Updates from FAA:

RBDM, Compliance Philosophy, SMS, and UAS Integration
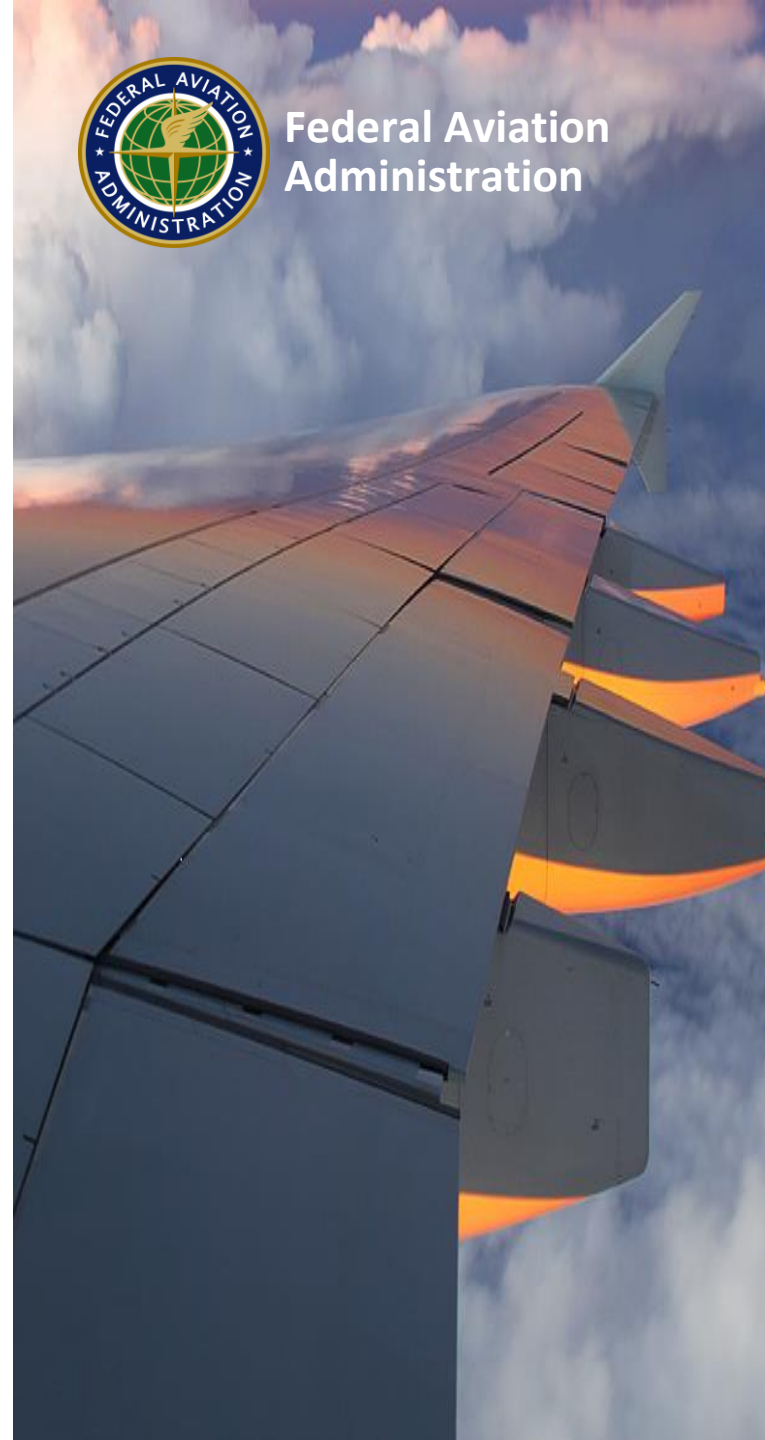
Federal Aviation Administration

Presented to: Aeronautics & Space Engineering Board

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FAA Mission & Responsibilities

- The FAA's mission is to protect life and property within the National Airspace System (NAS).

- The Flight Standards Service fulfills its part of the FAA mission through:

  - *Standards* (pilots, mechanics, air carriers, air operators, training facilities)
  - *Certification* ("licensing" of those who meet standards)
  - *Continued Operational Safety* (risk-based decision-making)

- The goal of these functions is to provide protection for operators, passengers, and non-participants (people and property on the ground)

- Carrier has primary responsibility for safe operations; FAA's role is safety assurance

FAA Strategic Initiatives

- The Compliance Philosophy implements the FAA Strategic Initiative for Risk Based Decision Making (RBDM) and supports the shift to safety management as an evolutionary approach to risk management

- Compliance Philosophy seeks to:
    - Find and fix problems before they lead to accident or incident through communication, collaboration, and proactive risk management
    - Emphasize the accountability of all stakeholders
    - Ensure positive, permanent changes in operator behavior
    - Distinguish between compliance (goal) and enforcement (one of many compliance tools)
    - Encourage voluntary safety reporting

- Safety Management Systems (SMS) provide the structure and the tools that operators and regulators need to address and mitigate risks not specifically covered in the rules.
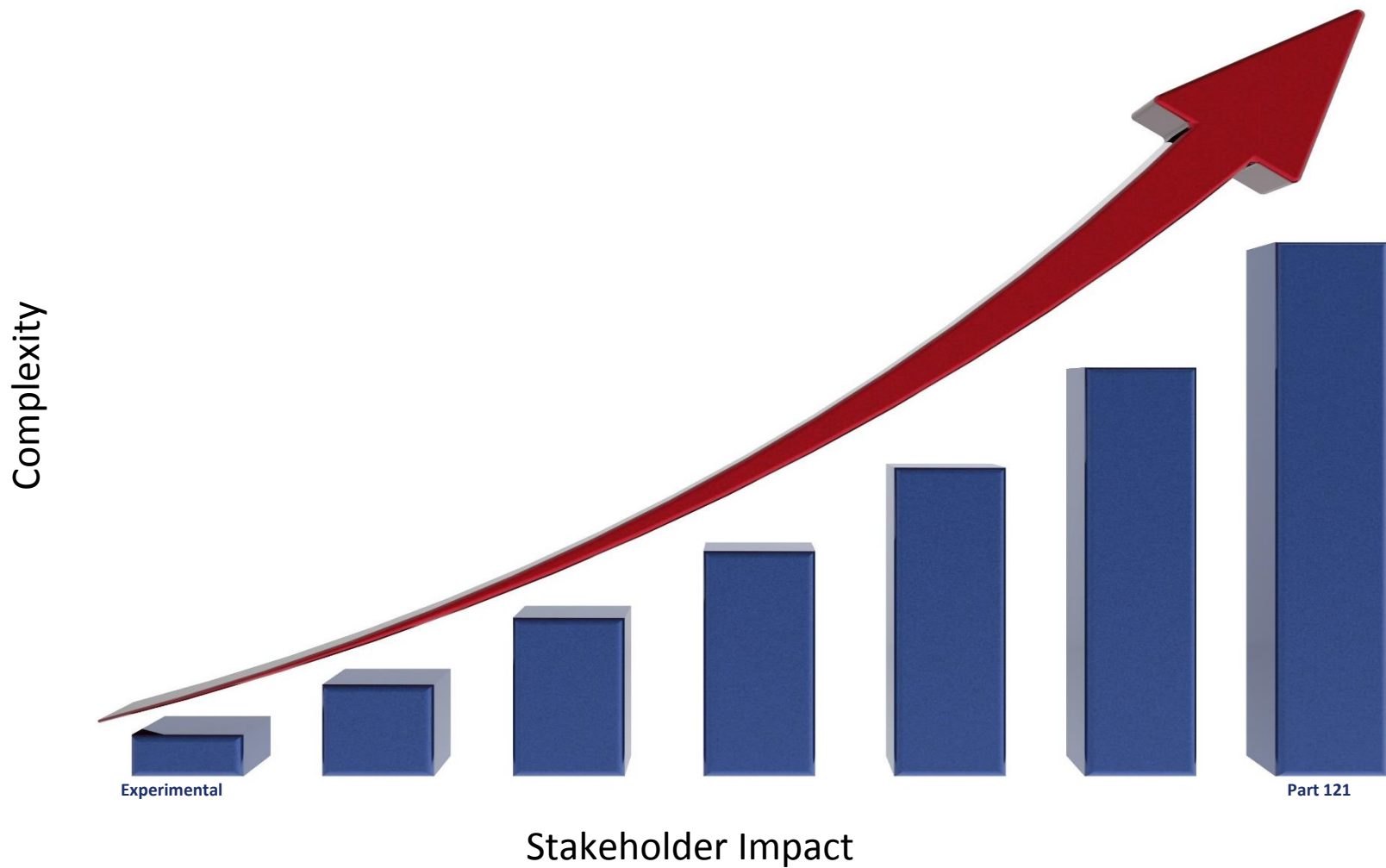
FAA Vision for UAS Integration

Safe, efficient, and timely integration of UAS into the National Airspace System (NAS)
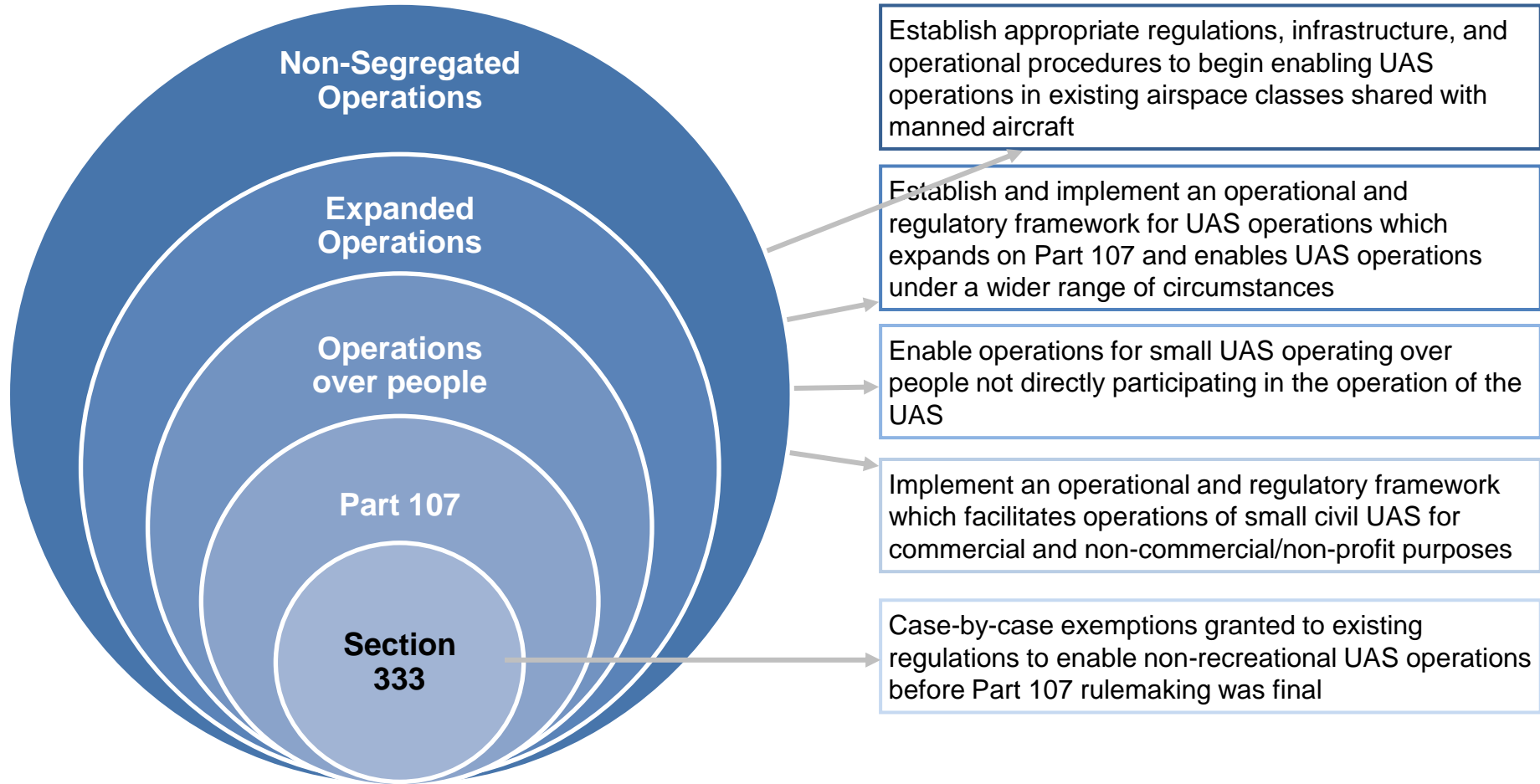
- The FAA did not envision UAS when today's prescriptive civil aviation safety regulations were developed.

- As UAS activity increased, the FAA recognized the need for integration of these aircraft into the NAS.

  - We have begun to set standards for full integration of UAS, which will eventually be treated like any other aircraft.

  - These changes will shift regulations from the existing prescriptive approach to a performance-based standard.

  - In the near term, the FAA is accommodating the demand for UAS operations by creating a niche in the NAS (part 107 and section 333 exemptions) to enable UAS activity.

    - This approach allows UAS to operate as the FAA works to create performance-based (vice prescriptive) standards that enable UAS operations.

Regulatory Requirements

Complexity

Experimental

Part 121

Stakeholder Impact

Building the Regulatory Framework

- **Non-Segregated Operations**
- **Expanded Operations**
- **Operations over people**
- **Part 107**
- **Section 333**

Establish appropriate regulations, infrastructure, and operational procedures to begin enabling UAS operations in existing airspace classes shared with manned aircraft

Establish and implement an operational and regulatory framework for UAS operations which expands on Part 107 and enables UAS operations under a wider range of circumstances

Enable operations for small UAS operating over people not directly participating in the operation of the UAS

Implement an operational and regulatory framework which facilitates operations of small civil UAS for commercial and non-commercial/non-profit purposes

Case-by-case exemptions granted to existing regulations to enable non-recreational UAS operations before Part 107 rulemaking was final

Questions?