U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

Effective Date: 3/16/2023

SUBJECT: UAS Detection and Mitigation Systems Aviation Rulemaking Committee

1. **PURPOSE.** This charter establishes the UAS Detection and Mitigation Systems Aviation Rulemaking Committee, known hereafter as the "383 ARC" or "ARC," according to the Administrator's authority under Title 49 of the United States Code (49 U.S.C. §§ 106(p)(5) and 44810(b)(3)). The sponsor of this ARC is the Associate Administrator for Security and Hazardous Materials Safety. This charter outlines the ARC's organization, responsibilities, and tasks.

2. **BACKGROUND.** Section 383(a) of the *FAA Reauthorization Act of 2018*, Airport safety and airspace hazard mitigation and enforcement (Public Law 115-254, Oct. 5, 2018), established section 44810 in 49 U.S.C. Section 44810(a) requires the FAA Administrator to work with the Secretaries of Defense and Homeland Security and the heads of other relevant federal departments and agencies to ensure that technologies/systems that are developed, tested, or deployed by federal departments and agencies to detect and/or mitigate potential risks posed by errant or hostile UAS operations do not adversely impact or interfere with safe airport operations, navigation, air traffic services, or the safe and efficient operation of the National Airspace System (NAS).

   In addition, § 44810(b) requires the FAA to develop a plan for the certification, permitting, authorizing or allowing of UAS detection and mitigation technologies/systems in the NAS. Section 44810(b) requires the FAA to take certain actions as part of, or potentially informing, the plan, including convening an Aviation Rulemaking Committee. Further, § 44810(c) requires the FAA to test and evaluate technologies/systems that detect and/or mitigate risks posed by UAS at five airports and § 44810(d) directs the FAA to use detection and mitigation technologies/systems to detect and mitigate the unauthorized operation of an unmanned aircraft that poses a risk to aviation safety in the course of the required test and evaluation.[1]

   At present, aside from authorizing the FAA to engage in limited evaluation of UAS detection and mitigation systems at five airports, Congress has exclusively authorized the Departments of Defense, Energy, Justice, and Homeland Security to engage in limited UAS detection and mitigation activities to address UAS presenting a credible threat to covered facilities or assets.[2] Capabilities for detecting and mitigating UAS implicate several federal criminal laws, such as laws relating to electronic surveillance, signals interference, aircraft piracy, and aircraft sabotage.[3] However, these federal entities have been granted express authority from Congress to engage in

[1] The FAA was expressly excepted from various federal laws that otherwise would present legal implications associated with UAS detection and mitigation activities. *See* 49 U.S.C. § 44810. The authority conferred in § 44810(c)-(d) is limited to the testing and evaluation of UAS detection and/or mitigation technologies/systems by the FAA at five airports. This authority cannot be delegated.
[2] *See* 10 U.S.C. § 130i, 50 U.S.C. § 2661, and 6 U.S.C. § 124n.
[3] *See* Advisory on the Application of Federal Laws to the Acquisition and Use of Technology to Detect and Mitigate Unmanned Aircraft Systems (2020), available at https://www.faa.gov/uas/resources/C_uas/

UAS detection and mitigation activities, notwithstanding various potentially conflicting provisions of Title 18 U.S.C. and 49 U.S.C.

To support the development of the plan, § 44810(c) directs the FAA to test and evaluate UAS detection and mitigation systems at five airports, including one airport that ranks in the top ten of the FAA's list of busiest airports based on the most recent Passenger Boarding Data.[4] *See* 49 U.S.C. § 44810(c)-(d) and (g). In accordance with that mandate, the FAA established the Airport UAS Detection and Mitigation Research Program. Under that program, the FAA will conduct a series of operational evaluations to analyze performance characteristics of these systems in the airport environment. The FAA intends to evaluate at least ten technologies/systems that have the ability to detect and/or mitigate UAS in a civil airport environment. Initial testing is planned at Atlantic City International Airport (ACY), location of the FAA William J. Hughes Technical Center, and will be followed by additional testing at Syracuse Hancock International Airport, Rickenbacker International Airport, Huntsville International Airport, and Seattle-Tacoma International Airport.[5] The FAA will use the baseline performance data collected at ACY to help determine whether and to what extent other airport variables (e.g., geography, noise, interference, proximity to metropolitan areas, airport infrastructure, etc.) impact the performance of each technology and system.

The FAA expects the results from the Airport UAS Detection and Mitigation Research Program to inform the ARC and the plan required under 49 U.S.C. § 44810(b). In addition, findings from this research program may be used to update existing information published for airports on the use of certain, limited UAS detection technology. Any such interim information provided to airports following the completion of the research program may be subject to review and further revision based upon the completion of the 383 ARC, plan and follow-on steps for implementation of 49 U.S.C. § 44810.

3. **OBJECTIVE OF THE ARC.** The 383 ARC will provide a forum for the U.S. aviation community and UAS security stakeholders to discuss, and provide recommendations to the FAA for, a NAS-wide plan for certification, permitting, authorizing, or allowing of the deployment of technologies or systems for the detection and mitigation of UAS, without causing adverse impact to the NAS. The 383 ARC will identify opportunities for new rulemaking as well as internal policy and guidance development to ensure adequate FAA oversight over the use of UAS detection and mitigation systems.

   Although the testing Congress mandated in § 44810(c) is limited to the airport environment, the mandate to develop a plan in § 44810(b) applies more broadly to the use of technology to detect or mitigate UAS within the navigable airspace of the United States. Therefore, the ARC is tasked with developing recommendations concerning the use of this technology anywhere in the United States and is not limited to recommendations involving the airport environment.

   Further, although current federal law only expressly authorizes certain federal entities to use UAS detection and mitigation systems under specified circumstances, the ARC is being asked to consider standards and operational uses for these systems in the NAS, regardless of the user of the

[4] *See* https://www.faa.gov/airports/planning_capacity/passenger_allcargo_stats/passenger/.
[5] *See* https://www.faa.gov/uas/critical_infrastructure/section_383/.

technology. This means that the ARC should not develop recommendations specific to any user of this technology currently authorized by Congress or that may be authorized by Congress in the future. Rather, the FAA seeks recommendations necessary to ensure the safe integration of this technology into the NAS by any potentially authorized user. Moreover, the ARC is not being tasked with considering the potential likelihood of, or recommendations for, any changes in laws by Congress concerning the use of UAS detection and mitigation systems. Similarly, the ARC is not tasked with addressing any potential or recommended expansion of FAA authorities by Congress related to the use of UAS detection or mitigation technologies, nor will it be tasked with addressing the potential expansion of authority by Congress for any other entity to engage in UAS detection and/or mitigation. Finally, because § 44810(b)(4) prohibits FAA from delegating its authority to other Federal, State, local, territorial, or tribal agencies, or an airport sponsor, the ARC is not tasked with considering whether FAA authority in this area should be delegated.

4. **ARC TASKS.** The 383 ARC is tasked as follows:

   a. Make recommendations for a plan and standards to ensure the use of UAS detection and/or mitigation systems does not adversely impact or interfere with safe airport operations, navigation, air traffic services, or the safe and efficient operation of the NAS. [6] Where feasible, such recommendations should consider the environmental impact of the research on, testing of, and deployment of these systems.[7] At a minimum, the ARC is tasked with addressing:

      i. How FAA processes and procedures could ensure UAS detection and mitigation systems do not interfere with FAA communications, radars, and navigational aids (spectrum deconfliction), considering that these systems vary from site to site.

      ii. How FAA processes and procedures could ensure that UAS detection and mitigation systems do not affect aircraft airworthiness, safe navigation, safe operation and use of airspace by compliant operators, persons and property on the ground, or NAS infrastructure.

      iii. What additional policies, regulations, and operational procedures the FAA should develop or revise to ensure the use of UAS detection and mitigation systems is carried out with minimal disruption to the safety and efficiency of the NAS and maximizes access to the airspace by compliant users.

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[6] Pursuant to 49 U.S.C. § 44801(5), the term "counter-UAS system" means a system or device capable of lawfully and safely disabling, disrupting, or seizing control of an unmanned aircraft or unmanned aircraft system. This term, as codified, does not encompass UAS detection-only systems and technologies. Therefore, the FAA uses the term "UAS detection and/or mitigation" throughout this Charter.

[7] The National Environmental Policy Act (NEPA) requires federal agencies to assess the environmental impacts of their proposed actions before proceeding with that action. Examples of FAA "actions" include proposals for legislation or regulation, approvals of unconditional Airport Layout Plans and funding approvals through the Airport Improvement Program. ARC recommendations that consider the potential environmental impacts of any UAS detection and mitigation technologies, may help expedite potential environmental reviews, if needed at a later date.

iv. Gaps in existing airspace management tools (i.e., rules and policy) and options for the FAA to alleviate secondary impacts of UAS detection and mitigation systems on the safe and efficient operation of the NAS.

b. Make recommendations on a certification framework and standards in order to minimize risk to the NAS when a UAS detection and/or mitigation system is used. With respect to this task, at a minimum, the ARC is tasked with addressing:

i. Possible certification frameworks for UAS detection and mitigation systems, including the benefits and drawbacks of certifying systems versus certifying organizations and/or individual operators authorized to use the technology.

ii. Recommendations for standards for UAS detection and mitigation systems, considering the vast number of commercial systems and types of technologies in existence and/or under development. This task requires consideration of the following, at a minimum:

1. Physical effects of the systems. For example, the ARC should consider standards related to the safety of, and potential interference with, aircraft in the air and on the ground, airport operations, air traffic control (ATC) facilities, and all aviation-related infrastructure.
2. Communication signals. For example, the ARC should consider performance standards related to potential interference with radios, transponders, navigation equipment, and other radio frequency (RF) radios operated by aircraft, ATC facilities, and airports. The ARC also should consider standards related to potential interference with other aviation-related RF spectrum.

c. Within three months from the last meeting of the ARC, submit a recommendation report to the FAA. The FAA Co-Chair of the 383 ARC may task the ARC with subsequent recommendation reports with deadlines to be determined prior to the ARC's termination date.

i. The Industry Co-Chair(s) sends the recommendation report to the FAA Co-Chair and the Executive Director of the Office of Rulemaking.

ii. The FAA Co-Chair determines when the recommendation report and records, pursuant to paragraph (8), will be made available for public release.

5. **COMMITTEE PROCEDURES.**

a. The ARC acts solely in an advisory capacity by advising and providing written recommendations to the FAA Co-Chair.

b. The ARC may propose related follow-on tasks outside the stated scope of the committee to the FAA Co-Chair for consideration.

c. At the discretion of the FAA Co-Chair, the ARC may reconvene following the submission of the recommendation report for the purposes of providing advice and assistance to the FAA, provided the ARC charter remains in effect.

6. **ARC ORGANIZATION, MEMBERSHIP, AND ADMINISTRATION**. The FAA is committed to ensuring the ARC reflects the Administration's priorities regarding Diversity, Equity, Inclusion, and Accessibility. The FAA will set up a committee of members representing a diverse set of aviation stakeholders, to include stakeholders from the UAS industry. Membership will be balanced in viewpoints and interests, and all members will have knowledge of the committee's objectives and scope.

ARC members will be selected based on their familiarity with:

a. Aircraft technology and operations, including both traditional and unmanned aviation;
b. NAS systems and aviation infrastructure;
c. UAS detection and mitigation technology and operations; and
d. Existing FAA regulations and standards.

In order to promote open, candid discussion, membership is limited. Attendance, active participation, and commitment by members is essential for achieving the objectives and tasks. When necessary, the ARC may set up specialized and temporary working groups that include at least one ARC member and invited subject matter experts from industry and government.

The provisions of the August 13, 2014, Office of Management and Budget (OMB) guidance, "Revised Guidance on Appointment of Lobbyists to Federal Advisory Committees, Boards, and Commissions" (79 FR 47482), continues the ban on registered lobbyists participating on Agency Boards and Commissions if participating in their "individual capacity." The revised guidance allows registered lobbyists to participate on Agency Boards and Commissions in a "representative capacity" for the "express purpose of providing a committee with the views of a nongovernmental entity, a recognizable group of persons or nongovernmental entities (an industry, sector, labor unions, or environmental groups, etc.) or state or local government." For further information, refer to the OMB guidance at 79 FR 47482.

The ARC will consist of members from the manned and unmanned aviation communities, including state/local/tribal/territorial community representatives; privacy and environmental experts; aircraft operators, manufacturers and technology industry representatives; and public safety and security stakeholders. The FAA may request that subject matter experts from the FAA and other U.S. Government agencies as well as from foreign civil aviation authorities participate as observers and to provide technical support to the ARC members.

a. The Sponsor, the Associate Administrator for Security and Hazardous Materials Safety, will designate the FAA Co-Chair who will:

    i. Select and appoint industry and the FAA participants as members;
    ii. Select the Industry Co-Chair(s) from the membership of the ARC;

iii. Ensure FAA participation and support from all affected Lines of Business and Staff Offices;
iv. Provide notification to the members of the time and place for each ARC meeting; and
v. Receive any status report and the recommendations report(s).

b. The Industry Co-Chair(s) will be appointed from the aviation stakeholder community. Once appointed, the Industry Co-Chair(s) will:

i. Coordinate required ARC meetings in order to meet the ARC's objectives and timelines;
ii. Establish and distribute meeting agendas in a timely manner;
iii. Keep meeting notes, if deemed necessary;
iv. Perform other responsibilities as required to ensure the objectives are met;
v. Provide status reports, as requested, in writing to the FAA Co-Chair; and
vi. Submit the recommendation report to the FAA Co-Chair and the Executive Director of the FAA's Office of Rulemaking.

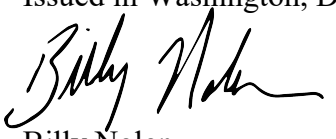
7. **PUBLIC PARTICIPATION**. Meetings are not open to the public. Persons or organizations outside the ARC who wish to attend a meeting must obtain approval from the Industry Co-chair and the FAA Co-chair in advance of the meeting. ARC members, Observers, and any other attendees may be required to sign a Non-Disclosure Agreement (NDA) and meet additional requirements necessary to safeguard proprietary information or Sensitive Unclassified Information/Controlled Unclassified Information, including but not limited to information designated as Sensitive Security Information (SSI), as a condition of ARC participation.

8. **AVAILABILITY OF RECORDS**. Subject to applicable Freedom of Information Act (FOIA) Exemptions pursuant to 5 U.S.C. § 552, the FAA will make records provided by the ARC to the FAA available for public inspection and copying. Available records will be located at the Office of Security and Hazardous Materials Safety, FAA Headquarters, 800 Independence Ave. SW, Washington, D.C. 20591. Fees may be charged for information furnished to the public according to the fee schedule published in Title 49 of the Code of Federal Regulations, part 7.
This charter is available on the FAA Committee Database website at: http://www.faa.gov/regulations_policies/rulemaking/committees/documents/.

9. **DISTRIBUTION**. This charter is distributed to the Office of the Associate Administrator for Security and Hazardous Materials Safety, Chief Operating Officer of Air Traffic Organization, Office of the Associate Administrator of Airports, the Office of the Chief Counsel, the Office of Aviation Policy and Plans, and the Office of Rulemaking.

10. **EFFECTIVE DATE AND DURATION.** This committee is effective upon issuance. The committee will remain in existence for a term of 24 months, unless sooner terminated or extended by the Administrator.

Issued in Washington, D.C. on March 16, 2023.



Billy Nolen
Acting Administrator