

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

Revision 6

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	Change
Chair	Adam Robertson	Fortem Technologies	801-762-7263	adam.robertson@fortemtech.com	
Government Authorized Representative	Tricia Fantinato	FAA	202-257-4620	tricia.m.fantinato@faa.gov	Queron "Q" Thompson
Secretary	Juan Lopez Campos	Indra	+34 648 950 701	jlcampos@indra.es	

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
System Performance and Interoperability Requirements (SPR) / (INTEROP) for Non-Cooperative UAS Detection Systems	New Document: SPR/INTEROP for Counter-UAS systems for non-cooperative UAS detection systems	October 2023	
DO-389A	OSED for Counter UAS Systems in Controlled Airspace	Oct 2024	
Interoperability Requirements (INTEROP) for Counter UAS systems	New Document: INTEROP Requirements for Counter-UAS systems.	October 2025	

*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 SPR/INTEROP 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. Additionally, the document 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 systems at airports (e.g., ATM displays, incident management systems) and to other partner systems (e.g., law enforcement, UTM) for the display and alerting of UAS. Include guidance for safety considerations (safety support assessment) associated with C-UAS detection systems.

The joint DO-389/ED-286 OSED for Counter UAS in Controlled Airspace, was published in March 2021, with the bulk of contribution made during 2019 - 2020. Since that time, the understanding of the C-UAS operating context has evolved, such that a review of DO-389/ED-286 is needed to better align to current thinking and provide relevant guidance to potential users of C-UAS. An update to the OSED will better inform the planned INTEROP document for the whole C-UAS system.

The INTEROP document 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 systems at airports (e.g., ATM displays, incident management systems) and to other partner systems (e.g., law enforcement, UTM) for the display and alerting of UAS.

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

Continually 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
ASTM 4311 22a	Reference
EU Drone Strategy 2.0	Reference
EASA Counter Drones (C-UAS) proposed action plan, Issue 2, 05.07.2019	Reference
EUROCONTROL Specification for A-SMGCS	Reference
ED-116 – MOPS for Surface Movement Radar Sensor Systems for Use in A-SMGCS	Reference
ED-87E – MASPS for Advanced Surface Movement Guidance and Control Systems (A-SMGCS) Levels 1 and 2	Reference
DO-389/ED-286 - OSED for Counter UAS Systems in Controlled Airspace	Reference

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.