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

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

August 20, 2015

Exemption No. 12554
Regulatory Docket No. FAA−2015−2408

Mr. Michael J. McCue
262 Road 6NS
Cody, WY 82414

Dear Mr. McCue:

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 May 30, 2015, you petitioned the Federal Aviation Administration (FAA) for an exemption. You requested to operate an unmanned aircraft system (UAS) to conduct aerial photography, videography, and UAS training.

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 Phantom 3 Professional.

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[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, Mr. Michael J. McCue 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.

Conditions and Limitations

In this grant of exemption, Mr. Michael J. McCue is hereafter referred to as the operator.

[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.

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 Professional 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 August 31, 2017, unless sooner superseded or rescinded.

Sincerely,

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

Enclosures

Michael J McCue

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May 30, 2015

U.S. Department of Transportation, Docket Operations
West Building Ground Floor, Room W12-140
1200 New Jersey Avenue, SE
Washington, DC 20590

Dear Madam or Sir:

Michael J McCue(the operator) is petitioning for an exemption pursuant to Section 333 of the FAA Modernization and Reform Act of 2012 (the Reform Act). Michael J McCue is hereby applying for an exemption from certain Federal Aviation Regulations (FARs) detailed below to allow for the commercial operations of a DJI Phantom 3 Professional Unmanned Aircraft System (UAS) for the purpose of aerial photograph, videography, cinematography, inspection, and training.

Commercial operations of a UAS as requested by the petitioner is as follows:

1. Aerial photography and/or video for public or private use including land survey, real estate, agriculture and other professional activities.
2. Aerial photography and/or video for public or private use including television, public events, cinematography and news gathering.
3. Aerial photography/video or live video feed during times of natural disasters or emergencies when requested by local governments or authorities for public welfare and safety.
4. Provide training to persons interested in the safe use of a UAS in the NAS. This is critical for the safety of other users of the NAS as well as persons and property on the ground.

The petitioner and operators name and mailing address:

Michael J McCue
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Phone: 307-272-8228, 307-587-8228
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Regulations from which the exemption is requested:

14 CFR 61.23(a) and(c)
14 CFR 61.101(e)(4) and (5)
14 CFR 61.113(a)
14 CFR 61.315(a)
14 CFR 91.7(a)
14 CFR 91.119(c)
14 CFR 91.121
14 CFR 91.151(a)(1)
14 CFR 91.405(a)
14 CFR 91.407(a)(1)
14 CFR 91.409(a)(1) and (2)
14 CFR 91.417 (a) and (b)
to the extent necessary to allow the petitioner to operate the DJI Phantom 3 Professional UAS to preform aerial video and photographic collection.

Reason for seeking relief

As described below, the requested exemption would permit the commercial operation of a UAS under controlled conditions in the NAS that would be 1) limited 2) controlled 3) responsible and would provide safety enhancements and economic benefits to a new and rapidly expanding segment of the aviation industry.

Aircraft and Operator Equivalent level of safety

Michael J McCue (the operator) petitions for exemptions to the above listed CFRs as necessary to operate the DJI Phantom 3 Professional UAS. The DJI Phantom 3 Professional has a Maximum Gross Weight of 2.82 lbs., maximum calibrated airspeed of 31 knots or a ground speed not to exceed 87 knots. The Phantom 3 is equipped with a fail-safe Return to Home (RTH) feature. In the event of loss of communications between the UA and its controller or low battery charge the UA will automatically climb to a PIC selected safe altitude and return and land at its takeoff point or land in place. This feature can be manually engaged by the operator in the event of emergency or loss of visual contact. The UAS has a data base that includes no-fly zones that prevents the UA from being flown into or taking-off from UA prohibited airspace. Prior to flight the PIC (pilot in command) can limit the range and altitude of the UA by setting in the Controller Operating System limits to the maximum altitude (400' agl) and an operating distance which insures visual line of sight (VLOS) of the PIC and Visual Observer (VO) at all times. The DJI Phantom 3 Professional will be maintained, overhauled, inspected and life limited parts replaced in accordance with the recommendations of the UAS manufacturer (DJI) and any safety bulletins, Airworthiness Directives (ADs) or emergency orders issued by the manufacturer or FAA. After any maintenance or alteration than affects the Phantom 3 Professional's operation or flight characteristics the Phantom 3 Professional will undergo a functional test flight. A maintenance log book will be kept detailing all maintenance, alterations, inspections and repairs. Prior to each flight the PIC will preform a pre-flight inspection as outlined in the DJI Phantom 3 Professional Users Manual. All flights will be planed considering wind and forecast weather

conditions to have sufficient battery power for the UAS too conduct the intended operation and to operate after that for 5 minutes. The PIC will have available and review current Aeronautical Charts, TFR's, Notam's, and aviation weather forecasts for the area in which the UAM will be operated. The operator will insure that the UAS is operated with a minimum crew consisting of a PIC and VO. The operator will insure the PIC has an FAA issued pilots certificate, a current flight review as specified in 14 CFR 61.56 and current FAA airman medical certificate or valid U.S. drivers license. The operator will insure that the PIC demonstrates the ability to safely operate the UAS and will operate the UAS within the limits specified in the operators exemption, FARs and manufactures user manual. Each PIC will keep a flight logbook detailing each flight. The VO will be familiar with all documents and operating limitations and hold at least a state issued Drivers License. The UAV will be registered in accordance with 14 CFR part 47 and marked with an N-Number in accordance with14 CFR part 45, Subpart C. Markings will be as large as possible. The operator will NOT operate the UAS for the purpose of closed-set motion picture and or television filming and production. All operations will be conducted in the United States

The operator Michael J McCue holds an FAA Airline Transport Certificate and is a licensed Airframe and Powerplant Mechanic. He has been involved with commercial aviation for the past 50 years. During that time he was a Captain and flight instructor for a major U.S. airline flying world wide (now retired). He has flown Corporate and Charter aircraft and instructed in light fixed wing aircraft. He has flow search and rescue aircraft, Air Tankers (fire suppression) as well as agricultural aircraft. He has flown fixed wing aircraft for photography and videography. His involvement in model aircraft started 55 years ago with control line models and continues with todays electric RC aircraft and UAS.

Benefits to the Public with this exemption

Low level aerial photography, videography and search and rescue in conventional fixed wing and rotorcraft is expensive, noisy and hazardous. Hazardous for the pilots and passengers as well as persons and property on the ground. Doing the same work with a UAS substantially reduces the risks. With no onboard pilots or passengers there is no risk in the event of an accident. With the small size, low noise level and lack of volatile fuels onboard the UA poses little risk to person or property on the ground when operated in a professional and responsible manner. UAS's offer the public an economical and safe alternative to fixed wing and rotorcraft for low level aerial photography, videography and search and rescue.

The Phantom 3 Professional Users Manual will be sent as a separate attachment.

Sincerely,

Michael J McCue