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# Participation Report from the 2023 FAA Drone Symposium and the Advanced Air Mobility Summit

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## 1. Overview

From August 1st to 3rd, 2023, the Federal Aviation Administration (FAA) and the Association for Uncrewed Vehicle Systems International (AUVSI) co-hosted the FAA Drone Symposium[1] and the FAA Advanced Air Mobility Summit[2] at the Baltimore Convention Center in Baltimore, Maryland, USA. The FAA Drone Symposium is a symposium on unmanned aircraft systems that has been held annually since 2016 and is the predecessor of the FAA UAS Symposium; this was the eighth time it was held. Meanwhile, the FAA Advanced Air Mobility Summit is a symposium on Advanced Air Mobility (AAM). It was held for the first time at the same Baltimore Convention Center, in conjunction with the FAA Drone Symposium, for a total of three days, with each event lasting one and a half days.

Figure 1: The Baltimore Convention Center

Figure 2: Inside the Venue

## 2. The FAA Drone Symposium (August 1-2, 2023)

### 2.1 Opening Keynote Speech

The symposium began with a session presented by AUVSI President and CEO Brian Wynne and the FAA Associate Administrator for Aviation Safety David Boulter. In his speech, Boulter emphasized that the streamlining of the approval process for agricultural drones under title 14, Code of Federal Regulations Part 137 (Agricultural Aircraft Operations), announced in June 2023[3], will significantly shorten the time it takes for operators to obtain approval. In addition, when asked to comment on the Unmanned Aircraft System (UAS) Beyond Visual Line-of-Sight (BVLOS) Operations publication from May 2023[4] and the petition for exemptions from the rules regarding UAS BVLOS operations submitted by four companies—including Phoenix Air Unmanned[5]— he indicated that the proposal for new rules regarding BVLOS operations will be made around August 2024.

### 2.2 Session on UAS BVLOS Operations

Following the opening keynote, a session on UAS BVLOS operations was held with panelists from the industry and the FAA. In this regard, the FAA indicated that it would like to issue exemptions for the four companies mentioned above by the end of

August.* In addition, over 400 comments were received in response to a previous call for opinions. Among the topics discussed was the fact that while previously the main concern with UAS BVLOS operations was collisions between unmanned aircraft and manned aircraft, there is now a greater concern for collisions between unmanned aircraft themselves. Also discussed was the importance of appropriately accumulating data during the exemption process in preparation for the establishment of new rules regarding BVLOS operations in the future.

### 2.3 Session on UAS Traffic Management (UTM) and the National Airspace System (NAS)

In this session on UTM and the NAS held by panelists from the FAA and the National Aeronautics and Space Administration (NASA), it was stated that while manned and unmanned aircraft already operate together in Class B** and Class C*** airspace, in the future, BVLOS operations will likely occur, and there was a discussion about technologies that will be required for UTM as UAS BVLOS operations expand. For example, a network that allows smooth communication between unmanned aircraft operators, the FAA, and other relevant parties.

### 2.4 Session on Autonomous Systems and Social Acceptance

In the session on autonomous systems and social acceptance—which was held with panelists from the FAA, the U.S. Department of Transportation (DOT), drone manufacturers, and drone delivery companies—the FAA's approval of Pyka's large UAS for agricultural operations was cited as an example of autonomy in the aviation sector. It was pointed out that spraying pesticides is dangerous and the pilots are aging, so this is a transformative approach. It was also noted that drones are being used to inspect bridges, helping to reduce time and costs. Furthermore, it was also discussed that in order to increase societal acceptance of autonomous systems, it is important for authorities to allow operators to operate drones and expand the scale of operations.

### 2.5 Other Sessions

In addition to the plenary sessions mentioned above, which were attended by all participants, the symposium also featured concurrent sessions, in which participants could choose a topic from multiple sessions being held simultaneously. For example, in a session on remote ID for UAS, in light of the September 16, 2023 mandatory implementation date for remote ID regulations for the operation of UAS, participants were introduced to a method for checking the compliance status of each product for UAS and remote ID broadcast modules with the standards on the FAA's website.6**** In addition, participants asked the FAA questions about how the FAA would respond if a violation was discovered after the regulations became mandatory (such as whether letters informing users of violations would be sent), and there were also instances of participants expressing dissatisfaction with the large costs involved in complying with the mandatory regulations.

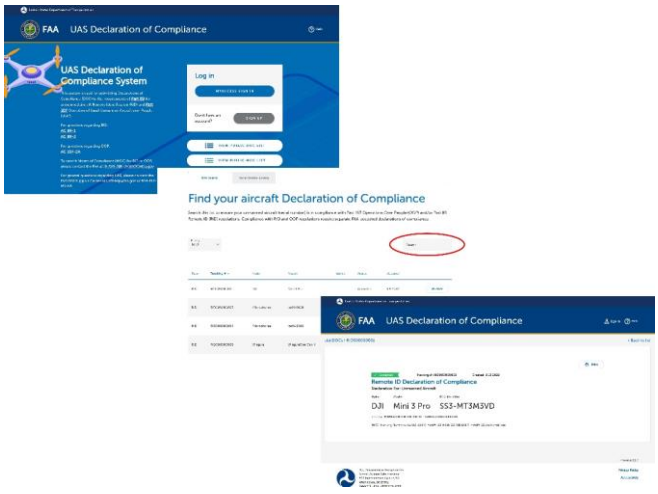


Figure 3: The FAA's UAS Declaration of Compliance Website

## 3. The FAA Advanced Air Mobility Summit (August 2nd to 3rd, 2023)

### 3.1 Session on the Future of AAM

Following the Summit's opening session, a session on the future of AAM was held with panelists from the FAA, DOT, NASA and UPS. The panelists discussed the issues that must be addressed for AAM to be successful. These included: the complexity of integrating unmanned AAM with existing manned aircraft, the fact that different standards depending on the location of operation would impose a development investment burden on manufacturers, and the fact that there should be a single voice for airspace management within the United States, making international and domestic harmonization important. In addition, UPS Vice President Houston Mills, who is also Chairman of the Advanced Aviation Advisory Committee (AAAC), spoke about the activities that the AAAC and its predecessor, the Drone Advisory Committee (DAC), have been working on. For example, recommendations on how to incorporate educational content into

the K-12 (the compulsory education period in the U.S.) curriculum for human resource development in the fields of drones and AAM, and the consideration of recommendations on gender-neutral terminology to replace the gender-specific terminology currently used in the drone and aviation fields (e.g. "unmanned").

### 3.2 Session on ConOps for Urban Air Mobility

Panelists from the FAA, NASA, and the industry conducted a session on Urban Air Mobility (UAM) Concept of Operations (ConOps). In this session, the FAA stated that the work on UAM ConOps, which was mentioned in a previous report[7] will not end with the v2.0 revision, but that validation activities for UAM ConOps are currently underway with industry partners, including how cooperative airspace established in the NAS will affect other operations. Also included in the presentation was the FAA's decision at the 41st International Civil Aviation Organization (ICAO) General Assembly in October 2022 to the establish the Advanced Air Mobility Study Group (AAM SG) to develop an overall vision and framework for AAM. In addition, the difference between the U.S. UTM and the European U-space (a traffic management system proposed in Europe for the safe and efficient operation of drones and UAM) was explained. Unlike the United States, European countries can establish multiple U-space airspaces, and each U-space airspace provides four mandatory services (e.g. remote ID information) and two supplementary services (e.g. weather information, depending on risk assessment).

### 3.3 Session on AAM's Entry into Service

Panelists from the FAA and DOT conducted a session on AAM's entry into service. In this session, it was mentioned that as part of the FAA's efforts to begin AAM operations, it is currently in discussions with 12 applicants regarding eVTOL (electric vertical take-off and landing aircraft), and that the currently proposed Special Federal Aviation Regulation (SFAR) for powered-lift, etc.[8] are expected to be finalized around December 2024 to January 2025, and that related advisory circulars, etc. will also be formulated. The DOT representative also explained that the government-wide Advanced Air Mobility Interagency Working Group (AAM IWG)—which was mentioned in a previous report[7]—is continuing to hold enthusiastic discussions across the federal government, with about three times as many government agencies as Congress had originally anticipated, including not only aviation-related agencies such as the FAA and NASA, but also the Department of Energy and the Department of Education (from the perspective of human resource development), wishing to participate.

### 3.4 Other Sessions

Like the FAA Drone Symposium, the FAA Advanced Air Mobility Summit also featured several concurrent sessions in addition to the plenary sessions listed above. For example, a session on workforce development, which was held by panelists from universities and eVTOL manufacturers, discussed important skills for personnel involved in AAM, such as vertiports, airspace, and micro-weather. In addition, it was shared that eVTOL manufacturers are currently accepting many internship students from universities across the United States.

In another session on international harmonization which invited panelists from overseas authorities, it was mentioned that Europe is currently adopting a regulatory sandbox system for AAM, a new form of mobility, and that they are aiming to achieve passenger transportation connecting Charles de Gaulle Airport, Le Bourget Airport, etc. using Volocopter's eVTOL in preparation for the 2024 Paris Olympics. It was also mentioned in this session that ICAO's AAM SG is aiming to formulate some kind of recommendations within the next 1- 2 years.

## 4. Summary

The FAA Drone Symposium was held in person for the first time since the 7th one was held in April last year, and the FAA Advanced Air Mobility Summit was held for the very first time. Both events were attended by many people from the United States and other countries, and there was lively interaction and exchange of opinions. The topics of each session were varied, ranging from the status of technical regulations establishment to workforce development and social acceptability. Equity, including gender perspectives, was also discussed, and it was striking to see that there were many women among the participants and panelists. Given the success of both of these joint events, I am focusing a keen eye on trends in future events.

## Notes

* As of the end of August 2023, one of the four companies, Phoenix Air Unmanned, has been granted an exemption (effective August 24, 2023). https://www.faa.gov/newsroom/faa-authorizes-phoenix-air-unmanned-operate-drones-beyond-visual-line-sight-certain-aerial

** Generally, this refers to the airspace surrounding the busiest airports, from the ground to 10,000 feet above mean sea level (the shape varies from airport to airport).

*** Generally, this refers to the airspace from the ground to 4,000 feet above ground level around an airport that has a control tower, radar approach control, and a certain amount of IFR operations or passenger traffic (the shape varies individually).

**** You can view compliance status by clicking on "VIEW PUBLIC DOC LIST" on the top page, searching for the product name in the search box on the "DOC Search" page, or by searching for the serial number on the "Serial Number Lookup" page.

## References

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