensity and number of spikes above the average, for non-rush hours from 10 PM to 7 AM

Investigating a more appropriate metric to measure aviation noise impacts is crucial and will supplement efforts to greater engage the community to understand their concerns.

3. Health Impacts Studies

N.O.I.S.E. supports increased funding for studies on the health impacts of aviation noise.

There are currently very few federal studies pertaining to the human impact of the concentration of flights associated with PBN procedures. Some communities do not have the ability to mitigate noise below flight paths and their citizens are exposed to continuous concentrated noise. Although there may not necessarily be an increase in decibels from the planes, there are unknown potential impacts from the increased number and frequency of flights under a given PBN procedure.

Although N.O.I.S.E. has supported the implementation of NextGen technologies as a part of their formal legislative platform in the past, we assert that there must be proper investment into research and development on the health and psychological impacts of that type of the resulting noise due to the more concentrated flight paths. These studies need to begin as soon as possible in order to protect the health of affected communities and mitigate avoidable damage.

4. Sound Insulation Program Funding

N.O.I.S.E. supports implementing Sound Insulations Programs Resulting from Part 150 Program studies to the standards used prior to the September, 2012 Public Guidance Letter (PGL-12-09)

A Part 150 program is a noise mitigation master plan developed by the airport and communities to address noise impacts and is funded by the Federal Aviation Administration (FAA) out of the Airport Improvement Program (AIP). One outcome or tool of a Part 150 is a sound insulation program where homes are mitigated for noise by providing improvements to windows or heating and cooling systems. Insulation programs historically have mitigated homes within the 65 DNL noise contour. A Public Guidance Letter (PGL) was issued by the FAA to change the AIP handbook in August, 2012 and amended in November, 2012.

In order to be eligible for insulation, properties must meet a 2-stage eligibility test: the property must be in the 65 contour and the property must meet an interior noise level requirement (45 dB or greater). Additionally, use of Passenger Facility Charges (PFC's) is no longer considered eligible to be used to mitigate beyond the stated criteria. The FAA maintains that this is not a new policy and that this PGL serves to clarify their noise policy that has been in place since the mid-1980's. Previously, however, common practice dictated that properties need only be within the 65 DNL to qualify for mitigation.

In addition, given the age of some SIP programs in the United States, as well as the increase in traffic density at our nation's airports and improved technologies, N.O.I.S.E.

supports the development of criteria for eligibility for SIP funding for “second round” implementations.

5. Air Traffic Control Privatization

N.O.I.S.E. opposes privatization of the air traffic control

N.O.I.S.E. has advocated strongly for community engagement opportunities when air traffic patterns are changed. Under a federally-operated Air Traffic Control (ATC) system, those opportunities are the result of persistent advocacy by the community and often times at the request of elected officials at the Congressional level. Although small communities have a role in the proposed advisory board of the new private air traffic control, airport-adjacent communities are concerned that without a mechanism for compelling the private company to meet and discuss their concerns over ground and noise impacts of airport traffic. Authors of this proposal in the House have assured interest groups that community concerns will still be managed by the FAA and not the private ATC. However, because of the great importance that N.O.I.S.E. and its members place on the ability to build relationships and trust with local air traffic employees, our concerns with this proposal remain.

6. N.O.I.S.E. supports effort to reinstitute The Environmental Protection Agency’s (EPA) Office of Noise Abatement and Control (ONAC).

The EPA office of Noise Abatement and Control was previously responsible for oversight and regulation of aviation noise, however, in 1981, the Office was defunded due to budget cuts. There are currently legislative efforts, such as Congresswoman Grace Meng’s (NY) “Quiet Communities Act of 2015” (H.R.3384) which requires the Environmental Protection Agency (EPA) to combat aviation noise pollution. This legislation would reinstate the ONAC, and also require the EPA Administrator to conduct a study of airport noise and examine the FAA’s selection of noise measurement methodologies, health impact thresholds, and abatement program effectiveness. N.O.I.S.E. supports this legislation and the reinstitution of the ONAC in order to provide proper checks and balances to FAA noise policies and procedures that impact residents and the environment on the ground under flight paths and in airport-adjacent communities.

Sample Legislative Briefing

The Omnibus spending package signed by the President on Friday, March 23 included an extension of the Federal Aviation Administration (FAA) through September 2018. The current authorization was set to expire on March 31 and this short-term extension was used to give Congress more time to negotiate a new reauthorization bill. The new reauthorization will expire at the same time as the current government funding bills (September 30th, 2018).

Disputes between the chambers over provisions in both the House (H.R. 2997) and Senate (S. 1405) reauthorization bills kept them from floor votes in 2017, though both measures were approved in committee. House Transportation and Infrastructure Committee Chairman Bill Shuster (R-PA) included a proposal to partially privatize air traffic control in his House version of the bill. Senate Commerce, Science, and Transportation Committee Chairman John Thune (R-SD) wrote a provision into his bill to loosen the federally mandated minimum of 1,500 flight hours for commercial airline co-pilots to allow other forms of non-flight training. The Chairmen have indicated that they will drop both provisions and that with them gone it should be easier to pass a long-term bill.

Chairman Shuster and Chairman Thune indicated that a full reauthorization of federal aviation programs could get a vote before the annual August Congressional recess, despite the extension lasting through September. This timeline could be complicated, however, by the midterm elections in November 2018. Chairman Shuster told reporters he hopes to move a bill quickly through the House and work with the Senate. The Chairmen indicated that the length of the extension was not of their choosing, but was negotiated by Congressional Leaders, and that they feel it can be finished before the September 2018 deadline.

Sample N.O.I.S.E. Email Alert

ALERT -- Successful Legislative Summit

Dear N.O.I.S.E. Members:

Last week we had a successful N.O.I.S.E. Legislative Summit in Washington, DC!

This Summit presented the opportunity for the participants to discuss FAA policy and share local perspectives with other community leaders affected by airport noise as well as a representative from the FAA. This year's summit featured the following presentations:

- **FAA Enhanced Community Involvement** - Leanne Hart, Community Involvement Specialist for Airspace Projects, FAA
- **Mitigation of Aircraft Noise in College Park** - Ambrose Clay, Councilman, College Park, GA
- **Legislative Outlook: Policies and Politics** - Emily Tranter, National Coordinator, N.O.I.S.E.

For those of you who were able to make it, thank you for stopping by. For those who could not make it, we wanted to let you know that all of the presentation have been added to the N.O.I.S.E. website for your use and reference. The presentations can be found [here](#). The complete agenda for this event can be found also be found on the N.O.I.S.E website by clicking [here](#).

We also wanted to remind you to mark your calendars for the **2018 Policy Summit and Community Involvement Workshop** in **Los Angeles, CA** on **Wednesday, November 7, 2018**. The event will feature updates on federal policy that impacts air traffic control changes, as well as presentations from airport noise officers and community advocates who are on the front lines of aviation noise policy. Then join us afterward for an Airport N.O.I.S.E. reception for appetizers and refreshments.

Emily Tranter
N.O.I.S.E. National Coordinator

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Advocacy on Capitol Hill

N.O.I.S.E. assists and advises communities in working with Congress to address the issue of excessive aviation noise. Many of these issues may be addressed through changes in federal law. Over the years, NOISE has maintained an active set of Legislative Priorities, including:

- ◆ REPRESENT LOCAL COMMUNITIES THROUGH PARTICIPATION IN FAA AND OTHER ADVISORY AND POLICY PANELS
- ◆ ENHANCE MITIGATION POLICIES (setting 60 DNL as the minimum for the threshold of community compatibility)
- ◆ ESTABLISH NEW NOISE METRICS
- ◆ DEVELOP A LOW FREQUENCY NOISE STANDARD
- ◆ AIRPORT IMPROVEMENT PROGRAM AS REVOLVING GRANT FUND
- ◆ ESTABLISH NOISE COMPATIBILITY PILOT PROGRAMS

Annual N.O.I.S.E. Events

- ◆ **Aviation Policy Summit** - Spring, National League of Cities annual Congressional City Conference, Washington, DC
- ◆ **NOISE Legislative Briefing** - Spring, Washington, DC
- ◆ **NOISE Member Fly-In and Lobbying Day** - Spring, Washington, DC
- ◆ **Policy Summit & Community Involvement Workshop** - Fall, National League of Cities (NLC) Congress of Cities and Exposition, Location Varies
- ◆ **National Aviation Award Ceremony** - recognizes individuals who have made outstanding contributions in the field of aviation noise mitigation, takes place during Fall Policy Summit
- ◆ **Aviation Community Networking Sessions** - allows N.O.I.S.E. Members to connect face-to-face, share best practices and community experiences, held throughout the year

N.O.I.S.E.



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Washington, DC 20002
Phone: 202.544.9896
ejtranter@locklaw.com
www.aviation-noise.org

N.O.I.S.E.



National Organize a Sound Controlled Environment

*“America’s Leading
 Community Voice on
 Aviation Noise Issues”*

415 Second St. NE, Suite 210
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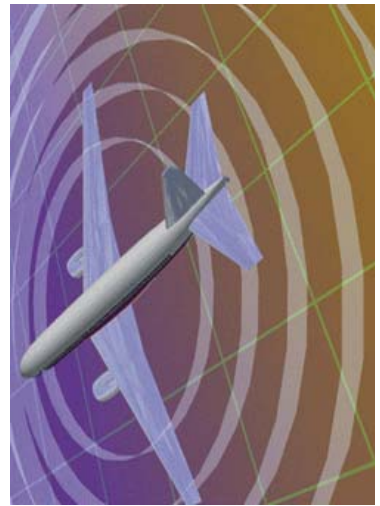
N.O.I.S.E.

National Organization to Insure a Sound-Controlled Environment

“America’s Community Voice on Aviation Noise Issues”

An Affiliate of the National League of Cities

We are committed to reducing the impact of aviation noise by partnering with communities and stakeholders to join and inject the concerns of their constituents into the national debate on issues relating to the effects of aviation noise.



Why Become a N.O.I.S.E Member

- ◆ The *National Organization to Insure a Sound Controlled Environment (N.O.I.S.E.)* is the only nationwide aviation noise organization composed of elected officials. *N.O.I.S.E.* members are mayors, council members, commissioners, and other city & county officials committed to reducing the impacts of excessive aviation noise—NOW!
- ◆ *N.O.I.S.E.* is an affiliate of the National League of Cities, *N.O.I.S.E.* has served for the past four decades as America’s only nationwide, community based aviation noise advocacy organization.

- ◆ *N.O.I.S.E.* brings local elected leaders together to find real life solutions to the problems associated with excessive aviation noise—real solutions to real problems, NOW! It joins communities together as a single voice, highlights

their concerns, and challenges airport and airline dominance of the aviation noise debate.

- ◆ “*N.O.I.S.E.* put us in the driver’s seat – with the White House, Congress, the FAA, USDOT and ICAO. Our city was able to be engaged on the front-lines in the national debates regarding aviation noise and its impact on our citizens. NOISE made the difference and was the best investment we ever made!!” - The Honorable Jo Thorne, City Councilmember Thornton (Denver), CO



To learn more and join N.O.I.S.E please visit our website at: www.aviation-noise.org



Airport Director's Report

Presented at the April 4, 2018
Airport Community Roundtable Meeting

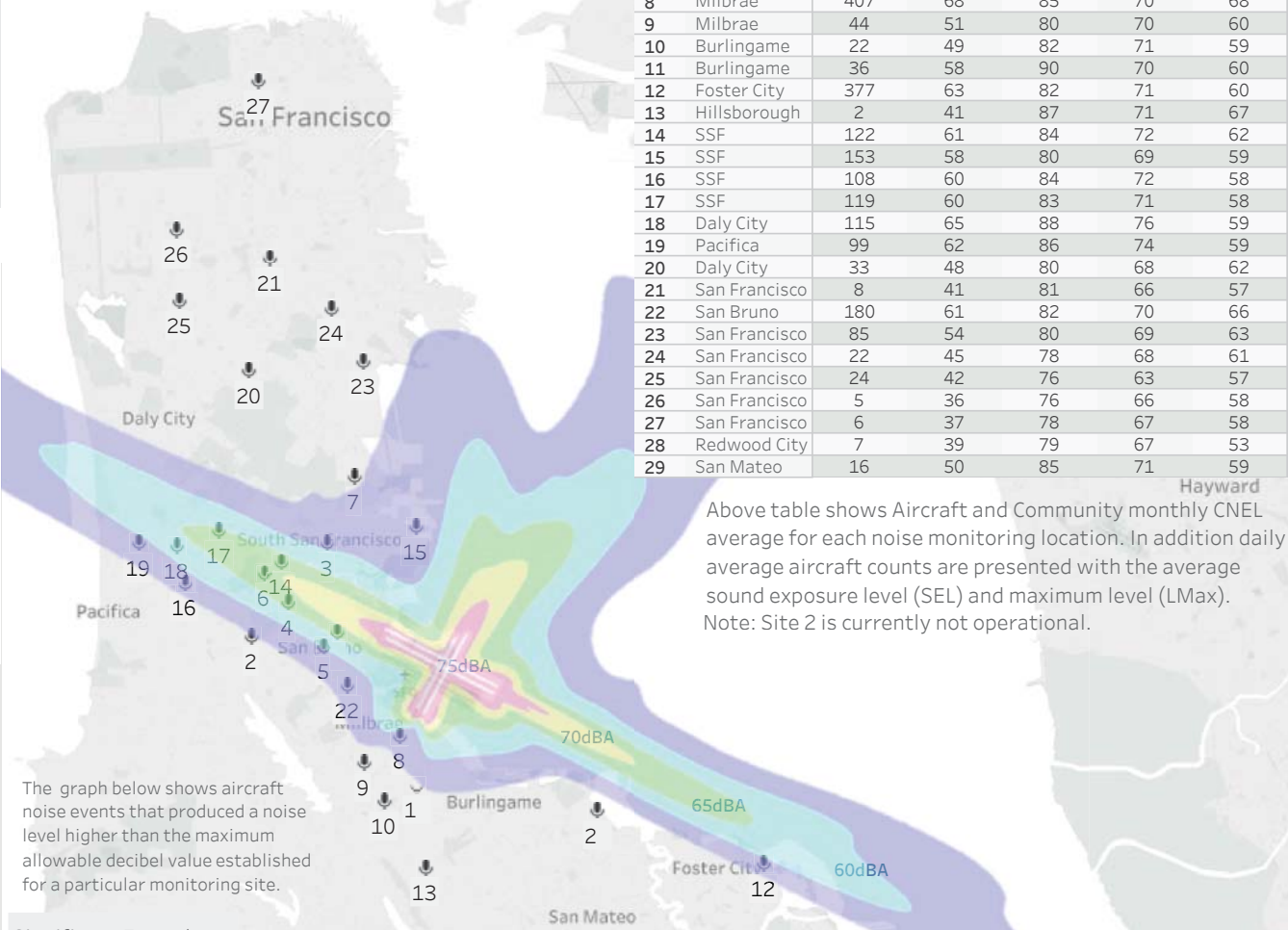
Aircraft Noise Abatement Office
January 2018



San Francisco
International
Airport

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.

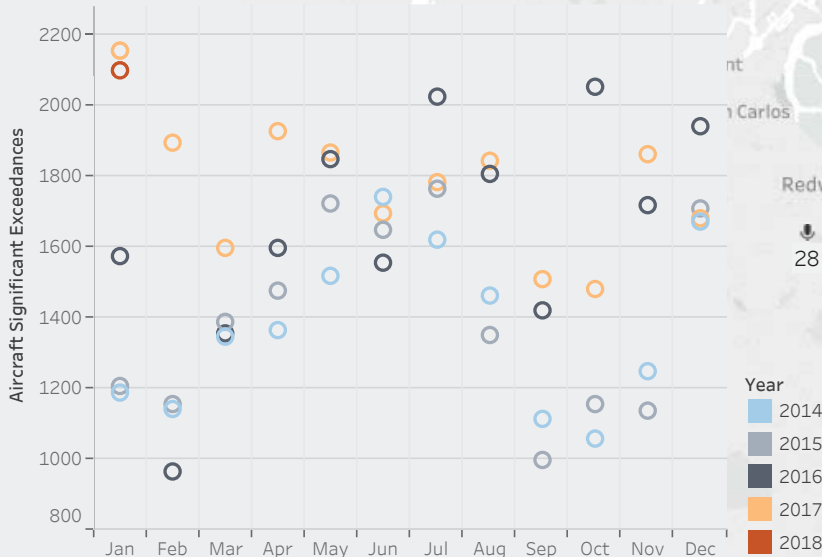
Site	City	Noise Events (AVG Day)	Aircraft			City
			CNEL (dBA)	SEL (dBA)	LMax (dBA)	
1	San Bruno	185	74	94	79	69
3	SSF	78	56	80	68	64
4	SSF	128	69	92	79	60
5	San Bruno	141	67	89	76	64
6	SSF	123	66	89	77	58
7	Brisbane	28	52	81	70	59
8	Milbrae	407	68	85	70	68
9	Milbrae	44	51	80	70	60
10	Burlingame	22	49	82	71	59
11	Burlingame	36	58	90	70	60
12	Foster City	377	63	82	71	60
13	Hillsborough	2	41	87	71	67
14	SSF	122	61	84	72	62
15	SSF	153	58	80	69	59
16	SSF	108	60	84	72	58
17	SSF	119	60	83	71	58
18	Daly City	115	65	88	76	59
19	Pacifica	99	62	86	74	59
20	Daly City	33	48	80	68	62
21	San Francisco	8	41	81	66	57
22	San Bruno	180	61	82	70	66
23	San Francisco	85	54	80	69	63
24	San Francisco	22	45	78	68	61
25	San Francisco	24	42	76	63	57
26	San Francisco	5	36	76	66	58
27	San Francisco	6	37	78	67	58
28	Redwood City	7	39	79	67	53
29	San Mateo	16	50	85	71	59



Above table shows Aircraft and Community monthly CNEL average for each noise monitoring location. In addition daily average aircraft counts are presented with the average sound exposure level (SEL) and maximum level (LMax). Note: Site 2 is currently not operational.

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 Exceedanc..

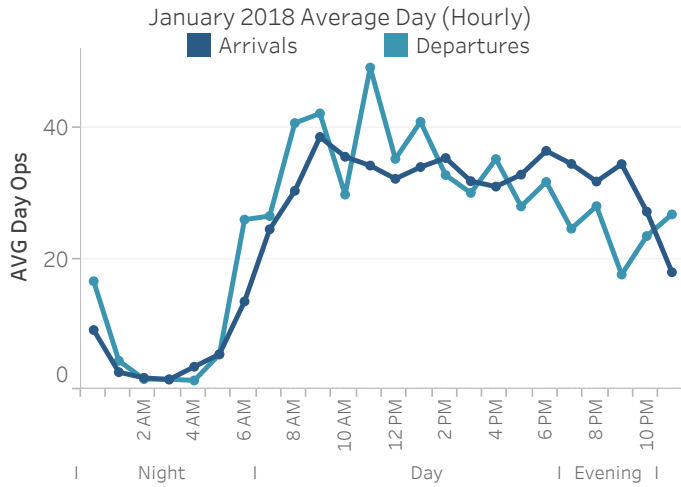
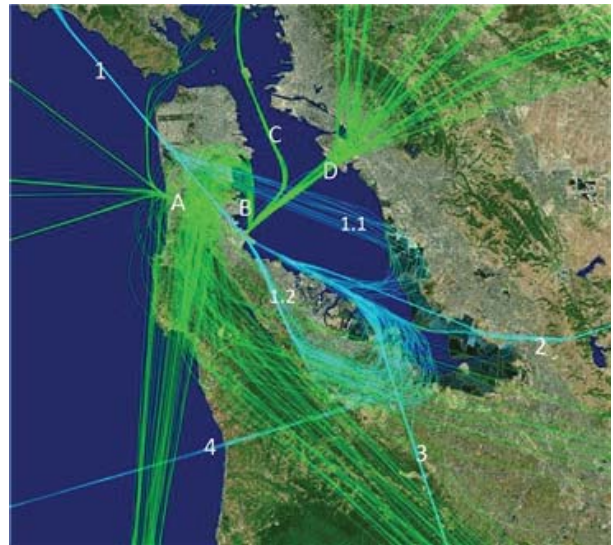


Monthly Operations Summary

January 2018

36,564	1,179	38,005	7.1%
Monthly Operations	Average Daily Operations	12 Month AVG	YOY Growth

Major Arrival and Departure Route Pattern (West Flow)



Arrivals		Departures	
1. BDEGA	24%	A. GAP	20%
2. DYAMD	39%	B. SSTIK	31%
3. SERFR	30%	C. NIITE	9%
4. OCEANIC	7%	D. TRUKN RWY 01	39%
		D. TRUKN RWY 28	2%

Top Destinations

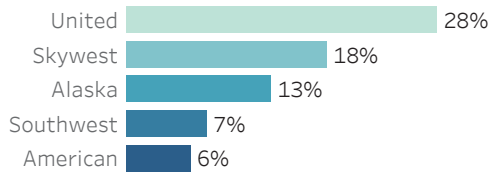
LAX	SEA	PDX	JFK	LAS
8%	6%	4%	3%	3%

West Flow
100%

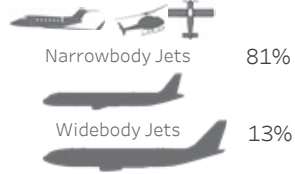
Down the Bay vs Peninsula

1.1 BDEGA East	27%
1.2 BDEGA West	73%

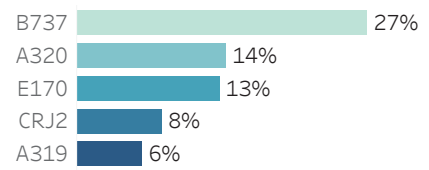
Airlines with the Most Operations



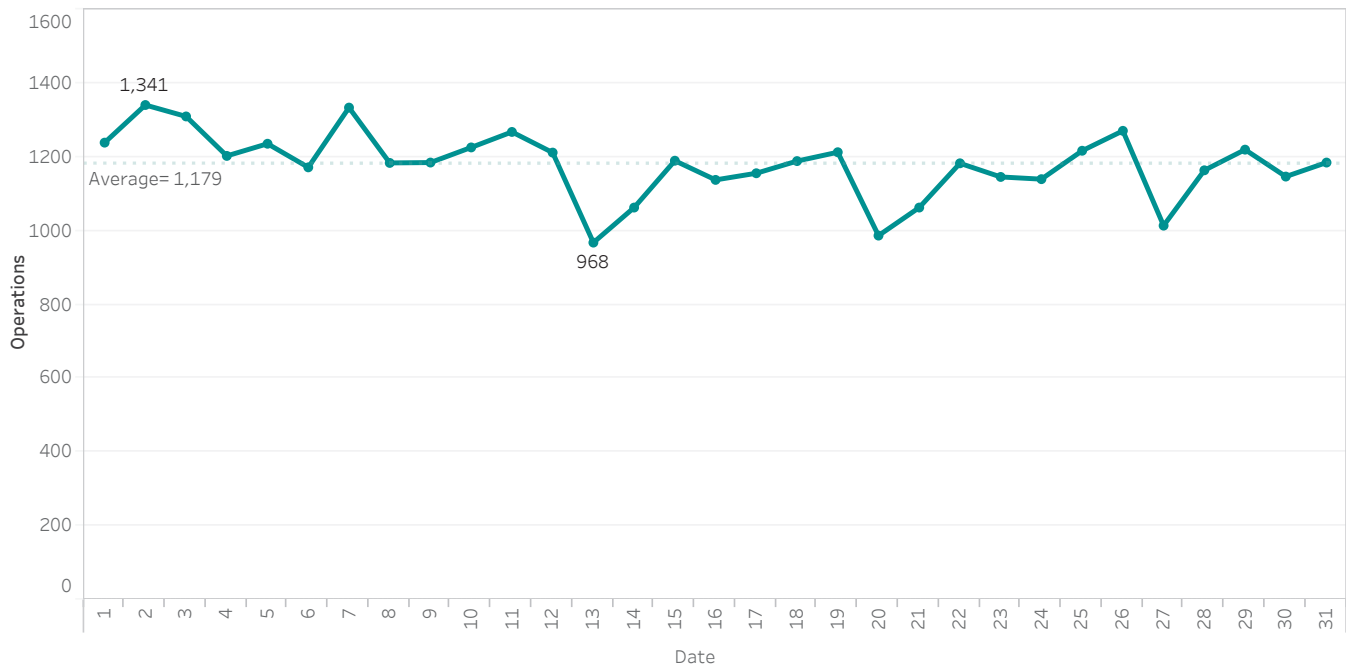
Business Jets / Helicopters / GA 6%



Most Utilized Aircraft Types



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 airline nighttime power runup counts shown below. (Percent [%] rounded to nearest whole number)

Runway Utilization (all hours)

	Arrivals	Departures
01 L/R		80% 14,127
10 L/R		0% 48
19 L/R	0% 41	0% 1
28 L/R	100% 16,940	19% 3,405

Late Night Preferential Runway ..

	Departures
10 L/R	4% 15
01 L/R	69% 253
28 L/R	27% 98

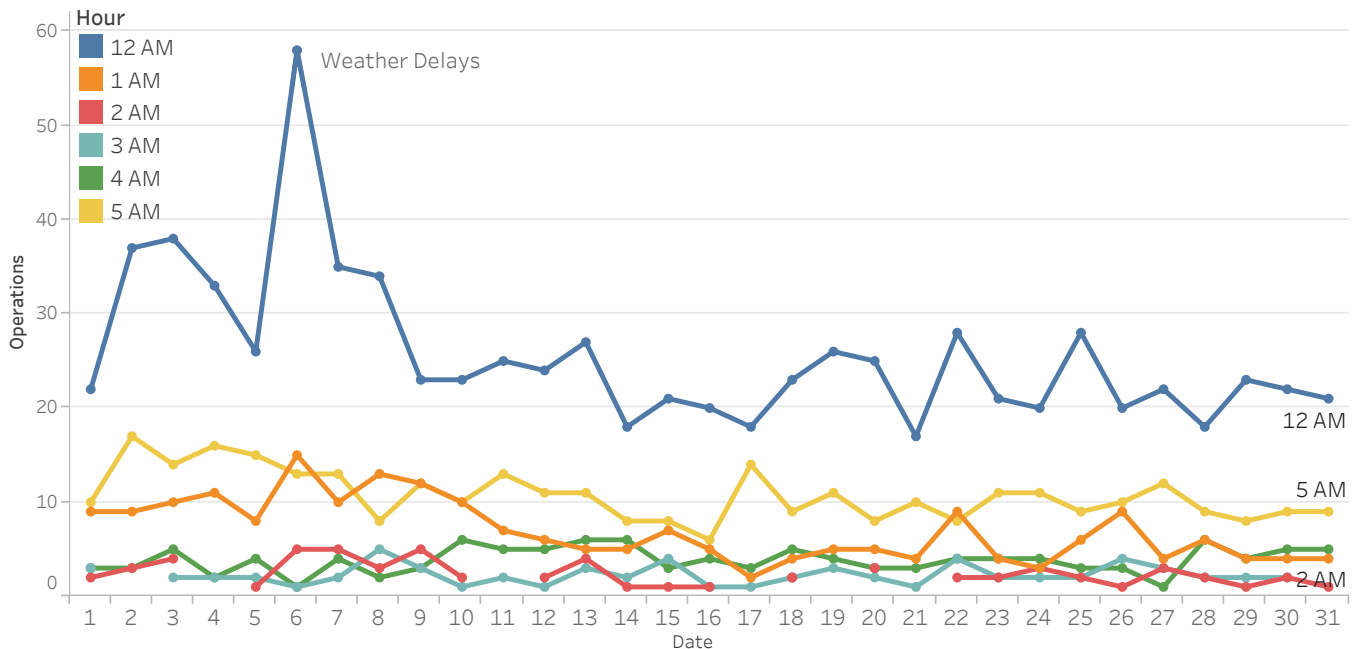
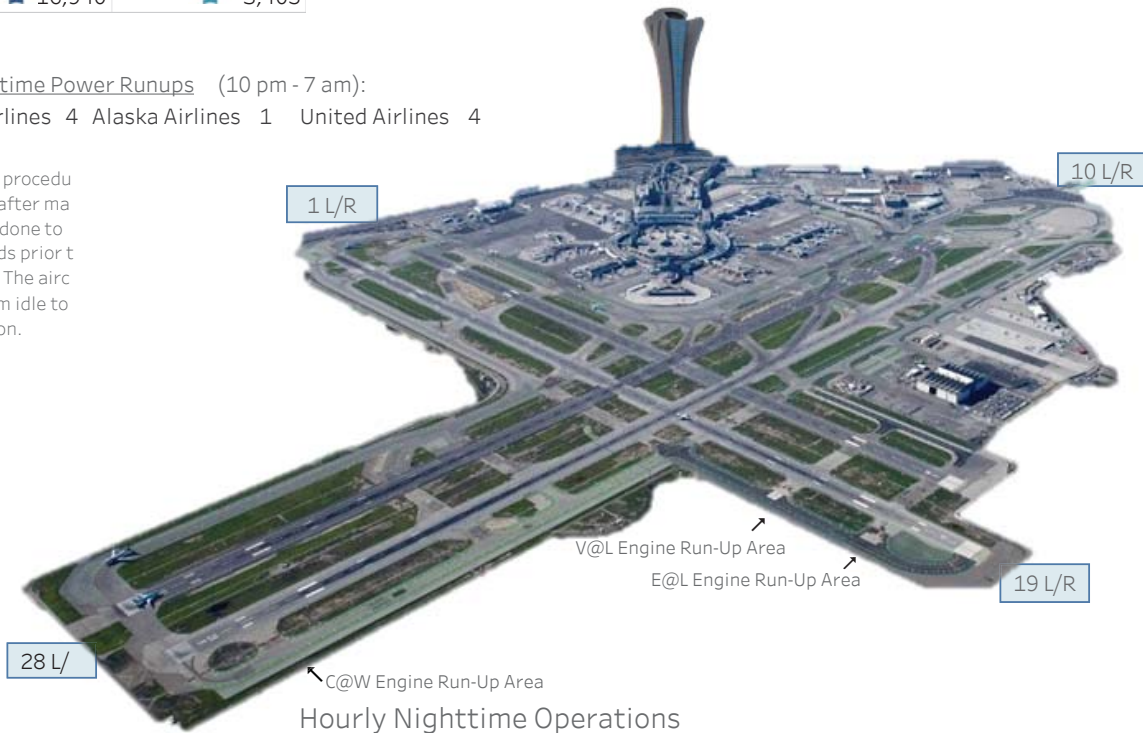
28 L vs R

Arrivals	
28L	28R
45%	55%
Night (10 pm - 7 am)	
31%	69%

Nighttime Power Runups (10 pm - 7 am):

American Airlines 4 Alaska Airlines 1 United Airlines 4

A power runup is a procedure an aircraft engine after maintenance completed. This is done to operating standards prior to aircraft to service. The aircraft settings range from idle to may vary in duration.



Noise Reports

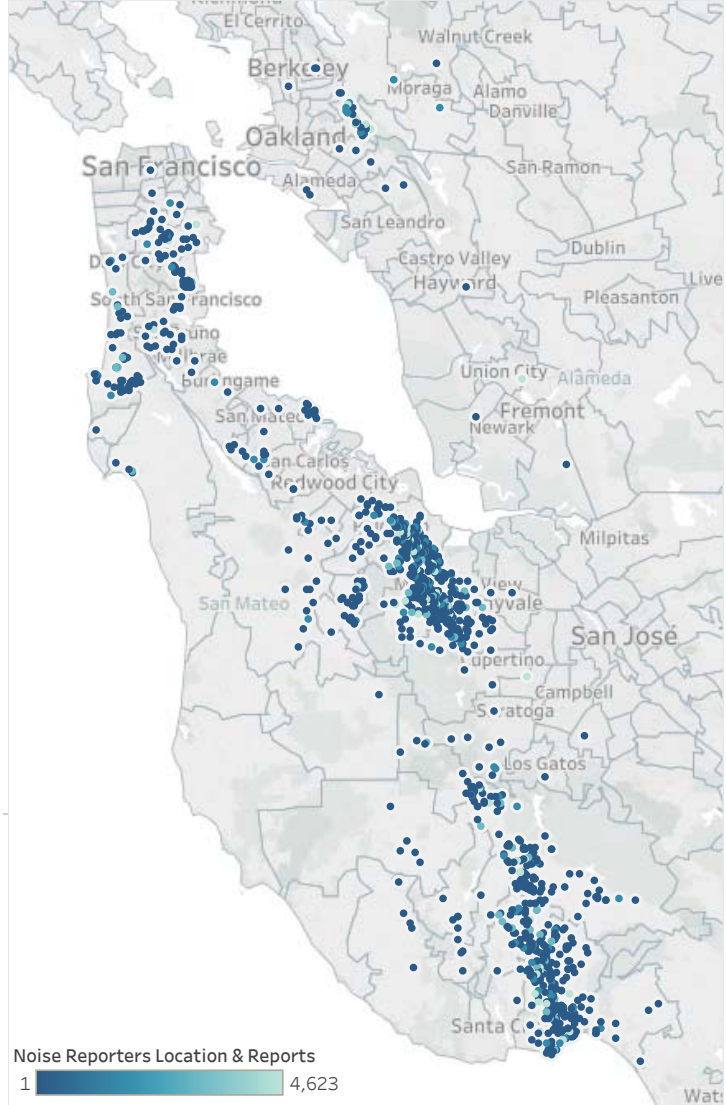
January 2018

Noise Reporters / Noise Reports

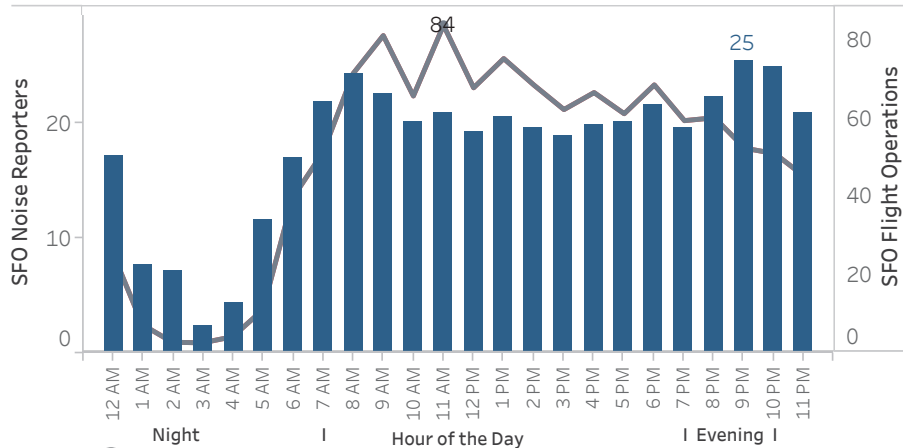
	Noise Reporters	Noise Reports
Roundtable Communities		
Atherton	8	511
Belmont	7	911
Brisbane	38	3,595
Burlingame	3	435
Daly City	9	1,485
El Granada	1	2
Foster City	10	476
Half Moon Bay	4	573
Menlo Park	27	2,061
Millbrae	3	3
Pacifica	53	7,047
Portola Valley	37	6,905
Redwood City	12	2,188
San Bruno	11	295
San Carlos	2	3
San Francisco	39	5,408
San Mateo	9	534
South San Francisco	13	943
Woodside	14	1,305
Other Communities		
Alameda	2	3
Aptos	13	966
Ben Lomond	4	165
Berkeley	5	78
Bonny Doon	2	75
Boulder Creek	5	168
Brookdale	1	4
Capitola	22	2,762
Carmel	2	213
Cupertino	3	939
East Palo Alto	2	8
Felton	11	698
Fremont	2	39
Hayward	1	1
Lafayette	1	29
Los Altos	172	26,840
Los Altos Hills	27	8,471
Los Gatos	154	21,395
Moraga	1	339
Morgan Hill	2	720
Mountain View	57	7,031
Oakland	30	9,621
Orinda	1	294
Palo Alto	232	57,543
San Jose	1	86
Santa Cruz	129	22,743
Saratoga	10	1,045
Scotts Valley	78	12,824
Soquel	87	8,291
Sunnyvale	13	885
Watsonville	1	212
Total	1,371	219,168

Noise Reporters Location Map

- 1,616 Noise Reporters (12 month AVG)
- 227,743 Noise Reports (12 Month AVG)
- 30 New Reporters
- San Francisco New Reporters Top City
- 88 miles Furthest Report
- 6 Reports per SFO Operation
- B737, A320, E170 Top Aircraft Type
- CMP382*, JBU736, KAL213 Top Flight Number *Night



Hourly Noise Reporters vs. Flight Operations (AVG Day)



99% of noise reports correlate to a flight origin/destination airport:



Our software vendor's address validation relies on USPS-provided ZIP code look up table and USPS-specified default city values.

Source: SFO Intl Airport Noise Monitoring System

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Airport Director's Report

Presented at the April 4, 2018
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Aircraft Noise Abatement Office
February 2018



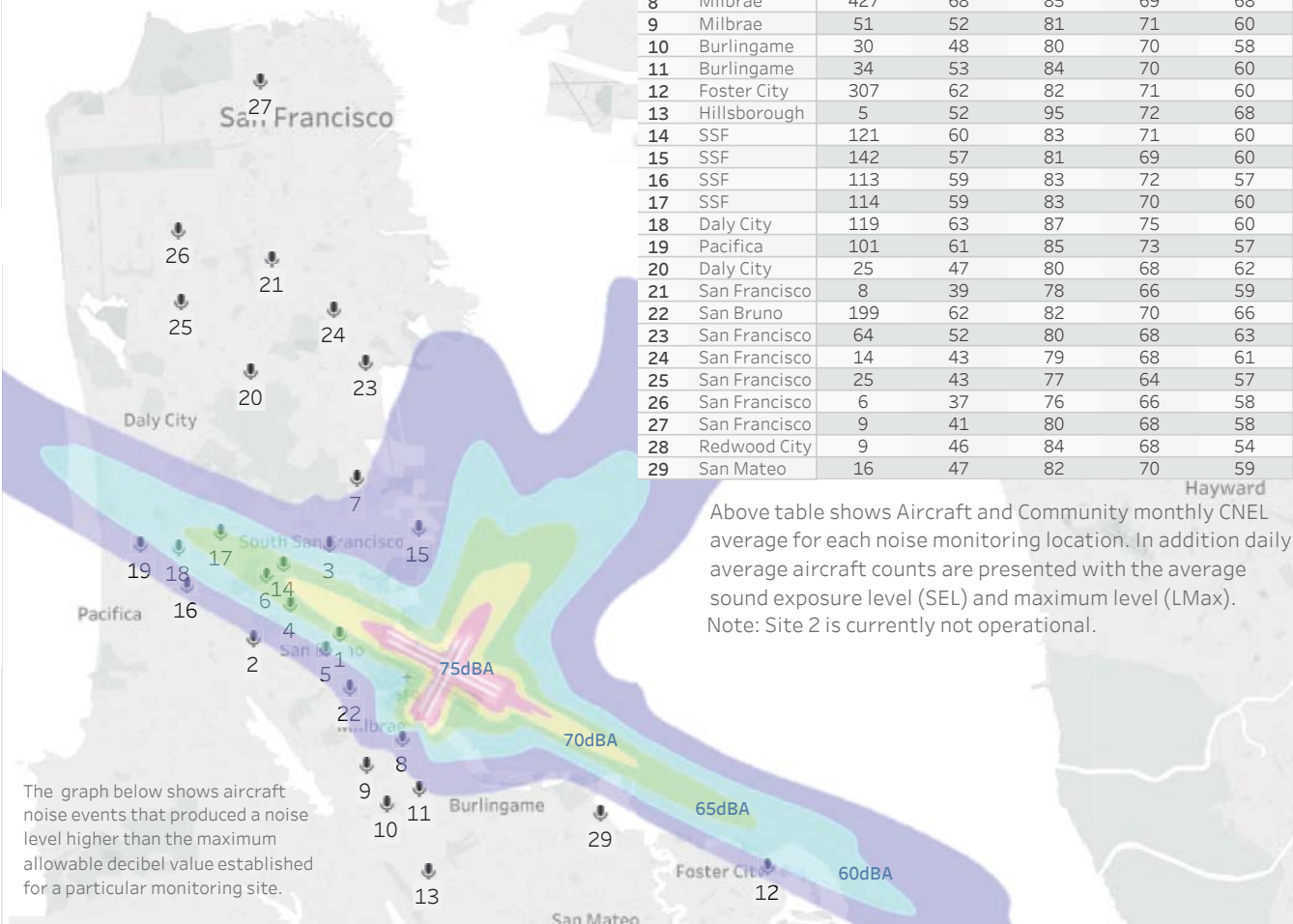
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Aircraft Noise Monitoring System

February 2018

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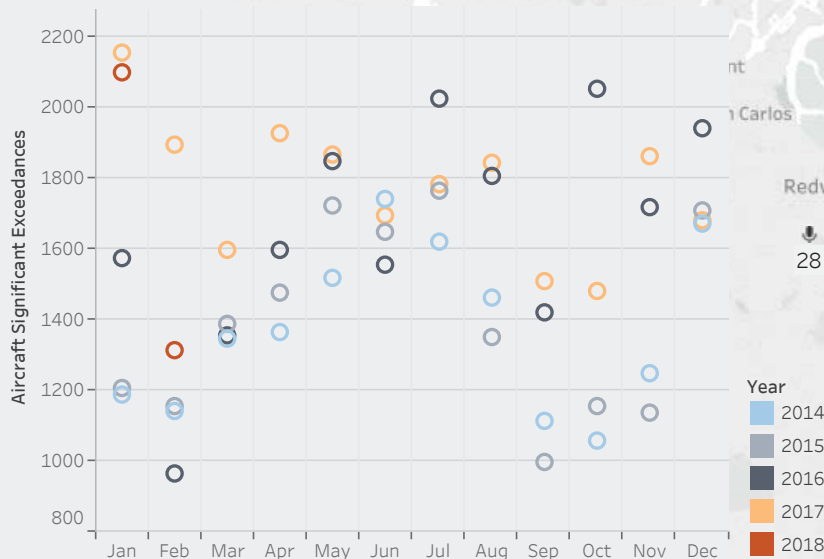
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15	SSF	142	57	81	69	60
16	SSF	113	59	83	72	57
17	SSF	114	59	83	70	60
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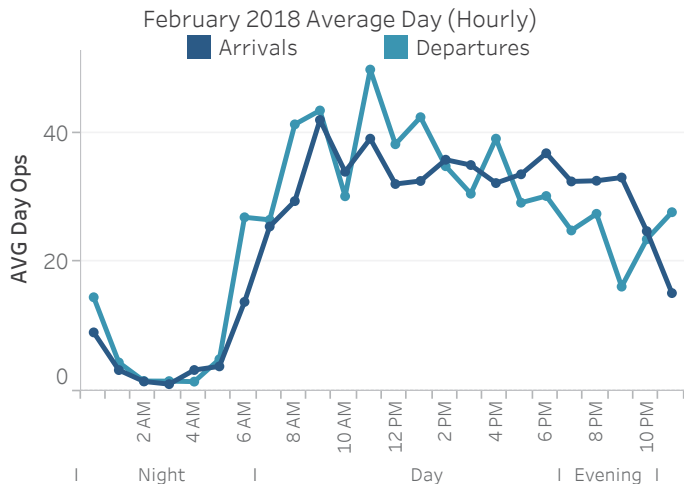
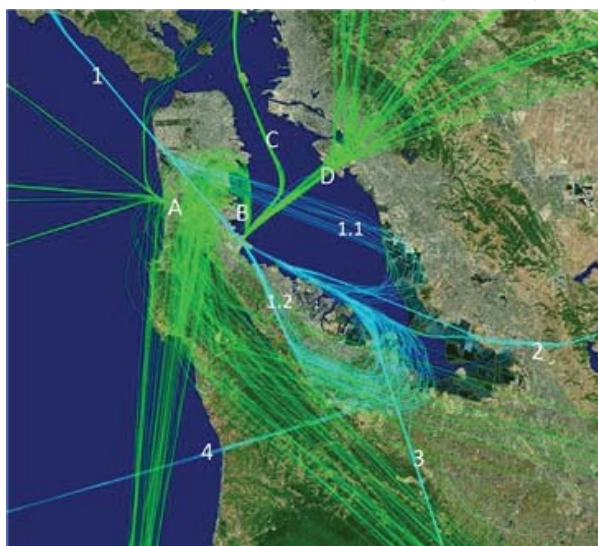


Monthly Operations Summary

February 2018

33,283	1,189	38,232	8.9%
Monthly Operations	Average Daily Operations	12 Month AVG	YOY Growth

Major Arrival and Departure Route Pattern (West Flow)



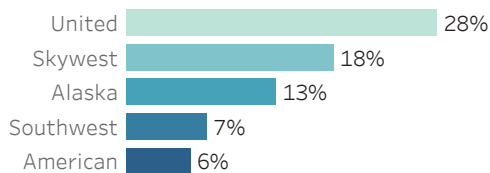
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4. OCEANIC	5%	D. TRUKN RWY 01	37%
		D. TRUKN RWY 28	3%

Top Destinations				
LAX	SEA	PDX	JFK	LAS
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West Flow
100%

Down the Bay vs Peninsula	
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1.2 BDEGA West	68%

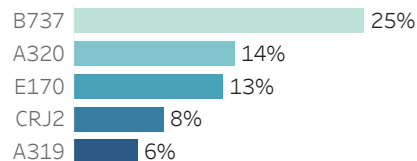
Airlines with the Most Operations



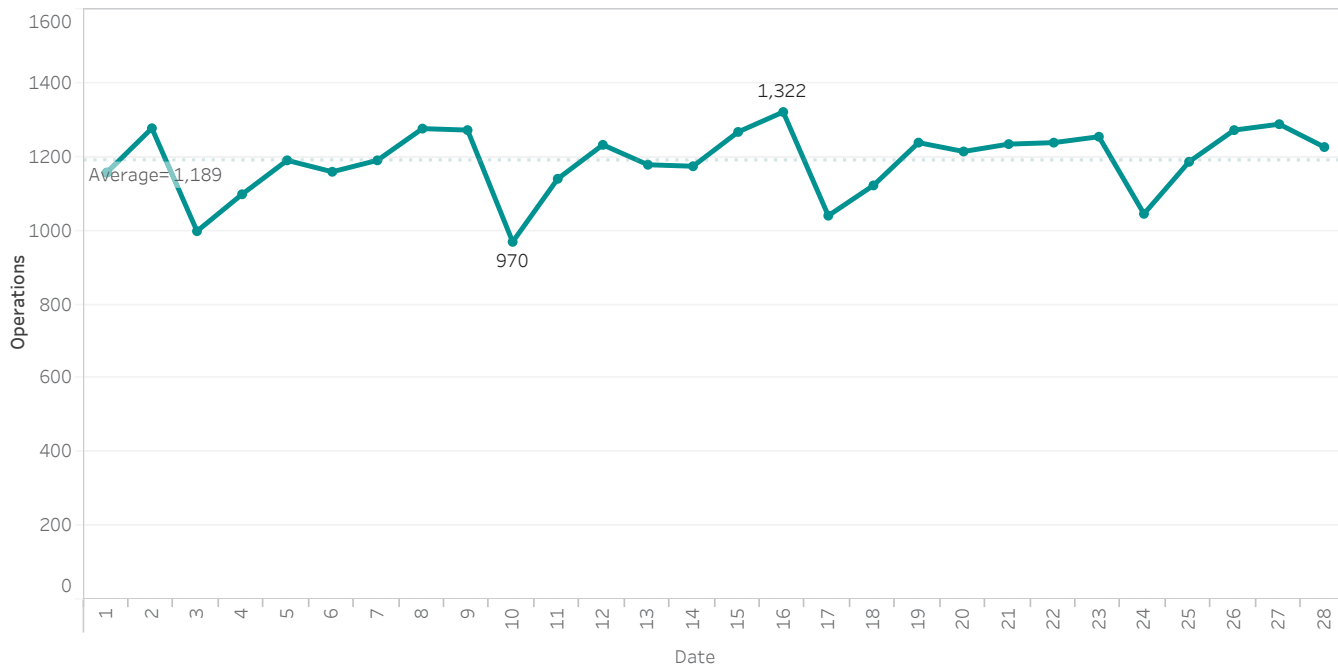
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Monthly runway usage is shown for arrivals and departures, further categorized by all hours and nighttime hours. Graph at the bottom of the page shows hourly nighttime operations for each day. Power Runup locations are depicted on the airport map with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

Runway Utilization (all hours)

	Arrivals	Departures
01 L/R	0% 1	78% 12,372
10 L/R		0% 50
19 L/R	0% 50	
28 L/R	100% 15,030	22% 3,454

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

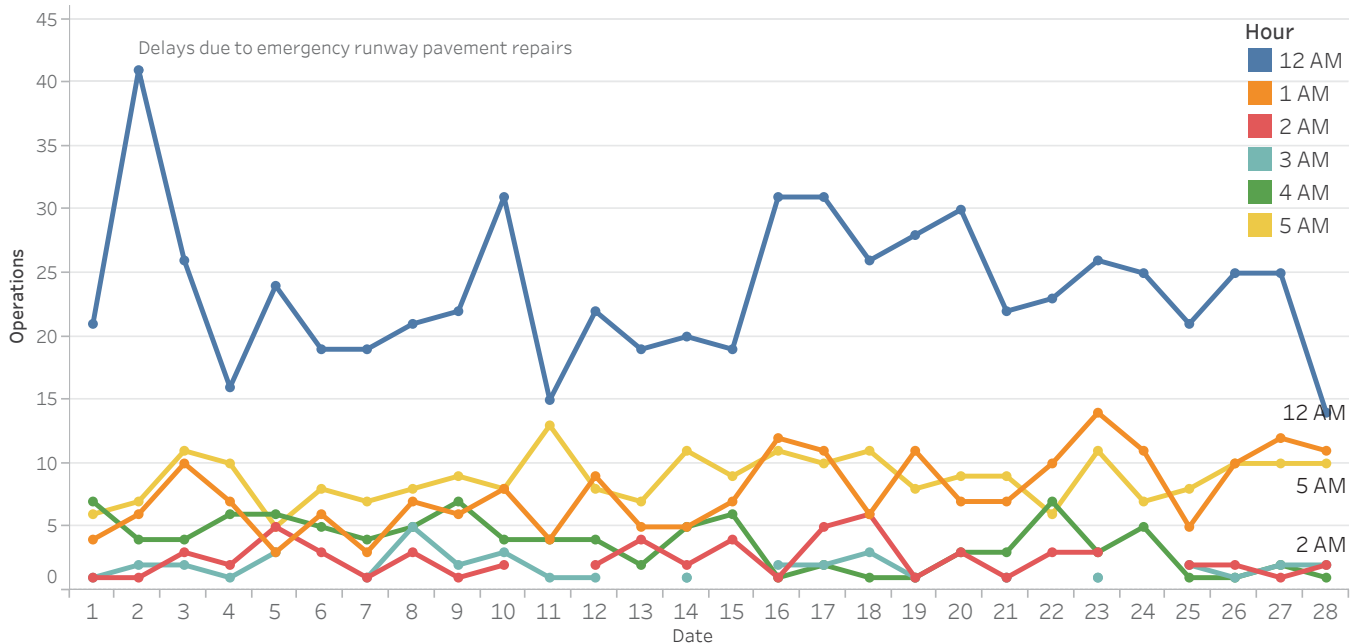
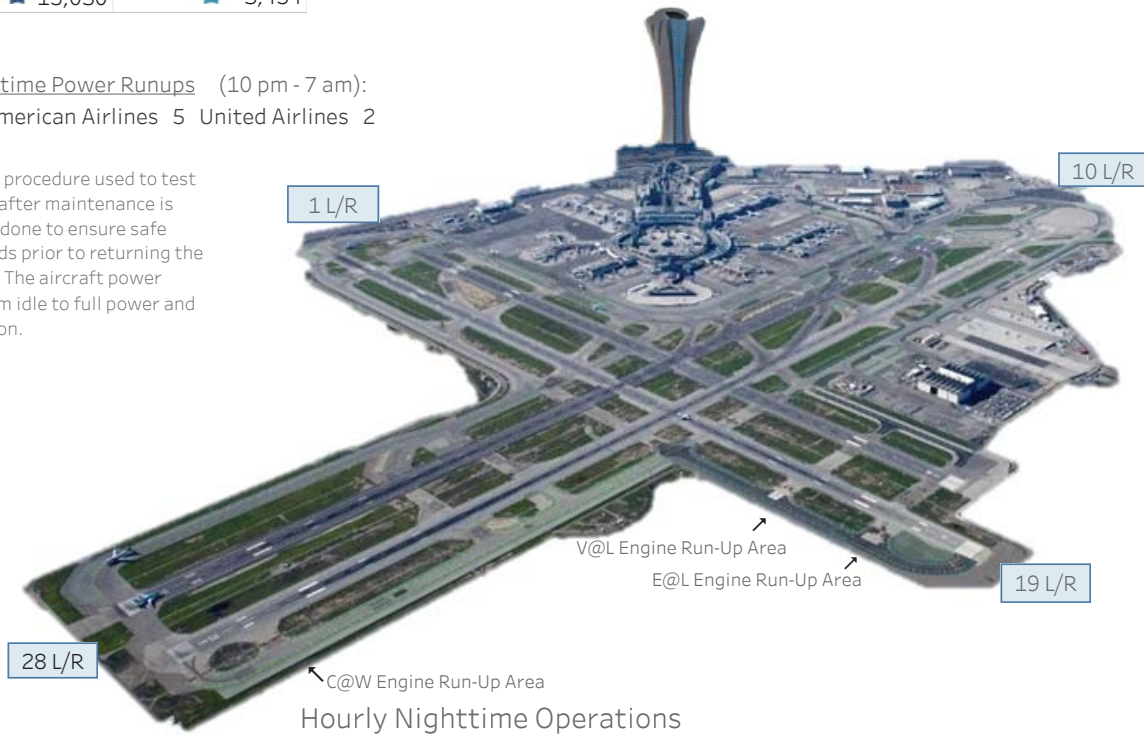
	Departures
10 L/R	2% 7
01 L/R	73% 229
28 L/R	25% 79

28 L vs R

Arrivals	
28L	28R
47%	53%
Night (10 pm - 7 am)	
32%	68%

Nighttime Power Runups (10 pm - 7 am):
American Airlines 5 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.



Noise Reports

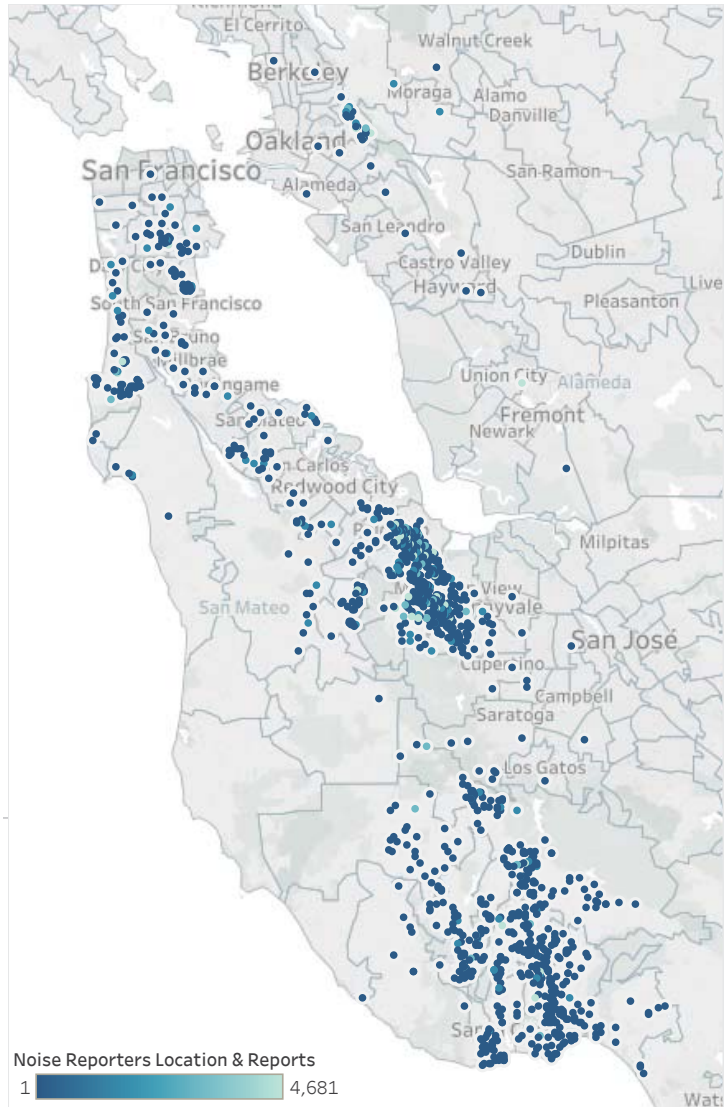
February 2018

Noise Reporters / Noise Reports

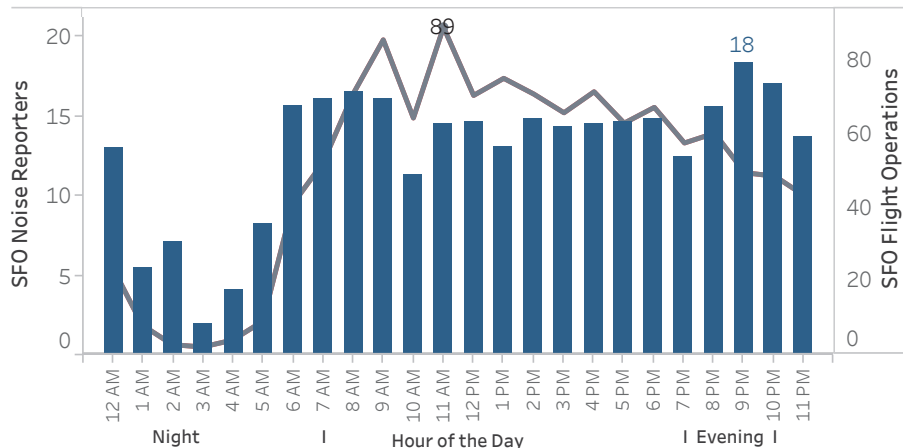
Community	Noise Reporters	Noise Reports
Roundtable Communities		
Atherton	5	481
Belmont	8	882
Brisbane	32	2,939
Burlingame	7	576
Daly City	9	1,012
El Granada	1	106
Foster City	5	340
Half Moon Bay	6	535
Menlo Park	25	1,947
Millbrae	5	5
Pacifica	53	6,753
Portola Valley	40	7,005
Redwood City	14	1,861
San Bruno	6	459
San Carlos	2	7
San Francisco	35	3,302
San Mateo	19	676
South San Francisco	8	308
Woodside	12	1,120
Other Communities		
Alameda	1	10
Albany	1	1
Aptos	17	240
Ben Lomond	20	589
Berkeley	2	9
Bonny Doon	2	199
Boulder Creek	30	1,395
Brookdale	2	18
Capitola	14	382
Carmel	2	91
Castro Valley	1	24
Cupertino	3	163
East Palo Alto	2	49
Felton	64	4,300
Fremont	1	34
Hayward	2	11
La Selva Beach	1	6
Lafayette	2	202
Los Altos	155	20,392
Los Altos Hills	36	10,944
Los Gatos	143	11,018
Moraga	1	378
Morgan Hill	2	763
Mount Hermon	1	1
Mountain View	60	7,470
Oakland	28	7,228
Orinda	1	419
Palo Alto	227	46,250
Sacramento	2	2
San Jose	2	18
San Leandro	1	1
Santa Clara	1	1
Santa Cruz	163	8,725
Saratoga	8	338
Scotts Valley	92	5,971
Soquel	67	1,454
Sunnyvale	11	574
Watsonville	1	179
Total	1,461	160,163

Noise Reporters Location Map

- 1,589 Noise Reporters (12 month AVG)
- 225,363 Noise Reports (12 Month AVG)
- 131 New Reporters
- Santa Cruz New Reporters Top City
- 88 miles Furthest Report
- 5 Reports per SFO Operation
- B737, A320, E170 Top Aircraft Type
- CMP382*, KAL213*, JBU736 Top Flight Number *Night



Hourly Noise Reporters vs. Flight Operations (AVG Day)



99% of noise reports correlate to a flight origin/destination airport:

Our software vendor's address validation relies on USPS-provided ZIP code look up table and USPS-specified default city values.

Source: SFO Intl Airport Noise Monitoring System

MEMORANDUM

TO: MILLBRAE COMMUNITY
FROM: SAN FRANCISCO INTERNATIONAL AIRPORT AIRCRAFT NOISE ABATEMENT OFFICE
SUBJECT: MILLBRAE SHORT-TERM NOISE MONITORING REPORT
DATE: MARCH 12, 2018

The San Francisco International Airport (SFO) Aircraft Noise Abatement Office conducted aircraft noise monitoring in the City of Millbrae to determine noise levels within the community from aircraft operations at SFO. The monitoring was made possible with the assistance of a Millbrae resident. The overall average daily noise level from all aircraft was 55 A-weighted decibels (dBA) Community Noise Equivalent Level (CNEL). The Community daily noise level was 58dBA CNEL. Noise from all aircraft increased the total average daily noise level by 2dBA. SFO aircraft comprised 98% of all aircraft noise events over the Millbrae community. During the noise monitoring period, there were no weather or other impacts that would cause significant delays, require use of reverse flow or alter the flight patterns in any way. Non-aircraft noise sources included residential noise, vehicular traffic, fireworks and train horns.

Millbrae is a quiet community with an ambient noise level of 52dBA. On an average day, this location experienced 216 noise events associated with SFO that exceeded the monitor threshold of 59dBA and recorded a noise event. These events included engine starts, ground idle, take-off thrust, initial climb thrust and noise from landing aircraft on the runway applying reverse thrust. Departing aircraft off Runways 01-Left and 01-Right accounted for 64% of the noise events recorded at the monitor.

Low frequency aircraft noise study conducted at SFO in 2001 suggests that C-weighting is preferred over A-weighting to describe aircraft back-blast noise. The standard to measure aircraft overflight noise is typically done using A-weighting, which better conforms to the response of the human ear. This frequency range are in the mid to high frequencies between 500 Hertz (Hz) and 6,000 Hz. C-weighting sound levels are deep tones in the low frequency range from the 16 Hz to 256 Hz. In the event of low frequency noise (airplane taking off, engine run-up) the duration and spectral content of the event is quite different from that of an aircraft overflight. For this measurement the average aircraft, generated Maximum Noise Level (LCmax) was 76dBC compared to 64dBA. The average Sound Exposure Level (LCE) was 89dBC compared to 74dBA. In general, the C-weighted levels will be greater than the A-weighted level behind the departing aircraft. Low frequency back-blast noise levels decrease by about 6 decibels per doubling of distance. The reduction of noise from air and ground absorption is small (Wyle, 2001).

During the noise monitoring period, SFO Aircraft Noise Abatement Office received noise reports from one individual in Millbrae, three individuals in Burlingame and seven individuals from San Bruno. Of the 248 complaints submitted, 47% (117) were between the hours of 8:00 p.m. and 1:00 a.m. The majority of aircraft noise events occurred between 6:00 a.m. and 10:00 a.m. and between 8:00 p.m. and midnight. On average, there were 28 nighttime noise events daily between midnight and 6:00 a.m. In view of the fact that the monitoring location in Millbrae is located in a community with ambient noise level of 52dBA, any aircraft noise above this threshold may become a nuisance for the residents.

dBA- stands for A-weighted decibel. Decibel unit measures the loudness of a sound and is computed as the signal to noise ratio. A-weighting is used to adjust for frequency range of human hearing. An increase of ten decibels is perceived by human ear as a doubling of noise.

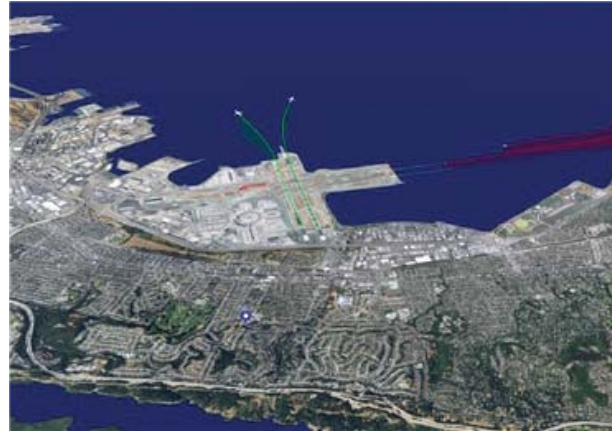
CNEL- This metric is used to assess and regulate aircraft noise exposure in communities surrounding the airport. California Title 21 Noise Regulations established acceptable level of aircraft noise of 65dBA CNEL.

Short Term Noise Monitoring Report

Millbrae 2017

Dec. 22, 2017 - Jan. 9, 2018

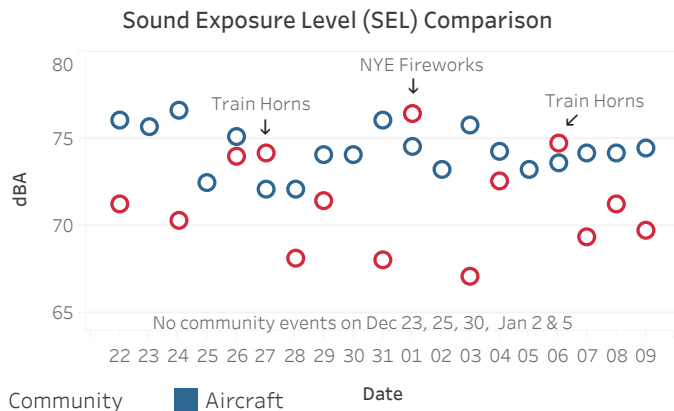
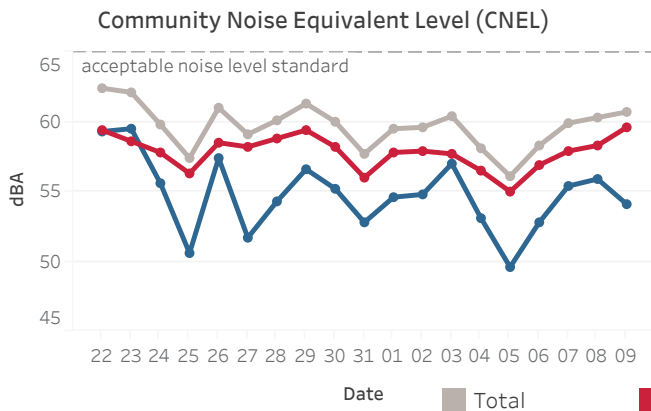
Aircraft CNEL: 55dBA
 Community CNEL: 58dBA
 Total CNEL: 60dBA
 Aircraft SEL: 75dBA
 Aircraft LMax: 64dBA
 Ambient Noise: 52dBA
 Noise Monitor Treshold: 59dBA
 SFO Aircraft Noise Events: 216 per day
 SFO Operations Flow: West Flow (all days)
 Cause of Aircraft Noise : SFO Departures from Runways 01L/R, 28L/R and arrivals on Runways 28L/R. Aircraft engine starts at gates.



Daily Noise Event Averages

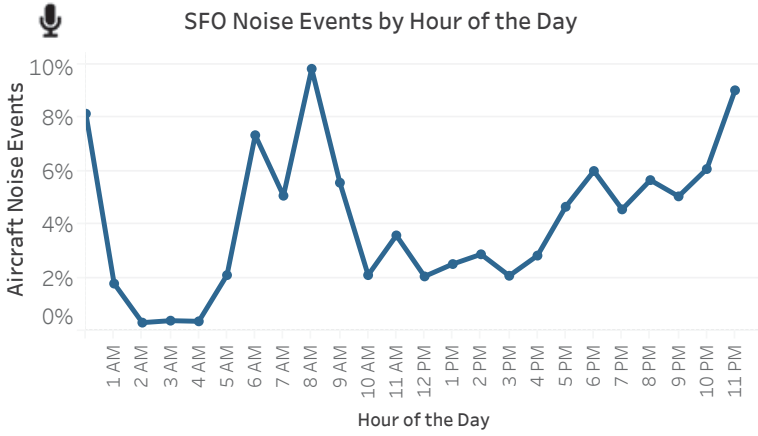
Date	SFO			Non-SFO			Community		
	Noise Events	Avg. SEL (dBA)	Avg. LMax (dBA)	Noise Events	Avg. SEL (dBA)	Avg. LMax (dBA)	Noise Events	Avg. SEL (dBA)	Avg. LMax (dBA)
22	325	76	64	1	76	68	9	71	63
23	308	76	64	7	74	63			
24	221	77	65	10	74	64	2	70	60
25	125	72	63	6	70	62			
26	198	75	64	4	73	63	5	74	62
27	229	72	63	3	73	63	1	74	62
28	259	72	63	11	74	63	1	68	62
29	334	74	63	1	66	59	7	71	62
30	239	74	63	6	73	64			
31	125	76	65	3	75	66	3	68	62
1	139	75	63	2	70	61	9	76	64
2	332	73	63	2	71	64			
3	389	76	64				4	67	61
4	108	74	64				2	73	66
5	54	73	63	2	69	61			
6	116	74	63	8	76	66	3	75	62
7	219	74	64	3	70	61	1	69	65
8	205	74	63	5	74	62	7	71	61
9	173	74	63	4	69	61	5	70	63
Daily Average	216	74	64	5	72	63	4	71	63

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 (dBA)	Min. LMax (dBA)	Max. LMax (dBA)	Avg. Duration (sec)	Min. Duration (sec)	Max. Duration (sec)
Day	2,015	49%	74	62	90	63	58	81	15	2	60
Evening	626	15%	73	65	86	63	59	78	13	5	60
Night	1,457	36%	75	59	90	64	59	85	16	1	60



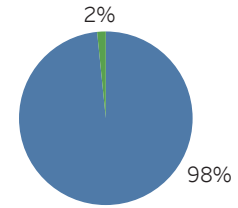
SFO Runway Usage - Departures and Arrivals

Runway	01L	01R	28L	28R
Usage	24%	40%	21%	15%

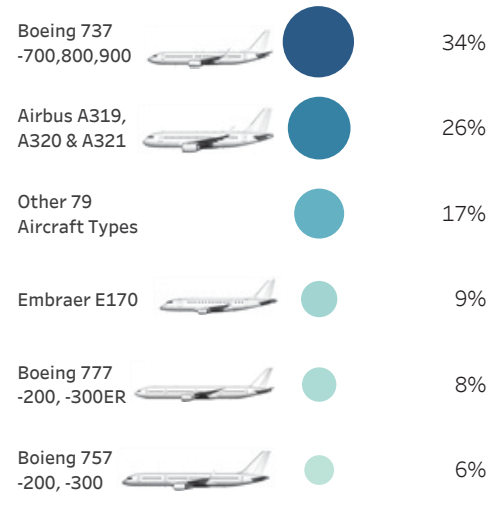
Only aircraft that registered a noise event on the monitor are considered.



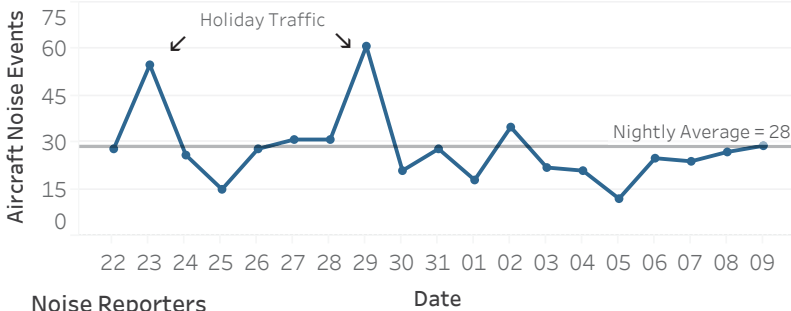
Airport
■ SFO
■ Others



Aircraft Type



SFO Nighttime (Midnight-6am)

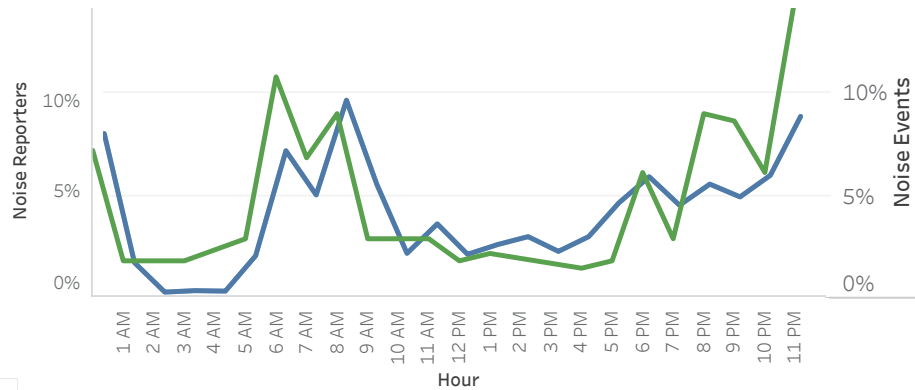


Noise Reporters

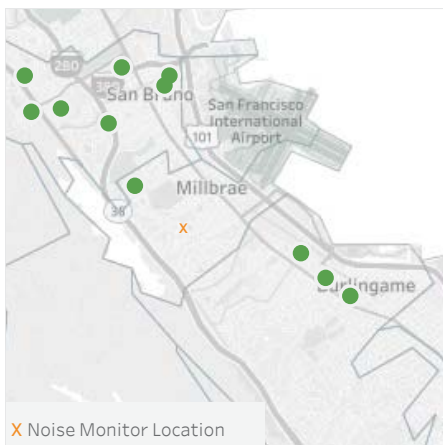
Date	Noise Reporters	Noise Reports
22	3	4
23	2	6
24	1	2
25	2	5
26	3	7
27	3	21
28	5	11
29	3	21
30	1	12
31	1	5
1	4	11
2	4	23
3	4	7
4	4	13
5	3	5
6	5	32
7	5	26
8	4	21
9	4	16
Total	11	248

17%
of SFO Operations registered a noise event.
(1,250 avg daily SFO Operations of which 216
created a noise event)

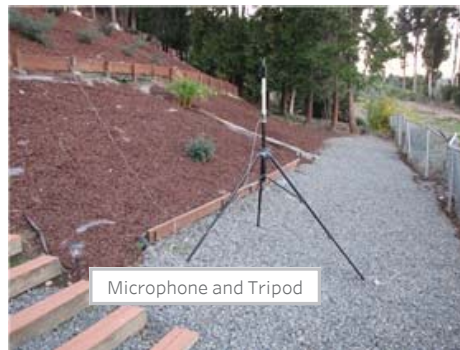
Noise Reporters vs Aircraft Noise Events



Noise Reporters Location



Noise Monitor on Location

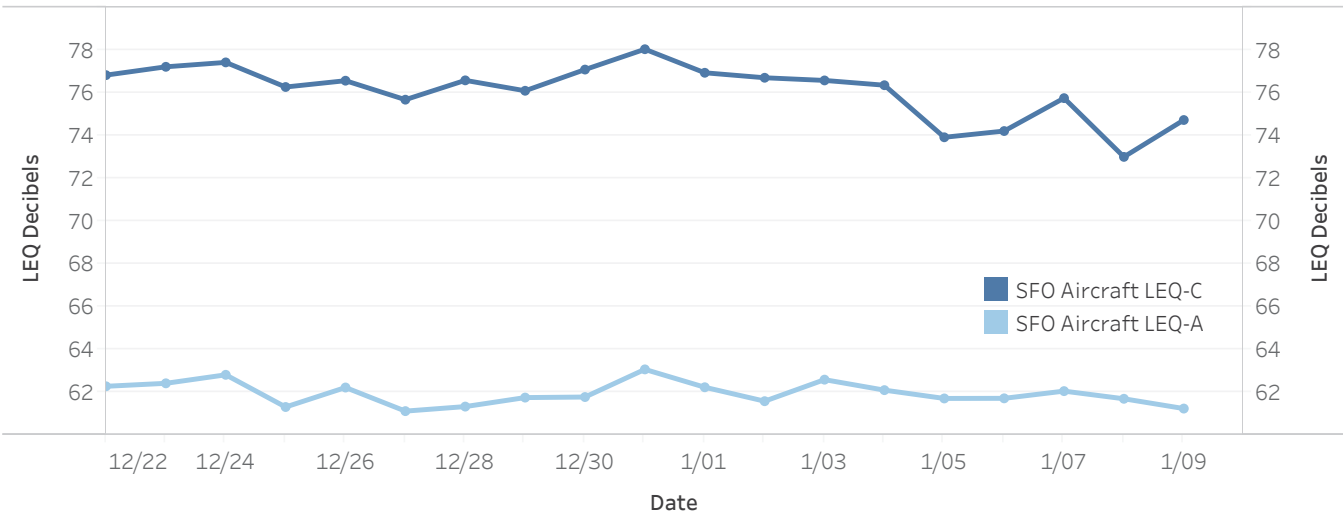


Daily Noise Event Averages in C-Weighted Decibels (dBC)

	SFO			Non-SFO			Community		
	Noise Events	LCE	LCMax	Noise Events	LCE	LCMax	Noise Events	LCE	LCMax
December 22	325	91	77	1	84	74	9	77	68
December 23	308	91	77	7	86	76			
December 24	221	91	78	10	85	76	2	75	65
December 25	125	87	77	6	84	74			
December 26	198	90	77	4	84	74	5	78	66
December 27	229	87	76	3	86	77	1	82	68
December 28	259	87	77	11	87	77	1	73	66
December 29	334	88	76	1	76	72	7	77	67
December 30	239	90	78	6	85	76			
December 31	125	91	78	3	83	74	3	75	69
January 1	139	89	78	2	79	71	9	84	72
January 2	332	89	77	2	82	77			
January 3	389	90	76				4	73	66
January 4	108	89	76				2	77	70
January 5	54	86	74	2	79	70			
January 6	116	86	75	8	87	76	3	81	68
January 7	219	88	76	3	82	74	1	73	69
January 8	205	86	73	5	82	70	7	78	68
January 9	173	87	75	4	77	70	5	78	70
Daily Average	216	89	76	5	85	75	4	79	68

SFO Events are: Single SFO Aircraft, Multiple SFO Aircraft, Simultaneous SFO and Non-SFO Aircraft, and Simultaneous Community and SFO Aircraft.
 LCE - Average Sound Exposure Level
 LCMax - Maximum Noise Level

LEQ-A and LEQ-C Equivalent Sound Pressure Levels



LEQ- Equivalent Continuous Sound Level