Unmanned Aircraft Systems (UAS) Integration Standards Development

Presented to: American National Standards Institute

Presented by: Earl Lawrence  
Director, FAA UAS Integration Office

Date: May 19, 2017
FAA and UAS Standards

• **Industry consensus**
  – Supports FAA rules
  – Recommend starting with existing standards

• **Flexibility in meeting FAA safety standards**
  – FAA doesn’t require specific standards. FAA requires industry shows it can repeatedly build a safe product.

• **Consensus Standards = Repeatable Process**
Getting There

Innovation

Collaboration

Volume + Pace

Performance-based regulations

Shared commitment to safety
Unmanned Aircraft Systems (UAS) Integration

Standards Development

Presented to: American National Standards Institute

Presented by: Art Hinaman
Manager, Technical Support Branch
FAA UAS Integration Office

Date: May 19, 2017
Technical Support Branch (AUS-420)

• Current areas of focus
  – Collision avoidance
  – Detect and Avoid
  – Command & Control
  – Design and construction
  – Operations over people

• Future possibilities
  – Human factors
  – Operations
  – Airworthiness
  – Swarming
Technical Support Branch (AUS-420)

Committee participation

- RTCA SC-228
  - Working Grp 1 – Detect and Avoid
  - Working Grp 2 – Command & Control

- RTCA SC-147
  - Traffic Alert & Collision Avoidance

- ASTM
  - F38 – Design, Manufacture & Maintenance
UAS Integration Research

- In support of standards development
  - Detect and Avoid (DDA) multi-sensor data fusion strategies
  - UAS system safety criteria
  - Integration of collision avoidance into DDA
  - Certification test case to validate sUAS consensus standards
  - sUAS DAA requirements necessary for limited BVLOS operations
  - sUAS well clear definition
  - Part 107 waiver case study