



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

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

April 2, 2015

Exemption No. 11271
Regulatory Docket No. FAA-2014-0919

Mr. Tom Seidel
Monterey Drone
PO Box 1993
Monterey, CA 93942

Dear Mr. Seidel:

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.

The Basis for Our Decision

By letter posted to the public docket on November 7, 2014,¹ you petitioned the Federal Aviation Administration (FAA) on behalf of Monterey Drone (hereinafter petitioner or operator) for an exemption. The exemption would allow the petitioner to operate an unmanned aircraft system (UAS) to conduct commercial applications for produce field management, real estate and marketing purposes, electrical engineering inspections, and live sporting events.

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.

¹ By letter posted to the public docket on February 13, 2015, the petitioner responded to the FAA's request for information."

Airworthiness Certification

The UAS proposed by the petitioner is a DJI Phantom 2.

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, 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. 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, Monterey Drone 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, Monterey Drone 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 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 Colombia, Puerto Rico, a territory, a possession, or the Federal government. The PIC must also meet the flight review requirements specified in 14 CFR § 61.56 in an aircraft in which the PIC is rated on his or her pilot certificate.
14. The operator may not permit any PIC to operate unless the PIC demonstrates the ability to safely operate the UAS in a manner consistent with how the UAS will be

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

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

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

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

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

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

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 April 30, 2017, unless sooner superseded or rescinded.

Sincerely,

/s/

John S. Duncan

Director, Flight Standards Service

Monterey Drone

P.O. Box 1993

Monterey CA, 93942

tom@montereydrone.com / john@montereydrone.com

DEPARTMENT OF
TRANSPORTATION
FAA
NOV -3 P 1:56

FAA

Docket Management Facility

U.S. Department of Transportation

1200 New Jersey Avenue, SE

West Building, Ground Floor, Room W12-140

Washington, DC 20590

Dear Exemption Manager,

We are submitting our Petition for Exemption for Unmanned Aircraft Systems operations. We currently are both experienced UAS pilots with over 1350 combined flight hours and Tom Seidel is An FAA licensed private pilot, since 1982.

Tom is also an active participant in approved FAA training classes for recognized educational hours through the FAA, with whom he is a member.

In addition we did notice, as part of our work on a COA application that a current FAA approved ground school course completion is desired within the last 24 months John is currently completing that requirement again at this time. We take the skills and education for safe operation of UAS, very seriously.

<
Our request is for a waiver of the sections identified below in an effort to operate a UAS in use of commercial applications for produce field management, Real Estate and Marketing Purposes, Electrical Engineering Inspections and live sporting events.

This request specifically serves the public and economic interest to aide in the areas stated above.

The granting of this exemption would make logical sense because of our professional approach to UAS

operations, our clear understanding of FAA rules, our awareness of operational and restricted airspace, our experience as pilots, as well as our ongoing FAA approved educational activities, and our attitude of safety first when it comes to flight operations.

We believe with the granting of this exemption and the additional operational experience we will gain from flight operations that we will be able to have a much larger impact for the future of UAS. More flight experience now will be invaluable for us to assist the general public in the future as they embark into UAS operations.

There is much work to be done in developing the best use of UAS in the public. The coursework and training for best use of the UAS, best operational utilization, best role for the UAS pilot, etc. has yet to be developed in the general public arena. We would like to play a role in that development but we need more operational flight experience with the public to do that. This exemption would allow us to get that real world experience.

We are currently seeking exemption of:

Section of 14 CFR: parts 21 Subpart H, 27, 45.23(b), 45.27(a), 61.113(a) and (b), 61.133(a), 91.7(a), 91.9(b)(2), 91.103, 91.109(a), 91.119, 91.121, 91.151(a), 91.203(a) and (b), 91.319(a)(1), 91.405(a), 91.407(a)(1), 91.409(a)(2), 91.417(a) and (b)

If we have erroneously omitted any other relevant section for our intended operations, please feel free to suggest the missing section(s).

Suggested Public Federal Register Summary:

“The petitioner is seeking an exemption to operate unmanned aircraft systems (UAS) with a maximum weight of less than three pounds to perform Professional Marketing Services, for Electrical Engineering, Produce Management, Real Estate and Live Sporting Events, Etc. Data gathered may include still and moving images captured with onboard cameras.”

UAS Description:

We are asking for an exemption for a UAS up to 3 pounds because we forecast we may be testing and evaluating UAS for the public safety role. These tests would occur in a controlled environment and a flight safe range.

The initial craft we would fly operationally, weighs less than three pounds and would be better qualified as a hovercraft or drone.

In the event a loss of communications occurs the craft will rise up vertically to a safe height before beginning an automatic return to home function. The control signal may be reconnected in flight and the pilot can take over safe operations again if communication is reestablished. However in the case of a GPS failure the craft will be able to be manually flown to a safe landing by the pilot.

The craft operates electrically, carries no flammable fuel, has an integrated GPS pilot system, provides location information along with height AGL, speed, battery life, has programmed no-fly zones for controlled airports, and provides direction of travel and distance from the pilot.

Flight Operations:

We are well aware of conducting safe flight operations and planning flight paths that minimize any overflight of crowds.

Any flight operations in town environments would typically be for close air support for very focused events such as sporting, produce and electrical inspections, or real estate marketing. These operations occur in a very limited area and would not need to overfly densely populated areas in general. Operations would be more vertical in nature above the specific event.

Our proposed public safety UAS operations are typically conducted at low altitudes less than 400 Feet AGL (within Class G airspace), not over crowds, and not near airports. Flights will end when battery reserve reaches 25 percent. Operations will not occur under IFR conditions.

In addition, preflight and post-flight checklists and UAS examinations will help detect any abnormalities prior to flight and after flight. Any UAS unable to satisfy safety checklists will be removed from service until the issue can be resolved. Granting this request would not adversely affect safety since operations would be in accordance with current UAS rules.

Section 333 Compliance and Appropriateness:

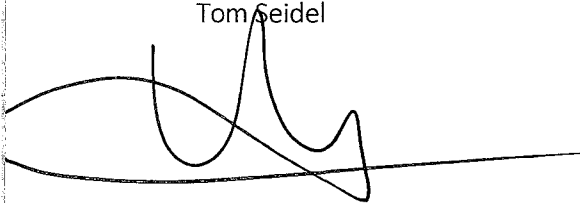
Based on the size of the craft, experience of the pilot, and operational goals, this request appears to be well suited for approval using the criteria outlined in Section 333 of the FAA Modernization and Reform Act of 2012 and will move safe flight operations forward in accordance with the intent of Section 333.

Ongoing Efforts:

We are also keenly aware of the new issues involved in UAS public safety operations and would greatly like to assist public safety departments to fly with commonsense and safety first in mind. Many departments I've seen are under the misperception small UAS craft are toys, which they are not. With your help we hope to obtain this exemption in order to use my exempted flight experience to help any agencies get off on the right foot, learn what they don't know, and help them to move forward to operate safer while they utilize the UAS.

Sincerely,

Tom Seidel

A handwritten signature in black ink, appearing to be 'Tom Seidel', written over a horizontal line.