

Syllabus: **FAA NPRM 108 - BVLOS Drone Operations**

Course Syllabus

FAA NPRM 108: BVLOS Drone Operations

Instructor: Tim Trott — *The Drone Professor*

Course Code: UAS Operations (108)

Format: Classroom / Online

Course Description

This course provides a structured overview of the FAA's proposed **Part 108 rule for Beyond Visual Line of Sight (BVLOS)** drone operations. Students will examine the regulatory shift from pilot-based oversight to organizational certification, the technical requirements for detect-and-avoid (DAA) systems, and the operational limitations that define BVLOS missions under the NPRM. The course also explores public safety applications, airworthiness standards, Remote ID requirements, and the anticipated rulemaking timeline.

Course Objectives

By the end of this course, students will be able to:

- Explain the purpose and scope of FAA NPRM 108
 - Describe how Part 108 differs from Part 107
 - Identify the key components of detect-and-avoid (DAA) technology
 - Understand operational limitations for BVLOS flights
 - Recognize certification requirements for pilots and organizations
 - Describe how Part 108 impacts public safety and first responder missions
 - Understand the NPRM process and expected implementation timeline
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Topics Covered

1. Introduction to FAA NPRM 108

- Purpose of the proposed rule
- Growth of BVLOS approvals
- Background and ARC recommendations

2. What Part 108 Includes

- Applicability up to 1,320 lbs
- Support for autonomous and cargo operations
- Corporate oversight model

3. Why Part 108 Replaces Certain Part 107 Limitations

- Property transport restrictions
- Waiver-dependent operations
- Need for scalable BVLOS frameworks

4. Key Features of Part 108

- Organizational certification
- Consensus-based airworthiness standards
- Remote ID and lighting requirements

5. Detect-and-Avoid (DAA) Technology

- Radar, visual sensors, ADS-B, ADSPs
- Cooperative vs. non-cooperative detection

- Performance standards (Pd, Pfa, redundancy)

6. Operational Limitations

- 400–500 ft AGL altitude cap
- Restrictions near airports and events
- Geographic zones for BVLOS operations

7. Controlled Airspace Operations

- FAA authorization
- ATC coordination
- UTM integration

8. Pilot & Operator Certification

- BVLOS pilot rating
- Advanced training requirements
- Organizational approval

9. Public Safety Applications

- DFR programs
- Search and rescue
- Tactical support and situational awareness

10. Technology Requirements

- Communications and navigation reliability
- Redundant systems
- Remote ID compliance

11. NPRM Timeline and Next Steps

- Public comment period
- Expected final rule date
- Implementation window

Assessment

- End-of-course quiz

Required Materials

- FAA NPRM 108 documentation (linked in class)
- End-of-course quiz

Contact Information

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