



U.S. Department
of Transportation
**Federal Aviation
Administration**

Office of the Administrator

800 Independence Ave., S.W.
Washington, DC 20591

August 2, 2023

The Honorable Patty Murray
Chair, Committee on Appropriations
United States Senate
Washington, DC 20510

Dear Chair Murray:

This report responds to the following direction on page 29 of House Report 115-750:

UAS firefighting interference.—The Committee directs FAA to utilize its test sites, research efforts, and pilot programs to develop systems to detect and mitigate unauthorized UAS that interfere with firefighting efforts in our nation. The system should detect, identify and track both the air vehicle and ground controller; must be controlled by an entity that is independent from and would not be dependent on compliance by the UAS manufacturer or the UAS user/operator; would have the capability to adapt to fluid borders; differentiate between legitimate firefighting UAS and unauthorized UAS; and not interfere with essential first responder communications systems. The Committee directs FAA to report on these efforts no later than 120 days after enactment of this Act.¹

The Federal Aviation Administration (FAA) took preliminary steps to prepare for these efforts, including informal market surveys, research-funding requests, and outreach to stakeholders. Certain criminal provisions of Titles 18 and 49 of the United States Code, however, effectively limit the FAA from engaging in unmanned aircraft systems (UAS) detection and mitigation activities, with the exception of the Section 383 Airport Research Program described below. The 2019 Consolidated Appropriations Act does not include the specific legislative relief necessary to allow the FAA to test detection or mitigation technologies for the purposes identified in House Report 115-750. While some currently available technologies, such as RADAR, electro-optical, infrared, and acoustic systems, may not implicate the relevant criminal provisions in Titles 18 and 49, which are implicated by certain other capabilities, House Report 115-750 does not provide the FAA with statutory relief from relevant conflicting federal criminal laws.

Although Congress, in Section 383 of the FAA Reauthorization Act of 2018 (the Act), granted the FAA relief from various provisions in Titles 18 and 49 for UAS detection and mitigation testing, that relief is limited to the Airports Research Program detailed in Section 383 of the Act. Under that authority, the FAA is testing and evaluating at least ten technologies or systems that could detect and mitigate potential safety risks posed by unmanned aircraft at five airports. This

¹ House Report 115-750 accompanies the Consolidated Appropriations Act, 2019 (Public Law 116-6).

work is in process, and its results will inform the plan required under Section 383 for the certification, permitting, authorizing, or allowing deployment of technologies or systems to detect and mitigate UAS.

Important milestones and updates associated with the UAS Detection and Mitigation at Airports Research Program that was created in response to Section 383 are as follows:

- The FAA contracted with five vendors to provide detection technologies, including passive radio frequency (RF) and radar-based sensors, for testing. Up to five additional vendors may be contracted under the program.
- The FAA started testing passive RF-based detection technologies in February 2022 at the William J. Hughes Technical Center in Atlantic City.
- Testing of multi-sensor detection technologies utilizing passive RF and radar began in March 2022 at the William J. Hughes Technical Center.
- Six detection technologies have graduated from testing at the William J. Hughes Technical Center. Systems are currently being tested at Huntsville, Seattle-Tacoma, and Syracuse Hancock International Airports as of July 2023.
- The FAA identified seven mitigation technologies for testing at William J. Hughes Technical Center. These include non-global positioning system RF disruption/jamming, electronic seizure, net capture, and vehicle-to-vehicle net capture.
- The evaluation of mitigation technologies began in June 2022.

In addition to the FAA's testing at airports under Section 383, the FAA continues to coordinate with federal security partners, including the Departments of Homeland Security, Defense, Justice, and Energy, on UAS detection and mitigation activities, which are expected to further inform the FAA's implementation efforts under Section 383.

The FAA anticipates that many of the underlying technologies and systems tested under Section 383 are representative of those systems and technologies that could be used to detect and mitigate unauthorized UAS that may interfere with firefighting should Congress determine to provide express authority to additional entities (beyond Departments of Homeland Security, Defense, Justice, and Energy) to use UAS detection and mitigation systems notwithstanding potentially conflicting federal criminal laws.

The FAA takes the risk posed by UAS to firefighting, first responder, and law enforcement operations seriously. The FAA Extension, Safety, and Security Act of 2016 authorized the FAA to impose a civil penalty of up to \$20,000 against any drone pilot who interferes with wildfire suppression, law enforcement, or emergency response operations. Additionally, the FAA has launched a public communications campaign to inform drone operators of the risks drones pose to firefighters and public safety officials responding to wildfires. The agency collaborates with partner public safety organizations, such as DroneResponders, for effective outreach and has begun an in-person, cross-country outreach tour. In addition, the FAA maintains a website highlighting these risks:

https://www.faa.gov/sites/faa.gov/files/uas/resources/community_engagement/FAA_drones_wildfires_toolkit.pdf

We have sent identical letters to Vice Chair Collins, Chairwoman Granger, and Ranking Member DeLauro.

Sincerely,

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Polly Trottenberg
Acting Administrator



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August 2, 2023

The Honorable Susan Collins
Vice Chair, Committee on Appropriations
United States Senate
Washington, DC 20510

Dear Vice Chair Collins:

This report responds to the following direction on page 29 of House Report 115-750:

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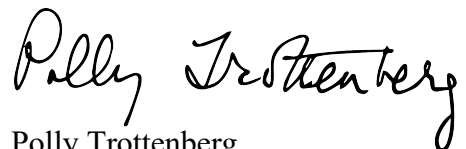
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August 2, 2023

The Honorable Kay Granger
Chairwoman, Committee on Appropriations
U.S. House of Representatives
Washington, DC 20515

Dear Chairwoman Granger:

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The Honorable Rosa DeLauro
Ranking Member, Committee on Appropriations
U.S. House of Representatives
Washington, DC 20515

Dear Ranking Member DeLauro:

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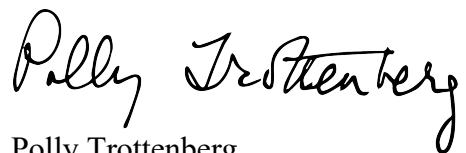
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