

TCAS Alerts Frequently Asked Questions

Background

The United States has the world's busiest and most complex airspace system. Every day, we provide air traffic service to more than 45,000 flights and 2.9 million airline passengers traveling across more than 29 million square miles of airspace. The [National Airspace System](#) includes hundreds of air traffic control facilities staffed by a [highly trained, highly skilled workforce](#) and thousands of air routes that safely carry passengers from their departure points to their destinations. Within the National Airspace System, the FAA requires protected airspace around aircraft that we refer to in aviation as very conservative "safety bubbles".

Van Nuys Airport (VNY) and Bob Hope Airport (BUR), which are only 7 miles apart, are key components of this system. Due to terrain, obstacles such as buildings and radio towers, and air traffic traveling to and from airports in the vicinity, aircraft descending from the west to BUR Runway 8 overfly aircraft in the VNY traffic pattern. While the proximity of these aircraft complies with FAA separation standards, the BUR-bound aircraft may receive a [Traffic Alert and Collision Avoidance System \(TCAS\)](#) alert if a VNY aircraft penetrates the safety bubble of a BUR-bound aircraft. TCAS alerts notify pilots of a possible collision hazard while providing guidance to avoid it. Pilot response to a TCAS alert may include an aborted landing attempt and a steep climb. These aborted landing attempts, known as missed approaches or [go-arounds](#), are routine, safe procedures that return the aircraft to an altitude and configuration to safely make another landing approach. However, they increase pilot and controller workload while causing delays and increased fuel burn, noise, and emissions.

Reducing the number of TCAS alerts, especially in a critical phase of flight such as an approach, is important as we strive to reach the next level of safety and efficiency, while extending our environmental responsibility. To reduce TCAS alerts involving BUR-bound aircraft, the FAA will conduct two evaluation periods for aircraft operating in the traffic pattern for the east VNY runway. These aircraft will fly 100 feet lower than the current 1,000-foot pattern above-ground-level (AGL) altitude, which is at approximately 1,800-foot mean sea level (MSL) altitude, for a period of 90 days, then 200 feet lower than the current pattern altitude for another 90 days, for a total of 180 days. The FAA completed a safety review of this planned evaluation and did not identify additional hazards from reducing the pattern altitudes.

The FAA expects to begin the evaluations in July and will post information on this [website](#). After the two evaluation periods are complete, the FAA will review the data collected and determine the best course forward, keeping safety as the highest priority.

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TCAS Alerts Frequently Asked Questions...(cont.)

What is the Traffic Alert and Collision Avoidance System (TCAS) and why is it important?

TCAS is a system on commercial airliners that identifies potential collision hazards and, in some circumstances, provide instructions to avoid them. The FAA requires all aircraft that weigh more than 33,000 lbs. to have TCAS.

Why are there TCAS events from aircraft at Van Nuys and Burbank Airports, and why is it important to reduce the number of these events?

Due to terrain, obstacles such as buildings and radio towers, and aircraft traveling to and from these adjacent airports, aircraft descending from the west to BUR Runway 8 overfly aircraft in the VNY traffic pattern.

BUR-bound aircraft overfly the VNY east side traffic pattern descending through approximately 1,600 feet Above Ground Level (AGL). The VNY traffic is at 1,000 feet AGL, so the vertical separation is 600 feet. While this separation complies with FAA standards, pilots inbound to BUR may receive a TCAS alert and take action to ensure they remain safely separated.

A TCAS alert typically causes the BUR-bound aircraft to climb away from the hazard and perform a missed approach. Although air traffic controllers and flight crews are trained to effectively handle these situations, they create unplanned rapid increases in controller workload delays, increased noise, fuel burn and emissions, and can have a ripple effect on other aircraft arrivals and departures at BUR and other airports in the area.

How is the FAA able to safely lower the traffic pattern altitude?

Traffic pattern altitudes can vary based on the local airport environment. The VNY east side traffic pattern altitude is currently 1,000 feet AGL. There are 99 airports in California, including more than 20 in Southern California, with traffic pattern altitudes below 1,000 feet AGL.

Starting in early summer 2025, the FAA will temporarily lower the VNY east side traffic pattern altitude to 900 feet AGL for a 90-day period. After the first 90-day evaluation, the FAA will temporarily lower the traffic pattern altitude to 800 feet AGL for 90 days.

During the evaluation, the FAA will continuously review the effects of the reduced traffic pattern altitudes. We will assess how it affects the number of TCAS alerts, missed approaches, and what the impacts are on local communities and general aviation.

The FAA has completed a safety review of this planned evaluation and did not identify additional hazards from reducing the pattern altitudes.

What effect will these evaluations have on helicopter operations?

There are no planned changes to the helicopter routes to and from VNY. The FAA will closely monitor all air traffic in the area to ensure the highest level of safety continues during the evaluation period.

Why can't aircraft arriving at Burbank fly higher to provide more distance between the planes?

While some airports in the United States feature steeper rates of descent, maintaining a standard rate of descent with a stabilized approach is particularly crucial for the larger aircraft landing on Runway 8/26 at BUR. A steeper rate of descent may not allow for nominal safety margins to land on the relatively short length of Runway 8/26.

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TCAS Alerts Frequently Asked Questions...(cont.)

Why can't aircraft flying to BUR use other runways to land?

BUR has two runways: the southeast-northwest Runway 15/33 and the east-west Runway 8/26. The most consistent and stable landing approaches is a straight-in instrument approach procedure that provides both lateral and vertical guidance for the pilots. Straight-in instrument approaches serve Runway 8. Due to terrain, obstacles such as buildings and radio towers, and air traffic traveling to and from other airports in the vicinity, Runway 15/33 cannot have these instrument approaches. Additionally, aircraft should take off and land into the wind. Runway 8 is the preferred runway for landing in calm wind conditions.

Why can't airplanes use the other runway at Van Nuys for traffic pattern operations?

The FAA's mission is to provide the safest, most efficient aerospace system in the world. Due to terrain, air traffic traveling to and from other airports in the vicinity, as well as a mix of aircraft with different performance characteristics, VNY must use both runways, when available, to ensure aircraft flow into and out of the airport in an orderly manner. The west runway and traffic pattern is used by jet aircraft, as it is the longer runway with a straight-in instrument approach procedure.

Propeller aircraft can use the west runway, but the difference in speed between jet and propeller-driven aircraft creates challenges for controllers and pilots and causes inefficiencies. For this reason, the FAA routinely assigned propeller-driven aircraft to the east runway and traffic pattern.

Will you inform the community when these evaluations are implemented?

The FAA will post information on the evaluation periods on the FAA [website](#). Los Angeles World Airports (LAWA), the owner and operator of VNY, will provide a link to the FAA's information from their website.

Are there any expected community benefits from this evaluation period?

The FAA will use several methods to ensure pilots are aware of and educated about the lower pattern altitude evaluation periods including:

- Notice to Airmen ([NOTAM](#)): This is a critical resource for pilots during pre-flight preparations, providing information about the airport, such as construction areas, navigational outages, runway or taxiway closures, and special events. VNY will update NOTAMs to include the traffic pattern altitude changes before and during the two evaluation periods.
- Letter to Airmen (LTA): The FAA will publish a more detailed Letter to Airmen on the [FAA NOTAM](#) website, offering comprehensive information about the traffic pattern altitude evaluation.
- Automatic Terminal Information Service ([ATIS](#)): Before takeoff or landing at an airport like VNY, pilots listen to the ATIS, a pre-recorded hourly radio briefing from air traffic controllers that provides current weather conditions and new NOTAMs. The ATIS for VNY will include information about the adjusted traffic pattern altitude during the evaluation periods.
- FAA Outreach: The FAA Safety Team ([FAAST](#)) will conduct outreach at VNY prior to the evaluations to inform pilots about the traffic pattern altitude adjustments.

