FAA Seeks to Ease Air-Traffic Controllers' Stress From Drones

Proposed system relies exclusively on computers to clear routine unmanned aircraft operations

By Andy Pasztor

With roughly 250 monthly encounters between drones and manned aircraft nationwide, automated procedures are being developed to reduce pressure on air-traffic controllers.

Operators of unmanned aircraft increasingly either fly close to U.S. airports without first obtaining required Federal Aviation Administration authorizations, or belatedly contact controllers to expedite requests for approvals, according to a recently released Federal Aviation Administration document. In some instances, the agency says, last-minute phone calls to airport towers entail "distractions for air traffic control management" while "creating a potential safety hazard."

To alleviate such problems, industry experts and federal safety regulators have joined forces to launch a computerized system later this year. The goal is to more easily and quickly give the green light to drone operations slated for closer than 5 miles to U.S. airports. Commercial flights in such airspace currently require manual approvals from the FAA to proceed, which typically can take months and has been a longstanding source of industry frustration. More than 14,000 individual authorization requests are now pending and the FAA projects that unless the process is changed, the total backlog could climb to more than 25,000 by March 2018.

The FAA document posted in the Federal Register earlier this month also projected that switching to automated authorizations will reduce encounters between drones and manned aircraft by 30%, eliminating some 450 problematic events over the next six months. Most of the reported incidents don't pose an imminent threat to airliners or other manned aircraft, but monitoring and cataloging them uses controller resources.

Roughly four dozen airports may begin relying on the automated capability, which also will allow recreational drone users and operators of remote-controlled aircraft to notify controllers of upcoming flights in the proximity of airports.

Longer term, the initiative is part of the broader aim of promoting wider commercial applications of drones throughout U.S.

An FAA draft report emphasized that drone-services companies will be the primary intermediaries to operators, eliminating the need for additional agency spending. The FAA's website indicates the goal is to set up a data exchange permitting industry to "create the tools needed to benefit the drone community."

Eventually, the automated notification concept is slated to expand across the U.S. and provide a building block for what is expected to be an entirely separate, low-altitude traffic-control system geared toward drones and funded by the industry.

An FAA spokeswoman declined to elaborate, and the union representing U.S. controllers declined to comment.

Airports likely to participate in the prototype evaluation include those serving Miami, Cincinnati, San Jose, Phoenix and Anchorage, along with the Minneapolis regional traffic-control facility.

Potential controller distraction "has been an issue from the beginning" of FAA efforts to oversee unmanned aviation, according to consultant Jim Williams, former head of the agency's drone office.The latest data-sharing approach "is very smart and very innovative," he said.

Critics of the proposal worry it could inadvertently end up creating difficulties for controllers."They are so stressed already" that it's "reckless to have anything more put on their plates," according to aviation attorney Steven Marks of the Miami-based law firm Podhurst Orseck, P.A.

 He fears rapid approvals could lead to glitches that require controller intervention.

But drone proponents, some of whom have been working for the past year to assemble the foundations of the proposed system, counter that automated approvals for routine, minimal-risk requests will help promote industry expansion while reducing the burden on controllers. Requests for drone flights posing greater risks or complexity still will be analyzed on a case-by-case basis by FAA personnel.

Ben Marcus, chief executive of service provider AirMap Inc., said the proposal "demonstrates that public-private partnerships for airspace management are not only possible, they're happening today." AirMap is expected to serve as one of the intermediaries.

The issue is revving up as close calls and a few airborne collisions involving drones capture public attention world-wide. At the same time, Amazon.com, Google parent Alphabet Inc. and others are pushing to open airspace, potentially below 200 feet, for package deliveries. The White House science office is devising plans for localized tests of a hybrid regulatory system that would combine federal and local oversight of low-flying drones.
Matt Fanelli, director of strategy at Skyward, another drone-services provider that will help implement the automated authorizations, said commercial drone operations have been growing "a lot faster than the FAA originally anticipated." The proposed system, he added, is intended to give industry relatively easy "access to airspace that really isn't being used by anyone" under existing rules.

While impending moves to automate flight approvals only pertain to small drones flying below 400 feet, the close FAA and industry cooperation is expected to influence future standards and regulations for much larger models.

Industry experts are working on standards, expected to become final around 2020, for data communication, air-to-air radar tracking and applications of airborne sensors affecting highflying, commercial-airplane-size drones. But the technical and policy challenges are more significant than those pertaining to pending procedural changes.

Paul McDuffee, a senior executive at Boeing Co.'s Insitu drone-making unit, told an FAA technical advisory panel earlier this year about the difficulties of drafting technical requirements for larger drones. "It's been astounding," he said of "the amount of emotion" the process has generated.

Lou Volchansky, the FAA's representative to the panel, at the same meeting said "there are going to be things we need to go out and validate" before firming up control and collision-avoidance standards for larger drones.

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