U.S. Department of Transportation

Federal Aviation Administration

June 9, 2015

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

Exemption No. 11790 Regulatory Docket No. FAA–2015–1005

Mr. John Monaco CEO, Chief sUAS Operator, and Founder Eagle View Aerial Imaging LLC 6610 Star Vista Lane Rocklin, CA 95677

Dear Mr. Monaco:

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 dated April 6, 2015, you petitioned the Federal Aviation Administration (FAA) on behalf of Eagle View Aerial Imaging LLC (hereinafter petitioner or operator) for an exemption. The petitioner requested to operate an unmanned aircraft system (UAS) to conduct aerial photography and videography services for real estate brokers, appraisers, property managers; builders of homes and buildings; solar panel installers; farmers; chambers of commerce and associated businesses for marketing campaigns; inspections of utilities; public agencies; and wildlife conservation organizations.

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.

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 collection¹. 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, Eagle View Aerial Imaging LLC 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.

¹ 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, Eagle View Aerial Imaging LLC 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(s) 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.ntsb.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 June 30, 2017, unless sooner superseded or rescinded. Sincerely,

/s/ John S. Duncan Director, Flight Standards Service

Enclosures

Petition for Exemption Filed Under Section 333

Petitioner

John Monaco, Chief Executive Officer, Chief sUAS Operator, and Founder, Eagle View Aerial Imaging LLC, 6610 Star Vista Lane, Rocklin, CA 95677, john.monaco@EagleViewAerial.com.

Date: 6 April 2015

Objective

Seek FAA exemption to Title 14 of Code of Federal Regulations, sections:

- 61.113(a)
- 91.103(b)(2)
- 91.105
- 91.109
- 91.119(b) and (c)
- 91.121
- 91.151(a) and (b)
- 91.405(a)
- 91.407(a)(1)
- 91.409(a)(1) and (2)
- 91.417(a) and (b)

Definitions

- AGL = Above ground level
- ATC = Air traffic control
- CFR = Code of Federal Regulations
- NAS = National Air Space
- NPRM = Notice of Proposed Rule Making
- sUAS = small unmanned aerial system, consisting of the Inspire 1 aircraft, remote controller from DJI (and iOS mobile device).
- TSA = Transportation Security Administration, an agency of the U.S. Department of Homeland Security.
- UA = Unmanned aircraft = DJI Inspire 1 aircraft
- USC = United States Code
- VFR = Visual flight rules

Company Description

Eagle View Aerial Imaging LLC (hereafter, "the Company") offers contracted aerial photography and videography services for real estate brokers, appraisers, property managers; builders of homes and buildings (no higher than 500 AGL); solar panel installers; farmers; chambers of commerce & associated businesses for marketing campaigns;

inspections of utilities (excluding high power electric or radio transmission structures that may affect aircraft operations); public agencies; and wildlife conservation organizations.

The Company was founded in 2014 by John Monaco, CEO and Chief sUAS Operator. Mr. Monaco has 25+ years of experience in the high-tech industry in engineering, management, and senior-level program management roles.

The Company uses the Inspire 1 UAS from DJI. Key features include:

- Positioning: GPS & GLONASS systems, visual and sonar sensors, live view & map;
- Internal Measurement Unit (IMU): 6-axis gyroscope, accelerometer, barometer;
- Flight termination system in the event of low battery or loss of communication link
- Power Management System when to return home, auto land, battery cell health;
- Flight telemetry altitude, speed, distance;
- 4K video and 12 megapixel imaging.

Key specifications of the sUAS include:

- Weight = 6.5 pounds, including battery, gimbal, and camera
- Size = 17.3 x 11.8 x 17.1 inches
- Maximum ascent speed = 16 feet / second
- Maximum horizontal speed = 49 miles (statute) / hour
- Flight time ~ 18 minutes
- Rotors = 4

Regulatory Relief Requests

In this section, the petitioner uses the following outline to address potential CFR impacts:

- If relief from the regulation is requested;
- The reason whether or not relief is requested;
- Mitigation that will be taken to follow the rule if relief is requested.

1. Part 21 - Certification Procedures for Products and Parts, Subpart H - Airworthiness Certificates:

- 1. Relief requested: No; don't believe is necessary
- Reason: In accordance with statutory criteria provided in Section 333 of Public Law 112-95 in reference to 49 U.S.C. § 44704, and consideration of the size, weight, speed, and limited operating area associated with the aircraft and its operation, this aircraft meets the conditions of Section 333 and as such the petitioner believes that any associated noise certification and testing requirements of part 36 is not necessary.
- 3. Mitigation: Not applicable.

2. 45.23 (b) - Display of marks; general:

- 1. Relief requested: No.
- 2. Reason: Aircraft will be registered with the FAA and marked with an "N" number on the left and right side in a size as large as practical.
- 3. Mitigation: Not applicable. Will comply.

3. 47.15 - *Registration number:*

- 1. Relief requested: No.
- 2. Reason: Aircraft will be registered with the FAA and marked with an "N" number on the left and right side in a size as large as practical.
- 3. Mitigation: Not applicable. Will comply.

4. 61.113(a) - Private pilot privileges and limitations - Pilot in Command:

- 1. Relief requested: Yes.
- 2. Reason: It is understood that 49 USC 44711 requires the FAA to issue airman certificates. However, as of the date of this petition, none of the airman certificates issued by the FAA for student, recreational, private, commercial, airline transport, or sport pilots seems to be a good fit for sUAS pilots. As stated in NPRM FAA-2015-0150-0017, the airman certification requirements for a private or commercial pilot certificate imposes an unnecessary burden on the Company's business. Much of the knowledge required for a private or commercial pilot certificate does not apply to operating the sUAS per the Company UAS Policies and Procedures and does not result in a significant, relevant safety benefit. The sUAS' size, weight, operational capability, proximity to airports and populated areas, and operation within daylight, clear visibility, and visual line-of-sight rules pose minimal risk to public safety or pose a threat to national security.
- 3. Mitigation: The petitioner clearly understands the importance of being trained in and knowledgable of operating the sUAS in the NAS in a responsible manner to so as not to adversely affect the operations in the NAS or present a hazard to persons or property on the ground. The petitioner proposes the following mitigation:
 - 1. Knowledge & training. Compliance with the Company's Operator Training Policy and completion of the Operator Training Program which specifies the training required of operators before conducting flight for commercial purposes. They include:
 - 1. Viewing DJI videos:
 - Introducing the Inspire 1
 - Unboxing the Inspire 1
 - Quick Start Guide
 - Pilot App Tutorial
 - Setting It Up
 - How to Fly
 - Dual Operator
 - Flight Simulator App
 - 2. Viewing websites:
 - Know Before You Fly
 - DJI No Fly Zones
 - SkyVector Aeronautical Charts
 - 3. Reading:
 - DJI:
 - User Manual
 - Quick Start Guide
 - Safety Guidelines
 - Battery Safety Guidelines

- Maintenance Manual
- FAA Pilot's Handbook of Aeronautical Knowledge:
 - Preface
 - Chapter 1 Introduction to Flying
 - Chapter 7 Flight Instruments
 - Chapter 8 Flight Manuals
 - Chapter 14 Airspace
 - Chapter 16 Aeromedical Factors
 - Chapter 17 Aeronautical Decision Making
- FAA / AeroNave Aeronautical Chart User's Guide
- 4. Flight practice (specifics provided in the Company's UAS Policies and Procedures):
 - Pilot App Simulator
 - Flying the UAS
 - Proficiency
 - Currency
- 2. National security. The TSA has vetted the petitioner and determined that the operator does not present a threat to national security. The operator has been assigned a Known Traveler Number (KTN), as shown in the Operator Log Book.
- 3. Medical. The operator holds a valid U.S. driver's license. The operator has general annual physical exams. The due date of the next exam is provided in the Operator Log Book.
- 4. New certificate. Recommendation for the FAA to create a sUAS-specific airman certificate covering knowledge and requirements.

5. 91.7 - Civil aircraft airworthiness:

- 1. Relief requested: No.
- 2. Reason: It is critical that the sUAS can be flown in a safe manner.
- 3. Mitigation: The sUAS undergoes a maintenance check per the specifications and procedures provided in the Inspire 1 Maintenance Manual. UAS Policies and Procedures require the completion of a Pre-Flight and Post-Flight Checklist for each flight.
- 6. 91.103(b)(2) General Operating and Flight Rules, Subpart B Flight Rules, Preflight action:
 - 1. Relief requested: Yes.
 - 2. Reason: The UA for this petition will not be flown at airports. Takeoff and landing distances are zero since the aircraft is a sUAS.
 - 3. Mitigation: The capture of still images and video along with associated flight path will be discussed and agreed-upon with the client in advance of the shoot and confirmed or revised just prior to flight. The sUAS displays, records, and retains flight data including take-off height, take-off-speed, horizontal distance traveled, horizontal speed, altitude, flown flight path, and other flight parameters.
- 7. 91.105 General Operating and Flight Rules, Subpart B Flight Rules, Flight crew members at stations:
 - 1. Relief requested: Yes.

- 2. Reason: The UA is unmanned and does not have on-board pilots, and as such, no safety harnesses are worn.
- 3. Mitigation: The sUAS operator will always be in sole control of the UA. If absence of the operator is necessary in connection with physiological or other emergent needs, the operator shall first land the UA in a prompt manner to assure public safety.

8. 91.109 - General Operating and Flight Rules, Subpart B - Flight Rules, Flight instruction:

- 1. Relief requested: Yes.
- 2. Reason: The UA does not have flight dual controls. (A slave controller is an option but can only be configured to control the gimbal and camera for unique image capture. It cannot control the aircraft flight.)
- 3. Mitigation: The Company's Operator Training Program requires practice time on the Simulator app.

9. 91.119(b) and (c) - General Operating and Flight Rules, Subpart B - Flight Minimum safe altitudes: General:

- 1. Relief requested: Yes.
- 2. Reason: UAS will be flown no higher than 500 feet AGL as proposed in NPRM FAA-2015-0150-0017.
- 3. Mitigation: Per the Company UAS Policies and Procedures, UA will not be flown higher than 500 feet AGL. All flight operations will be conducted at least 200 feet from all non-participating 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 will ensure that nonparticipating persons remain under such protection. In the vent such persons leave the protection area and are within 200 feet of the UA, the operator will cease operation immediately in a manner ensuring the safety of nonparticipating persons: and
 - b. The owner/controller of any vessels, vehicles, or structures as granted permission for operating closer to those subjects and the operator 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 distance of 200 feet was chosen based on target real estate lots of about 0.5 acres which for assumption sake measure about 150 feet by 150 feet.

10. 91.121 - General Operating and Flight Rules, Subpart B - Altimeter settings:

- 1. Relief requested: Yes.
- 2. Reason: The UAS is unable to take input from stations.
- 3. Mitigation: The UAS under this petition contains an on-board barometer. It's altitude is based on barometric pressure reading at take-off.

11. 91.151(a) and (b) - General Operating and Flight Rules, Subpart B - Fuel requirements for flight in VFR conditions:

- 1. Relief requested: Yes.
- 2. Reason: The fuel for this UA is 100% battery power. Designed maximum flight time is approximately 18 minutes with a standard 4500 mAh battery.

3. Mitigation: The low battery level failsafe is triggered with the battery is depleted to a point that may affect safe return of the UA. Advanced algorithms calculate the distance of the UA and estimated time to return home, letting the operator know when it's time to fly back. The operator is advised via the Pilot App to return home or land the aircraft immediately when the warning is displayed. The aircraft will return automatically to the home point if no action is taken after a 10 second countdown. The UA will land automatically if the current battery level can only support the aircraft to land to the ground from the current altitude. Per the UA manufacturer and the Company's preflight checklist, the battery is to be fully charged before initiating flight operations.

12. 91.405(a) - General Operating and Flight Rules, Subpart E - Maintenance Required:

- 1. Relief requested: Yes.
- 2. Reason: FAA-required inspections are not specified for this UAS.
- 3. Mitigation: According to the Company UAS Policies and Procedures, any anomalies observed during the preflight, flight, or post flight check that would adversely affect the safe control of the UA must be resolved before resuming flight operations.

13. 91.407(a)(1) - General Operating and Flight Rules, Subpart E - Operations after maintenance, preventive maintenance, rebuilding, or alteration:

- 1. Relief requested: Yes.
- 2. Reason: No person authorized under §43.7 of chapter 1 of Title 14 exists to approve a return to service for this type of UAS.
- 3. Mitigation: If aircraft requires repair by the manufacturer, the manufacturer conducts flight test worthiness after repairs and before shipping the UA back to the operator. The Company's UAS Policies and Procedures and the manufacturer's correspondence with the petitioner specify to calibrate the Internal Measurement Unit after every firmware upgrade. This is done by the operator.

14. 91.409(a)(1) and (2) - General Operating and Flight Rules, Subpart E -Inspections:

- 1. Relief requested: Yes.
- 2. Reason: Per the manufacturer's maintenance manual, this UA does not undergo annual inspections. Airworthiness certificates do not apply to this UA.
- 3. Mitigation: Per the manufacturer's maintenance manual, maintenance and inspections are conducted after every 200 flights or 50 hours of flight.

15. 91.417(a) and (b) - General Operating and Flight Rules, Subpart E -Maintenance records:

- 1. Relief requested: Yes.
- 2. Reason: Maintenance, preventive maintenance and alterations are not conducted at 100-hour and annual intervals. The type of record details call out in this section do not apply to this UA.
- 3. Mitigation: The operator does record all maintenance in the Operator Log Book per the Company's UAS Policies and Procedures. Records are retained for as long as the UA is flown and are available for inspection by the FAA Administrator upon request.

Public Interest

Granting the requested relief is in the public interest. FAA approval of the petitioner to fly the subject sUAS enables the petitioner to offer several key benefits to the public as a whole, including, but not limited to:

- Home owners and their real estate brokers would increase the probability of meeting or exceeding their asking price and reducing the time on the market by being able to show attention-getting aerial images and video of their property on sales web sites;
- Property managers can more quickly and safely inspect their grounds, roofs, and structures to forestall any adverse issues with tenants' living environment and potentially reduce overall maintenance costs;
- Builders can inspect for anomalies during construction to verify proper workmanship and potentially reduce the costs of unexpected repairs;
- Solar panel installers can inspect their installations quicker and more safely than climbing ladders;
- Public works entities can inspect their systems from new perspectives that provide faster, more thorough, and more cost effective means of assessing the conditions of their systems.
- Farmers can inspect their farmland and pastures in less time and can more readily identify any concerning growth patterns by using aerial imaging rather than groundbased machines and travel;
- Farmers can use aerial images of their corn mazes in their marketing campaign resulting in increased revenue;
- Chambers of Commerce, wineries, media & marketing firms, and other businesses could use attention-getting aerial images and video fly-throughs in their marketing campaigns to increase revenue;
- Wildlife conservation organizations can use aerial imaging to attain a more comprehensive understanding of the wildlife they monitor;
- Search and rescue organizations and their clients would be able to utilize aerial imaging service to potentially more quickly locate individuals. That would result in quicker medical care, potential of reduction in loss of life, and reduced search costs.

Public Safety

Granting the requested relief would not adversely affect public safety, and in fact provide a level of safety that is equal to that provided by the rules cited in the requested relief.

The subject UAS of this petition provides the same if not more nimble and safer alternative to using manned aircraft that weigh multi-magnitudes more, carry highly flammable and explosive fuels, and carry persons where the risk of injury or worse is greater.

The petitioner has provided mitigations for the requested CFR relief that provide the same or better level of safety for persons, vehicles, animals, property, and structures than manned alternatives.

Privacy

To meet the spirit of the Presidential Memorandum: Promoting Economic Competitiveness While Safeguarding Privacy, Civil Rights, and Civil Liberties in Domestic Use of Unmanned Aircraft Systems, the Company has policies and procedures in place to protect the public's privacy, civil rights, and civil liberties. Permission is required to conduct flight operations on private property.

Federal Register Summary

Eagle View Aerial Imaging LLC seeks an exemption for the following rules:

14 CFR Chapter 1, sections: 61.113(a), 91.103(b)(2), 91.105, 91.109, 91.119(b) and (c), 91.121, 91.151(a) and (b), 91.405(a), 91.407(a)(1), 91.409(a)(1) and (2), and 91.417(a) and (b).

Approval of these exemptions will allow Eagle View Aerial Imaging LLC to offer contracted commercial UAS operations for a wide range of industries and applications. Granting these exemptions will enhance public safety by reducing the risk to the general public from hazards associated with performing the same service with conventional manned aircraft.

Additional Supporting Information

Several documents are provided with this petition in support of the relief request. They include:

- 1. Aircraft manufacturer DJI:
 - Release Note 2015.2.27
 - Inspire 1 User Manual (EN) v1.0
 - Inspire 1 Safety Guidelines v1.0
 - Inspire 1 Flight Battery Safety Guidelines v1.0
 - Inspire 1 Maintenance Manual v1.0
- 2. Eagle View Aerial Imaging LLC (company confidential)
 - UAS Policies and Procedures, covering topics such as, but not limited to:
 - Documents held with operator during flight operations;
 - Line-of-sight flights, day-time only flights, favorable weather conditions;
 - Airspace restrictions
 - Reporting accidents to the FAA
 - Operator Log Book, containing Flight Record, Training Log, Aircraft Maintenance Log, and Pre-Flight and Post-Flight Checklists.

These documents also cover mitigations for control/communication link failures and also state FCC compliance specifics.