



# Aircraft Noise Information





## **What's Your Airport Worth?**

Airports provide vital links for transportation services that add value to the region. Scottsdale Airport is utilized for medical flights, corporate travel, leisure travel, and other general aviation activities. Scottsdale Airport and the surrounding airpark is a major economic asset for the region. Centrally located in Scottsdale's only industrial-zoned area, the airport and airpark are primary sources of employment. The airpark is home to more than 2,500 businesses with more than 48,000 jobs.

Scottsdale Airport is a general aviation reliever facility with no commercial commuter or airline service and is home to many of the Valley's corporate aircraft. As a public airport, it must be available for public use without unjust discrimination to all types of aeronautical activities and also be available for use 24 hours per day, seven days per week.

The regional economic contribution of aviation activities generated at Scottsdale Airport is approximately \$182 million per year. This impact originates from a variety of aviation-related activities including charter flights, aircraft fueling, and general aviation activities. These aviation activities create \$3 billion in "spin-off" impacts by providing jobs and support structure for other non-aviation business around the community and the state.

The airport is maintained through user-fees. If you use the airport, you pay for it! City of Scottsdale general funds are NOT used to pay for the airport.



## **Aircraft Noise Trends**

Serving aviation demand, while managing aircraft noise within the airport's environs, is a challenge for all airports. Since the 1960's, when jet aircraft became more common, the reduction of aircraft noise at the source through development of quieter engines has been a key goal of the Federal Aviation Administration. Aircraft are classified in different noise "Stages" 1, 2 or 3 with Stage 1 being the noisiest and Stage 3 being the quietest. Stage 4 noise standards were recently established and apply to all new airplane designs on or after January 1, 2006. Because of the replacement of older, noisier jets with newer, quieter ones, airports have been able to continue to serve the demand for air travel while the number of people significantly impacted by noise has been reduced.

SCOTTSDALE  
AIRPORT

**SCOTTSDALE AIRPORT**



## How Noise Levels are Determined

To more consistently and easily describe and compare noise environments comprised of numerous single events that may vary in length or magnitude, the U.S. Environmental Protection Agency established the Day-Night Level (DNL) metric as the standard for measuring aircraft noise. The DNL describes an average day/night sound level. DNL's are used to quantify aircraft noise exposure in the vicinity of an airport. Noise contours of specific DNL levels are developed using the FAA's Integrated Noise Model (INM). Airport specific data is used in the model to develop the contours results of the depiction of noise exposure in the vicinity of an airport.

## History of Noise Mitigation Efforts at Scottsdale Airport

- 1978 – Scottsdale Airport identified as a general aviation reliever airport for Sky Harbor
- 1980 – City Council ordered the sale of excess airport land to limit future airfield growth
- 1984 – Runway was lengthened and shifted 3500 feet to the northeast to protect residential areas southwest of the runway
- 1985 – Airport Master Plan recommended no additional runways, first Noise Compatibility Study completed
- 1996 – Signage installed near runway to remind pilots to follow noise abatement procedures
- 1996 – Landing thresholds displaced to raise altitude of arriving aircraft over residential areas
- 1997 – PFAA Part 150 Noise Compatibility Study Update completed
- 1998 – Noise abatement pilot guides developed and promoted
- 2004 – Helicopter letter of agreement and pilot guide developed
- 2005 – FAA Part 150 Noise Compatibility Study Update completed

Pilot and community outreach is ongoing.



## Roles and Responsibilities

### FEDERAL AVIATION ADMINISTRATION

- Reduce noise at the source (aircraft). Implement air traffic related noise abatement procedures. Manage air traffic.

### SCOTTSDALE AIRPORT/CITY

- Promote noise abatement procedures. Compatible land development through zoning and stipulations for development within Airport Influence Area.

### AIRCRAFT OPERATORS

- Operate aircraft in a responsible, community-friendly manner. Understand the rights of both the community and pilots.

### REALTORS

- Understand airport impacts within surrounding communities and educate potential buyers of the close proximity to an airport.

### RESIDENTS

- Understand airport impacts within surrounding communities and measures to minimize the effect of noise. Understand the rights of both the community and pilots.





## Frequently Asked Questions

### ***What is quieter – an arrival or a departure?***

Arriving aircraft at low altitudes are generally quieter than departures of the same aircraft type because the mode of flight requires much less engine power. However, close to the airport, the relative “quietness” of an arrival may be offset by the fact that they are typically lower in altitude than departures over the same location.

### ***Why do planes fly over my house?***

There are more than fifteen airports in Maricopa County alone. The FAA regulates and classifies airspace throughout the Valley to separate air traffic both horizontally and vertically. It is inevitable that air traffic will occur over all areas; however, over flights may occur more frequently if you reside closer to an airport's flight pattern.

### ***What causes planes to take off in the direction of my home?***

The prevailing wind at the runway determines the initial direction of flight. Obstructions such as buildings, fences, and trees will diminish wind effects in the surrounding neighborhoods; however, on the open area of the airport, wind at six knots or more usually make it necessary for aircraft to take off into the wind.

### ***How does weather impact aircraft noise?***

Just about everything an aircraft does, including the noise it makes, is affected by the weather. Aircraft climb more slowly in warm weather, making operations louder on the ground. On cloudy days, the noise from aircraft rebounds down to the earth's surface from the bottom of the clouds, making it louder. On windy days, aircraft noise carries further at ground level.

### ***Who can do something about low-flying planes?***

The FAA's Flight Standards District Office investigates low-flying or unsafe flight incidents with a written complaint. Call (480) 419-0111 between 7:30 a.m. and 4:00 p.m. to learn more about how to report such activities. Airport operators have no legal jurisdiction over aircraft in flight or their altitudes.

### ***What can the airport do to restrict noisy planes?***

Federal Law prohibits new local noise abatement restrictions without first conducting a cost-benefit analysis following the Federal Aviation Regulation (F.A.R.) Part 161, Notice and Approval of Airport Noise and Access Restrictions. In 2004, it was determined through a detailed Part 150 Noise Compatibility study that a Part 161 study would not be feasible at Scottsdale Airport, due to the absence of non-compatible land uses within 65 DNL, and the associated likelihood that this fact would lead to strong FAA opposition to a restriction on aircraft.

### ***How do I file a noise complaint?***

Scottsdale Airport tracks aircraft noise complaints to assist in land use planning, as well as to help identify emerging concerns and provide outreach to neighbors and pilots. To submit an aircraft noise complaint, go to: [www.scottsdaleaz.gov/airport/noisecomplaint](http://www.scottsdaleaz.gov/airport/noisecomplaint) or call 480-312-FLYS.





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