

Module 10 — The Aviation Half: Part 107, Part 137, 44807 & Airspace

Category 1 (Aerial) exam · 8 practice questions · The six federal steps to legally spray from a drone, why Part 137 is separate from Part 107, exemptions and waivers, and airspace/LAANC in plain language.

Key numbers & facts to memorise

Step 1	Part 107 remote pilot certificate
Step 2	Aircraft registration (N-number for >55 lb)
Step 3	Section 44807 exemption — the long-lead item
Step 4	Part 137 Agricultural Aircraft Operator Certificate
Airspace	Class G needs no authorisation; controlled airspace needs LAANC or DroneZone. 400 ft AGL limit

Two independent legal systems, both mandatory

Spraying from a drone sits at the intersection of two regulators that do not talk to each other on your behalf. The **FAA** governs the aircraft and the act of dispensing a substance from it. **ODA** (under FIFRA authority and Ohio law) governs the pesticide, the applicator and the business. You must satisfy both. Holding an FAA Part 107 remote pilot certificate does not permit you to apply pesticide; holding an Ohio applicator licence does not permit you to fly commercially.

Understanding why matters for the exam and for your business plan. FIFRA makes it unlawful to use a registered pesticide in a manner inconsistent with its labelling — and the label's aerial directions apply regardless of whether the aircraft is crewed. Separately, **14 CFR Part 137** governs agricultural aircraft operations, defined to include dispensing any economic poison from an aircraft. A drone dispensing pesticide is an agricultural aircraft operation and requires an **Agricultural Aircraft Operator Certificate**.

The practical consequence is a sequencing problem. The federal approvals take months and involve several separate applications; the state licence involves exams offered on a schedule with results posted weeks later. Anyone planning a spray season should work backwards from the date they want to fly for hire and start the longest-lead item first — which is almost always the federal exemption package.

The six federal steps, in order

Step 1 — Part 107 remote pilot certificate. Obtain a knowledge-test-based certificate covering airspace, weather, loading, performance, regulations and operations. This is the entry credential for any commercial drone work and the prerequisite that most other approvals assume.

Step 2 — Aircraft registration. Agricultural spray drones almost always exceed 55 pounds, which puts them outside standard small-UAS registration; heavier aircraft register under the process for larger aircraft

and receive an N-number. **Step 3 — Section 44807 exemption.** Because most spray drones exceed 55 lb and the operation cannot comply with certain Part 137 provisions written for crewed aircraft, operators petition the FAA for exemption under **49 U.S.C. § 44807**. This petition is the long-lead item, is granted with specific conditions and limitations, and is the document that makes the rest of the operation legal.

Step 4 — Part 137 certificate. Apply for the Agricultural Aircraft Operator Certificate, which involves a knowledge and skill demonstration to the FAA covering the specific operation. **Step 5 — Waivers as needed.** Common requests include operations over people, beyond visual line of sight, at night, or with multiple aircraft under one pilot. **Step 6 — State licensing.** The ODA applicator licence and business licence, which is what the rest of this course covers. Budget realistically: the federal package commonly takes several months end to end, and none of it should be started the month before planting.

One more federal wrinkle worth knowing: if you apply pesticide to another person's crop for compensation, you are a commercial applicator in the state system and an operator in the federal system, and both regimes expect records. Aligning your FAA operational log with your ODA application record — same job, same date, same field — is far easier than reconstructing them separately after an inquiry.

Airspace, LAANC and the pre-flight check

Airspace classes determine whether you need authorisation before you fly. **Class G** (uncontrolled) covers most rural Ohio farmland and needs no airspace authorisation. **Class E** surface areas, and **Class D, C and B** around airports of increasing size, are controlled airspace where drone operations require authorisation. Controlled airspace often reaches the ground in a ring around an airport and is stepped upward further out, so a field five miles from a regional airport can be in controlled airspace at the surface while a field eight miles away is not.

LAANC (Low Altitude Authorization and Notification Capability) provides near-instant automated authorisation for controlled-airspace operations up to published ceiling values on the UAS Facility Maps, through approved third-party apps. Where a LAANC grid shows a ceiling of 0 feet, automated approval is unavailable and you must submit a manual **FAA DroneZone** authorisation request, which takes considerably longer. Check the grid before you quote the job, not on the morning of the application.

Beyond airspace class, your pre-flight check should cover: **temporary flight restrictions** (TFRs) — stadiums, VIP movements, wildfires; nearby heliports and private airstrips, which are common in farm country and often unmarked on consumer apps; power lines, irrigation pivots, grain legs, towers and guy wires; the crewed agricultural aircraft that may be working the same neighbourhood; and the **400-foot** altitude limit above ground level, which spray operations never approach but which still frames the regulatory envelope. Combine that with your pesticide checks — label, weather, buffers, endangered species bulletin, hive locations — into a single pre-flight card you actually run through, because the failure mode is remembering four of six items under time pressure.

Practice questions

Answer these closed-book, then check against the answer key that follows. Ohio requires 70% to pass.

1. Holding an FAA Part 107 certificate allows you to:

- A) Apply pesticides commercially
- B) Fly a small drone commercially, but not to apply pesticides
- C) Skip the state licence
- D) Fly above 400 ft AGL

2. Dispensing a pesticide from an aircraft is governed by:

- A) 14 CFR Part 61
- B) 14 CFR Part 137
- C) 14 CFR Part 91 only
- D) No federal rule

3. Spray drones over 55 pounds typically require an exemption under:

- A) 49 U.S.C. § 44807
- B) 14 CFR Part 107.31
- C) FIFRA Section 18
- D) Ohio Revised Code 921

4. LAANC provides:

- A) A pesticide licence
- B) Near-instant authorisation to operate in controlled airspace up to published ceilings
- C) Weather forecasts
- D) Aircraft insurance

5. Most rural Ohio farmland is in which airspace class?

- A) Class B
- B) Class D
- C) Class G (uncontrolled)
- D) Class A

6. The general maximum altitude for small UAS operations is:

- A) 200 ft AGL
- B) 400 ft AGL
- C) 1,000 ft AGL
- D) No limit

7. An Agricultural Aircraft Operator Certificate is issued by:

- A) ODA
- B) The FAA
- C) EPA
- D) OSU Extension

8. If a LAANC grid shows a ceiling of 0 feet for your field, you must:

- A) Fly anyway
- B) Submit a manual FAA DroneZone airspace authorisation request
- C) Call the airport tower and proceed
- D) Reduce altitude to 50 ft

Answer key & explanations

1. **B)** Fly a small drone commercially, but not to apply pesticides — Part 107 covers commercial drone flight. Dispensing pesticide additionally requires Part 137 and a state applicator licence.
2. **B)** 14 CFR Part 137 — Part 137 governs agricultural aircraft operations, which include dispensing economic poisons from an aircraft.
3. **A)** 49 U.S.C. § 44807 — Section 44807 exemptions authorise operations that cannot meet provisions written for crewed aircraft.
4. **B)** Near-instant authorisation to operate in controlled airspace up to published ceilings — LAANC gives automated airspace authorisation via approved apps; a 0-ft grid requires a manual DroneZone request.
5. **C)** Class G (uncontrolled) — Class G is uncontrolled and requires no airspace authorisation, though other rules still apply.
6. **B)** 400 ft AGL — 400 feet above ground level, with allowances near structures. Spray operations fly far below this.
7. **B)** The FAA — The FAA issues the Part 137 certificate; ODA issues the pesticide applicator and business licences.
8. **B)** Submit a manual FAA DroneZone airspace authorisation request — Zero-foot grids are not eligible for automated approval; a manual authorisation request is required and takes longer.