

# Airport Operations and Noise

## **What is an airport?**

An airport is a facility where aircraft land, take off, refuel and receive service; and where passengers and crew get on and off aircraft. Major components are the airfield, hangars and servicing operations (called fixed base operators) and the passenger terminal. The airfield portion of an airport consists mainly of runways and taxiways. Runways are used by aircraft to take off and land. Taxiways are used by aircraft to get to and from the runways, similar to vehicles using streets to get to the freeway.

## **Who can use the airport?**

Any aircraft (airplane or helicopter) licensed to operate in the United States may use the airport. This includes those operated by the airlines, large and small privately owned aircraft, and the military. The only restrictions are physical constraints that relate to very large aircraft that require longer or wider runways. The Federal Airline Deregulation Act of 1978 requires airports to accommodate all qualified airlines that desire to serve an airport. Airlines choose which airports they serve and the airports must accommodate them. Destinations are also chosen by airlines in response to market demand and fit with their existing network and schedules.

## **Who's in Charge?**

One of the most confusing aspects of airport and aircraft operations is jurisdiction over facilities and aircraft. Both the airport owner and operator and the Federal Aviation Administration (FAA) have specific and separate areas of authority, but the Pilot in Command of the individual aircraft is given the ultimate responsibility to ensure that the aircraft is operated safely.

### City of Santa Barbara Airport Department

As the owner and operator of the Santa Barbara Municipal Airport, the City of Santa Barbara has the authority and responsibility to assure that the physical facilities of the Airport (runways, taxiways, lighting, etc) are safe for aircraft to use in accordance with strict FAA standards. The Airport Department has no authority over aircraft in flight. The Airport, as an Enterprise Fund of the City of Santa Barbara, is entirely self-supporting through tenant rents and user fees. The Airport also receives funds from the FAA Airport Improvement Program and a facility charge added as a ticket tax for every passenger. These federal funds are directed to specific airport capital improvements: federal law requires that all funds generated on the airport are only spent on airport operations, maintenance and capital improvements.

### Federal Aviation Administration

The Federal Aviation Administration formulates and enforces the rules and regulations under which aircraft are operated. The FAA also ensures that aircraft and pilots are safe to fly and supplies navigational aids. The primary responsibility of the FAA Air Traffic Control Tower, located at the airport, is to ensure that aircraft remain a safe distance from one another, both in the air and while maneuvering on runways and taxiways. This includes issuing landing and takeoff clearances to aircraft.

### Pilot in Command

Federal law gives the pilot of an aircraft (called the Pilot In Command) the final authority and responsibility over how his/her aircraft is operated.

### **Flying in the Santa Barbara area**

There is no officially restricted airspace in the Santa Barbara or Goleta area, and the Airport Department has no control over how or where any aircraft is flown: only the Federal Aviation Administration has authority over aircraft in flight. The Airport has developed voluntary noise abatement flight tracks that minimize noise over residential areas, and pilots are encouraged (but not required) to follow these flight tracks.

The altitude at which aircraft may fly is established by Federal law and regulations, which states that, except when necessary for takeoff or landing, no person may operate an aircraft below the following altitude: "Over any congested area of a city, town or settlement, or over any open air assembly of persons, an altitude of 1,000 feet above the highest obstacle within a horizontal radius of 2,000 feet of the aircraft." However, as most aircraft operating in the vicinity of the Santa Barbara Airport are in the process of landing or taking off, this regulation does not apply. Also, helicopters are specifically exempted from this regulation.

### **Airport Runway Designations**

Since aircraft take off and land into the wind, prevailing wind direction is a primary factor in the way runways are oriented. Runways are designated by a number that represents their approximate compass orientation with the last digit of the heading left off. For example, Santa Barbara's main east/west runway, when approached from the west, has a compass heading of approximately 070 degrees; therefore it is called Runway 7. Similarly, the same runway approached from the opposite direction (east) has a compass heading of 250 degrees, therefore is called Runway 25.

### **Runways at SBA**

The Santa Barbara Airport has three runways. The main runway, Runway 7/25, is oriented roughly east/west and is 6,052 feet long. Local prevailing east/west winds and rising terrain to the north (the coastal mountain range), combined with the need for aircraft to land and takeoff into the wind, dictate the east/west orientation of the primary runway, which is used by all commercial aircraft, most high performance jet and turboprop aircraft and many small general aviation aircraft.

SBA also has two shorter parallel north/south runways that are used by smaller aircraft when wind and visibility allow their use: Runways 15L/33R and 15R/33L (L signifies left and R signifies right).

### **Departure and Arrival Patterns for Runway 25**

Departure and arrival patterns vary with each runway. Runway 25 has two basic westward departure procedures. One procedure has aircraft departing straight over the Camino Real Marketplace and Ellwood area. The second departure procedure has aircraft turning left (toward the ocean) soon after leaving the airport. An aircraft's destination, and the presence

of other aircraft in the area, determines which departure pattern is used. There are two approaches to Runway 25 from the east. If weather and air traffic conditions permit, aircraft are asked to remain offshore until approximately two miles from the Airport and then turn inland (roughly over More Mesa) to line up with the runway. **This is the voluntary noise abatement approach.** However during periods of heavy air traffic or poor visibility, the FAA air traffic controllers may direct arriving aircraft to use a different approach. During periods of reduced visibility, there is a *non-precision* instrument approach to Runway 25, which takes aircraft inland much sooner (often over the Hope Ranch/Braemar Ranch area).

#### **Departure and Arrival Patterns for Runway 7**

The departure procedure to the east on Runway 7 has aircraft turning right toward the ocean shortly after takeoff. This procedure minimizes the number of residences overflown during departure.

There are two different arrival routes from the west for Runway 7. The first is straight in over the Ellwood area and the Camino Real Marketplace. During periods of good weather, this is a visual approach. During periods of poor visibility, aircraft use a *precision instrument landing system* (ILS) that gives pilots electronic signals to guide them to the runway. The ILS approach brings aircraft straight into the airport over the Ellwood and University areas. Aircraft approaching from the south or east will turn inland approximately over the Ocean Meadows Golf Course area adjacent to the University Village residential area and then line up with Runway 7.

#### **Departure and Arrival Patterns for the Parallel Runways**

The departure pattern for Runways 15R/L is straight out over Goleta Beach Park. The Noise Abatement Approach for these Runways is to remain over the 101 Freeway until turning to line up with the runway. During periods of heavy air traffic, this approach cannot always be used, and arriving aircraft must go as far north as Cathedral Oaks Road in order for all aircraft to get in line a safe distance apart to land. Additionally, some high performance aircraft must be north of the freeway when turning to line up with the runway. (Because of terrain and prevailing wind patterns, pilots rarely use Runways 33R/L, which call for aircraft to land and take off toward the mountains north of the airport.

#### **Airport Noise Restrictions**

The federal Airport Noise and Capacity Act (ANCA) became law in 1990. Because the Santa Barbara Airport (like most in the U.S.) did not have access restrictions for older, noisier aircraft in place when the Act was passed, the airport's authority to subsequently impose a mandatory noise abatement program, or to restrict access, is extremely limited. The Act did, however, substantially reduce airport noise by requiring that all larger commercial aircraft (those weighing more than 75,000 pounds) meet more stringent noise reduction standards. Airlines have replaced aircraft and retrofitted others, and now operate a much quieter fleet. Aircraft weighing less than 75,000 pounds (mostly business jets and other private aircraft) were not required to meet the same noise standards, however, and some of these older and noisier small aircraft remain in service. There are no federal noise abatement rules that regulate the amount noise produced by private or small commercial aircraft, and no noise restrictions on any military aircraft.

#### **Hours of Operation**

Federal law requires that public airport runways to be open 24 hours a day, 7 days a week, and to accept all aircraft that can be safely accommodated. This includes both civilian and military aircraft. The airport may close for repair, or maintenance. The Airport Noise and Capacity Act of 1990 made it extremely difficult for airports to impose any kind of noise or airport access restrictions (including curfews), though airports, such as Orange County, that had curfews in place when the Act was passed, were allowed to keep them.

### **Airport Noise Abatement**

The Federal Aviation Administration has no noise abatement regulations with which pilots (as opposed to aircraft) must comply. In 1978, the Airport Department developed a voluntary Noise Abatement Program. Pilots are asked, when safety and weather permit, to follow voluntary noise abatement guidelines that are designed to minimize the impact of aircraft noise from aircraft arriving at or departing from the airport. This program has been updated and refined several times, most recently as a result of the federally funded Noise Compatibility Study completed in 2005.

Noise Abatement policies and requested procedures are communicated to pilots in a number of ways. Noise abatement flyers are periodically mass mailed to the owners of locally based aircraft. These flyers are also distributed to all flight schools and fixed base operators, and are available on the Airport's website ([www.flysba.com](http://www.flysba.com)). Airport staff also meets periodically with pilots to discuss noise abatement.

There will always be noise related to aircraft operations at the Airport. However community members can help the Airport educate pilots about the voluntary noise abatement guidelines by calling the Noise Abatement Hotline to report aircraft that appear to be operating unusually. Airport staff will investigate all complaints; if a pilot could have made a noise abatement approach or departure but failed to do so, staff will contact the pilot (or the pilot's superiors in the case of airline operations) to explain our noise abatement procedures and request better cooperation in the future.

Noise complaints will never eliminate aircraft noise, but your calls help staff target our pilot education efforts to minimize airport noise impacts. Note that while some complaints help identify pilots that could have used better noise abatement practices, many complaints are received for operations that produce significant noise events, but are fully in compliance with FAA rules and Airport noise abatement policies.

### **Who to contact with specific questions, concerns or complaints**

Specific safety complaints should be filed with the Federal Aviation Administration Flight Standards District Office at 818.904.6291.

Noise complaints can be **filed** by calling SBA's Noise Complaint Hotline at 805.967.1900.

Questions or comments about general Airport matters should be directed to Kellie Reed, Airport Operations Supervisor at 805-692-6011.