

Aircraft Noise & Public Health Myths Dispelled and Frequently Asked Questions

MYTHS DISPELLED

#1 Air traffic has increased; there are just more planes.

Air traffic has indeed increased over the last ten years, but recent SFO arrival air traffic has not changed (per SFO data, the number of arrivals in 2013 and 2015 is about the same). One cannot blame the tremendous and recent aircraft noise increase over Palo Alto and nearby communities on more planes landing at SFO. On the other hand, arrival patterns have been changed. Planes are now flying at much lower altitudes and are concentrated over narrow corridors. In addition, arrival traffic has been moved over Palo Alto and nearby communities (for instance, the majority of traffic arriving from the North is now flying over the mid-peninsula; most of that traffic was previously flying over the Eastern part of the Bay).

#2 Nothing has changed –airplanes have always been flying over Palo Alto.

Things did change. In the past, aircraft were indeed flying over Palo Alto and neighboring communities but they were at much higher altitudes and were dispersed over a much larger area. In contrast, aircraft are now concentrated in narrow corridors and fly at much lower altitudes. In establishing new airport approaches and altitude levels, the FAA basically built a super highway over long-established neighborhoods. As a result, many communities (such as East Menlo Park, East Palo Alto, Palo Alto, and Los Altos to name a few) are living under a “sacrificial” noise corridor where residents experience over 200 flights a day. This number includes late night and early morning flights that create unhealthy sleep conditions for all (children, adolescents, adults, and elderly).

#3 Planes are less noisy than before and will hopefully continue to get quieter every year.

New airplanes are indeed less noisy than much older models, but according to some experts the promise of a truly quiet aircraft is decades away. However, what matters most to the human ear are the altitude of the aircraft and the rate of acceleration or deceleration. Aircraft noise roughly doubles with every 1,000 ft reduction in altitude. Few people are disturbed by planes at 10,000 ft or above unless they are in full throttle mode due to take off. But SFO-bound airplanes are now routinely making their turns over our communities at altitudes ranging from 3,500 ft to 5,000 ft and deploying noisy speed breaks because the NextGen routes jam aircraft into narrow corridors that create congestion at SFO.

#4 Sky Posse Palo Alto hates airplanes and airports.

We don't. We love responsible airlines and have great respect for airport personnel and the hardworking folks at the chronically underfunded FAA. We rely on airports to travel to many destinations for personal or professional reasons. Like many Silicon Valley residents, we also embrace technology, including GPS technology. On the other hand, we want new aviation technologies to be implemented in a thoughtful way that does not hurt people who are living and working on the ground.

#5 There is nothing anyone can do and the situation is hopeless.

No! Speak up –every voice counts. One very good way to speak up is to file a noise complaint using stop.jetnoise.net. Report noise at least once a day to keep the planes away! In addition, contact your City Council, County Supervisor, and Congressional Representative to tell them to

make our public health a priority. See the [Sky Posse Advocacy page](#).

#6 Sky Posse Palo Alto is trying to dump the noise onto other communities.

Absolutely false! Sky Posse Palo Alto does not want any residential community to be in the situation that many communities (not just Palo Alto) are now facing. It is not a zero sum game: planes could be sequenced over the Ocean instead of flying noisy circles over our towns as they wait to be guided into SFO. Planes could fly much higher over residential communities and start their descent over the Bay (as opposed to over residences). The further away from SFO the planes enter the Bay, the higher they can fly, which makes it less noisy for all. Taking advantage of the Ocean and the Bay may add a few miles to the routes but the small additional cost in fuel or travel time seems to be a reasonable trade-off given the relief it would provide to hundreds of thousands of residents every day and night. Concentrated noise and air pollution threaten our public health, which should be a priority for our government, not greater profits for airlines.

#7 The FAA changed the routes for safety reasons.

No. Safety records for SFO and SJC have always been excellent. The FAA has created a lot of public relations spin around the NextGen program, but the implementation in our area has not lived up to their promises of an improved air transportation system. There are real public health impacts created by NextGen's concentrated noise corridors. For example, noise complaints into SFO have gone up astronomically (e.g. 3000%) since March 2015. The FAA made changes to accommodate requests from the airlines to reduce travel time and increase airspace capacity to handle future increases in air traffic. We also know that safety is always the top consideration for the FAA and has been factored into the new flight patterns. However, our neighbors in Santa Cruz are rightly very concerned that the new NextGen route over their homes and schools sometimes causes jets to swerve into airspace where only small aircraft are supposed to fly.

#8 Palo Alto residents like to complain about everything.

Palo Alto residents rightly pay attention to many important things, both locally and globally. Even though they did not move, many residents, schools, and businesses in Palo Alto and nearby are now living under airplane super highways with aircraft flying at low altitudes, sometimes as often as every 2 minutes or less. Tremendous noise was moved to these communities. Aircraft noise is a public health issue that deserves attention because it affects everyone who lives, studies, or works under the growing canopy of air transportation noise. Across the United States, communities affected by NextGen (Chicago, New York, Boston, Minneapolis, San Diego, Los Angeles) are asserting their rights to a quieter and cleaner environment.

FREQUENTLY ASKED QUESTIONS

1. Why are more loud jet aircraft flying over our communities?

There are actually two main reasons why jet traffic has increased dramatically over our communities.

1. Over the past decade SFO arrival routes gradually migrated South resulting in the current concentration of large jets from Asia, Europe and the North turning over Palo Alto.
 - The aircraft are sometimes so low you can read the markings on their tails.
 - Note that Palo Alto City leaders were never allowed to participate in the SFO Roundtable noise abatement forum that involves communities in reviewing SFO route changes. In addition, no environmental impact assessment of the changes was ever done.
2. In March of 2015 the FAA implemented new NextGen procedures, which included an SFO southern arrival route that caused new noise for communities as far away as Santa Cruz and greatly amplified Palo Alto's already noisy soundscape.
 - As part of its NextGen program to modernize the airspace to accommodate future air traffic and respond to repeated demands from the airlines to shorten travel time, the FAA re-designed the approach routes to SFO and SJC. Existing and perfectly safe arrival routes that dispersed noise more effectively have been eliminated and traffic over the remaining routes must now follow a precision navigation system. In the past, aircraft followed an approximation of the published route. But now aircraft fly much lower than before and are concentrated in narrow corridors.
 - Well-established communities (such as Palo Alto), located far away from SFO, are now subjected to as many as 300 low altitude flights every 24 hours (some as late at 1:30 am and as early as 4:30 am). That's over 100,000 flights a year!
 - The new approach routes are not always the shortest ones: therefore the FAA's argument for saving fuel or travel time is not always valid. But even if the new routes were shorter, should the FAA and airlines make the lives of hundreds of thousands of people miserable to reduce the travel distance of an airplane by 2 or 3 miles and the time to the gate by 60 seconds or less?

2. How could our noise environment change so radically without a proper environmental review?

Before implementing NextGen in the Northern California Metroplex the FAA did an internal environmental review using old noise-modeling technology. No **actual** noise measurements have ever been taken in our community by the FAA. They concluded that the new NextGen routes and procedures would have "no significant impact" on our community and therefore no further environmental review was necessary. One problem with their analysis is that the noise harm averaging measures they used are based on standards that were developed in the 1970s, and even then these standards were questioned. It is in the FAA's and air transportation industry's interests to maintain these antiquated noise harm standards as it enables them to increase capacity at airports without realistic environmental reviews and to create routes that abandon existing noise abatement routes in favor of ones that concentrate aircraft AND NOISE into narrow corridors.

3. Who is affected by the changes?

Many communities (East Menlo Park, Menlo Park, East Palo Alto, Palo Alto, Los Altos, Los Altos Hills, Los Gatos, Saratoga, Portola Valley, Woodside, parts of Santa Cruz County, etc.) are affected by the new arrival patterns. But East Menlo Park, East Palo Alto, and Palo Alto are probably the most affected areas because 3 of the 4 SFO arrival routes now converge over these communities at low altitudes. There is a virtual rendez-vous point (called the Menlo waypoint) with a target altitude of 4,000 ft above the intersection of Willow Road and Highway 101. In practice, planes adjust their speed and altitude right before reaching the Menlo waypoint (by the way, many planes routinely go below the 4,000 ft target altitude) thus creating a huge noise impact on the communities below.

Palo Alto also gets two kinds of SJC flights: morning departing flights on their way to Hawaii (planes take off over the Bay and make a sharp turn to the West over Palo Alto or Mountain View) and arriving flights when the prevailing winds reverse directions. In this situation, SJC goes into “reverse-flow”, which means that planes approach SJC from the North. When SJC is in “reverse flow” mode, SJC-bound planes fly as low as 1,800 feet over Rinconada Park in Palo Alto.

4. Who controls where aircraft fly? Who decides on changes?

The FAA designs and approves the routes, and controls whatever changes need to be made. The FAA is aware of the current noise problem and is in the process of evaluating possible remedies for both arrivals and departures into and out of both SFO and SJC. The FAA analyses and recommendations for SFO arrivals will be reviewed by [Select Committee](#), which is composed of 12 elected officials representing 3 Congressional districts (Anna Eshoo, Sam Farr, Jackie Speier).

5. Why should I pay attention if I am not bothered by the noise?

Aircraft noise and air pollution have multiple negative impacts: health, children learning, productivity and work, quality of life, and property values. You may not be directly affected today by aircraft noise but others (children, neighbors, guests) may be. Your health may be affected due to air pollution: a [recent study](#) by the Keck School of Medicine of USC found that communities downwind from LAX and as far away as 10 miles had higher levels of ultrafine particles than could be created by freeway traffic over hundreds of miles.

The air pollution impacts for this concentrated jet traffic at low altitudes have not been adequately studied. Exhaust from airplane engines undergo chemical changes under sunlight that result in carcinogenic aromatic hydrocarbons. Aircraft emit ultrafine particles (similar to the ones emitted by vehicles on freeways) that can easily be inhaled thus contributing to heart and lung conditions such as asthma and the development of blocked arteries. A repeated and large number of planes flying at low elevations in narrow corridors does not allow for a natural dispersion of toxic emissions and will result in concentrated chemical pollution (interestingly enough, several long-term residents of our affected communities have now noticed some recent “scum” in their yards).

Per California law, one must disclose any neighborhood noise. A failure to do so exposes the seller to potential lawsuits. Aircraft noise is public knowledge and local realtors are fully aware of the problem. But forget about laws: why would someone pay premium \$ to live under a “highway in the sky”, a term used by the FAA to describe their NextGen implementation? We all know that houses near busy streets, let alone freeways, have a much lower value. Why would this not apply to highways in the sky?

You should therefore be concerned even if you are not directly affected by aircraft noise

today. Think about the clean air you should be breathing. Think about your property values. Think about the fact that it will get worse because air traffic is projected to increase. Think about what could happen when the FAA decides to tweak their low elevation routes to accommodate increased traffic: who chooses to live underneath a “highway in the sky”?

6. Can the problem be solved?

Yes. Remember first that this massive noise problem is relatively recent. For decades, SFO planes have been landing and taking off safely (the Asiana Air crash that occurred in July 2013 had nothing to do with the SFO arrival route). Second, it is **not** a zero sum game: one can eliminate the impact of noise at ground level by forcing planes to fly much higher over residential communities and start their descent over water (as opposed to over residences) and by instituting nighttime protocols that respect sleep. Then, whatever residual noise may remain should be spread over a large area by dispersing the flights.

Taking advantage of the Bay may add a few miles to the new routes (the further away from SFO the planes enter the Bay, the higher they can fly) but the additional fuel or time costs are a small price to pay for reducing the impact on hundreds of thousands of residents who are affected every day and night.

7. Why are there flights at night?

Existing aviation “open skies” law prohibits SFO from enacting curfews and airline restrictions. Passenger planes can land at any airport 24 hours a day as long as it is safe to do so (airlines decide their schedule). Cargo planes from overseas or the U.S. also routinely land at SFO in the middle of the night. Unfortunately, night flights follow the new low altitude arrival routes even though there is almost no air traffic over the Bay at that time. This **can** change with cooperation from the FAA and the airlines.

8. Why should I complain and how?

Complaining to airports is essential as it is the only public record we have that indicates noise harm. Noise complaints are like noise monitors but they are better because they show the human impact. A noise complaint represents a human perception of the noise: similar to a level of pain, each person perceives noise differently but knows very well how quiet their environment was before the FAA made changes. A noise monitor is only an instrument. It collects noise data but it cannot tell the level of pain inflicted on the people. Furthermore, we will never have thousands of noise monitors implemented on the ground. Therefore, report noise complaints through stop.jetnoise.net because you are the best monitor that we will ever have. Do it at least once a day to keep the planes away.