







United States Unmanned Aircraft System Executive Committee: Progress and Activities

Presented on behalf of the
UAS ExCom Senior Steering Group
by
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Presentation Outline

- What is the Unmanned Aircraft System (UAS) Executive Committee (ExCom)
- What has it accomplished
- What are its current activities
- What can be expected in the future
- Conclusion



UAS Executive Committee

- Purpose
 - Enable routine, safe operation of Federal Gov't unmanned aircraft in US civil airspace
- Composition
 - Federal Aviation Administration (FAA)
 - Department of Defense (DOD)
 - Department of Homeland Security (DHS)
 - National Aeronautics and Space Administration (NASA)
- Staffed at the senior executive level
- First meeting occurred Oct 2009





Goals

- Coordinate and align efforts among key Federal Government agencies (FAA, DOD, DHS, and NASA) to ultimately achieve routine safe federal public UAS operations in the NAS.
- Coordinate and prioritize technical, procedural, regulatory, and policy solutions needed to deliver incremental capabilities.
- Develop a plan to accommodate the larger stakeholder community, at the appropriate time.
- Resolve conflicts among Federal Government agencies (FAA, DOD, DHS, and NASA) related to the above goals.



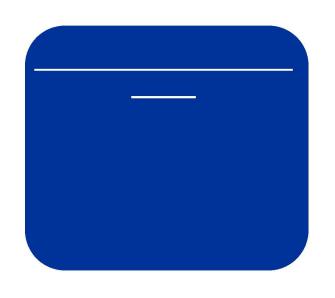
Accomplishments

- Initial focus was on "early victories" which led to work on process improvements
 - UAS flight approval process (Certificate Of Authorization or Waiver (COA))
 - Safety and operational data sharing
 - Transitioning from Class D airspace over military installations to adjacent special use airspace
- Latter focus turned to more challenging airspace issues
 - Multiple manned and unmanned operations in class D airspace



NAS Access Plan

An early requirement from Congress was to deliver a NAS Access Plan



- Cooperatively develop UAS NAS Access plan
 —as required by Congress
- Examine the range of technical, regulatory, and legal issues







NAS Access Plan Implementation Products

Decreasing Restrictions

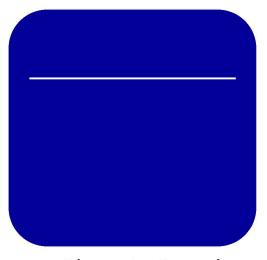
COA Working Group	 COA Process Improvements COA Policy Improvements COA Operational Improvements
Safety Case Methodology	 Define Safety Case Data and Products Establish Guidelines and Approach Define Methods of Application
Interagency Agreements	 Further Define Roles and Responsibilities Promote Cooperative Efforts Document COA Process Agreements Define Safety Case Methodology Clarify Existing Procedures Implement Lost-Link Procedures Implement Small UAS SFAR Safety Basis Set Provisions for Certain UAS in Certain Types of Airspace
Transition Plan	 Assess Feasibility of Proposed Approaches Select and Implement Effective Solutions Continue to assess effectiveness against changing requirements

GBSAA	 Establish requirements Test & Verify Data Determine Policy Develop Procedures Optimize Ground based sensor technology (e.g. radar) Develop Fielding Plans
Standardize Procedures	 SAA Procedures Information coordination Automation Contingency Planning
Initial ABSAA	Collect & Analyze DataTest & Verify Data

Technical Standards	Approve Technical StandardsApprove Performance Specifications
ABSAA	 Establish Requirements Develop Policy & Procedures Certify SAA Capability, including ABSAA Sensor Technology



COA Process Improvements



- Examine process, policy, and operational procedure changes
- Phase I 14 Process Issues Identified
- Phase II 11 Policy & Operations Issues Identified

- Phase I Complete
 - Process improvements resulted in dramatic reduction in time and resources to obtain flight approval
 - Significant improvement in common understanding of COA language and requirements resulted
 - This has allowed the agencies to improve their quality control systems
 - Process approval timeline reduced from 180 days to 60 days
- Phase II In Work



Additional Process Improvements

- Safety Data Sharing
 - DOD transferred 6 years of mishap data to FAA on 22 September 2012
- COA Expiration Extension
 - FAA internal guidance change in process to extend COA's from 12 to 24 months
- Transitioning from Class D airspace over military installations to adjacent special use airspace
 - Clarification issued to eliminate the need to file a COA for transition to SUA from Class D



Airspace Accomplishments

- Multiple manned and unmanned operations in class D airspace
 - Risks identified
 - Mitigations proposed that would allow routine operations
 - Validation plan for mitigations is in development



Current Activities

- Validate Recommendations for Multiple Manned & Unmanned operations in Class D airspace
 - Demonstration & Documentation plan being developed
 - Expect completion this year
- Small UAS (less than 55 pounds/25 kg) Operations in Class G Airspace
 - Expected to deliver operating procedures to enable day & night small UAS operations at specific locations
- Access to (Flight Information regions) FIRs and Remote Areas Recommend ways to align approval process and operational restrictions
- Process Improvements
 - Update internal FAA guidance on COA and special airworthiness certification processing
 - Ensure consistent UAS Incident/Accident Definitions for data collection and reporting
- Continue to respond to Congressional direction when given
 - Status Report on integration progress
 - FAA to establish 6 UAS test sites
- Continue to monitor COA process time lines and take action as required



Future Plans

- Validate and implement recommendations regarding
 - Small UAS operations in class G airspace
 - UAS operations in US managed flight information regions and remote areas
- Continue to monitor COA processing time line and identify process improvements
- Beyond the UAS ExCom
 - Extending the progress to other government UAS operations
 - Transitioning benefits to civil/commercial/NextGen community



Conclusion

- The UAS ExCom provides a senior executive level forum to address government UAS airspace integration challenges
- Progress to date has resulted in increased access and operational improvements
- The ExCom organizations are moving forward to achieve both nearand far-term objectives for UAS NAS integration