IDENTIFYING HOW UAS/OPA CAN REDUCE FATAL ACCIDENTS IN HIGH RISK MANNED HELICOPTER OPERATIONS

Helicopter Safety Enhancement (H-SE) 90 update

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INTENDED PURPOSE

• ENCOURAGE THE INCREASED USE OF UNMANNED AIRCRAFT SYSTEMS (UAS) AND CONTINUE THE DEVELOPMENT AND INTEGRATION OF OPTIONALLY PILOTED AIRCRAFT (OPA), OR AUTONOMY-ENABLED HELICOPTERS, TO SUPPLEMENT AND SUPPORT MANNED OPERATIONS IN HIGH-RISK OPERATIONS OR ENVIRONMENTS.

• THE GOAL IS TO SAVE LIVES AND MITIGATE RISK WHENEVER MANNED FLIGHTS COULD PUT INDIVIDUALS IN HARM’S WAY.

From original H-SE 90 Original Documentation.
Both of these outputs were determined closed, however much has happened that supports the fact that the integration of UAS is occurring at a healthy rate, however messaging that this supports lines of business while reducing risk is still somewhat of a challenge.
Appendix A

- AFRL: Air Force Research Lab
- ANSI: American National Standards Institute
- ASEB: NASA Aeronautics and Space Engineering Board
- ASSURE: Alliance for System Safety of UAS through Research Excellence
- CAA: Civil Aviation Authority
- CANSO: Civil Air Navigation Services Organization
- CTA: Consumer Technology Association
- EASA: European Aviation Safety Agency
- EuroCAE: European Organisation for Civil Aviation Equipment
- EXCOM SSG SARP: Executive Committee – Senior Steering Group – Science And Research Panel
- FAA CAMI: Civil Aerospace Medical Institute
- FAA WJHTC: William J. Hughes Technical Center
- ICAO: International Civil Aviation Organization
- IEEE: Institute of Electrical and Electronics Engineers
- ITU: International Telecommunications Union
- JARUS: Joint Authorities for Rulemaking on Unmanned Systems
- MIT/LL: Massachusetts Institute of Technology Lincoln Laboratory
- MITRE CAASD: Center for Advanced Aviation System Development
- NASA: National Aeronautics and Space Administration
- NATO: North Atlantic Treaty Organization
- NSF: National Science Foundation
- NIST: National Institute of Standards and Technology
- REDAC: Research and Development Advisory Committee
- TRB: NAS Transportation Research Board
INTEGRATION OF UAS operations is a multifaceted global challenge, requiring coordinated efforts within the FAA and across multiple agencies. To enable industry objectives while maintaining the security, safety, and civil rights of the public requires meeting multiple objectives in different domains. The FAA is taking advantage of independent, non-sponsored UAS research efforts. It is leveraging an evolving spectrum of UAS research and analyses being conducted by government agencies, industry, academia, international organizations, standards bodies, etc. to inform rulemaking and operational changes that will enable full UAS integration into the NAS.
FAA approach to integration is phased by operational capability. This phased approach will enable airspace access for UAS in the NAS in this risk-based expansion in increments as you see in this slide.

**Expanded Operations (EO);** build upon part 107 sUAS OOP, while expanding to BVLOS operations (i.e., infrastructure, ag., inspections multiple UAS).

**sUAS Pkg Delivery;** extend EO capabilities enabling sUAS delivery/ retrieval of packages

**Integrated Opns;** enable UAS Opns to co-exist, with restrictions, in controlled airspace with manned aircraft, and on/around airports

**Routine/Scheduled Opns;** enable regularly scheduled UAS Arr/Dep @ airports in Class B, C, and D airspace and permit OPA’s

**Large Carrier Cargo Operations;** enable cargo transport in U.S. domestic airspace by RPAs from departure to arrival.

**Pax Xport Operations;** enable operations (includes UAM) by remote pilots, based on
vehicle performance requirements and type certification.
Summary of Identified Needs for Operational Capabilities.

OOP is completed.
Soliciting comments from USHST on need for a White Paper update.

Comments or questions;
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