



U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

800 Independence Ave., S.W.  
Washington, D.C. 20591

September 3, 2015

Exemption No. 12754  
Regulatory Docket No. FAA-2015-0827

Mr. Robert Wise  
ImageWise Video LLC  
18150 NW Clarno Court  
Portland, OR 97229

Dear Mr. Wise:

This letter is to inform you that we have granted your request for exemption. It transmits our decision, explains its basis, and gives you the conditions and limitations of the exemption, including the date it ends.

By letter posted to the public docket on June 2, 2015, you petitioned the Federal Aviation Administration (FAA) for an exemption. You requested to operate an unmanned aircraft system (UAS) to conduct aerial photos and videos of property or events, for purposes including real estate listings, insurance property claims, search and rescue, building and property inspections and review, land surveying or for use as a marketing tool for businesses, and for video/film production.

See Appendix A for the petition submitted to the FAA describing the proposed operations and the regulations that the petitioner seeks an exemption.

The FAA has determined that good cause exists for not publishing a summary of the petition in the Federal Register because the requested exemption would not set a precedent, and any delay in acting on this petition would be detrimental to the petitioner.

#### **Airworthiness Certification**

The UAS proposed by the petitioner is a DJI Inspire 1.

The petitioner requested relief from 14 CFR part 21, *Certification procedures for products and parts, Subpart H—Airworthiness Certificates*. In accordance with the statutory criteria

provided in Section 333 of Public Law 112–95 in reference to 49 U.S.C. § 44704, and in consideration of the size, weight, speed, and limited operating area associated with the aircraft and its operation, the Secretary of Transportation has determined that this aircraft meets the conditions of Section 333. Therefore, the FAA finds that the requested relief from 14 CFR part 21, *Certification procedures for products and parts, Subpart H—Airworthiness Certificates*, and any associated noise certification and testing requirements of part 36, is not necessary.

### **The Basis for Our Decision**

You have requested to use a UAS for aerial data collection<sup>1</sup>. The FAA has issued grants of exemption in circumstances similar in all material respects to those presented in your petition. In Grants of Exemption Nos. 11062 to Astraesus Aerial (*see* Docket No. FAA–2014–0352), 11109 to Clayco, Inc. (*see* Docket No. FAA–2014–0507), 11112 to VDOS Global, LLC (*see* Docket No. FAA–2014–0382), and 11213 to Aeryon Labs, Inc. (*see* Docket No. FAA–2014–0642), the FAA found that the enhanced safety achieved using an unmanned aircraft (UA) with the specifications described by the petitioner and carrying no passengers or crew, rather than a manned aircraft of significantly greater proportions, carrying crew in addition to flammable fuel, gives the FAA good cause to find that the UAS operation enabled by this exemption is in the public interest.

Having reviewed your reasons for requesting an exemption, I find that—

- They are similar in all material respects to relief previously requested in Grant of Exemption Nos. 11062, 11109, 11112, and 11213;
- The reasons stated by the FAA for granting Exemption Nos. 11062, 11109, 11112, and 11213 also apply to the situation you present; and
- A grant of exemption is in the public interest.

### **Our Decision**

In consideration of the foregoing, I find that a grant of exemption is in the public interest. Therefore, pursuant to the authority contained in 49 U.S.C. 106(f), 40113, and 44701, delegated to me by the Administrator, Mr. Robert Wise is granted an exemption from 14 CFR §§ 61.23(a) and (c), 61.101(e)(4) and (5), 61.113(a), 61.315(a), 91.7(a), 91.119(c), 91.121, 91.151(a)(1), 91.405(a), 91.407(a)(1), 91.409(a)(1) and (2), and 91.417(a) and (b), to the extent necessary to allow the petitioner to operate a UAS to perform aerial data collection. This exemption is subject to the conditions and limitations listed below.

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<sup>1</sup> Aerial data collection includes any remote sensing and measuring by an instrument(s) aboard the UA. Examples include imagery (photography, video, infrared, etc.), electronic measurement (precision surveying, RF analysis, etc.), chemical measurement (particulate measurement, etc.), or any other gathering of data by instruments aboard the UA.

## Conditions and Limitations

In this grant of exemption, Mr. Robert Wise is hereafter referred to as the operator.

Failure to comply with any of the conditions and limitations of this grant of exemption will be grounds for the immediate suspension or rescission of this exemption.

1. Operations authorized by this grant of exemption are limited to the DJI Inspire 1 when weighing less than 55 pounds including payload. Proposed operations of any other aircraft will require a new petition or a petition to amend this exemption.
2. Operations for the purpose of closed-set motion picture and television filming are not permitted.
3. The UA may not be operated at a speed exceeding 87 knots (100 miles per hour). The exemption holder may use either groundspeed or calibrated airspeed to determine compliance with the 87 knot speed restriction. In no case will the UA be operated at airspeeds greater than the maximum UA operating airspeed recommended by the aircraft manufacturer.
4. The UA must be operated at an altitude of no more than 400 feet above ground level (AGL). Altitude must be reported in feet AGL.
5. The UA must be operated within visual line of sight (VLOS) of the PIC at all times. This requires the PIC to be able to use human vision unaided by any device other than corrective lenses, as specified on the PIC's FAA-issued airman medical certificate or U.S. driver's license.
6. All operations must utilize a visual observer (VO). The UA must be operated within the visual line of sight (VLOS) of the PIC and VO at all times. The VO may be used to satisfy the VLOS requirement as long as the PIC always maintains VLOS capability. The VO and PIC must be able to communicate verbally at all times; electronic messaging or texting is not permitted during flight operations. The PIC must be designated before the flight and cannot transfer his or her designation for the duration of the flight. The PIC must ensure that the VO can perform the duties required of the VO.
7. This exemption and all documents needed to operate the UAS and conduct its operations in accordance with the conditions and limitations stated in this grant of exemption, are hereinafter referred to as the operating documents. The operating documents must be accessible during UAS operations and made available to the Administrator upon request. If a discrepancy exists between the conditions and limitations in this exemption and the procedures outlined in the operating documents, the conditions and limitations herein take precedence and must be followed.

Otherwise, the operator must follow the procedures as outlined in its operating documents. The operator may update or revise its operating documents. It is the operator's responsibility to track such revisions and present updated and revised documents to the Administrator or any law enforcement official upon request. The operator must also present updated and revised documents if it petitions for extension or amendment to this grant of exemption. If the operator determines that any update or revision would affect the basis upon which the FAA granted this exemption, then the operator must petition for an amendment to its grant of exemption. The FAA's UAS Integration Office (AFS-80) may be contacted if questions arise regarding updates or revisions to the operating documents.

8. Any UAS that has undergone maintenance or alterations that affect the UAS operation or flight characteristics, e.g., replacement of a flight critical component, must undergo a functional test flight prior to conducting further operations under this exemption. Functional test flights may only be conducted by a PIC with a VO and must remain at least 500 feet from other people. The functional test flight must be conducted in such a manner so as to not pose an undue hazard to persons and property.
9. The operator is responsible for maintaining and inspecting the UAS to ensure that it is in a condition for safe operation.
10. Prior to each flight, the PIC must conduct a pre-flight inspection and determine the UAS is in a condition for safe flight. The pre-flight inspection must account for all potential discrepancies, e.g., inoperable components, items, or equipment. If the inspection reveals a condition that affects the safe operation of the UAS, the aircraft is prohibited from operating until the necessary maintenance has been performed and the UAS is found to be in a condition for safe flight.
11. The operator must follow the UAS manufacturer's maintenance, overhaul, replacement, inspection, and life limit requirements for the aircraft and aircraft components.
12. Each UAS operated under this exemption must comply with all manufacturer safety bulletins.
13. Under this grant of exemption, a PIC must hold either an airline transport, commercial, private, recreational, or sport pilot certificate. The PIC must also hold a current FAA airman medical certificate or a valid U.S. driver's license issued by a state, the District of Columbia, Puerto Rico, a territory, a possession, or the Federal government. The PIC must also meet the flight review requirements specified in 14 CFR § 61.56 in an aircraft in which the PIC is rated on his or her pilot certificate.
14. The operator may not permit any PIC to operate unless the PIC demonstrates the ability to safely operate the UAS in a manner consistent with how the UAS will be

operated under this exemption, including evasive and emergency maneuvers and maintaining appropriate distances from persons, vessels, vehicles and structures. PIC qualification flight hours and currency must be logged in a manner consistent with 14 CFR § 61.51(b). Flights for the purposes of training the operator's PICs and VOs (training, proficiency, and experience-building) and determining the PIC's ability to safely operate the UAS in a manner consistent with how the UAS will be operated under this exemption are permitted under the terms of this exemption. However, training operations may only be conducted during dedicated training sessions. During training, proficiency, and experience-building flights, all persons not essential for flight operations are considered nonparticipants, and the PIC must operate the UA with appropriate distance from nonparticipants in accordance with 14 CFR § 91.119.

15. UAS operations may not be conducted during night, as defined in 14 CFR § 1.1. All operations must be conducted under visual meteorological conditions (VMC). Flights under special visual flight rules (SVFR) are not authorized.
16. The UA may not operate within 5 nautical miles of an airport reference point (ARP) as denoted in the current FAA Airport/Facility Directory (AFD) or for airports not denoted with an ARP, the center of the airport symbol as denoted on the current FAA-published aeronautical chart, unless a letter of agreement with that airport's management is obtained or otherwise permitted by a COA issued to the exemption holder. The letter of agreement with the airport management must be made available to the Administrator or any law enforcement official upon request.
17. The UA may not be operated less than 500 feet below or less than 2,000 feet horizontally from a cloud or when visibility is less than 3 statute miles from the PIC.
18. If the UAS loses communications or loses its GPS signal, the UA must return to a pre-determined location within the private or controlled-access property.
19. The PIC must abort the flight in the event of unpredicted obstacles or emergencies.
20. The PIC is prohibited from beginning a flight unless (considering wind and forecast weather conditions) there is enough available power for the UA to conduct the intended operation and to operate after that for at least five minutes or with the reserve power recommended by the manufacturer if greater.
21. Air Traffic Organization (ATO) Certificate of Waiver or Authorization (COA). All operations shall be conducted in accordance with an ATO-issued COA. The exemption holder may apply for a new or amended COA if it intends to conduct operations that cannot be conducted under the terms of the attached COA.
22. All aircraft operated in accordance with this exemption must be identified by serial number, registered in accordance with 14 CFR part 47, and have identification

(N–Number) markings in accordance with 14 CFR part 45, Subpart C. Markings must be as large as practicable.

23. Documents used by the operator to ensure the safe operation and flight of the UAS and any documents required under 14 CFR §§ 91.9 and 91.203 must be available to the PIC at the Ground Control Station of the UAS any time the aircraft is operating. These documents must be made available to the Administrator or any law enforcement official upon request.
24. The UA must remain clear and give way to all manned aviation operations and activities at all times.
25. The UAS may not be operated by the PIC from any moving device or vehicle.
26. All Flight operations must be conducted at least 500 feet from all nonparticipating persons, vessels, vehicles, and structures unless:
  - a. Barriers or structures are present that sufficiently protect nonparticipating persons from the UA and/or debris in the event of an accident. The operator must ensure that nonparticipating persons remain under such protection. If a situation arises where nonparticipating persons leave such protection and are within 500 feet of the UA, flight operations must cease immediately in a manner ensuring the safety of nonparticipating persons; and
  - b. The owner/controller of any vessels, vehicles or structures has granted permission for operating closer to those objects and the PIC has made a safety assessment of the risk of operating closer to those objects and determined that it does not present an undue hazard.

The PIC, VO, operator trainees or essential persons are not considered nonparticipating persons under this exemption.

27. All operations shall be conducted over private or controlled-access property with permission from the property owner/controller or authorized representative. Permission from property owner/controller or authorized representative will be obtained for each flight to be conducted.
28. Any incident, accident, or flight operation that transgresses the lateral or vertical boundaries of the operational area as defined by the applicable COA must be reported to the FAA's UAS Integration Office (AFS–80) within 24 hours. Accidents must be reported to the National Transportation Safety Board (NTSB) per instructions contained on the NTSB Web site: [www.nts.gov](http://www.nts.gov).

If this exemption permits operations for the purpose of closed-set motion picture and television filming and production, the following additional conditions and limitations apply.

29. The operator must have a motion picture and television operations manual (MPTOM) as documented in this grant of exemption.
30. At least 3 days before aerial filming, the operator of the UAS affected by this exemption must submit a written Plan of Activities to the local Flight Standards District Office (FSDO) with jurisdiction over the area of proposed filming. The 3-day notification may be waived with the concurrence of the FSDO. The plan of activities must include at least the following:
- a. Dates and times for all flights;
  - b. Name and phone number of the operator for the UAS aerial filming conducted under this grant of exemption;
  - c. Name and phone number of the person responsible for the on-scene operation of the UAS;
  - d. Make, model, and serial or N-Number of UAS to be used;
  - e. Name and certificate number of UAS PICs involved in the aerial filming;
  - f. A statement that the operator has obtained permission from property owners and/or local officials to conduct the filming production event; the list of those who gave permission must be made available to the inspector upon request;
  - g. Signature of exemption holder or representative; and
  - h. A description of the flight activity, including maps or diagrams of any area, city, town, county, and/or state over which filming will be conducted and the altitudes essential to accomplish the operation.
31. Flight operations may be conducted closer than 500 feet from participating persons consenting to be involved and necessary for the filming production, as specified in the exemption holder's MPTOM.

Unless otherwise specified in this grant of exemption, the UAS, the UAS PIC, and the UAS operations must comply with all applicable parts of 14 CFR including, but not limited to, parts 45, 47, 61, and 91.

This exemption terminates on September 30, 2017, unless sooner superseded or rescinded.

Sincerely,

/s/

John S. Duncan

Director, Flight Standards Service

Enclosures

James M Crotty  
Manager, Aircraft and Airport Rules Division  
800 Independence Ave S.W.  
Washington DC 20591

Re: Public Docket FAA-2015-0827 – Exemption / rulemaking request

Your name and mailing address. You may include other contact information such as a fax number, telephone number, or email address;

Robert Wise  
ImageWise Video LLC  
18150 NW Clarno Ct.  
Portland OR 97229

503 724 5460  
[Rob@imagewisevideo.com](mailto:Rob@imagewisevideo.com)

**The extent of relief you seek and the reason you seek the relief;**

*14 C.F.R. Part 21*  
*14 C.F.R. 45.23(b)*  
*14 C.F.R. 61.113(a) & (b); 14 C.F.R. 61.133(a);*  
*14 C.F.R. 91.7(a);*  
*14 C.F.R. 91.9(b)(2) & (c)*  
*14 C.F.R. 91.103;*  
*14 C.F.R. 91.109(a);*  
*14 C.F.R. 91.119;14*  
*C.F.R. 91.151(a);*  
*14 C.F.R. 91.203(a) & (b);*  
*14 C.F.R. 91.405(a);*  
*14 C.F.R. 91.407(a)(1);*  
*14 C.F.R. 91.409(a)(2); 14 C.F.R. 91.417(a).*

Sec 333 prohibits the use of a sUAS for commercial purposes on private property. I am the owner of a video production company that providing video services for private and corporate special events, and corporate information and recording service. I am petitioning for an exemption to provide a commercial service to private and public land owners and companies who wish to obtain and capture aerial photos and videos of said property or events, for purposes including real estate listings, insurance property claims, search and rescue, building and property inspections and review, land surveying or for use as a marketing tool for businesses. Additional use may be for video/film production. I would like to be able to accept payment for these services therefore making this a commercial use of a sUAS.



**How your request would benefit the public as a whole;**

My request benefits the public as a whole by providing an opportunity for small business owners, real estate agents, and other business owners who wish to document their land, property, product or company, to take advantage of the lower cost and technology that now exists in the form of sUAS's and allows them to do so using an experienced and RC Pilot in Command that understands how to safely operate such technology.

**Reasons why the exemption would not adversely affect safety, or how the exemption would provide a level of safety at least equal to the existing rule;**

As a qualified and commercial videographer and member of the Drone Pilots Association, I currently exercise many safety programs, including SAFE technology and GPS navigating. When flying for this commercial purpose I would be flying at a maximum altitude of 200 Feet and flying mostly vertically for the purposes of taking photos, decreasing the risk of any interference. My general knowledge of the aviation safety systems implemented by the FAA would be used to ensure that safety would not be affected by my operations. I will not be flying near high traffic areas including airports, and I pay attention to NOTAMS by following current alerts at [twitter.com/amagov](https://twitter.com/amagov) or refer to [pilotweb.nas.faa.gov/PilotWeb/](http://pilotweb.nas.faa.gov/PilotWeb/)

**I intend to follow these suggested safety regulations**

- Always keep aircraft in line of sight and under control.
- Accompanying me will be a second person to monitor the aircraft along with me.
- Always keeping people and pets at least 35 feet (10 meters) away when the battery is connected.
- Keep children out of the vicinity of this product at all times.
- Always use fully charged batteries and do not fly when batteries are 25% or less power remaining.
- Utilize auto return home prior to batteries remaining power at 25% or less.
- Not fly within 5 miles of any airport or fly in other no fly zones.
- I have installed the dji Inspire 1 propeller locks which were sent out by DJI, which ensure an added safety layer of propellers.
- The auto home point return feature, which returns the aircraft to either when the controller is or where the Dji Inspire 1 initially takes off from. This can be used when low battery level customizable thresholds are enabled, or if the aircraft drifts, for simple recovery and automated return of the aircraft.

**Additional safety features I will be using to ensure a safe and responsible flight path, including the following.****VISION POSITIONING SYSTEM**

DJI's new Optical Flow technology uses a specially designed camera as well as sonic waves to bring simplicity and safety when taking off and landing. These sensors read the ground distance and ensure a smooth take off, landing or use in doors if applicable. This

technology allows the Inspire to hold its position, stop when the controls are released, and respond to your commands even when GPS is unavailable.

### **INTELLIGENT POWER MANAGEMENT SYSTEM**

A fully integrated intelligent battery powers the Inspire 1 and virtually manages itself. When in flight, my remaining battery power is shown live, letting me know how long I can continue to fly in minutes. Advanced algorithms calculate the distance of your aircraft and estimated time to return home, letting you know when it's time to fly back. The battery tracks the voltage of each cell, the total lifetime charges and discharges, and the overall health and battery status.

### **SAFE FLIGHT**

When GPS is available, the Home Point (the location you are standing) automatically refreshes, so the Inspire 1 always knows where you are even if you move around. When you tell it to come back, or in case of an emergency, it knows exactly where to go and land safely.

### **FULL-FEATURED APP**

In addition to line of sight, I simultaneously have access to the camera and flight system with a comprehensive mobile app. Everything from manual camera controls to flight telemetry, auto takeoff and landing are accessible on the controller and the app alike.

- **Position Hold**— The DJI Inspire 1 uses GPS to hold a given location when this function is activated. If GPS is enabled and has a solid lock, the aircraft will hold its position when elevator or aileron inputs DJI Inspire 1 are at neutral.
- **Throttle provides proportional thrust**— The throttle responds directly to the throttle input, giving the pilot direct control over hovering as well as ascent and descent rates.

### **A summary we can publish in the Federal Register—**

I, Robert Wise am seeking an exemption of the FAA's Sec 333 rules that does not allow the use of a small Unmanned Aircraft to be used for Commercial purposes in regards to National Airspace Safety. I am simply petitioning for an exemption to provide a commercial service to private and public land owners and companies who wish to obtain and capture aerial photos and videos of said property, private or public events, real estate listings, insurance property claims, inspections and review, marketing tool for business. As a member of the Drone Pilots Associations I understanding the importance of different uses and safety concerns regarding FAA regulated airspace, I would be a good candidate for exemption of Sec 333 while not putting Air Safety in any accelerated risk. The specific sUAS (DJI Inspire 1 whose Operating Manual is included in my petition) I am seeking exemption with is one with many safety programs, including SAFE technology and GPS navigating. When flying for this commercial purpose I would be flying at a maximum altitude, not to exceed 500 feet and flying mostly vertically for the purposes of taking photos, decreasing the risk of any interference. My general knowledge of the aviation safety systems implemented by the FAA would be used to ensure that safety would not be affected by my operations. I would not be flying near disaster areas sporting events, (unless specifically hired to do so by the organizing management) or high

traffic areas including airports, and I would monitor and pay attention to NOTAMS. I appreciate the FAA's consideration of this petition for exemption.

**Any additional information, views, or arguments available to support your request;**

I am fully aware of the preflight safety checks and procedures implicated in the operation manual for the DJI Inspire 1 and intend to implement preflight safety checks and utilize the safety technology provided with this unit. I intend to only fly in non-populated, residential or rural areas and stay clear of all utility lines etc. I intend to be fully aware of my surroundings at all times and to only fly the unmanned aircraft within a visual line of sight and only in Visual Flight Conditions and with a spotter.

I understand and will comply with all the health and safety regulations for PIC's and will be the only operator under this exemption.

**FCC Compliance**

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment

**General Safety Precautions and Warnings I intend to follow:**

- Follow FAA guidelines for safe usage of sUAS flight.
- Maintaining flight log data.
- Update the weather, wind and other factors prior to takeoff.
- I use extreme caution if operating around buildings, people or other personal or business property, keeping the aircraft at safe distances away.

**If you want to exercise the privileges of your exemption outside the United States, you must state the reason.**

Although I have no intention of using this exemption outside the United States at this time, there may be a time in the future for limited or periodic use of the aircraft, outside the United States. This could be for relocation, destination videos for personal or commercial use. If used outside the United States, I will comply with that government's laws, exemptions and other applicable regulations.

I have attached a copy of the DJI Inspire 1 operating manual and providing you with the link to the manufacturer's website where you can obtain more insight.

<http://www.dji.com/product/inspire-1/feature>

Please contact me if I can follow up with anything else regarding my requested exemption. Thank you for your consideration for approval.

Sincerely,

Robert Wise

[rob@imagewisevideo.com](mailto:rob@imagewisevideo.com)