

TERMS OF REFERENCE
Special Committee (SC) 238
Counter Unmanned Aircraft Systems

ORIGINAL REQUESTORS:

Organizations	Persons
Aerospace Industries Association Air Line Pilots Association, Int'l DOD Policy Board on Federal Aviation	David Silver Captain Bob Fox Rowayne Schatz, Jr

SC LEADERSHIP:

Position	Name	Affiliation	Telephone	email
Chair	Max Fenkell	AIA	703-358-1007	max.fenkell@aia-aerospace.org
Government Authorized Representative	TBD			
Secretary	Patrick Garnier	CS Group	+33(0) 1.41.28.95.38	patrick.garnier@c-s.fr

BACKGROUND:

Current Federal Aviation Administration projections show that the number of UAS operations in the airspace will continue to grow every year for the foreseeable future. As UAS technology continues to mature, they will perform increasingly complex tasks and seek approval to operate in all locations. This full integration into the aviation ecosystem highlights the need for industry and government to work together to develop standards around Counter-UAS technology. Once deployed, this technology must consider all users of the airspace and ensure the safety of the entire National Airspace System (NAS).

This effort will be focused solely on developing a consensus standard that details detection and mitigation standards. The committee will undertake no work that could be interpreted as “policy” work, including roles and responsibilities for airspace ownership, implementation methods or strategies for mitigation techniques, jurisdiction, or any discussion of disabling, destroying, or intervening in the operations of drones.

To the greatest extent possible, the committee will leverage work already accomplished by the Department of Homeland Security, Federal Aviation Administration, and other government entities who can provide lessons-learned or past engineering work focused on this task. All work of the committee will be UNCLASSIFIED.

DELIVERABLES:

Product	Description	FRAC Completion Due Date*	Change
Operational Services and Environment Definition (OSED)	New Document OSED for Counter-UAS in controlled airspace	Dec 2020	
Safety and Performance Requirements (SPR)	New Document SPR for Counter-UAS systems.	Sep 2021	
Interoperability Requirements (INTEROP)	New Document INTEROP for Counter-UAS systems.	Sep 2021	

*Note: Final Review and Comment (FRAC) Completion Due Date refers to the date that the committee plenary approves the document after completing the FRAC Process. SCs should submit the final document at least 45 days before the Program Management Committee (PMC) meeting where it will be considered for approval.

SCOPE and COORDINATION:

This important work should include both detection and the mitigation technology standards that may be required for airports, operators, and other users of the airspace. The policies behind the implementation, jurisdiction, rulemaking, responsibility for airspace, etc. are specifically excluded from the scope of this work.

The scope of the SC is limited to surveillance, interoperability and interfaces with stakeholders involved in the C-UAS domain: e.g. ANSP, Airports, UTM Service Providers, Surveillance Systems manufacturers, law enforcement forces, pilots.

Focus is on the detection and surveillance capabilities, but C-UAS capability could be extended to operations in other environments, such as urban areas.

The topic of cooperative targets detection is not to be addressed, but interaction with information from cooperative sensors should be included in the overall system assessment.

Interoperability of the defeat capabilities with the airport and ANSP (and CNS) systems will be addressed.

ENVISIONED USE OF DELIVERABLE(S)

The final regulatory use of the listed deliverables has not yet been determined.

SPECIFIC GUIDANCE:

This committee will be JOINT with EUROCAE WG 115.

The OSED will identify operational requirements for the integration of a Counter-UAS capacity into the existing aerodrome and en-route surveillance systems. Explain use cases based on known literature, on safety cases and on requirements for a safe air traffic. Derive the system context, including stakeholders, affected systems and interfaces.

The SPR will be a performance specification for non-cooperative surveillance systems for detection of UAS in controlled airspace, especially in the vicinity of airports. It will provide performance parameters and an unambiguous set of system minimum requirements.

The INTEROP will Take into account the need for real time and high-quality data transmission of non-cooperative sensor systems for the detection of UAS. Derive a set of minimum interface requirements and an interface description to the existing A-SMGCS at airports and to other partner systems for the display and alerting of UAS. Consider effects and performance of typical defeating capacities of C-UAS system and their impact on existing airport and ANSP systems and derive interoperability requirements.

In the development of the deliverables, the committee will take the following steps:

Review the terms of reference and recommend changes to the PMC based on inputs from special committee members and interested parties.

Invite participation from interested parties, including equipment manufacturers, aircraft manufacturers, component suppliers, airlines and aircraft operators, and modification centers.

Establish communications with and invite participation by appropriate groups, such as GAMA, A4A, AEA, NBAA, EUROCAE, PRBA and World Airline Entertainment Association.

Initial Documentation:

Document	Intended Use
FAA Director, Office of Airport Safety and Standards Letter; May 7, 2019	Reference
Unmanned Aircraft Systems (UAS)-DoD Purpose	Reference
DHS Science and Technology Directorate, Countering Unmanned Aircraft Systems Factsheet; 2017-05-03	Reference

DHS Privacy Impact Assessment for the Counter Unmanned Aircraft Systems Program; November 9, 2018	Reference
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TERMINATION: When the scope of this Terms of Reference is complete, the committee will recommend to the PMC that the committee Sunset, go into Active Monitoring Mode, or spend a period of time in Hiatus. Any change/extension in the committee’s work program requires prior PMC approval.