



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

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

August 25, 2015

Exemption No. 12583  
Regulatory Docket No. FAA-2015-2018

Mr. David Hunt  
Image Effects  
3516 Sunset Avenue  
Caldwell, ID 83605

Dear Mr. Hunt:

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 docket on June 1, 2015 and letter dated June 22, 2015, you petitioned the Federal Aviation Administration (FAA) on behalf of Image Effects (hereinafter petitioner or operator) for an exemption. The petitioner requested to operate an unmanned aircraft system (UAS) to conduct aerial filming and photography for coverage of events, structural inspections of bridges, pipelines, wells, power lines, cell towers, agricultural fields, enhanced real estate listings, wildlife survey, motion picture filming, and search and rescue.

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 are the DJI Phantom 3 and DJI Inspire 1.

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 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> and closed set motion picture and filming. 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 Astraeus 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, Image Effects 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 and closed set motion picture and filming. 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, Image Effects 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 Phantom 3 and 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 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 August 31, 2017, unless sooner superseded or rescinded.

Sincerely,

/s/

John S. Duncan

Director, Flight Standards Service

Enclosures





## Image Effects - Exemption/Rulemaking

This Other document was issued by the **Federal Aviation Administration (FAA)**

For related information, [Open Docket Folder](#)

### Content

David Hunt (PIC)  
Image Effects (Company Name)  
3516 Sunset Ave  
Caldwell ID 83605

Request for exemption to fly UAS in business

Will be used within FAA requirements with regards to distance from airports elevations and daytime operation visual observance (VLOS) of UAS and all other FAA regulations.  
A COA will be applied for on any flights that may be outside these requirements.

Will be flying UAS for:  
Aerial filming and photography for coverage of events, structural inspections of bridges, pipelines, wells, power lines, cell towers, agricultural fields, enhanced real estate listings, and other building or structural inspections

Will be flying Phantom 3 and Inspire 1 (UAS)  
Drones are under 10 pounds and fly under 50 mile an hour  
All specs are available online thru DJI at  
<http://www.dji.com/product/phantom-3/spec>

PIC Has completed a 1-hour classroom session were participants had hands-on flight experience with a Phantom and inspire 1, under the guidance of an experienced instructor. after which PIC will have over 25 hours practice hours with said Drones.

Preflight checklist below will be used:

Phantom & R/C battery charged  
Tablet charged  
Propellers installed and tightened  
Remove gimbal lock  
Gimbal not obstructed (grass)  
Tablet volume to MAX

Comment Period Closed

ID: FAA-2015-2018-0001

### Document Information

**Date Posted:**  
Jun 1, 2015

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### Submitter Information

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### Comments

0

Comments Received \*

### Docket Information

*This document is contained in*  
[FAA-2015-2018](#)

**Related Dockets:**  
None

**Related RINs:**

Tablet to R/C cable attached  
Tablet Wifi & BT OFF  
R/C ON  
R/C in P-Mode  
Phantom ON  
Launch DJI Pilot app  
Check values :  
Compass status  
IMU values (0, 1, 1400-1600)  
Gain values  
Max height  
RTH height (depends on flight location)  
R/C EXP & Gain (0,5-0,4-0,5)  
VPS ON (if indoor flight)  
Satellite status  
Format SD card  
CHECK HOME POINT  
CHECK BATTERY STATUS (Cells)  
Takeoff

None

**Related Documents:**

None

\* This count refers to the total comment/submissions received on this *document*, as of 11:59 PM yesterday. Note: Agencies review all submissions, however some agencies may choose to redact, or withhold, certain submissions (or portions thereof) such as those containing private or proprietary information, inappropriate language, or duplicate/near duplicate examples of a mass-mail campaign. This can result in discrepancies between this count and those displayed when conducting searches on the Public Submission document type. For specific information about an agency's public submission policy, refer to its website or the Federal Register document.

UNITED STATES OF AMERICA  
DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
WASHINGTON, DC

Regulatory Docket No. \_\_\_\_\_

**IN THE MATTER OF THE PETITION FOR EXEMPTION OF:  
DAVID HUNT dba IMAGE EFFECTS  
FOR AN EXEMPTION SEEKING RELIEF FROM THE REQUIREMENTS OF  
TITLE 14 OF THE CODE OF FEDERAL REGULATIONS  
SECTIONS 91.7(a), 91.121, 91.151(b), 91.405(a), 91.407(a)(1), 91.409(a)(1) & (a)(2), AND  
91.417(a) & (b) CONCERNING COMMERCIAL OPERATION OF DJI PHANTOM 3  
AND INSPIRE 1 UNMANNED AIRCRAFT SYSTEMS  
PURSUANT TO SECTION 333 OF  
THE FAA MODERNIZATION AND REFORM ACT OF 2012  
(PUBLIC LAW 112-95)**

**Submitted on June 22, 2015**  
DAVID HUNT  
3516 Sunset Ave Caldwell Idaho 83605  
619 806 5126  
david@imageeffects.com

## **SUMMARY**

DAVID HUNT seeks exemption from the requirements of 14 C.F.R §§ 91.7(a), 91.121, 91.151(b), 91.405(a), 91.407(a)(1), 91.409(a)(1) & (a)(2), and 91.417(a) & (b), to operate an Unmanned Aircraft System pursuant to Section 333 of the FAA Modernization and Reform Act of 2012 (FMRA). This exemption will permit DAVID HUNT to operate an Unmanned Aircraft System (UAS) for the commercial purpose of conducting aerial video and photography of construction sites, real estate, farmland, and landscape over certain areas of the United States.

## **INTRODUCTION AND INTERESTS OF THE PETITIONER**

DAVID HUNT will provide his clients with expertise and knowledge in advanced technologies and solutions to increase efficiency, productivity and effectiveness. DAVID HUNT has nearly 25 hours of recreational/hobby flying experience in aspects of aerial video and photography. The objective of DAVID HUNT and his aerial operations is to safely provide high quality imaging for a variety of commercial, public, and residential uses, specifically targeting:

- Agriculture
- General aerial still photos
- Wildlife population surveys
- Real Estate marketing
- Motion Picture Filming
- Aerial inspections of public and private structures
- Search and Rescue operations

## **BACKGROUND**

Unmanned Aircraft Systems: DJI Phantom 3 & Inspire 1 UASs

DAVID HUNT seeks an exemption to operate DJI systems for compensation or hire within the NAS. The DJI Phantom 3 is a vertical takeoff and landing (VTOL) Unmanned Aircraft (UA) with a Ground Control Station (GCS) utilizing electronic tablet or smart phone systems. The DJI Phantom 3 has a maximum gross weight of approximately 3 pounds while having a length of 16 inches, width of 16 inches, height of 8 inches, and a maximum speed of approximately 30 knots and the Inspire 1 is approximately 15 pounds 15 x 15 x 20 inches, and a maximum speed of approximately 30 knots. Both the DJI Phantom 3 and Inspire 1 UA is equipped with four main rotors, driven by Lithium Polymer battery powered electric motors.

Both the UA that will be operated by DAVID HUNT will be registered in accordance with 49 U.S.C. 44103, *Registration of Aircraft*, as well as 14 C.F.R Part 47, *Aircraft Registration*, and marked in accordance with 14 C.F.R. Part 45, *Identification and Registration Marking*.

## **BASIS FOR PETITION**

Petitioner, DAVID HUNT, pursuant to the provisions of the Federal Aviation Regulations (14 C.F.R. § 11.61) and the FAA Modernization and Reform Act of 2012 (FMRA), Section 333, *Special Rules for Certain Unmanned Aircraft Systems*, hereby petitions the Administrator to commercially operate the DJI Phantom 3 & Inspire 1UA in the National Airspace System (NAS), and for an exemption from the requirements of 14 C.F.R §§ 91.7(a), 91.121, 91.151(b), 91.405(a), 91.407(a)(1), 91.409(a)(1) & (a)(2), and 91.417(a) & (b).

In consideration of the speed, weight, size, and limited operating area associated with the unmanned aircraft and its operation, DAVID HUNT's operation of the DJI Phantom 2 & Inspire 1 UA meets the conditions of FMRA Section 333 and therefore, will not require an airworthiness certificate in accordance with 14 C.F.R. Part 21, Subpart H.

Accordingly, DAVID HUNT requests relief from Sections 91.405(a), 91.407(a)(1), 91.409(a)(1) & (a)(2), and 91.417(a) & (b), as these sections set forth requirements for maintenance that only apply to aircraft with an airworthiness certificate. DAVID HUNT submits that the requested relief is proper since an equivalent level of safety will be ensured. DAVID HUNT will use experienced personnel or technicians to perform maintenance, alterations, or preventive maintenance on the UASs using the methods, techniques, and practices prescribed in the operating documents (i.e., Monthly Maintenance Log, and DJI Instruction Manual). Furthermore, DAVID HUNT will document and maintain all maintenance records for the DJI Phantom 3 & Inspire 1UA.

*Privileges and Limitations: Pilot in Command*, is requested by DAVID HUNT to the extent necessary to allow a Pilot in Command (PIC) who has demonstrated, by meeting minimum 20 flight-hour requirements and that the PIC is able to safely operate the said DJI UA in a manner consistent with this exemption, including evasive and emergency maneuvers and maintaining appropriate distances from people, vessels, vehicles, and structures.

DAVID HUNT seeks relief from Section 91.7(a), entitled *Civil Aircraft Airworthiness*, because the DJI Phantom 3 & Inspire 1 UA does not require an airworthiness certificate in accordance with 14 C.F.R. Part 21, Subpart H. As such, DAVID HUNT submits that he will ensure that the DJI Phantom 3& Inspire 1 UA is in an airworthy condition, prior to every flight, by determining that the UA is in compliance with the operating documents (i.e., Monthly Maintenance Log, and DJI Instruction Manual), and that the aircraft is in a condition for safe flight.

DAVID HUNT also seeks an exemption from the requirements of Section 91.121, entitled *Altimeter Settings*, as the DJI Phantom 3 UA & Inspire 1 will not have a typical barometric altimeter onboard. However, altitude information of these said UA will be provided to the PIC via Global Positioning System (GPS) equipment and radio communications telemetry data link, which downlinks from the UA to the GCS for active monitoring of the flight path. This altitude information, combined with DAVID HUNT's operation of the DJI Phantom 3 & Inspire 1 UA within visual line of sight, at or below 500 feet AGL, will ensure a level of safety equivalent to Section 91.121.

Additionally, DAVID HUNT seeks an exemption from the requirements of Section 91.151(b), entitled *Fuel Requirements for Flight in VFR Conditions*. DAVID HUNT submits that safety will not be affected by operation of the DJI Phantom 3 & Inspire 1 UA during daylight hours in visual meteorological conditions (VMC) under visual flight rules (VFR), with enough battery power to fly for a total duration of approximately 17.5 minutes to the first point of intended landing and, assuming normal cruising speed, to fly after that for at least 4.5 minutes.

In accordance with 14 C.F.R. § 11.81, DAVID HUNT provides the following information in support of his petition for exemption

**Name And Address Of The Petitioner.**

DAVID HUNT

3516 Sunset Ave Caldwell Idaho 83605

619 806 5126

david@imageeffects.com.com

## **The Specific Sections Of 14 C.F.R. From Which DAVID HUNT Seeks Exemption.**

### **1. DAVID HUNT Seeks Exemption From The Requirements Of Section 91.7(a).**

Section 91.7, entitled *Civil Aircraft Airworthiness*, subsection (a), states the following:

(a) No person may operate a civil aircraft unless it is in an airworthy condition.

### **2. DAVID HUNT Seeks Exemption From The Requirements Of Section 91.121.**

Section 91.121, entitled *Altimeter Settings*, subsection (a), states the following, in part:

(a) Each person operating an aircraft shall maintain the cruising altitude or flight level of that aircraft, as the case may be, by reference to an altimeter that is set, when operating--

(1) Below 18,000 feet MSL, to--

(i) The current reported altimeter setting of a station along the route and within 100 nautical miles of the aircraft;

(ii) If there is no station within the area prescribed in paragraph (a)(1)(i) of this section, the current reported altimeter setting of an appropriate available station; or

(iii) In the case of an aircraft not equipped with a radio, the elevation of the departure airport or an appropriate altimeter setting available before departure.

### **3. DAVID HUNT Seeks Exemption From The Requirements Of Section 91.151(b).**

Section 91.151, entitled *Fuel Requirements for Flight in VFR Conditions*, subsection

(b), states the following:

*(b) No person may begin a flight in a rotorcraft under VFR conditions unless (considering wind and forecast weather conditions) there is enough fuel to fly to the first point of intended landing and, assuming normal cruising speed, to fly after that for at least 20 minutes.*

### **4. DAVID HUNT Seeks Exemption From The Requirement Of Section 91.405(a).**

Section 91.405, entitled *Maintenance required*, subsection (a), states the following: Each owner or operator of an aircraft—

(a) Shall have that aircraft inspected as prescribed in subpart E of this part and shall between required inspections, except as provided in paragraph (c) of this section, have discrepancies repaired as prescribed in part 43 of this chapter[.]

### **5. DAVID HUNT Seeks Exemption From The Requirements Of Section 91.407(a)(1)**

Section 91.407, entitled *Operation After Maintenance, Preventive Maintenance, Rebuilding, or Alteration*, subsection (a)(1), states the following:

(a) No person may operate any aircraft that has undergone maintenance, preventive maintenance, rebuilding, or alteration unless--

(1) It has been approved for return to service by a person authorized under § 43.7 of this chapter.

#### **6. DAVID HUNT Seeks Exemption From The Requirements Of Sections 91.409(a)(1) And 91.409(a)(2).**

Section 91.409, entitled *Inspections*, subsection (a), states the following:

(a) Except as provided in paragraph (c) of this section, no person may operate an aircraft unless, within the preceding 12 calendar months, it has had --

(1) An annual inspection in accordance with part 43 of this chapter and has been approved for return to service by a person authorized by § 43.7 of this chapter; or

(2) An inspection for the issuance of an airworthiness certificate in accordance with part 21 of this chapter.

#### **7. DAVID HUNT Seeks Exemption From The Requirements Of Sections 91.417(a) And 91.417(b).**

Section 91.417, entitled *Maintenance Records*, subsections (a) and (b), state the following:

(a) Except for work performed in accordance with §§ 91.411 and 91.413, each registered owner or operator shall keep the following records for the periods specified in paragraph (b) of this section:

(1) Records of the maintenance, preventive maintenance, and alteration and records of the 100-hour, annual, progressive, and other required or approved inspections, as appropriate, for each aircraft (including the airframe) and each engine, propeller, rotor, and appliance of an aircraft. The records must include--

(i) A description (or reference to data acceptable to the Administrator) of the work performed; and

(ii) The date of completion of the work performed; and

(iii) The signature, and certificate number of the person approving the aircraft for return to service.

(2) Records containing the following information:

(i) The total time in service of the airframe, each engine, each propeller, and each rotor.

(ii) The current status of life-limited parts of each airframe, engine, propeller, rotor, and appliance.

(iii) The time since last overhaul of all items installed on the aircraft which are required to be overhauled on a specified time basis.



(iv) The current inspection status of the aircraft, including the time since the last inspection required by the inspection program under which the aircraft and its appliances are maintained.

(v) The current status of applicable airworthiness directives (AD) and safety directives including, for each, the method of compliance, the AD or safety directive number and revision date. If the AD or safety directive involves recurring action, the time and date when the next action is required.

(vi) Copies of the forms prescribed by § 43.9(d) of this chapter for each major alteration to the airframe and currently installed engines, rotors, propellers, and appliances.

(b) The owner or operator shall retain the following records for the periods prescribed:

(1) The records specified in paragraph (a)(1) of this section shall be retained until the work is repeated or superseded by other work or for 1 year after the work is performed.

(2) The records specified in paragraph (a)(2) of this section shall be retained and transferred with the aircraft at the time the aircraft is sold.

(3) A list of defects furnished to a registered owner or operator under § 43.11 of this chapter shall be retained until the defects are repaired and the aircraft is approved for return to service.

## **The Extent Of Relief DAVID HUNT Seeks And The Reason DAVID HUNT Seeks The Relief.**

### **1. Extent Of Relief DAVID HUNT Seeks And The Reason DAVID HUNT Seeks Relief From Section 91.7(a).**

Relief from Section 91.7(a) entitled *Civil aircraft airworthiness*, is requested to the extent required to allow DAVID HUNT to determine that the DJI Phantom 3 & Inspire 1 UA is in airworthy condition prior to every flight by ensuring that the UAS is in compliance with the operating documents (i.e., Monthly Maintenance Log and DJI Instruction Manual).

DAVID HUNT seeks the requested relief because the DJI Phantom 3 & Inspire 1 UA does not require an airworthiness certificate in accordance with 14 C.F.R. Part 21, Subpart H. Therefore, DAVID HUNT will ensure that the DJI Phantom 3 & Inspire 1 UA is in airworthy condition based upon its compliance with the operating documents (i.e., Monthly Maintenance Log, and DJI Instruction Manual) prior to every flight, and further, determine that the aircraft is in condition for safe flight, as stated in the conditions and limitations below.

### **2. Extent Of Relief DAVID HUNT Seeks And The Reason DAVID HUNT Seeks Relief From Section 91.121.**

Relief from Section 91.121, entitled Altimeter Settings, may be required to allow flight operations of the DJI Phantom 2 UA, which utilizes a barometric pressure sensor, GPS equipment, and a radio communications telemetry data link to downlink altitude information from the UA to the PIC at the ground control station (GCS). Since the FAA requires that any altitude information concerning UAS operations be reported to air traffic control (ATC) in feet above ground level (AGL), DAVID HUNT seeks the requested relief because the DJI Phantom 3

& Inspire 1 UA's altimeter may be set on the ground to zero feet AGL, rather than the local barometric pressure or field altitude, before each flight. Considering the limited altitude of the proposed operations, relief from 14 CFR 91.121 is sought to the extent necessary to comply with the applicable conditions and limitations stated below. As more fully set forth herein, an equivalent level of safety will be maintained since the DJI Phantom 3 & Inspire 1 UA is equipped with a barometric pressure sensor and GPS equipment, which automatically ensures that a ground level pressure setting will be established prior to each flight, and provides the PIC with altitude information of the UA on the heads-up display of the GCS.

### **3. Extent Of Relief DAVID HUNT Seeks And The Reason DAVID HUNT Seeks Relief From Section 91.151(b).**

Relief from Section 91.151(b) entitled Fuel Requirements for Flight in VFR Conditions, is requested to the extent required to allow flights of the battery powered DJI Phantom 3 & Inspire 1 UA during daylight hours in visual meteorological conditions (VMC), under visual flight rules (VFR), for a total duration of 17.5 minutes to the first point of intended landing and, assuming normal cruising speed, to fly after that for at least 4.5 minutes. DAVID HUNT seeks the requested relief because without an exemption from Section 91.151(b), the flight time duration of the battery powered DJI Phantom 3 & Inspire 1 UA will severely constrain the practicality of any aerial video or still photo flight operations that DAVID HUNT proposes to conduct pursuant to this Petition.

Significantly, as set forth below, the technical specifications of the DJI Phantom 3 & Inspire 1 UA, the DJI Phantom 3 & Inspire 1 and DAVID HUNT's proposed operating limitations, ensure that DAVID HUNT will safely operate the battery powered DJI Phantom 3 & Inspire 1 UA during daylight hours in visual meteorological conditions (VMC), under visual flight rules (VFR), with enough battery power to fly for a total duration of 17.5 minutes to the first point of intended landing and, assuming normal cruising speed, to fly after that for at least 4.5 minutes.

### **4. Extent Of Relief DAVID HUNT Seeks And The Reason DAVID HUNT Seeks Relief From Sections 91.405(a), 91.407(a)(1), 91.409(a)(1) & (a)(2), And 91.417(a) & (b).**

Since Sections 91.405(a), 91.407(a)(1), 91.409(a)(1) & (a)(2), and 91.417(a) & (b) only apply to aircraft with an airworthiness certificate, DAVID HUNT requests relief from these Sections because the DJI Phantom 3 & Inspire 1 UA does not require airworthiness certificates. As set forth more fully below, the DJI UAS meets the conditions of FMRA Section 333 for operation without an airworthiness certificate. Accordingly, DAVID HUNT will use trained technicians to perform maintenance, alterations, or preventive maintenance on the UAS using the methods, techniques, and practices prescribed in the UAS operating documents (i.e., the Monthly Maintenance Log, and DJI Instruction Manual). Furthermore, DAVID HUNT will document and maintain all maintenance records for the DJI Phantom 3 & Inspire 1 UAS.

### **The Reasons Why Granting DAVID HUNT's Request Would Be In The Public Interest; That Is, How It Would Benefit The Public As A Whole.**

Granting the present Petition will further the public interest by allowing DAVID HUNT to safely, efficiently, and economically perform aerial video and photography of construction sites, real estate, and landscape over certain areas of the United States. Additionally, use of the DJI Phantom 3 & Inspire 1 UAS will decrease congestion of the NAS, reduce pollution, and provide

significant benefits to the economy. Notably, the benefits of DAVID HUNT's proposed operation of the DJI UAS will be realized without implicating any privacy issues.

### **1. The Public Will Benefit From Decreased Congestion Of The NAS.**

The DJI Phantom 3 & Inspire 1 UA is battery powered and serves as a safe, efficient, and economical alternative to the manned aircraft traditionally utilized to obtain aerial imagery. An exemption allowing the use of a DJI UAS would reduce the number of manned aircraft in the NAS and reduce noise and air pollution, as well as increase the safety of life and property in the air and on the ground. Furthermore, by reducing the number of manned aircraft operating in the NAS, congestion around airports caused by arriving and departing aircraft will be reduced. The DJI UA does not require an airport to takeoff or land. Likewise, a reduction of manned aircraft conducting aerial video and photography missions would result in fewer aircraft that must be handled by air traffic control during the ground, takeoff, departure, arrival, and landing phases of flight operations.

### **2. The Public Will Benefit From The Safety And Efficiency Of The DJI UAS.**

Conducting aerial acquisitions with the DJI Phantom 3 & Inspire 1 UAS, instead of manned aircraft, will greatly benefit the public by drastically reducing the levels of air and noise pollution generated during traditional aerial video and still photography flight operations. By using battery power and electric motors, the DJI UAS produce no air pollution, and is the most viable environmentally conscious alternative to the cabin class, six cylinder internal combustion engine aircraft that are typically utilized for aerial video and photography, while burning approximately 20-30 gallons per hour of leaded aviation fuel. The DJI Phantom 3 & Inspire 1 UA, while reducing the carbon footprint of aerial acquisitions, also eliminates noise pollution, as the UAs are propelled by battery-powered electric motors, rather than an internal combustion engine. By using the DJI UAS to perform aerial acquisitions, the substantial risk to life and property in the air and on the ground, which is usually associated with traditional manned aircraft flight operations, will be substantially reduced or completely eliminated. Aside from the lack of flight crew members located onboard the aircraft, the DJI UA (weighing approximately 3 & 15 pounds and with a length of 16 & 20 inches and widths of 16 inches and with no fuel on board), has less physical potential for collateral damage to life and property on the ground, and in the air, compared to the manned aircraft that typically conduct similar operations (weighing approximately 6,000 pounds with a wingspan of approximately 42 feet, a length of 34 feet, and a fuel capacity of 180 gallons).

### **3. Performing Aerial Video and Photography Operations With The DJI UAS Will Benefit The Economy.**

In addition to being safe and efficient, the DJI Phantom 3 & Inspire 1 UA is also an economical alternative to using manned aircraft to conduct similar aerial operations. As such, operation of the DJI Phantom 3 & Inspire 1 UAS will allow United States based companies, like DAVID HUNT dba Image Effects, to remain competitive and contribute to growth of the U.S. economy. Specifically, with the rising cost of aviation fuel and the Environmental Protection Agency (EPA) regulatory actions phasing out leaded aviation fuels, U.S. owned and operated companies must adopt new and alternative technology in order to remain competitive. Operating the battery powered DJI UAS is one such technology that not only allows companies greater operational

flexibility compared to manned aircraft, but provides such flexibility without the high operational cost of a traditional manned aircraft.

By operating the DJI Phantom 3 & Inspire 1 UAS, companies such as DAVID HUNT dba Image Effects, can remain competitive and profitable, and therefore, provide greater job stability to employees and contractors, which will ultimately contribute to growth of the U.S. economy. Improved financial performance of U.S. companies, through commercial use of the DJI UAS, provides a stable workforce that increases consumer spending; improves local, state, and federal tax revenues; and allows companies to invest in research and development in order to remain competitive both in the United States and abroad.

#### **4. There Are No Privacy Issues.**

Similar to the manned aerial acquisition flight operations that have been conducted for decades, DAVID HUNT's proposed operation of the DJI UAS will not implicate any privacy issues. Specifically, the DJI UAS will be operated only in compliance with operating documents (i.e., The Monthly Maintenance Log, and DJI Instruction Manual) which requires property owner involvement as well as local law enforcement notification, and in accordance with the Federal Aviation Regulations, including the minimum altitude requirements of 14 C.F.R. § 91.119.

#### **Seeks And The Reason DAVID HUNT Seeks Relief From Section 91.7(a).**

Relief from Section 91.7(a) entitled *Civil aircraft airworthiness*, is requested to the extent required to allow DAVID HUNT to determine that the DJI Phantom 3 & Inspire 1 UA is in airworthy condition prior to every flight by ensuring that the UAS is in compliance with the operating documents (i.e., Monthly Maintenance Log and DJI Instruction Manual).

DAVID HUNT seeks the requested relief because the DJI UA does not require an airworthiness certificate in accordance with 14 C.F.R. Part 21, Subpart H. Therefore, DAVID HUNT will ensure that the DJI Phantom 3 & Inspire 1 UA is in airworthy condition based upon its compliance with the operating documents (i.e., Monthly Maintenance Log, and DJI Instruction Manual) prior to every flight, and further, determine that the aircraft is in condition for safe flight, as stated in the conditions and limitations below.

#### **1. Extent Of Relief DAVID HUNT Seeks And The Reason DAVID HUNT Seeks Relief From Section 91.121.**

Relief from Section 91.121, entitled Altimeter Settings, may be required to allow flight operations of the DJI Phantom 3 & Inspire 1 UA, which utilizes a barometric pressure sensor, GPS equipment, and a radio communications telemetry data link to downlink altitude information from the UA to the PIC at the ground control station (GCS). Since the FAA requires that any altitude information concerning UAS operations be reported to air traffic control (ATC) in feet above ground level (AGL), DAVID HUNT seeks the requested relief because the DJI Phantom 3 & Inspire 1 UA's altimeter may be set on the ground to zero feet AGL, rather than the local barometric pressure or field altitude, before each flight. Considering the limited altitude of the proposed operations, relief from 14 CFR 91.121 is sought to the extent necessary to comply with the applicable conditions and limitations stated below. As more fully set forth herein, an equivalent level of safety will be maintained since the DJI is equipped with a barometric pressure sensor and GPS equipment, which automatically ensures that a ground level

pressure setting will be established prior to each flight, and provides the PIC with altitude information of the UA on the heads-up display of the GCS.

**2. Extent Of Relief DAVID HUNT Seeks And The Reason DAVID HUNT Seeks Relief From Section 91.151(b).**

Relief from Section 91.151(b) entitled Fuel Requirements for Flight in VFR Conditions, is requested to the extent required to allow flights of the battery powered DJI UA during daylight hours in visual meteorological conditions (VMC), under visual flight rules (VFR), for a total duration of 17.5 minutes to the first point of intended landing and, assuming normal cruising speed, to fly after that for at least 4.5 minutes. DAVID HUNT seeks the requested relief because without an exemption from Section 91.151(b), the flight time duration of the battery powered DJI Phantom 3 & Inspire 1 UA will severely constrain the practicality of any aerial video or still photo flight operations that DAVID HUNT proposes to conduct pursuant to this Petition. Significantly, as set forth below, the technical specifications of the DJI Phantom 3 & Inspire 1 UA, the DJI Phantom 3, Inspire 1 and DAVID HUNT's proposed operating limitations, ensure that DAVID HUNT will safely operate the battery powered DJI Phantom 3 & Inspire 1 UA during daylight hours in visual meteorological conditions (VMC), under visual flight rules (VFR), with enough battery power to fly for a total duration of 17.5 minutes to the first point of intended landing and, assuming normal cruising speed, to fly after that for at least 4.5 minutes.

**3. Extent Of Relief DAVID HUNT Seeks And The Reason DAVID HUNT Seeks Relief From Sections 91.405(a), 91.407(a)(1), 91.409(a)(1) & (a)(2), And 91.417(a) & (b).**

Since Sections 91.405(a), 91.407(a)(1), 91.409(a)(1) & (a)(2), and 91.417(a) & (b) only apply to aircraft with an airworthiness certificate, DAVID HUNT requests relief from these Sections because the DJI Phantom 3 & Inspire 1 UA does not require airworthiness certificates. As set forth more fully below, the DJI UAS meets the conditions of FMRA Section 333 for operation without an airworthiness certificate. Accordingly, DAVID HUNT will use trained technicians to perform maintenance, alterations, or preventive maintenance on the UAS using the methods, techniques, and practices prescribed in the UAS operating documents (i.e., the Monthly Maintenance Log, and DJI Instruction Manual). Furthermore, DAVID HUNT will document and maintain all maintenance records for the DJI Phantom 3 & Inspire 1 UAS.

## **The Reasons Why Granting DAVID HUNT's Request Would Be In The Public Interest; That Is, How It Would Benefit The Public As A Whole.**

Granting the present Petition will further the public interest by allowing DAVID HUNT to safely, efficiently, and economically perform aerial video and photography of construction sites, real estate, Farms and landscape over certain areas of the United States. Additionally, use of the DJI Phantom 3 & Inspire 1 UAS will decrease congestion of the NAS, reduce pollution, and provide significant benefits to the economy. Notably, the benefits of DAVID HUNT's proposed operation of the DJI UAS will be realized without implicating any privacy issues.

### **1. The Public Will Benefit From Decreased Congestion Of The NAS.**

The DJI UA is battery powered and serves as a safe, efficient, and economical alternative to the manned aircraft traditionally utilized to obtain aerial imagery. By reducing the number of manned aircraft needed to perform aerial acquisitions, an exemption allowing the use of a DJI Phantom 3 & Inspire 1 UAS would reduce the number of manned aircraft in the NAS and reduce noise and air pollution, as well as increase the safety of life and property in the air and on the ground.

Furthermore, by reducing the number of manned aircraft operating in the NAS, congestion around airports caused by arriving and departing aircraft will be reduced. The DJI Phantom 3 & Inspire 1 UA does not require an airport to takeoff or land. Likewise, a reduction of manned aircraft conducting aerial video and photography missions would result in fewer aircraft that must be handled by air traffic control during the ground, takeoff, departure, arrival, and landing phases of flight operations.

### **2. The Public Will Benefit From The Safety And Efficiency Of The DJI Phantom 3 & Inspire 1 UAS.**

Conducting aerial acquisitions with the DJI Phantom 3 & Inspire 1 UAS, instead of manned aircraft, will greatly benefit the public by drastically reducing the levels of air and noise pollution generated during traditional aerial video and still photography flight operations. By using battery power and electric motors, the DJI Phantom 3 & Inspire 1 UAS produce no air pollution, and is the most viable environmentally conscious alternative to the cabin class, six cylinder internal combustion engine aircraft that are typically utilized for aerial video and photography, while burning approximately 20-30 gallons per hour of leaded aviation fuel. The DJI Phantom 3 & Inspire 1 UA, while reducing the carbon footprint of aerial acquisitions, also eliminates noise pollution, as the UAs are propelled by battery-powered electric motors, rather than an internal combustion engine. By using the DJI Phantom 3 & Inspire 1 UAS to perform aerial acquisitions, the substantial risk to life and property in the air and on the ground, which is usually associated with traditional manned aircraft flight operations, will be substantially reduced or completely eliminated. Aside from the lack of flight crew members located onboard the aircraft, the DJI Phantom 3 & Inspire 1 UA (weighing approximately 3 & 15 pounds at its maximum gross weight with a length of 16 & 20 inches and widths of 16 inches and with no fuel on board), has less physical potential for collateral damage to life and property on the ground, and in the air, compared to the manned aircraft that typically conduct similar operations (weighing approximately 6,000 pounds with a wingspan of approximately 42 feet, a length of 34 feet, and a fuel capacity of 180 gallons).

### **3. Performing Aerial Video and Photography Operations With The DJI UAS Will Benefit The Economy.**

In addition to being safe and efficient, the DJI Phantom 3 & Inspire 1 UA is also an economical alternative to using manned aircraft to conduct similar aerial operations. As such, operation of the DJI UAS will allow United States based companies, like DAVID HUNT dba Image Effects to remain competitive and contribute to growth of the U.S. economy. Specifically, with the rising cost of aviation fuel and the Environmental Protection Agency (EPA) regulatory actions phasing out leaded aviation fuels, U.S. owned and operated companies must adopt new and alternative technology in order to remain competitive. Operating the battery powered DJI UAS is one such technology that not only allows companies greater operational flexibility compared to manned aircraft, but provides such flexibility without the high operational cost of a traditional manned aircraft. By operating the DJI UAS, companies such as DAVID HUNT dba Image Effects, can remain competitive and profitable, and therefore, provide greater job stability to employees and contractors, which will ultimately contribute to growth of the U.S. economy. Improved financial performance of U.S. companies, through commercial use of the DJI UAS, provides a stable workforce that increases consumer spending; improves local, state, and federal tax revenues; and allows companies to invest in research and development in order to remain competitive both in the United States and abroad.

### **4. There Are No Privacy Issues.**

Similar to the manned aerial acquisition flight operations that have been conducted for decades, DAVID HUNT's proposed operation of the DJI UAS will not implicate any privacy issues. Specifically, the DJI Phantom 3 & Inspire 1 UAS will be operated only in compliance with operating documents (i.e., The Monthly Maintenance Log, and DJI Instruction Manual) which requires property owner involvement as well as local law enforcement notification, and in accordance with the Federal Aviation Regulations, including the minimum altitude requirements of 14 C.F.R. § 91.119.

### **Rule From Which DAVID HUNT Seeks Exemption.**

#### **1. Reasons Why The DJI Phantom 3 & Inspire 1 UA Meets The Conditions Of The FAA Modernization and Reform Act of 2012 (FMRA) Section 333.**

In consideration of the size, weight, speed, and limited operating area associated with the unmanned aircraft and its operation, DAVID HUNT's operation of the DJI UAS meets the conditions of FMRA Section 333, and will not require an airworthiness certificate in accordance with 14 C.F.R. Part 21, Subpart H.

Section 333 provides authority for a UAS to operate without airworthiness certification and sets forth requirements for considering whether a UAS will create a hazard to users of the NAS or the public, or otherwise pose a threat to national security. Specifically, FMRA Section 333 states the following, in part:

*(a) In General.--Notwithstanding any other requirement of this subtitle, and not later than 180 days after the date of enactment of this Act, the Secretary of Transportation shall determine if certain unmanned aircraft systems may operate safely in the national airspace system before completion of the plan and rulemaking required by section 332 of this Act or the guidance required by section 334 of this Act.*

*(b) Assessment of Unmanned Aircraft Systems.--In making the determination under subsection (a), the Secretary shall determine, at a minimum--*

*(1) which types of unmanned aircraft systems, if any, as a result of their size, weight, speed, operational capability, proximity to airports and*

*populated areas, and operation within visual line of sight do not create a hazard to users of the national airspace system or the public or pose a threat to national security; and*

*(2) whether a certificate of waiver, certificate of authorization, or airworthiness certification under section 44704 of title 49, United States Code, is required for the operation of unmanned aircraft systems identified under paragraph (1).*

*(c) Requirements for Safe Operation.--If the Secretary determines under this section that certain unmanned aircraft systems may operate safely in the national airspace system, the Secretary shall establish requirements for the safe operation of such aircraft systems in the national airspace system.*

In seeking this exemption, DAVID HUNT submits that the DJI Phantom 3 & Inspire 1 UAS can operate safely in the NAS pursuant to FMRA Section 333, as demonstrated by: (a) the characteristics of the DJI Phantom 3 & Inspire 1 UA; (b) the pilot certification requirement; and (c) the specific operating limitations.

A complete description of the operation and specifications of the DJI Phantom 3 & Inspire 1 GCS and flight control software is provided at DJI WEB SITE

## **1. Reasons Why An Exemption From The Requirements Of Section 91.121 Would Not Adversely Affect Safety.**

The equivalent level of safety established by Section 91.121 will be maintained because the altitude information of the DJI Phantom 3 & Inspire 1 UA will be provided to the PIC via GPS equipment and a radio communications telemetry data link, which downlinks from the UA to the GCS for active monitoring of the flight path and altitude. This altitude information, combined with DAVID HUNT's operation of the DJI Phantom 3 & Inspire 1 UA within visual line of sight, at or below 500 feet AGL, will ensure a level of safety equivalent to Section 91.121. The altitude information will be generated by GPS equipment installed onboard the aircraft. Prior to each flight, a zero altitude initiation point is automatically established by the UASs at ground level.

The FAA has previously granted relief from Section 91.121 specific to UAS, in circumstances similar, in all material respects, to those presented herein (e.g. Exemption Nos. 11062, 11063, 11064, 11065, 11066, 11067, 11080, 11109, 11112, 11136, 11138, 11150, 11153, 11156, 11157, 11158, 11159, 11160, 11161).



## **2. Reasons Why An Exemption From The Requirements Of Section 91.151(b) Would Not Adversely Affect Safety.**

A grant of this exemption would ensure an equivalent level of safety established by 14 C.F.R. Section 91.151(b) as a result of (1) the technical specifications of the DJI Phantom 3 & Inspire 1 UAS; (2) the limitations on the proposed flight operations; and (3) the location of the proposed flight operations. Accordingly, DAVID HUNT will ensure that it will safely operate the battery-powered DJI UA during daylight hours in VFR conditions, with enough battery power to fly for a total duration of 17.5 minutes to the first point of intended landing and, assuming normal cruising speed, to fly after that for at least 4.5 minutes.

Here, as in Exemption No. 11109, the technical specifications of the DJI UAS, the limitations on the proposed flight operations, and the location of the proposed operations, will ensure an equivalent level of safety established by 14 C.F.R. Section 91.151(b). Furthermore, safety will be ensured as the DJI UAS provides audible and visual warnings to the PIC at the GCS when the UA experiences low battery voltage, the first warning occurring at approximately 33% remaining battery power, and again at approximately 10% remaining battery power. At the critically low battery level, the DJI Phantom 3 & Inspire 1 UAS will descend and land automatically. Significantly, previous exemptions granted by the FAA concerning Section 91.151 establish that safety is not adversely affected when the technical characteristics and

operating limitations of the UAS are considered. Relief has been granted for manned aircraft to operate at less than the minimums prescribed in Section 91.151, including Exemption Nos. 2689, 5745, and 10650. Moreover, the FAA has previously granted relief from Section 91.151 specific to UAS, in circumstances similar, in all material respects, to those presented herein (e.g. Exemption Nos. 8811, 10808, 10673, 11042, 11062, 11063, 11064, 11065, 11066, 11067, 11080, 11109, 11110, 11136, 11138, 11150, 11153, 11156, 11157, 11158, 11159, 11160, 11161).

## **3. Reasons Why An Exemption From The Requirements Of Sections 91.405(a), 91.407(a)(1), 91.409(a)(1) & (a)(2), And 91.417(a) & (b) Would Not Adversely Affect Safety.**

In seeking this exemption, DAVID HUNT submits that the equivalent level of safety with regard to the regulatory maintenance and alteration requirements established by Sections 91.405(a), 91.407(a)(1), 91.409(a)(1) & (a)(2), and 91.417(a) & (b) will be met because DAVID HUNT will use trained technicians to perform maintenance, alterations, or preventive maintenance on the UASs using the methods, techniques, and practices prescribed in the operating documents (i.e. The Monthly Maintenance Log and DJI Instruction Manual). Furthermore, DAVID HUNT will document and maintain all maintenance records for the DJI UAS. Since the DJI UAS will be inspected as prescribed by the operating documents, DAVID HUNT will maintain the equivalent level of safety established by Sections 91.405(a), 91.409(a)(1), and 91.409(a)(2). A copy of the DJI User Manual is attached hereto as Appendix A; a copy of the DJI Phantom 3 & Inspire 1 UAS Maintenance LOG is attached hereto as Appendix B.

Likewise, the exemption sought will not adversely affect safety because DAVID HUNT will use trained technicians to perform maintenance, alterations or preventive maintenance on the UAS using the methods, techniques, and practices prescribed by the operating documents.

Furthermore, the exemption sought would maintain an equivalent level of safety established by Sections 91.407, 91.417(a) and 91.417(b), because all maintenance of the DJI Phantom 3 & Inspire 1 UAS will be performed by trained technicians. Maintenance will be documented and

maintained utilizing the monthly maintenance log. Significantly, previous exemptions granted by the FAA concerning Sections 91.405(a), 91.407(a)(1), 91.409(a)(1) & (a)(2), and 91.417(a) & (b) establish that safety is not adversely affected when the technical characteristics and operating limitations of the UAS are considered.

In consideration of DAVID HUNT's proposed operating limitations, the operating documents, and the technical aspects of the DJI Phantom 3 & Inspire 1 UAS, DAVID HUNT submits that safety will not be adversely affected by granting exemption from 14 C.F.R. Sections 91.405(a), 91.407(a)(1) and (a)(2), 91.409(a)(2), and 91.417(a) and (b). The FAA has previously granted relief specific to UAS in circumstances similar, in all material respects, to those presented herein (e.g. Exemption Nos. 11062, 11063, 11064, 11065, 11066, 11067, 11080, 11109, 11110, 11112, 11136, 11138, 11150, 11153, 11156, 11157, 11158, 11159, 11160, 11161).

## **CONCLUSION**

As set forth herein, DAVID HUNT seeks an exemption pursuant to 14 C.F.R. § 11.61 and Section 333 of the FAA Modernization and Reform Act of 2012 (FMRA), which will permit safe operation of the DJI Phantom 3 & Inspire 1 UAS commercially, without an airworthiness certificate, for the limited purpose of conducting aerial video and photography over certain areas of the United States. By granting this Petition, the FAA Administrator will be fulfilling the Congressional mandate of the FAA Modernization and Reform Act of 2012, while also advancing the interests of the public, by allowing DAVID HUNT dba Image Effects to safely, efficiently, and economically operate the DJI Phantom 3 & Inspire 1 UAS commercially within the NAS.

**WHEREFORE**, in accordance with the Federal Aviation Regulations and the FAA Modernization and Reform Act of 2012, Section 333, DAVID HUNT respectfully requests that the Administrator grant this Petition for an exemption from the requirements of 14 C.F.R. Sections 91.7(a), 91.121, 91.151(b), 91.405(a), 91.407(a)(1), 91.409(a)(1) & (a)(2), and 91.417(a) & (b), and permit DAVID HUNT to operate the DJI Phantom 3 & Inspire 1 UAS commercially for the purpose of conducting aerial video and photography over certain areas of the United States.

Dated: June 22nd, 2015

Respectfully,  
David Hunt