

San Francisco International Airport

IATA/ICAO CODE: SFO/KSFO
 CITY: San Francisco
 STATE: CA
 COUNTRY: USA

AIRPORT CONTACT

No changes reported by the airport in 2011
 Verify information below with the airport

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Noise Abatement Web Site:	www.flyquietsfo.com	
Noise Complaint Email:	sfo.noise@flysfo.com	
Noise Complaint Hotline:	650 821-4736 or 877 206-8290	

ELEVATION: 11 ft.

RUNWAY INFORMATION				
Orientation	Length (ft)	Displaced Threshold (ft)	Glide Slope(deg)	Width (ft)
1R/19L	8648	238/0	3.0°	200
1L/19R	7500	491/0	3.0°	200
10R/28L	10602	-	3.0°	200
10L/28R	11870	-	3.0°	200
Check FAA Airport Diagrams for current information.				

NOISE ABATEMENT PROCEDURES

Airport Rules and Regulations - Rule 11.0 Noise Abatement Regulation (Resolution No. 09-0274, Effective December 1, 2009) The full content may be viewed at:

www.flysfo.com/web/page/about/organization/rules

In order to reduce the noise impacts surrounding the San Francisco International Airport, the City and County of San Francisco developed a Noise Abatement Regulation to provide aircraft operators guidance for operating at SFO. Specific noise abatement procedures are as follows:

To reduce the impacts of aircraft noise in surrounding communities, particularly between the hours of 2300 and 0700, the airport encourages the use of the following procedures:

- 1) Weather and traffic conditions permitting, aircraft are requested to use the over water departure and arrival runways (Arrivals on Runways 28 L/R and Departures on Runways 10L/R).
- 2) When departing on Runway 28L/R, use the Shoreline Departure procedure whenever possible.
- 3) When departing straight out on Runway 28L/R use the appropriate ICAO A or AC 91-53A noise abatement climb procedure to reduce noise impacts on communities close to the airport.
- 4) Use the Quiet Bridge Approach to Runway 28L/R

Sanctions:

Violations of any provision of the City and County of San Francisco Airport Commission's Rules and Regulations (Article I. Rule 1.12.0) Noise Abatement Regulation Resolution No. 88-0016 as amended shall be punishable in the following manner:

- 1) 1st violation in a 12 month period - letter of admonishment from the Airport Director.
- 2) 2nd violation in a 12 month period - a fine in the amount of \$1,000.
- 3) 3rd violation in a 12 month period - a fine in the amount of \$2,000.
- 4) Additional violations in a 12 month period - a fine in the amount of \$3,000.

Variations:

1) Upon the effective date of this regulation, requests by operators for a variance from any provision of this regulation must be made in writing to the Airport Director at least 60 days prior to the date of the requested variance. Every request for a variance shall be reviewed by the Airport Director or his designated representative. Among other factors, the noise impact on the surrounding community and the fairness to other operators, which are in compliance with this regulation, shall be considered in determining whether a variance should be granted.

2) The Airport Director shall notify the operator in writing whether a variance is granted and include any instructions or restrictions pertaining to the waiver.

Nighttime Noise Clearance Center

The Airport Director shall establish a Nighttime Noise Clearance Center operated during nighttime hours by a duty officer whose responsibilities will include monitoring compliance with the Airport's preferential runway use program and responding to requests for exemptions.

Comments:

The San Francisco International Airport/Community Roundtable and the Airport have created the Fly Quiet Program to assess and report quarterly the pilots compliance with the Airport Rules and Regulations.

Fly Quiet Program:

To help pilots understand the rules and regulations for noise abatement at SFO, the Fly Quiet Program was developed. The purpose of the Program 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 by grading an airline's performance and presenting these scores to the public via a published report. The Program consists of five grading elements:

- 1) The overall noise quality of each airline's fleet operating at SFO.
- 2) A measure of how well each airline complies with the nighttime Preferential Runway Use Program.
- 3) Assessment of how well each airline adheres to the Gap departure profile.
- 4) Assessment of how well each airline adheres to the Shoreline departure profile.

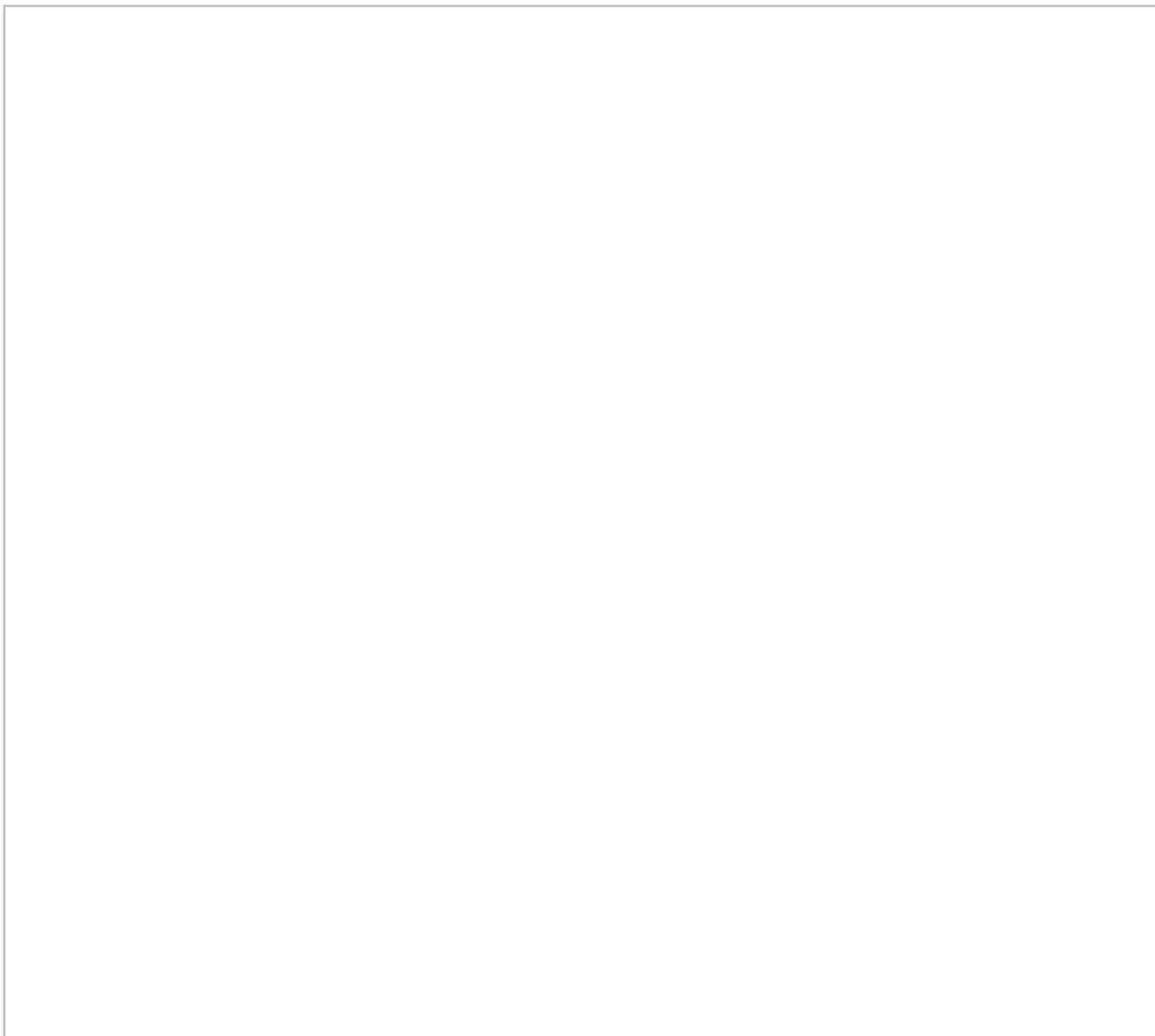
5) Evaluation of single overflight noise level exceedances.

6) Assessment of how well each airline adheres to the Foster City Arrival Quality profile. *Note:*

Flight Crews: By operating your aircraft as quietly as possible, you can directly influence your airline's Fly Quiet Program score. Here are some guidelines for maintaining a high score in the Fly Quiet Program:

Flight Crews: By operating your aircraft as quietly as possible, you can directly influence your airline's Fly Quiet Program score. Here are some guidelines for maintaining a high score in the Fly Quiet Program:

(a) Preferential Runway Use Program - Between 0100 and 0600 (LT) the preferred departure runways for noise abatement are Runways 10 L/R. Pilots of heavy aircraft can significantly improve their airline's Fly Quiet Program scores by departing on Runways 10 L/R (weather permitting).



(b) Shoreline Departure Turn Quality - The radius of the initial turn after departure off Runways 28 L/R is a grading element of the Fly Quiet Program. Runway 28 L/R departures making excessively wide right turns overfly residential noise sensitive areas. By completing the initial right turn prior to crossing Highway 101, aircraft remain over industrial and commercial areas. This applies to all Instrument Departure Procedures (IDPs) requiring right turns after departing Runways 28 L/R.

(c) Gap Departure Climb Quality - This straight out departure off Runways 28 L/R directs aircraft over heavily

populated areas. Since "higher is quieter", the Airport keeps track of aircraft altitudes along the departure route. Scores are assigned at specific points, or gates, set approximately one mile apart, with higher scores given to those aircraft that reach higher altitudes at the gates. It is preferred that aircraft making straight-out departures from Runways 28 L/R climb as rapidly as possible.

(d) Noise Exceedance Rating - Maximum noise level limits are established for selected noise monitor stations surrounding SFO. Pilots can improve their airline's exceedance rating by utilizing the Preferential Runway Use Program and complying precisely with the Gap and Shoreline Departure Procedures.



CONTINUOUS DESCENT ARRIVAL (CDA) - [NONE](#)

AIRPORT CURFEWS - [NONE](#)

PREFERENTIAL RUNWAYS

The SFO Nighttime Preferential Runway Use Program is a voluntary Program that was developed in 1988. SFO operates on two sets of parallel runways for both arrivals and departures, based on this runway configuration, there are three preferred nighttime preferential runway procedures:

- 1) The primary goal of the Program is to use Runways 10 L/R for take-off because they offer departure routing over the bay which will reduce the noise impacts over the communities surrounding SFO.
- 2) When departures from Runways 10 L/R are not possible, the second preference would be to depart Runways 28 L/R on the Shoreline or Quiet Departure Procedures. Both of these Procedures incorporate an immediate right turn after departure to avoid residential

communities northwest of SFO.

3) The third preference is to depart on Runways 01 L/R. While this procedure directs aircraft over the bay, jet blast from these departures affects communities south of SFO.

The least desirable departure procedure at SFO is a straight-out departure on Runways 28 L/R these departures overfly densely populated communities immediately west of SFO and are discouraged at all hours.

The Airport Director has established a Nighttime Noise Clearance Center operated during 2200-0700 by a duty officer whose responsibilities include monitoring compliance with SFO's Preferential Runway Use Program and responding to requests for exemptions to the noise regulations.

OPERATING QUOTA - NONE

ENGINE RUN-UP RESTRICTIONS

Run-ups of mounted aircraft engines for maintenance or test purposes is prohibited between the hours of 2200-0700 daily except as provided below:

1) An idle check of a single engine is allowed under the following conditions:

(a) An idle check of a single engine not to exceed a 5-minute duration may be conducted in the lease hold area. If more than one engine is to be checked, each engine must be checked separately and the cumulative duration of the idle checks cannot exceed 5-minutes.

(b) An idle check of a single engine or multiple engines (checked separately) which will exceed a duration of five minutes will be accomplished in the designated run-up areas. For purposes of noise abatement monitoring, this will be considered a power run-up.

2) Engines, when required, may be idled to accomplish compass checks on the compass rose located at the approach end of Runway 19R.

During the hours of 2200-0700, the Operations Supervisor shall be called and permission received prior to any engine idle check, compass check or engine idle run-up, including any idle run for more than a cumulative duration of 5-minutes.

During other hours, the Operations Supervisor shall be called and permission received prior to any engine run-up.

Any request for an engine run-up during the hours 2200-0700, other than that described above, which is the result of unusual or emergency circumstances, may be approved by the Nighttime Noise Clearance Center.

When approved and accomplished, the Maintenance Supervisor of the airline concerned must provide to the Airport Director a monthly report detailing the following:

- (a) Date and time of the run-up
- (b) Type of aircraft
- (c) Aircraft identification number
- (d) Location of the run-up
- (e) Duration of the run-up
- (f) An explanation of the unusual or emergency circumstances making the run-up necessary

Reports will be submitted to the Airport Director, Attn: Airport Operations within three working

days after the last day of each calendar month.

APU OPERATING RESTRICTIONS

Operators are encouraged to use ground power and air sources whenever practicable. APUs may be used when aircraft are being towed.

1) Domestic terminals - Use of APUs is prohibited between the hours of 2200-0600 except 30 minutes prior to departure, when passengers are aboard, or it is needed to test other aircraft equipment.

2) International terminal - The following procedures apply:

(a) Aircraft scheduled to be at a gate in Boarding Areas A and G for more than 45 minutes between the hours of 0700 - 2200, are required to use 400Hz ground power and pre-conditioned air, where available. APUs are not authorized without prior permission is received from Airport Operations, during the use of ground power and pre-conditioned air until 30 minutes prior to push-back.

(b) All aircraft scheduled to be at an International Terminal gate between 2200-0700 hours are required to use 400Hz ground power and pre-conditioned air, where available, regardless of scheduled time at the gate. APUs are not authorized, unless prior permission is received from Airport Operations, during the use of ground power and pre-conditioned air until 30 minutes prior to push-back.

NOISE BUDGET RESTRICTIONS - **NONE**

NOISE SURCHARGE - **NONE**

NOISE MITIGATION/LAND USE PLANNING PROGRAM INFORMATION

Type of Program	Date Implemented	Status
Sound Insulation (Residences and Public Buildings)	1983	15,118 homes, 7 schools, 8 religious facilities completed (65 CNEL and above) 287 homes, 4 schools, 2 religious facilities left to complete.
Purchase Assurance for Homeowners Located Within the Airport Noise Contours	-	N/A
Avigation Easements	1983	Participants must sign an avigation easement prior to receiving sound insulation.
Zoning Laws	1998	No new housing in the 70 and above DNL contour, only businesses that are airport compatible are allowed. New buildings/housing within the 65 LND contours have specific building codes. No requirements in <65 LDN contour zone.
Real Estate/Property Disclosure Laws	1983/2000	In cities that chose to participate in Sound Insulation Program, realtors must disclose aircraft noise levels. San Mateo county Association of Realtors assisted to get all participating cities in compliance in 2000.
Acquire Land for Noise		

Compatibility to date	-	N/A
Population within each noise contour level relative to aircraft operations	2004	No incompatible population within the 65 CNEL contour and higher (Residents within contour have either been insulated, airport has aviation easement or the homeowner signed a waiver).
Airport Noise Contour Overlay Maps	2001	Noise Contour
Total Cost of Noise Mitigation Programs to Date	2004	\$153 million
Source of Noise Mitigation Program Funding for Aircraft Noise	-	Airport Improve Program (AIP) Grants - 80% SFO General Revenue - 20%

NOISE MONITORING SYSTEM

As of January 2005, the Airport installed a new Aircraft Noise Management System (ANMS) utilizing Lochard's Airport Noise and Operations Monitoring System (ANOMS™) 8 product suite. This system consists of 29 fixed Environmental Monitoring Units (EMU), four portable units and added four ground run-up monitors. The previous passive radar system was replaced with Lochard's new hybrid, SkyTrak™, an integration of the FAA ARTS IIIIE and live Mode S with passive radar that drives the SFO community web site and delivers flight data throughout the airport.



FLIGHT TRACK MONITORING SYSTEM

Yes - see information under Noise Monitoring System

NOISE LEVEL LIMITS - NONE

STAGE 2 RESTRICTIONS

Stage 2 airplanes >75,000 lbs are prohibited from operating at airports within the 48 contiguous states.

STAGE 2 PHASEOUT

[U.S. Stage 2 Phase out complete as of 12/31/1999 \(CFR Part 91.801\). Stage 2 airplanes >75,000 lbs are prohibited from operating at airports within the 48 contiguous states.](#)

STAGE 3 RESTRICTIONS - NONE