

Aircraft Noise Abatement Office

frequently asked questions

WHY DON'T ALL AIRPLANES FLY OVER SAN FRANCISCO BAY?

One of the highest priorities for the Aircraft Noise Abatement program is to use the over water departure and arrival runways as much as is possible. SFO is very successful in achieving this goal: **83% of departures and 99% of arrivals use over water routes.**

However, there are physical limitations to using over water routes all of the time. These include: wind speed and direction, weather, aircraft size, weight and destination. Airplanes must take off and land into the wind, so in certain weather conditions land facing runways are required. Additionally, very heavy, long distance aircraft such as those going to the Far East usually need the longest available runway for departure. At SFO this is Runway 28 Right, which does not face San Francisco Bay.

WHO TELLS AIRPLANES WHERE TO GO?

The Federal Aviation Administration (FAA) is the sole organization in the US responsible for the movement of aircraft both on the ground and in the air. All air traffic controllers work for the FAA as part of one national airspace system. The FAA is also responsible for designing air travel routes and procedures, including the standards for lateral and vertical separation between aircraft and determining hazards to flight such as mountains or tall buildings. An airport may advocate for certain noise abatement flight tracks to reduce noise, but these must be both approved and assigned by the FAA.

HOW DOES THE RESIDENTIAL SOUND INSULATION PROGRAM WORK?

Since 1983, SFO has insulated more than 15,000 homes, 8 churches, and 7 schools against aircraft noise. All these homes are located within the area defined as significantly impacted by aircraft noise by the State of California.

A memorandum of understanding (MOU) between the airport and the surrounding communities has allowed each community to administer the program for their respective city. The decision about which specific homes are treated and in which order is left up to the cities participating in the program. The total program expenditure now amounts to over \$153 million. In all cases, the program is funded through a combination of FAA and airport funds distributed through the airport. FAA guidelines set the standard for eligibility for federal funds for noise sensitive properties within the Federally approved 65 db CNEL noise contour.

At this time the Noise Insulation Program has been completed and all funds have been exhausted. Should additional funds become available in the future SFO will continue with a more extensive insulation program.

WHY ARE CERTAIN PLANES LOWER THAN OTHERS?

Aircraft altitude is generally determined by distance from the landing or takeoff runway. The closer the aircraft is to the runway, the lower the altitude. Arrivals tend to descend at a fixed angle of 3 degrees, while the angle of ascent for departures is a function of aircraft type, weight, air temperature and wind speed.

HOW ARE RUNWAYS NUMBERED?

SFO has four runways arranged in two sets of parallels. All runways are designed to face the prevailing wind directions, since aircraft must both land and take off into the wind. Runway ends are named according to their compass heading with the last zero dropped. Thus, at SFO the runways are 01/19 Left and Right (010 and 190 degrees respectively), and 10/28 Left and Right (100 and 280 degrees respectively). As the rules of geometry apply, subtracting one heading from another (190 – 10) leaves 180 degrees or a straight line.

Runway lengths at SFO vary. In some cases a particular aircraft type, usually heavy long-haul international flights, will require the longest available runway for departure. The lengths of runways at SFO are:

10L/28R – 11,870 feet
10R/28L – 10,600 feet
01R/19L – 9,500 feet
01L/19R – 7,000 feet

WHAT DOES THE NOISE MONITORING SYSTEM DO?

Consisting of 29 noise monitoring sites in communities surrounding the airport, the Noise Monitoring System keeps track of aircraft and community noise levels. Each monitoring site is linked to a central computer processor. The Noise Monitoring System is constantly updated with the latest in technology. The collected noise monitor site data is used to:

- Record aircraft noise events
- Track noise levels over time
- Assess adherence to noise abatement flight paths
- Link complaints to flights, airlines and aircraft types
- Map complaints
- Validate the accuracy of computer created noise maps
- Create reports
- Produce maps and graphics

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@flysfso.com
Airport Web Page: www.flysfso.com
Noise Abatement Web Page: www.flyquietsfo.com
Roundtable Web Page: www.sforoundtable.org