



UAS Symposium



**Federal Aviation
Administration**

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Lunch and Keynote Panel

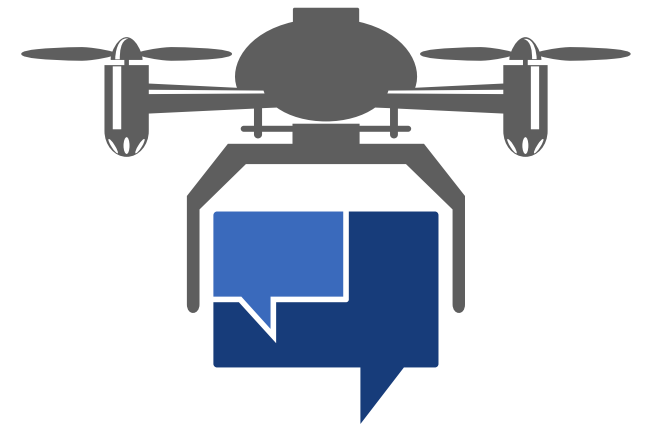
Comments from Embry-Riddle

- Dr. Tim Brady

Keynote Luncheon Panel

UAS Integration — Other Viewpoints and Opinions

- Mike Whitaker
- Matt Zucarro
- Richard Hanson
- Megan Sirjane-Samples
- Konstantin Kakaes



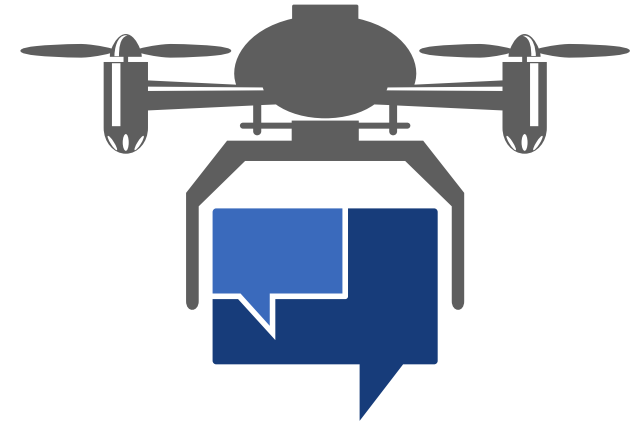


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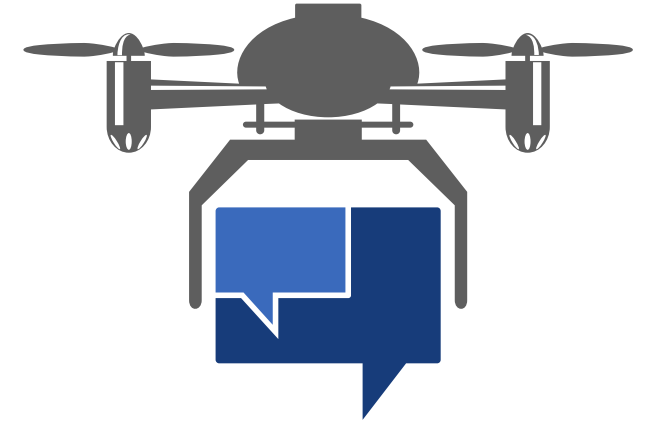
FAA Breakout Session Report Out

Moderator: Earl Lawrence

Director, FAA UAS Integration Office

Session 1, Room 1:

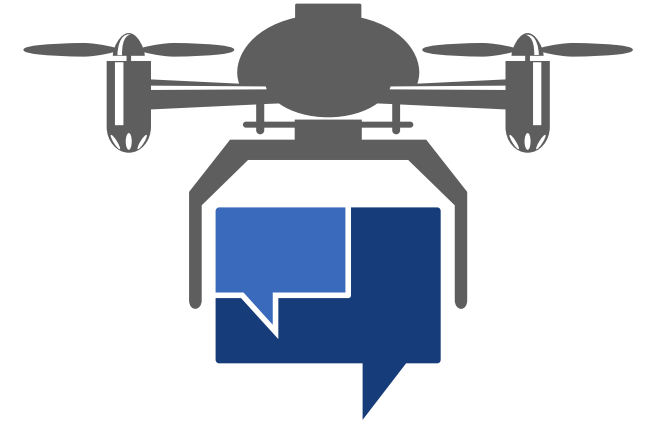
Engaging Stakeholders



- Industry Collaboration Principles
 - Work should be:
 - Focused (discrete, defined and rapidly actionable)
 - Progressive in approach (LSA model)
 - Transparent (rapid communication -- external and internal)
 - Industry representatives should be:
 - Diverse (incumbents as well as newcomers)
 - High level (folks that control resources needed for success)
 - Action oriented (delegate workload to experts)

Session 1, Room 2:

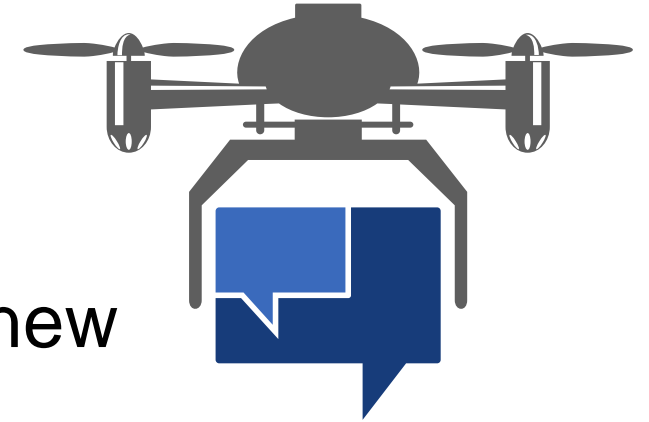
Airspace Management



- Frustration from commercial operators on lengthy processes to fly. See rogue operators taking business or causing risks with little consequence. Want relief and more airspace access.
- Hard to know who you have to talk to at FAA if you have questions or want to voice concerns. Consider a call center.
- Aviation professionals frustrated with constraints levied on sUAS when modelers have no constraints.
- See inconsistency in how FAA engages and responds.

Session 1, Room 3:

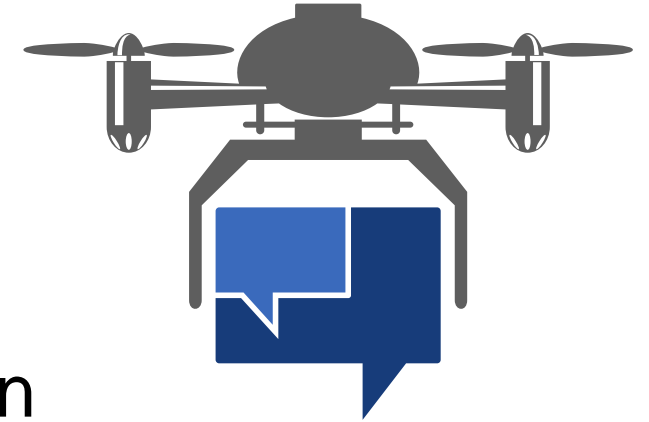
Certification – Aircraft



- Process clarification – How do we certify new designs?
- Requirements – What requirements do I need to meet? Set by:
 - The aircraft (size, energy, performance)
 - It's proposed use (Concept of Operation/Mission)
 - Intended Area of Operation (Airspace Integration)
- Operational Influence – Why do Commercial Ops and Hobbyists have different standards?
 - Risk exposure
 - Pressure to operate
 - Public expectation

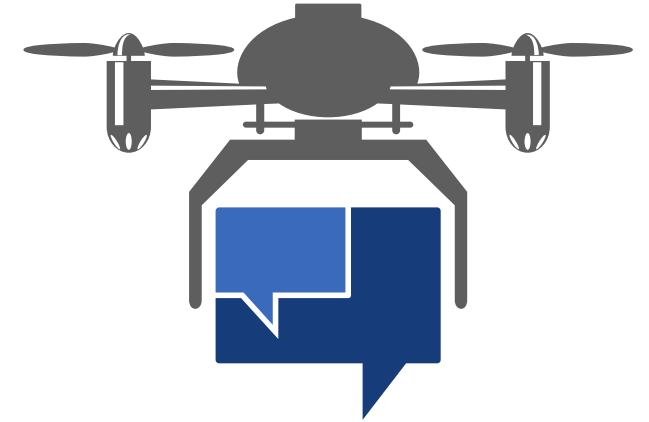
Session 2, Room 1:

Airspace Authorities



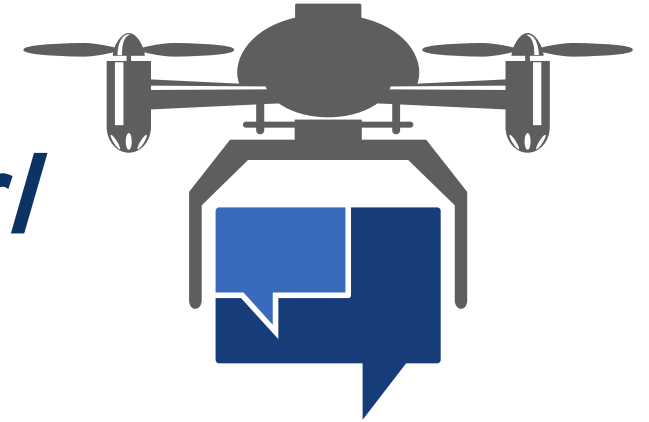
- Clear needs for FAA pre-emption in certain areas, but clearly a role for state and local authorities
- Patchwork framework of regulation can inhibit collaboration between federal, state, and local authorities
- Concerns around whether local and state governments understand the regulatory landscape and technology
- FAA, state/local authorities, and industry collaborating to create a uniform ordinance
- More clarity from the FAA on the “state of play” and pre-emption authority

Session 2, Room 2: Research Challenges and Opportunities



- Data collection, archival, synthesis and analysis
- UAS Security and Enforcement
- UAS Identification
- Restrictions on OPV flights
- Severity thresholds for UAS airborne & ground collisions
- Need for baseline Conops, Use Cases and Architectures to guide research questions
 - Decomposed by different operational environments

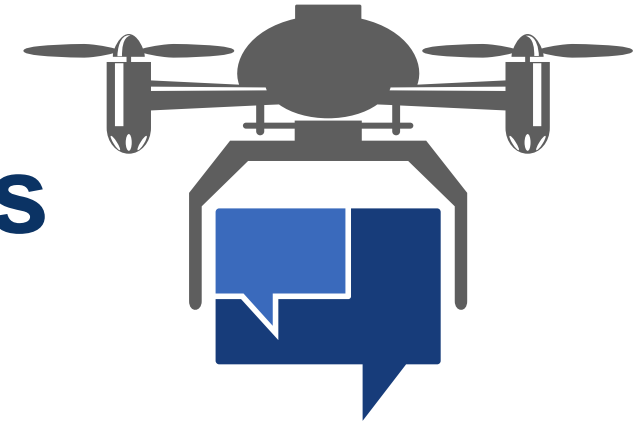
Session 2, Room 3: Certification – Pilot/Operator/ Maintenance



- Small Rule
- Pilot vs. Operator:
 - Qualifications
 - Training
- Oversight – Risk Dependent
- Regulation – Weighing Safety vs. Economic Impact

Session 3, Room 1:

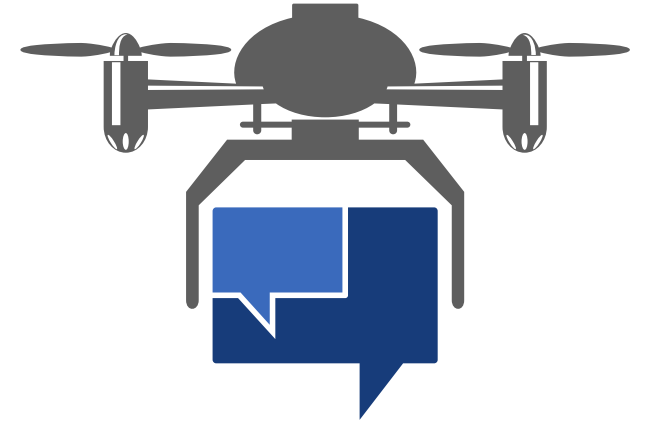
Managing Public Perceptions



- General concern about potential for overreaction to single, bad event undoing a lot of good work and progress – what can we do to avoid a knee-jerk reaction?
- Need to do better at telling the safety messages from the use cases
- FAA needs to follow-up on guidance to law enforcement given the perceptions about lack of enforcement

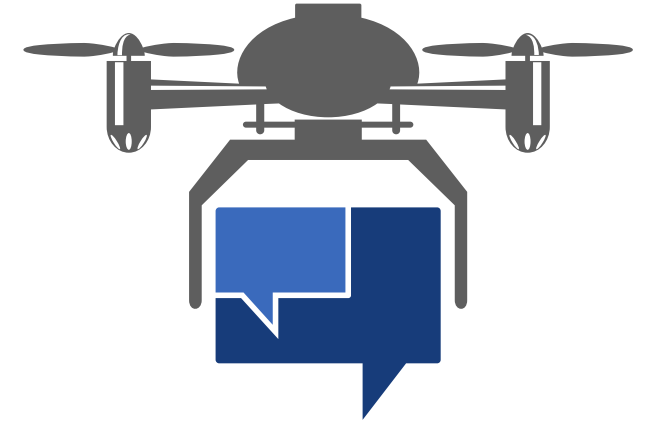
Session 3, Room 2:

Airports Issues

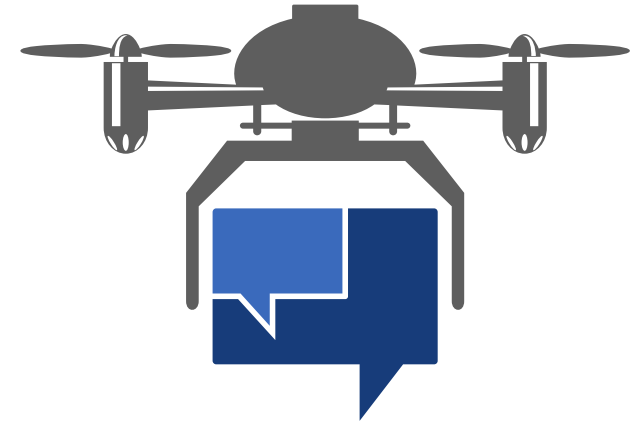


- The COA process is broken.
- The airspace around airports and the five mile radius is not a good measure.
- How do we get the LOA process to run more smoothly?

Session 3, Room 3: Technological Enables and Restrictors



- Differentiated access to airspace
 - Does one size fit all?
 - Spectrum implications
 - Integration of technologies
- How will industry and government engage to determine priority, performance, and solutions?
 - What are the costs? And who pays?



Symposium Recap and Closing

Earl Lawrence

Director, FAA UAS Integration Office

Mike Whitaker

FAA Deputy Administrator



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