

Drone Inspector Vetting Guide

How to verify credentials, evaluate capabilities, and avoid unqualified drone operators

- ✓ FAA Part 107, thermography, and industry certifications explained
- ✓ Step-by-step credential verification process
- ✓ 12 red flags that signal an unqualified drone operator
- ✓ Sample vetting questionnaire you can send to providers

Understanding Drone Inspection Certifications

The FAA Part 107 Remote Pilot Certificate is the legal baseline for any commercial drone operation in the U.S. But Part 107 alone does not qualify someone to perform an inspection — it only proves they can fly legally. True inspection competency requires domain-specific training, sensor interpretation skills, and relevant asset experience. Understanding the full certification landscape helps you distinguish between a hobbyist with a drone and a qualified inspection professional.

Certification Hierarchy

Level	Certification	What It Proves	Cost / Effort
Legal Baseline	FAA Part 107 Remote Pilot	Legal authority to fly commercially; aeronautical knowledge	\$175 exam fee; 60-question test
Sensor Specialist	Infrared Thermographer (Level I-III)	Can correctly interpret thermal imagery; heat transfer knowledge	32-120 hrs training; exam per level
Domain Expert	Industry certification (RRO, CIT, CWIT)	Understands the asset being inspected, not just how to fly over it	Varies by certification body
Advanced Pilot	AUVSI TOP Level 1-3	Standardized pilot proficiency and safety practices beyond Part 107	Skills evaluation + documentation
Organizational	sUAS Safety Certification	Company-level safety management system in place	Organizational audit

What Part 107 Does — and Does Not — Cover

Part 107 Covers	Part 107 Does NOT Cover
Airspace classification and rules	How to interpret thermal anomalies on a roof
Weather minimums for safe flight	Structural engineering or roofing science
Aircraft registration and maintenance	Insurance adjusting standards and protocols

Part 107 Covers	Part 107 Does NOT Cover
Right-of-way rules and emergency procedures	Data processing, photogrammetry, or 3D modeling
Maximum altitude, visual line of sight rules	Report writing to industry-specific standards

Critical

Part 107 takes one exam (\$175) and proves someone can fly legally — nothing more. An operator without domain certifications produces aerial photography, not professional inspection reports. Always verify qualifications beyond Part 107.

Thermography & Sensor Certifications

The Certifications That Actually Matter for Inspection Quality

Thermography Certifications

Certification	Issuing Body	Training Hours	Focus
Infrared Thermographer Level I	ASNT (SNT-TC-1A)	32-40 hours	Basic thermal principles, camera operation, qualitative analysis
Infrared Thermographer Level II	ASNT	40+ additional hours	Quantitative analysis, emissivity correction, report writing
Infrared Thermographer Level III	ASNT	Program management	Procedure development, training oversight, program management
Certified Infrared Thermographer (CIT)	United Infrared / Monroe Infrared	Varies	Building envelope focus — moisture detection, insulation, air leakage
ITC Level 1-3 (Infrared Training Center)	FLIR / Teledyne	32-80+ hours	Equipment-neutral thermal science training; internationally recognized

Industry-Specific Credentials

Certification	Issuing Body	Why It Matters
Registered Roof Observer (RRO)	RCI, Inc.	Understands roofing systems, moisture pathways, and common failure modes
Certified Wind Turbine Inspector (CWIT)	Various (WindGuard, etc.)	Blade defect recognition, laminate damage classification
FAA Night Waiver / Operations Over People	FAA	Legal authority for dawn/dusk thermal flights and populated areas
BVLOS Waiver	FAA	Required for linear asset inspections (pipelines, power lines)
OSHA 10/30	OSHA	Required for construction and industrial site access

Certification	Issuing Body	Why It Matters
AUVSI Trusted Operator Program (TOP)	AUVSI	Standardized safety and proficiency evaluation, Levels 1-3

For roof inspections, require at minimum

Part 107 + Infrared Thermographer Level I + RRO (or equivalent roofing knowledge). This combination ensures the operator can fly legally, interpret thermal data correctly, and understand what they're looking at on the roof.

Insurance Requirements

Insurance Coverage Every Professional Operator Should Carry

Insurance Type	Minimum Coverage	Why It Matters
Aviation / drone liability	\$1M per occurrence (\$5M for large facilities)	Property damage or injury from drone operations on your site
General liability	\$1M–\$2M per occurrence	Standard business liability for on-site presence
Professional liability / E&O	\$1M+	Errors in inspection reports leading to missed defects or false positives
Workers' compensation	State-required minimums	Covers pilot injury on your property
Inland marine / equipment	Replacement value of equipment	Signals the operator protects their investment (not your direct concern)

Always request a Certificate of Insurance (COI) naming your organization as additionally insured.

A drone crash on your property or a missed roof defect that leads to a claim creates liability for you. \$1M aviation liability is the minimum for any commercial inspection operation.

Insurance coverage is the single best proxy for operator professionalism. Uninsured operators have no financial accountability, no underwriter reviewing their safety practices, and no recourse if something goes wrong. If they can't produce a COI in 24 hours, move on.

How to Verify Credentials

Step-by-step verification process

Request the operator's FAA Part 107 Remote Pilot Certificate number and expiration date. Certificates require recurrent training every 24 calendar months.

Verify Part 107 status through the FAA's Airmen Inquiry page (faa.gov/licenses_certificates/airmen_certification/). Confirm the certificate is active, not suspended or revoked.

For thermal inspections, request proof of thermography certification. Ask for the level (I, II, or III), issuing body (ASNT, ITC, or equivalent), and certification number. Contact the issuing body to verify if in doubt.

Request a Certificate of Insurance (COI) with your organization named as additionally insured. Verify aviation liability meets your minimum (\$1M-\$5M) and E&O coverage is active.

Ask for 3-5 sample inspection reports from similar asset types. Evaluate: Are findings annotated on imagery? Is there a severity classification? Are there clear recommendations? Compare report quality across operators.

Check the operator's drone fleet. Ask for make, model, and payload capabilities. Professional operators use enterprise platforms (DJI Matrice 350 RTK, Autel EVO Max, Skydio X10) with interchangeable sensors. Consumer drones (DJI Mini, Mavic series) lack the sensor quality, redundancy, and payload capacity for professional work.

Verify Remote ID compliance. Since March 2024, all commercial drones must broadcast Remote ID. Non-compliance is a federal violation.

Consumer drones are not professional inspection tools.

A DJI Mini or Mavic Air is designed for photography, not infrastructure inspection. They lack enterprise thermal cameras, RTK positioning, and dual-operator control. If the operator shows up with a consumer drone, they're not equipped for the work.

12 Red Flags of an Unqualified Drone Operator

1 **No Part 107 certificate.**

Commercial drone operations without Part 107 are illegal. Period. No certificate means no FAA accountability and likely no insurance.

2 **No aviation liability insurance (or won't produce COI).**

Professional operators carry \$1M+ and can produce a COI within 24 hours. No insurance = no financial accountability.

3 **Cannot produce sample inspection reports.**

If their portfolio is photos and videos with no analysis, they're an aerial photographer — not an inspector. Inspection requires findings, severity ratings, and recommendations.

4 **No thermography certification for thermal work.**

Interpreting thermal imagery requires formal training. Untrained operators misidentify reflections as hotspots, confuse emissivity artifacts with defects, and produce meaningless thermal images.

5 **Uses consumer-grade drones exclusively.**

Consumer drones lack enterprise-grade thermal sensors, RTK positioning, redundant flight systems, and the payload capacity for professional sensor payloads.

6 **Cannot explain data processing workflow.**

Professional operators use photogrammetry software (Pix4D, DroneDeploy, Agisoft Metashape) with documented QA steps. "I'll send you the photos" is not a deliverable.

7 **No flight logs or maintenance records.**

Regulatory compliance and liability documentation require flight logs. No logs means no traceability and suggests informal operations.

8 **Quotes "flight only" with no deliverables.**

Raw aerial imagery is not an inspection. If processing and reporting aren't in the quote, they're either not included or not understood.

9**Doesn't ask about your site's airspace.**

Before quoting, a qualified operator checks airspace classification, LAANC requirements, TFRs, and NOTAMs. If they don't ask where the site is relative to airports, they're not planning properly.

10**No safety documentation or risk assessment.**

Professional operators perform site-specific risk assessments, maintain emergency procedures, and brief all stakeholders before every flight.

11**Price dramatically below market.**

A commercial roof inspection at \$100 when the market range is \$500–\$1,500 means the operator is cutting corners on equipment, insurance, processing, or legality.

12**No asset-specific experience.**

A wind turbine blade inspection requires completely different skills and equipment than a roof survey. Ask for references specifically from the asset type you need inspected.

When Certification Level Matters (Decision Matrix)

HIRE A FULLY CERTIFIED OPERATOR (Part 107 + domain certs + \$1M+ insurance) WHEN

- Insurance claim documentation (adjuster-quality deliverables)
- Roof condition assessment for warranty, sale, or financing
- Solar farm performance audit (thermal hotspot detection)
- Wind turbine blade inspection (safety-critical)
- Bridge, dam, or structural inspection (engineering report required)
- Pipeline or power line survey (BVLOS, regulatory compliance)
- Any inspection where results inform a purchase, sale, or legal decision

BASIC PART 107 OPERATOR MAY SUFFICE WHEN

- Marketing / promotional aerial photos of a property
- General progress photos (not contractual documentation)
- Real estate listing photography
- Site reconnaissance for preliminary planning
- Even here: verify Part 107, insurance, and Remote ID compliance

Cost comparison

Factor	Certified Inspection Operator	Part 107 Only (Photographer)
Typical rate	\$150-\$400/hour	\$75-\$200/hour
Thermal capability	Certified (Level I+ thermographer)	Maybe (no certification)
Engineering report	Yes (or PE partnership)	No
Insurance acceptance	High (adjuster-quality)	Low (may be rejected)
Insurance coverage	\$1M-\$5M aviation + E&O	\$0-\$1M (often none)
Data processing	Professional pipeline (Pix4D, DroneDeploy)	Basic photo editing

Factor	Certified Inspection Operator	Part 107 Only (Photographer)
Deliverable	Annotated report with findings & recommendations	Photo/video files

Sample Vetting Questionnaire

Drone Inspector Vetting Questionnaire — Send This Before Hiring

Copy and send these questions to any drone inspection operator you're evaluating. Their answers — and their speed in answering — will tell you everything you need to know.

1. Credentials & Licensing

- What is your FAA Part 107 Remote Pilot Certificate number? When did you last complete recurrent training?
- Do you hold thermography certifications? If so, what level and from which body (ASNT, ITC, other)?
- What industry-specific certifications do you hold? (RRO, CWIT, AUVSI TOP, etc.)
- Do you hold any FAA waivers? (Night, BVLOS, Operations Over People)

2. Insurance

- Do you carry aviation/drone liability insurance? What is your per-occurrence limit?
- Do you carry professional liability (E&O) insurance? What are the limits?
- Can you provide a Certificate of Insurance (COI) naming our organization as additionally insured?
- Do you carry workers' compensation?

3. Equipment & Capabilities

- What drone platforms do you fly? (Make, model for each)
- What sensor payloads are available? (Camera model, thermal sensor model, LiDAR, etc.)
- Do your drones support RTK/PPK for survey-grade accuracy?
- Do you carry backup aircraft and batteries for critical projects?
- What data processing software do you use? (Pix4D, DroneDeploy, Agisoft, etc.)

4. Experience & Portfolio

- How many years have you been performing commercial drone inspections?
- How many inspections of [our specific asset type] have you completed?
- Can you provide 3 sample reports from projects similar to ours?
- Can you provide 2-3 client references from the same asset type?

5. Safety & Compliance

- Do you perform site-specific risk assessments before each operation?
- What are your emergency procedures for in-flight equipment failure?
- Are all aircraft Remote ID compliant?
- How do you handle airspace authorization? (LAANC, waivers)
- Do you maintain flight logs for every commercial operation?

6. Deliverables & Pricing

- What deliverables are included in your standard inspection price?
- What is your standard report turnaround time? Expedited turnaround time and cost?
- What is your pricing model? (Hourly, per-asset, per-project)
- What additional charges should we expect? (Mobilization, re-flights, data hosting)
- How long do you retain client data?

AeriScout

AeriScout

The most comprehensive directory of commercial drone inspection services in the United States

Search inspectors at aeriscout.com