

The Columbus Dispatch

NextGen air-traffic control system coming to John Glenn airport

By early 2019, John Glenn Columbus International Airport is to have a satellite-based air-traffic control system that uses GPS-enabled technology. The NextGen system going into airports across the country will replace radar- and radio-based technology that has been used for decades.

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In terms of aviation technology, central Ohio's skies are like aging surface streets. By early 2019, however, a modern air-traffic control system is expected to turn them into modern highways.

The transformation is called "NextGen," referring to the Federal Aviation Administration's introduction across the country of a satellite-based system that uses GPS-enabled technology. It is replacing radar- and radio-based technology that has been used for decades.

The FAA has been installing the nationwide infrastructure for monitoring satellite data for several years. The upgrade won't involve significant changes to equipment and staffing in airport control towers such as the one at John Glenn Columbus International, and the major airlines have been busy equipping their fleets with the transponder equipment required for satellite communication.

For airlines, NextGen routes aircraft for takeoffs and landings in the most efficient way possible, saving fuel and reducing costs. The FAA has redesigned the airspace over major metro areas, and having real-time information instead of the delayed tracking provided by radar will allow aircraft to fly closer together, eliminating the several-mile buffer zone now required.

Benefits of the system include reducing emissions by burning less fuel and allowing an airport to handle more takeoffs and landings. Theoretically, it could lead to lower fares and more service as airlines reap the benefits.

The new system will be used to direct flight activity at all Columbus-area airports: John Glenn, Rickenbacker, Bolton Field and Ohio State University's Don Scott Airport.

Seth Young, an engineering professor and director of the Center for Aviation Studies at OSU, likens NextGen to "getting on a highway to drive to Chicago, using Google Maps or Waze (another popular navigation app) to find the best way to go at a particular time," versus having to go on surface streets using only a paper map.

The new system will save time, fuel and money.

A public meeting on the coming changes is expected in the next few months, airport officials said at last week's Columbus Regional Airport Authority board meeting.

The process of adding the system locally began in February with FAA officials visiting Columbus to meet with airport leadership, said Elaine Roberts, CEO of the airport authority.

FAA spokeswoman Elizabeth Isham Cory explained that Next Gen "is not a singular event or procedure. It's an ongoing transformation of the air-traffic system that predates 2010."

The 30 U.S. airports already using the NextGen system, according to the FAA's website, include some of the nation's largest hubs: JFK International, LaGuardia and Newark in the New York area;

Baltimore-Washington, Dulles and Reagan in the Washington, D.C., area; and Midway and O'Hare in Chicago.

Although NextGen is not a silver bullet for congestion at an airport such as LaGuardia, Young said, as it is fully phased in, "it might get you from waiting for takeoff in a line of 20 down to 10 or 15, and only at the busiest times of day."

In Ohio, the FAA has a NextGen project in Cleveland that is in the final design phase, Cory said.

Young said airplane noise should be reduced for neighborhoods near airports because NextGen allows routing over less-populous areas and less "stair-stepped," sustained descents.

OSU's aviation studies center has been working with Columbus-based private-jet operator NetJets and the Columbus airport authority to study the design of routes under NextGen and the use of digital data from the system for research purposes.

A webpage up for the Columbus project — www.faa.gov/nextgen/communityengagement/cmh — will continue to be updated.

"The fact that Columbus now is getting NextGen is a testament to everything the city has shown it's done with transportation," Young said, "and the growth of the airport and the city over the past several years."

NextGen has been back in the news in recent weeks because of the Trump administration's talk of updating the nation's transportation infrastructure, including airports. In a meeting with airline executives last month, Trump criticized what he characterized as the slow, costly rollout of the technology.

The FAA responded that its \$7.5 billion investment of congressionally appropriated funds over the past seven years has resulted in \$2.7 billion in benefits to passengers and the airlines. The agency said that by 2030, NextGen is projected to yield more than \$160 billion in benefits.

Industry professionals are hopeful about the continued rollout of NextGen, Young said.

"There have been fits and starts, leadership changes, budgetary diversions over the years," Young said, "but from what we're hearing, aviation infrastructure is one of the few issues that has bipartisan agreement in Washington