ANSI Unmanned Aircraft Systems Standardization Collaborative (UASSC)

2019 Plenary Meeting: Working Group Breakout Report

September 12, 2019

Working Group 1 Airworthiness

Questions Related to the Roadmap and Roadmap Update

◆ What are the top UAS issues of concern for your organization?

◆ What issues, activities, or initiatives are missing from the roadmap or not adequately covered in your view?

◆ Please provide any comments that you have on the roadmap's organization.

◆ Who is not here today who should be involved in this effort?

Questions Related to UAS Standardization

◆ What topics are not being adequately addressed in UAS standardization?

◆ What overlap or duplication exists in UAS standardization?

1. What are the top UAS issues of concern for your organization?

- There is not enough delineation for vehicle weights, performance, risk and passenger capacity
  - Classification of UAS Classes. We have been stuck with the old weight classes. Recommend to redefine sUAS with 25ft or under wingspan. With no weight included. Weight Classification Segmentation for UAS
  - Behavior or the systems. The difference between unmanned, autonomous, and AI
  - Definition of flight mission scenarios.
- Standards need to be consistent with approved segmentation of risk classes and associated risks
  - Industry consensus standards that support TC/AC/TSO have been used as accepted basis for MOC
- Spectrum issues
  - Standards for using unlicensed bands, commercially licensed bands, aviation spectrum bands. Taxonomy.
  - What is needed for the various classed of airspace?
- Telemetry Data
  - Protocols and content not coordinated across SDOs
- Detect and Avoid for UAM and passenger taxies.
  - The currently developed standards are not really applicable for UAM (Bird strike and identification, False Tracks, Obstacle avoidance)
- UTM Functionally and Assurance
  - Safety criticality, security, prioritization with passenger carrying, airspace segmentation
- Cybersecurity given multitude of standards

2. What issues, activities, or initiatives are missing from the roadmap or not adequately covered in your view?

◆ Telemetry Data.

  – What is the master spec for telemetry data given parallel efforts, and what needs to be reported

◆ Reporting Requirements for UAS.

  – What classes of UAS need to report and what?

◆ Payload retention, what are the retention requirements.

◆ Connected vehicles standards

◆ Terms should be consistent across SDOs and documents

3. Please provide any comments that you have on the roadmap's organization.

◆ Different between discrete actions called out in the roadmap and what industry has decided to implement

◆ UAM could go into other working groups. Not just WG1

◆ The scope of the standards is not to write standards, this has been delegated to SDO's. Contractual requirements or regulatory requirements are the ones that need to be complied with.

◆ Large vs Small UAS and how they are organized in the standard for what standards are applicable to what classes of UAS

– Potentially add a column for what applies to what

– Are there other classifications that could be added to an existing standard

– Does the risk case scale with the standard

4. Who is not here today who should be involved in this effort?

Groups missing

◆ Part 135

◆ UAS Designees

◆ Federal Military Side of Spectrum, NTIA

Groups represented

◆ Aircraft Manufactures – present

◆ Part Suppliers to Manufactures - present

◆ Operators of Aircraft - present

◆ Repair Stations - present

◆ Pilots - Present

◆ Software, Cyber, AI -Present

◆ UTM - Present

◆ SDO's - Present

◆ Trade Associations - Present

5. What topics are not being adequately addressed in UAS standardization?

◆ Prioritized list of Research and Development needed.

◆ Charge ports for High Power Lithium Ion Batteries with cooling requirements

– This came up at the uber elevate conference as well

– There are some standards on the manned aircraft side that could be leveraged and applied to unmanned systems

– This is a specific technical standard that needs to be developed

– ASTM does not focus on this. It could be an SAE standard

6. What overlap or duplication exists in UAS standardization?

◆ Spectrum and uses by airspace

◆ Classification of aircraft

◆ Telemetry data

◆ Detect and Avoid - Which approaches are applicable or preferred for manned vs unmanned AC world

◆ Cybersecurity