



**Federal Aviation
Administration**



Mel Johnson – Rotors 2022



Rotorcraft Safety Achievements

- Part 27 Safety Continuum Policy
 - Single Engine IFR
 - Safety Display Systems
- Encourages introduction of safety systems to part 27 rotorcraft
- Addresses major fatal accident causes



Federal Aviation
Administration

Challenges

- Continued focus on data driven fatal accident causes
- Increased demand for firefighting aircraft
- Shortages in helicopter and pilots and mechanics
- Introduction of new technologies
 - Significant changes to aircraft design
 - New electric propulsion systems
 - New operating concepts



Federal Aviation
Administration

AAM Certification Strategy

- The FAA is taking a risk-based approach in certifying AAM aircraft
- AAM is not a single technology, but rather a collection of new and emerging technologies in aviation, particularly in new aircraft types
- This approach involves applying existing airworthiness standards where the risks posed are similar to traditional aircraft
- The FAA will utilize proven methods for ensuring the safety of complex systems



Leveraging Existing Framework

14 CFR part 23 amendment 64 [23-64] became effective in 2017 and accomplished many goals:

- Creating a regulatory regime that applies an appropriate level of certification rigor commensurate to posed risk
- Setting safety objectives that foster innovation and technology adoption
- Replacing prescriptive rules with performance-based regulations
- Using consensus standards to clarify how safety objectives may be met by specific designs and technologies

The move to performance based regulations has enabled the FAA to more effectively manage the revolution in air vehicles and serves as the baseline for AAM certification



Foundational Requirements

- The FAA currently has AAM projects that are powered-lift, and others that are rotorcraft
 - Both are being certified under §21.17(b) as special class aircraft
 - Existing projects that were started as §21.17(a) are having their certification basis updated accordingly
- The performance-based requirements of [23-64] serves as the foundation of AAM certification and the requirements are being utilized as airworthiness criteria
- [23-64] is being supplemented with additional airworthiness criteria for novel design features not considered in the airworthiness standard, such as VTOL capability



FAA Deliberative Predecisional Materials



Federal Aviation
Administration

Accepted Means of Compliance

- A key tenet of the FAA's approach to AAM certification is that the MOC must be accepted by the FAA
- §23.2010 requires that an applicant must comply using a means of compliance accepted by the FAA
- MOC's acceptable for traditional part 23 airplanes may not be appropriate for AAM due to configuration differences, complexity, and novel technologies



Looking Ahead

- The FAA is utilizing current projects to establish the groundwork for future published policy and rulemaking
- This is a holistic effort, the FAA is coordinating the development of certification requirements with airspace, infrastructure, and operational requirements



FAA Deliberative Predecisional Materials



**Federal Aviation
Administration**

Looking to the Future

Use of SAIB to provide safety information

- Crash resistant fuel systems
- Bird strike requirements

US Helicopter Safety Team

- Working together to promote safety
- Data driven safety enhancements



Federal Aviation
Administration