

Client Alert

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FAA Rollout of its UTM Pilot Program

Last week at the National Aeronautics and Space Administration's (NASA) Ames Research Center, unmanned aircraft system (UAS) stakeholders gathered to hear about the highly anticipated rollout of the UAS Traffic Management (UTM) Pilot Program. Section 2208 of the FAA Extension, Safety, & Security Act of 2016, P.L. 114-90, directed the Federal Aviation Administration (FAA), in coordination with NASA, to collaborate, develop, and publish a UTM research plan and establish a UTM pilot program (UPP).

As NASA says, it has been researching "prototype technologies, along with industry, for a UTM system that could develop airspace integration requirements for enabling safe, efficient low-altitude operations. One of the attributes of the UTM system is that it would not require human operators to monitor every vehicle continuously. The system could provide to human managers the data to make strategic decisions related to initiation, continuation, and termination of airspace operations."¹

To better understand what that means, here is a visual of [NASA's UTM architecture](#).

Building upon the basic research work of NASA's UTM and its ongoing efforts, the FAA's UPP will play an important role in helping to identify the initial set of industry and FAA capabilities required to support UTM operations. The objectives of the UPP have four goals:

- demonstrate the initial integrated UTM ecosystem comprising UTM Services, Low Altitude Authorization and Notification Capability (LAANC) services for UTM Service Suppliers, and UAS Operators sharing intent and information collaboratively
- demonstrate dynamic restrictions capability and the automation of Parts 101(e) and 107 notifications and authorization
- provide an understanding of the level of investment required for government and industry stakeholders
- provide a final Report documenting UTM Pilot Program findings to further

Ultimately, the UPP should help bridge the gap from NASA's UTM research activities to the FAA's operation deployment of future UTM capabilities.

As we look at how the FAA will accomplish its goals, the FAA and NASA outlined three UAS use cases for the UPP that will showcase both civil and hobbyist operations, as well as the continued integration of LAANC:

¹ NASA UTM, "What system technologies is NASA exploring?", <https://utm.arc.nasa.gov/index.shtml>.

- visual-line-of-site (VLOS) and beyond-visual-line-of-sight (BVLOS) operations in controlled airspace.
- Dynamic Restriction near VLOS/BVLOS operations in uncontrolled airspace
- Dynamic Restriction near VLOS operations in controlled airspace.

The term “Dynamic Restriction” is a component of the larger UTM architecture. It restricts UAS from operating within the bounds of Dynamic Restriction volume of airspace. However, there may be certain UAS that are permitted to fly within that same volume of airspace.

For the purpose of the UPP, these Dynamic Restrictions will be created and distributed by the FAA during demonstrations. The FAA will send the criteria of the restriction to the USS network and other applicable stakeholders. These Dynamic Restrictions will also be created and activated on a relatively short time scale and can be active over short or long periods.

Moving forward, it is anticipated that the FAA will release its Screening Information Request in April 2018, with proposals being due in May 2018. As of now, applicants will be limited to FAA-designated Test Site Organizations (TSO), but participation from industry stakeholders will be crucial for how the TSOs will meet the requirements of the planned operations. The expectation is to have partnership agreements in place with the selected TSOs in June 2018.

You can find the entire presentation from the March 15 FAA and NASA workshop here:

<https://www.utm.arc.nasa.gov/upp-industry-workshop/presentations.html>.

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