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

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

September 17, 2015

Exemption No. 12899
Regulatory Docket No. FAA−2015−2662

Mr. Kevin Whitaker
13879 Valley Ranch Road
Roanoke, TX 76262

Dear Mr. Whitaker:

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 June 2, 2015, you petitioned the Federal Aviation Administration (FAA) for an exemption. The petitioner requested to operate an unmanned aircraft system (UAS) to conduct aerial photography and videography.

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 2 Vision+ and DJI Inspire 1.

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

The Basis for Our Decision

You have requested to use a UAS for aerial data collection[1]. 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, Kevin Whitaker 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

[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.

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.

Conditions and Limitations

In this grant of exemption, Kevin Whitaker 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 2 Vision+ 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 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 September 30, 2017, unless sooner superseded or rescinded.

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

Enclosures

June 2, 2015

U.S. Department of Transportation
Docket Management System
1200 New Jersey Ave., SE
Washington, DC 20590

Re: Exemption Request Under Section 333 of the FAA Reform Act and Part 11 of the Federal Aviation Regulations

Respectfully, this exemption application will advance the Congressional mandate in Section 333 of the Reform Act to accelerate the introduction of UAS's into the national airspace system ("NAS") if it can be accomplished safely. This law directs the Secretary of Transportation to consider whether certain UAS's may operate safely in the NAS before completion of the rulemaking required under Section 333of the Reform Act. In making this determination, the Secretary is required to determine which types of UAS's do not create a hazard to users of the NAS or the public or pose a threat to national security in light of the following:

• The UAS's size, weight, speed, and operational capability;

• Operation of the UAS in close proximity to airports and populated areas; and

• Operation of the UAS within visual line of sight of the operator.

Reform Act§ 333(a) (1). If the Secretary determines that such vehicles "may operate safely in the national airspace system, the Secretary shall establish requirements for the safe operation of such aircraft in the national airspace system." /d. §333(c)

The Federal Aviation Act expressly grants the FAA the authority to issue exemptions. This statutory authority, by its terms, includes exempting civil aircraft, as the term is defined under §401 01 of the Act, from the requirement that all civil aircraft must have a current airworthiness certificate. The Administrator may grant an exemption from a requirement of a regulation prescribed under subsection (a) or (b) of this section or any of sections 44702-44716 of this title if the Administrator finds the exemption is in the public interest. 49 U.S.C. §44701(f). See also 49 USC §44711(a); 49 USC §44704; 14 CFR §91.203(a) (1).

Name and Address of Petitioner

Kevin Whitaker
13879 Valley Ranch Road
Roanoke, TX 76262
Cell: 940-594-7762
email:sprinterftw@gmail.com

Petitioner, Kevin Whitaker ("KW"), pursuant to the provisions contained within Federal Aviation Regulations (14 C.F.R. 11) and the FAA Modernization and Reform Act of 2012, Section 333, requests exemption for the Federal Aviation Regulations ("FAR") listed below, for the purpose of commercial operation of small unmanned aircraft systems ("UAS") in airspace regulated by the Federal Aviation Administration ("FAA").

FAR exemption requests:

14 CFR Part 21 subpart H; 14 CFR 45.23 (b); 14 CFR 61.113 (a) & (b);

14 CFR 91.7 (a); 14 CFR 91.9 (b) (2) 14 CFR 91.103(b); 14 CFR 91.109;

14 CFR 91.119; 14 CFR 91.121; 14 CFR 91.151 (a); 14 CFR 91.203 (a) & (b);

14 CFR 91.405 (a); 14 CFR 407 (a) (1); 14 CFR 409 (a) (1) & (a) (2); 14 CFR 417 (a) & (b).

KW proposes to utilize the DJI Phantom 2 Vision + UAS and DJI Inspire 1 UAS for commercial aerial photography and aerial videography, providing valuable services for a host of commercial interests, including oil and gas, land owners, structure owners, real estate and other geographical and infrastructure assets. Each aircraft noted is built in a quadcopter configuration with, having four rotors and four motors. Each UAS weighs less than 55 pounds, including payload, and under normal conditions do not exceed a speed of 30 knots. Each described UAS provides a vertical takeoff with the capability to hover and to move in the vertical and horizontal planes simultaneously. Equipped with auto return and GPS functions, each described UAS can return to a predetermined safe landing area and provide reading of magnetic interference that can cause loss of GPS signal. All UAS flights will be line of sight and include a pilot in control and a visual observer, who are in audible communication with each other.

Use of the above described UAS's reduces the need to operate conventional aircraft or deploy survey crews into dangerous areas for the same purpose. The DJI Phantom 2 Vision + and DJI Inspire 1 provide professional photography and videography at a fraction of the cost, time and risk required by conventional aircraft or ground crews. This correlates to improved safety, efficiency, cost effectiveness, productivity, reduced emissions and lessened environmental impact/

As the file size is too large for uploading with this petition, please the following URL's for manufacturer documentation on the DJI Phantom 2 Vision + UAS (User Manual, Quick Start Guide, Release Notes, Pilot Training Guide v1.1) and DJI Inspire 1 UAS (User Manual v1.2, Quick Start Guide, Release Notes, Safety Guidelines)

Phantom 2 Vision+ downloads URL:
http://www.dji.com/product/phantom-2-vision-plus/download
Inspire 1 downloads URL:
http://www.dji.com/product/inspire-1/download

The grant of the requested exemption is in the public interest based on the clear direction in Section 333 of the Reform Act; the additional authority in the Federal Aviation Act, as amended; the strong equivalent level of safety surrounding the proposed operations; and the significant public benefit, including enhanced safety and cost savings associated with transitioning to UAS's for aerial survey photography. Accordingly, the applicant respectfully requests that the FAA, grant the requested exemption without delay.

Relief sought and why

14 CFR Part 21 subpart H: The UAS's to be operated carries neither pilot nor passenger and carries no explosive materials or flammable liquids. Given the size, weight, speed, and limited operating area associated with the aircraft to be utilized, I request exception. In the restricted environment and under the conditions proposed operation will be at least as safe, or safer, than a conventional aircraft operating with an airworthiness certificate without said restrictions.

14 CFR 45.23 (b): Due to the size of the respective UAS it does not have a cockpit, cabin, or pilot station on which to market certain words or phrases. Lettering would be very difficult to place on such a small aircraft and dimensions would need to be smaller than required minimum. Understanding the importance of lettering I will mark my UAS's with the largest possible letters by placing the word "Experimental" or assigned number or name, based on request/ruling of FAA, on UAS fuselage. The equivalent level of safety will be provided by having the UAS's marked on its fuselage as required.

14 C.F.R. 61.113 (a) and (b): Private pilots are limited to non-commercial operations. KW can achieve an equivalent level of safety as achieved by current Regulations as the UAS's utilized do not carry any pilots or passengers. Further, while helpful, a pilot license will not ensure remote control piloting skills. The risks attended to the operation of my UAS is far less than the risk levels inherent in the commercial activities outlined in 14 C.F.R. § 61, et seq. Thus, allowing the PIC operation of the respective UAS's, to operate in a manner that will meet and exceed current safety levels in relation to 14 C.F.R. 61.113 (a) & (b).

14 CFR 91.7 (a) As there will be no airworthiness certificate for the aircraft, should this exemption be granted, no FAA regulatory standard will exist for determining airworthiness. Given the size of the aircraft for maintenance and use of safety check list prior to each flight an equivalent level of safety will be provided.

14 CFR 91.9 (b) (2) Given the size and configuration, the UAS's have no ability to carry a flight manual on the aircraft. There is no room, capacity, or pilot on board to adequately carry flight manual. An equivalent level of safety will be maintained by keeping the flight manual at ground control point, immediately available to the pilot.

14 CFR 91.103(b): As FAA approved flight manuals will not be provided for the aircraft an exemption will be needed. Normal procedures including but not limited to; reviewing weather, flight battery requirement, landing and takeoff distances, along will all of those found in attachment "DJI Pilot Training". An equivalent level of safety will be provided by preflight protocol to properly match the machine.

14 CFR 91.109: UAS and remotely piloted aircraft do not have fully functional dual controls. Flight control is achieved through the use of a control box that communicates with the aircraft via radio communications. The equivalent level of safety provided because neither a pilot nor passenger will be carried in the aircraft, and by the speed and size of the aircraft.

14 CFR 91.113 (a) and (b): An equivalent level of safety as achieved by current regulations because my UAS's do not carry pilot nor passenger. While helpful, a pilots' license will not ensure remote control piloting skills.

14 C.F.R. 91.119: Prescribes safe altitudes for the operation of civil aircraft. It allows helicopters to be operated at lower altitudes in certain conditions. My UAS's will always operate below the standard of 400 above ground level dictated. I will operate my UAS's in safe areas away from public and traffic, providing a level of safety at least equivalent to or below those in relation to minimum safe altitudes. Given the size, weight, maneuverability and speed of my UAS's, an equivalent or higher level of safety will be achieved.

14 CFR 91.121: The UAS's may not have a barometric altimeter, but instead does have a GPS altitude read out. I believe an exemption may be needed. An equivalent level of safety is achieve by the operator receiving live flight data monitoring and confirming current altitude along with altitude of launch site shown on GPS altitude indicator.

14 CFR Section 91.151 (a): Prohibits an individual from beginning "a flight in an airplane 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 – (1) During the day, to fly after that for at least 30 minutes; or (2) At night, to fly after that for at least 45 minutes." KW believes that an equivalent level of safety can be achieved by limiting flights to a maximum of 30 minutes or until the UAS battery power reaches 25%, whichever happens first. This restriction will provide the ability for the UAS to return to its prearranged landing position.

14 CFR 91.203 (a) and (b) Similar to, 14 CFR 91.9 (b) (2), given the size and configuration, the UAS has no ability to carry certificate and registration documents on the aircraft. There is no room, capacity, or pilot on board to adequately such documents. An equivalent level of safety will be achieved by keeping these documents, to the extent they are applicable to the UAS, at the ground control point where pilot has immediate access to them.

14 CFR 91.405 (a), 14 CFR 91.407 (a) (1), 14 CFR 91.409 (a) (2), 14 CFR 91.417 (a) and (b) Given these section only apply to aircraft with an airworthiness certificate, theses sections do not apply to this applicant. As a safety precaution, operator will perform preflight inspections and ensure UAS is in working condition before initiating each flight.

Public interest

Use of the UAS in lieu of a manned aircraft would enhance safety and reduce the environmental impact as compared to similar operations conducted with manned aircraft carrying flammable fuel. Smaller, lighter, more economical, KW UAS's will provide both economic advantages and safer methods of operation than historic methods of attaining similar the same objective. Additionally, utilization of KW UAS's will position UAS's to leverage new technology to satisfy

new market opportunities in the future.

In regards to inspections of infrastructure (i.e. bridges, towers, pipelines …) and other structures, the UAS will minimize the risk to persons attempting to climb/navigate these structures to ascertain problems or verify structural integrity. UAS provided inspections will also be completed in a more timely fashion, expediting the inspection process thereby reducing cost

Utilization of a UAS to provide photographs and videos so to provide additional safety to the general public in regards to structures failing or having compromised structural integrity. Structures, oil and gas facilities, towers and other remotely located structures, often difficult to reach by vehicle or foot, can be assessed more easily, quickly and safely than with traditional methods.

Compromised geography from “acts of God” or man-made incidents, often require the assessment of land and/or facilities. Here, a UAS, operated by a PIC and a visual observer can provide public benefits where older “manpower” based methods cannot be effectively utilized.

Privacy Issues

There are no privacy issues. Similar to the manned aerial acquisition flight operations that have been conducted for decades, KW’s proposed operation of the DJI Phantom 2 Vision+ UAS and DJI Inspire 1 UAS will not implicate any privacy issues. Specifically, the respective UAS will be operated only in compliance with operating documents (i.e., Aerial Operations Manual, Monthly Maintenance Log, and UAS Instruction Manuals) 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.

Reasons Why Exemption Will Not Adversely Affect Safety Or How The Exemption Will Provide a Level of Safety At Least Equal To Existing Rule:

My, KW’s, exemption will not adversely affect safety. Quite the contrary, more flight time logged in FAA controlled airspace, with communication with the FAA, will allow me to contribute to the innovation and implementation of new and novel, as of yet undiscovered safety protocols for geographic and infrastructure, oil and gas, land owners, structure owners, real estate aerial surveys.

• Flight operations will be conducted at least 500 feet from all nonparticipating persons (persons other than the PIC, SO, operator trainees or essential 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 and/or; b. The aircraft is operated near vessels, vehicles or structures where the owner/controller of such vessels, vehicles or structures has granted permission 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, and; c. Operations nearer to the PIC, SO, operator trainees or essential persons do not present an undue hazard to those persons per § 91.119(a).

• All operations shall be conducted over private or controlled-access property with permission from the land owner/controller or authorized representative. Permission from land owner/controller or authorized representative will be obtained for each flight to be conducted.

• No KW PIC will not be allowed to operate a UAS 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.

• All KW PIC will be licensed pilots and possess a valid driver's license as required under this exemption.

• KW UAS's weigh 2.75 and 6.5 pounds, respectively, significantly under the 55 pound maximum weight.

• The operation of KW UAS's will always be below the 400 foot permissible ceiling set by the FAA Modernization and Reform Act of 2012, at speeds not to exceed 35 miles per hour.

• The operation of KW UAS's will always be done by line of sight, flown by a PIC and visual observer team that are in audible communication with each other. 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 visual observer can perform the functions prescribed in the operating documents.

• The KW PIC must abort the flight in the event of unpredicted obstacles or emergencies in accordance with the operating documents.

• KW UAS's must remain clear and yield the right of way to all manned aviation operations and activities at all times.

• KW UAS's may not be operated by the PIC from any moving device or vehicle.

• KW UAS's flights will be completed during day light hours.

• KW UAS's flights will always be terminated prior to manufacturer recommended minimum level of battery power.

• KW UAS's are GPS controlled and contain a return to home feature, a flight safety feature whereby the UAS can hover, circle and then land at the predetermined GPS takeoff point if communication with the remote control pilot is lost.

• KW UAS's will only operate in reasonably safe environments that are strictly controlled, away from power lines, elevated lights, airports and actively populated areas.

• Preflight inspections, per the manufacturers specifications and protocol, will be done all KW operated UAS's, assuring the integrity of the respective UAS. The Ground Control Station must be included in the preflight inspection. All maintenance and alterations must be properly documented in the aircraft records.

• Any UAS that has undergone maintenance or alterations that affect the UAS operation or flight characteristics must undergo a functional test flight. The PIC who conducts the functional test flight must make an entry in the aircraft records.

• The UAS operating documents and the grant of exemption must be accessible during UAS operations and made available to the Administrator upon request.

• KW will carry out its maintenance, inspections, and record keeping requirements, in accordance with the operating documents. Maintenance, inspection, alterations, and status of replacement/overhaul component parts must be noted in the aircraft records, including total time in service, description of work accomplished, and the signature of the authorized person returning the UAS to service. Any discrepancies discovered between inspections and the associated corrective actions must be recorded in the aircraft record.

• 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.

Conclusion

KW 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 2 Vision+ and DJI Inspire 1 UAS commercially, without an airworthiness certificate, for the purpose of conducting aerial photography and videography acquisitions and surveys for oil and gas, land owners, structure owners, real estate and other geographical and infrastructure asset interests across the United States.

KW requests that the Administrator grant this Petition for an exemption from the requirements:

14 CFR Part 21 subpart H; 14 CFR 45.23 (b); 14 CFR 61.113 (a) & (b);

14 CFR 91.7 (a); 14 CFR 91.9 (b) (2) 14 CFR 91.103(b); 14 CFR 91.109;

14 CFR 91.119; 14 CFR 91.121; 14 CFR 91.151 (a); 14 CFR 91.203 (a) & (b);

14 CFR 91.405 (a); 14 CFR 407 (a) (1); 14 CFR 409 (a) (1) & (a) (2); 14 CFR 417 (a) & (b).

Respectfully,

Kevin Whitaker