# **NextGen** FAQs for Airport Communities

## What is NextGen?

NextGen is short for “Next Generation of Air Transportation Systems.” It is a collection of technologies and practices that are transforming our nation’s air traffic control system into a safer, more efficient, and less polluting set of aviation improvements that will benefit our community and the whole country.

## Why do we need NextGen?

Approximately 7,000 aircraft are taking off, flying, and landing all over the United States at any given time. Yet the demand for more flights is growing. NextGen is helping commercial airports, as well as general aviation airports, expand their capacity safely and efficiently and in an environmentally sensitive manner to meet this demand. New flight procedures, adjustments to flight spacing made possible by more precise navigational equipment, improved operation of aircraft on the ground, greater use of data to reduce the burden on pilots and controllers, and other improvements mean a safer, more efficient, and enjoyable air travel experience with room to grow.

## How is NextGen different from our current air traffic control system?

NextGen technologies take advantage of satellite-based signals, as opposed to a predominately ground-based network of navigational equipment. NextGen also relies on better and more frequent data exchange among many parties involved in the safe and efficient operation of aircraft throughout the National Airspace System. Also, NextGen’s data communications procedures reduce the use of voice radio traffic for controlling air traffic. This helps pilots and air traffic controllers avoid mishearing flight clearances and controller-to-pilot instructions and reduces controller workload, all of which improve safety.

## How will NextGen change my travel experience?

With NextGen, air travel should be safer and with fewer delays. NextGen helps controllers, pilots, and airline dispatchers keep aircraft safely separated on precision flight paths, even when bad weather threatens scheduled arrivals and departures. Among the many benefits NextGen brings, passengers experience fewer delays and spend less time sitting on the ground and holding in the air. These new NextGen arrival procedures not only ease congestion, they even provide a smoother ride.



## How will NextGen enhance airport operations?

Modern NextGen technologies will make air travel more predictable. Air traffic controllers and pilots will be able to communicate more easily and with greater precision. To meet the demand for more flights, many airports will be able to offer additional arrivals and departures per hour using existing runways and facilities. While NextGen helps most airports maximize their present infrastructure, some of the busiest airports will need to continue to expand to meet the demand for air service.

## Will NextGen change aircraft noise in my local community?

New NextGen flight procedures could result in shifts in noise patterns around airports. Using NextGen technologies, pilots can reduce power, nearly to a continuous glide, as they start their descent many miles away and approach an airport to land. This reduces the noise from throttling the engines during step-down approaches to airports. Additionally, NextGen will allow pilots to make smooth, controlled turns closer to airports, increasing the possibility of reducing noise over densely populated residential areas. To find out more about how your neighborhood might be affected, contact your local airport noise office.

## How will NextGen improve safety?

By enhancing communication capabilities between pilots and air traffic controllers and getting the right information to the right people at the right time, NextGen safety management procedures proactively identify and resolve potential hazards on the ground and in the sky, helping to meet our increasing safety and national security needs.

## How can NextGen reduce pollution?

In general, by reducing delays and cutting aircraft exhaust emissions, NextGen is helping airlines and airports minimize local air pollution. Thanks to NextGen navigational improvements, smoother ascents and descents and more direct routing help reduce carbon footprints from each flight. Improved information for dispatchers and pilots can also lower emissions of aircraft while they’re on the ground.

## Who is responsible for implementing NextGen?

The entire aviation industry is working collaboratively to introduce NextGen across the entire National Airspace System, including airports, large and small. The Federal Aviation Administration, the National Air Traffic Controllers Association, airports, pilots, airlines, and local communities each have an important role to play, depending on the NextGen practice or technology in question.

## What is Performance Based Navigation (PBN)?

An important collection of NextGen technologies, PBN provides real-time, precision data to enable satellite-guided arrivals, departures, approaches, and routes at high and low altitudes.