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FAA Part 108

Primer for executives

AT A GLANCE

Audience: CEO and CTO decision-makers evaluating commercial drone procurement and operations.

Bottom line: Part 108 is the federal rule that will unlock scaled, autonomous Beyond Visual Line of Sight (BVLOS) drone operations in the U.S. The NPRM is published, public comments close October 6, 2025, and the final rule is targeted for early-to-mid 2026 with operational rollout into 2027.

Why it matters now: Procurement decisions made in the next 12–18 months will lock in your platform, vendor stack, and compliance posture for the BVLOS era. Hardware that does not anticipate Part 108 requirements will be a stranded asset.

1. Executive Summary: The Strategic Shift to Part 108

Part 108 is a long-awaited regulatory framework that represents a fundamental shift in drone operations, moving from drones as on-site productivity tools to scaled, autonomous infrastructure. For executives, the core distinction is that Part 107 governs a person flying a drone, while Part 108 governs a company operating a fleet. Current Part 107 requires commercial drone work to be constrained by Visual Line of Sight (VLOS). A certified remote pilot must keep eyes on the aircraft, which is workable for simple tasks like roof or bridge inspections but limits economic value because a human must be on-site for the entire duration of the flight. Part 108 removes this constraint, as it is purpose-built for Beyond Visual Line of Sight (BVLOS) operations where drones fly autonomously over great distances.

This enables economically viable uses, such as a police drone launching for a 911 call, a delivery drone covering a 30-mile route, or a pipeline inspection drone flying a hundred miles while an engineer monitors telemetry remotely. These operations are not possible under Part 107. The strategic shift moves the regulatory unit of analysis from the individual pilot to the operator-organization. Corporate responsibilities now include liability, training, safety management, and cybersecurity. The FAA is establishing a fundamentally different compliance posture: holding the company accountable, and requiring the company to hold its systems and people accountable. This contrasts sharply with the individual pilot-licensing model of Part 107.

Part 107 vs. Part 108: A Side-by-Side

Dimension	Part 107 (Today)	Part 108 (Proposed)
Operating mode	Visual Line of Sight (VLOS); pilot must keep eyes on the aircraft	Beyond Visual Line of Sight (BVLOS); largely autonomous flight
Human role	Remote Pilot in Command (PIC), on-site, manually flying	Flight Coordinator / Operations Supervisor — remote oversight, no manual stick-and-rudder control
Certification	Individual pilot license (Part 107 certificate)	No FAA pilot certificate required; the operator (the company) is the regulated entity
Liability model	Individual pilot bears responsibility	Corporate / organizational responsibility — liability shifts to the operator
Typical use case	Roof inspections, real-estate photography, short on-site tasks	Package delivery, pipeline & utility inspection, agriculture, surveying, drone-in-a-box dock systems
Aircraft weight	≤ 55 lbs	Up to 1,320 lbs depending on operation type
Required tech	Basic Remote ID	Detect and Avoid (DAA), strategic deconfliction, conformance monitoring, simplified UI

2. Part 108: Operational and Technological Requirements

Autonomy is the Default, Not the Exception

The single most important technical premise in the NPRM is that Part 108 operations are designed to be primarily autonomous. The FAA explicitly states that traditional airman certification is not consistent with the kind of operations Part 108 envisions, because the pilot's role has been steadily replaced by onboard and ground-based automation. The aircraft, not the human, is the safety-critical system.

This has a direct hardware consequence the FAA codifies as Simplified User Interaction (SUI). Aircraft built for Part 108 cannot rely on a human pushing a stick, yoke, or joystick to fly safely. Manual controls are restricted to high-level commands like "change altitude" or "change heading." If a vendor is pitching a BVLOS platform that still depends on stick-and-rudder skill, that is a red flag — it will not meet the rule as written.

The Human Role: Supervisor, Not Pilot

Part 108 introduces two human roles, neither of which is a traditional pilot:

1. **Operations Supervisor —** the chief of operations for the program. Final authority for safe and secure operation of the entire fleet. Required for nearly all operation types except recreational. Qualified through training, experience, or expertise — but not formally certificated by the FAA. The operator vouches for them.
2. **Flight Coordinator —** monitors active flights remotely. Has limited manual control, used only when manufacturer instructions require human-in-the-loop oversight. Needs at least five hours of recent operating experience in the specific make and model. Not a pilot in any traditional sense.

The implication for workforce planning is significant. Companies do not need to hire — or pay the salary premium for — Part 107-certified pilots to scale a BVLOS program. They need ground engineers, fleet operations staff, and supervisors who understand the system. As one industry executive put it: the person physically near the drone might be an engineer who drove the truck to the site, not someone with a piloting qualification.

The Critical Technology: Detect and Avoid (DAA)

WHY DAA IS THE LINCHPIN

Without a human in the loop watching for traffic, the aircraft must detect and avoid other airspace users on its own. DAA is the technology that makes the entire Part 108 framework safe — and therefore legally defensible. It is also the most expensive and most technically challenging requirement. Vendor selection will largely come down to whose DAA stack actually works in the operating environments your business needs.

DAA capability is not delivered by any single component. It is a system-of-systems combining onboard sensors, ground-based surveillance, and cloud-based airspace data. The NPRM also formalizes the concept of Automated Data Service Providers (ADSPs) — third parties that supply strategic deconfliction (route-planning to avoid conflicts before takeoff), surveillance feeds, and avoidance maneuvering instructions during flight. Executives should expect ADSPs to become a recurring line item in operating budgets, similar to how cloud infrastructure became a recurring cost in IT.

A consequential right-of-way change is also proposed: under Part 91, manned aircraft that are not broadcasting their position via ADS-B Out would be required to give way to BVLOS drones operating under Part 108 (with exceptions near airports and in busy airspace). This is unprecedented and highly contested in the manned aviation community, but it materially affects how DAA systems are designed — they need to integrate ADS-B In, Remote ID, and ADSP feeds to build complete situational awareness.

Scalability Through Integrated Hardware, Software, and Cloud

Part 108 is explicitly designed for scale. The rule contemplates fleet-level operations: a single supervisor overseeing dozens of aircraft, dock-based systems that launch on demand, drone-in-a-box installations on rooftops and vehicles, and ratios of aircraft-per-coordinator that the manufacturer must specify and the FAA must approve. This only works if the platform is integrated end-to-end:

1. **Hardware redundancy —** the aircraft must have redundant power generation, storage, and propulsion systems, plus 150 hours of test flight without unsafe failures.
2. **Software and cybersecurity —** operators must maintain a cybersecurity policy; aircraft must meet cyber requirements as a design condition.
3. **Cloud-based situational awareness —** ADSPs feed live airspace data; conformance monitoring confirms the aircraft is following its approved flight path; data links must be appropriate for the operating area.
4. **Data retention —** manufacturers retain operational data for two years; operators maintain safety management documentation.

3. The Business Case for BVLOS Drones

Part 108 enables a portfolio of operations that simply cannot be conducted economically today. The rule defines eight permitted operation categories, each with its own fleet, weight, and population-density constraints — but the strategic point is that the addressable market expands dramatically:

1. **Package delivery —** up to 100 active aircraft per operator, up to 55 lbs (110 lbs under the more rigorous certificated operations track), opening last-mile and middle-mile logistics to drone economics.
2. **Pipeline, power line, and infrastructure inspection —** long linear inspections that today require helicopters, trucks, or VLOS daisy-chaining — replaced by autonomous BVLOS sorties with onboard sensors.
3. **Agricultural application —** aerial seeding, spraying, and crop protection over fields too large to manage with VLOS rules. Aircraft up to 1,320 lbs are permitted in this category over the lowest population-density zones.
4. **Aerial surveying —** photography, mapping, inspection, and patrolling at scale. Up to 25 aircraft, 110 lbs, over moderate-density areas.
5. **Civic interest operations —** wildlife conservation, fire response, disaster response — for entities under government contract.
6. **Drone-in-a-box (dock systems) —** permanently installed or vehicle-mounted docks that launch on demand. The defining use case for public safety, security, and remote-monitoring industries; the operator can be hundreds of miles away.
7. **Demonstration, training, and flight test —** additional categories supporting the broader ecosystem and innovation pipeline.

Expanded Capacity

Weight ceilings under Part 108 reach up to 1,320 lbs depending on the operation category — an order-of-magnitude expansion from the 55-lb ceiling under Part 107. This is what enables industrial payloads: agricultural chemicals, large sensor packages, meaningful cargo, and aircraft with the endurance and range to do real work. The ceiling is not universal — it is tied to operation type, population-density category, and whether the operator holds a permit (simpler) or a certificate (more complex).

Workforce and Operating Model

The strategic personnel insight bears repeating: ground engineers can manage remote operations without specialized piloting qualifications. This is a structural cost advantage. A logistics company does not need to staff every dock with a Part 107-certified pilot. A utility does not need a credentialed pilot for every inspection. The qualified workforce becomes operations staff, software engineers, and data analysts — roles companies already know how to hire — supervising fleets through a control center.

TWO TIERS OF OPERATIONS

Permit (simpler operations): two-year approval tied to one of eight operation types. Lower paperwork burden but tighter restrictions on fleet size, weight, and population density.

Certificate (complex operations): requires a formal training program, communications and ground risk assessment, Safety Management System (SMS), hazardous materials training, and procedures for inoperative equipment. In return, fleet-size restrictions are removed and weight limits expand. This is the path for any operator planning meaningful scale.

4. Actionable Intelligence for Leadership

The Regulatory Timeline — and Why You Should Engage Now

The FAA published the Notice of Proposed Rulemaking (NPRM) for Part 108 — a 650-page document covering the rule and its rationale. The public comment period closes October 6, 2025. After that, the FAA and TSA (this is a joint rule) must adjudicate what is anticipated to be thousands of comments. A final rule is targeted for the early-to-mid 2026 timeframe, with operational implementation continuing into 2027.

CRITICAL ACTION

Review the NPRM and submit comments before October 6, 2025.

The FAA has demonstrated willingness to modify proposed rules in response to substantive industry comment. Part 107 and Remote ID both saw meaningful changes between NPRM and final rule. Comment volume so far has been modest — meaning a well-reasoned executive submission carries disproportionate weight. Topics most worth engaging on include the right-of-way framework, the definition of shielded operations, the autonomy-only premise (which excludes hybrid

human-supervised models that some operators rely on today), DAA performance standards, and the boundaries between Part 107 waivers and the new Part 108 framework.

Procurement and Investment Implications

1. **Audit current and planned drone purchases against Part 108 requirements.** Aircraft without redundant propulsion, DAA-ready architecture, SUI-compliant control schemes, and cybersecurity provisions will not transition to BVLOS operations. Buying them now is a stranded-asset risk.
2. **Demand vendor roadmaps for airworthiness acceptance.** Manufacturers must obtain FAA airworthiness acceptance under Part 108. At present this is limited to U.S.-based manufacturers and those from countries with bilateral airworthiness agreements for unmanned aircraft. Confirm your vendor has a credible path.
3. **Plan for the operator-organization model.** Stand up the Operations Supervisor role, a Safety Management System, training programs, cybersecurity policy, and data retention practices well before you need them. These are not items you can assemble in a quarter.
4. **Budget for ADSPs as recurring infrastructure.** Strategic deconfliction and surveillance services will likely be subscription-based. Treat them as utility costs, not one-time integrations.
5. **Treat the Part 107-to-Part 108 transition as discontinuous.** A Part 107 certificate does not qualify anyone to operate under Part 108. The frameworks are legally and operationally distinct. Workforce planning, vendor selection, and compliance architecture should reflect that.

The Strategic Window

The companies that will win the BVLOS era are those whose hardware, software, vendor relationships, and organizational structure are aligned with Part 108 before the rule is final. The 12-to-24 months between now and full implementation are not a waiting period — they are the window for procurement decisions, pilot programs (in both senses of the word), regulatory engagement, and workforce build-out. The cost of acting late is not just lost market share; it is operating under emergency waivers and bespoke approvals while better-prepared competitors operate under the standard rule.

Part 108 is the regulatory framework for the drone revolution. Treat it as such.

About this primer: Synthesizes the FAA Part 108 NPRM, industry analysis, and commentary from drone-industry practitioners. All facts and figures reflect the rule as proposed; final regulations may differ. This document is for executive briefing purposes and is not legal advice.