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

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

September 25, 2015

Exemption No. 13032
Regulatory Docket No. FAA−2015−1434

Mr. David Simmons
Viewpoint Elevated Imagery, LLC
14806 Adios
San Antonio, TX 78248

Dear Mr. Simmons:

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 letters dated April 24, 2015, and July 13, 2015, you petitioned the Federal Aviation Administration (FAA) for an exemption. You requested to operate an unmanned aircraft system (UAS) to conduct aerial photography and cinematography.

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 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, *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. David Simmons 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. David Simmons 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 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 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 October 31, 2017, unless sooner superseded or rescinded.

Sincerely,

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

Enclosures

Viewpoint Elevated Imagery, LLC
David Simmons
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San Antonio, TX 78248

FAA Rulemaking Section
333
Of the
FAA Reform Act and Part 11

July 13. 2015

U.S. Department of Transportation

Washington, DC 20590

Attention: FAA Administrator

Re: Exemption Request Section 333 of the FAA Reform Act and Part 11 of the Federal Aviation Regulations form 14 CFR Part 21; 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; 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 91.215 (a) & (b); 14 CFR 91.131 (d); 14 CFR 91.405 (a); 14 CFR 407 (a) (1); 14 CFR 409 (a) (2); 14 CFR 417 (a) & (b)

Dear Administrator,

Pursuant to the Section 333 of the FAA Modernization and Reform Act of 2012 (The Reform Act) and 14 CFR Part 11, Terry Camnitz (LAI.) is the operator of Small Unmanned Aircraft Systems (sUAS) equipped to conduct aerial photography and cinematography services hereby applies for an exemption from the listed Federal Aviation Regulations (FARs) to allow commercial operations of its sUAS so long as such operations are conducted within and under the conditions outlined herein or as may be established by the FAA as required by Section 333.

As described in more detail below, the requested exemption would permit the operation of small, unmanned and relatively inexpensive sUAS under controlled conditions in the NAS that is both limited and predetermined. Approval of this exemption would thereby enhance safety and fulfill the Secretary of Transportation's (the FAA Administrator's) responsibilities to "...establish requirements for the safe operations of such aircraft systems in the national airspace system." Section 333 (c) of the Reform Act.

Regulations from which the exemption is requested:

14 CFR Part 21
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
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 91.215 (a) & (b)
14 CFR 91.131 (d)
14 CFR 91 405 (a)
14 CFR 407 (a) (1)
14 CFR 409 (a) (2)
14 CFR 417 (a) & (b)

This exemption application is expressly submitted to fulfill Congress' goal in passing Section 333 (a) through (c) of the Reform Act. This law directs the Secretary of Transportation to consider whether certain unmanned aircraft systems may operate safely in the national airspace system (NAS) before completion of the rulemaking required under Section 332 of the Reform Act. In making this determination, the Secretary is required to determine which types of sUASs 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 sUAS's size, weight, speed, and operational capability;
- Operation of the sUAS in close proximity to airports and populated areas
- Operation of the sUAS within visual line of sight (VLOS) of the Pilot/"Operator"

Reform Act § 333 (a). Lastly, 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." Id. §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 §40101 of the Act, that includes sUASs, from the requirement that all civil aircraft must have a current airworthiness certificate.

The Administrator may grant an exemption from the requirement of a regulation prescribed under subsection (a) or (b) of this section or any sections 44702-44716 of this title if the Administrator finds the exemption in the public interest. 49 U.S.C §44701(f) *See also 49 USC* §44744(a); 49 USC §44704l 14 CFR §91.203 (a) (1).

Low Altitude Imaging Inc. UASs are rotorcraft weighting 55 or fewer lbs. including payload. They operate under normal conditions at a speed of no more that 50 kts and have the capability to hover, and move in the vertical and horizontal plan simultaneously. They will operate only in line of sight of the Pilot/"Operator" and will operate with the permission of the property owner or a representative. Such operations will insure that the sUAS will "not create a hazard to users of the national airspace system or the public" as per the Reform Act Section 333 (b).

Applicant submits the attached (LAI), Safety Policy and (LAI). Operations Checklist as confidential documents under 14 CFR 11.35 (b) as these documents contain proprietary information that the applicant has not and will not share with others. The safety policy contains operating conditions and procedures that are not available to the public and are protected from release under the Freedom of Information Act 5 USC 552 et.seq.

Given the small size of the sUASs involved and the limited environment within which that will operate, the applicant falls squarely within that zone of safety (an equivalent level of safety) in which Congress envisioned that the FAA must, by exemption, allow commercial operations of sUASs to commence immediately. Also due to the size of the sUASs and the limited areas in which the relevant sUASs will operate, approval of the application presents no national security issue. Given the clear direction in Section 333 of the Reform Act, the authority contained 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 with allowing sUASs for commercial aerial videography and photography operations, the grant of the requested exemptions is in the public interest. Accordingly, the applicant respectfully requests that the FAA grant the requested exemption without delay.

AIRCRAFT AND EQUIVALENT LEVEL OF SAFETY

The applicant proposes that the exemption requested herein apply to civil aircraft that have the characteristics and they operate with the limitations listed herein. These limitations provide for at least and equivalent or even higher level of safety of operations under the current regulatory structure because the proposed operations are conducted on closed off property under the permission of the property owner or property representative.

These limitations and conditions to which (LAI) agrees to be bound when conducting commercial operations under an FAA issued exemption include:

1. The sUAS will weigh less than 55 lbs.
2. Flights will be operated within visual line of sight (VLOS) of a Pilot/"Operator" and/or observer.
3. Maximum total flight time for each operational flight will be 30 minutes. Flights will be terminated at 20% battery power reserve should that occur prior to the 30 minute limit.
4. Flights will be operated at an altitude of no more than 500 feet AGL or, when photographing a structure taller than 500 feet, the sUAS will not be operated more than 100' above the highest point on the structure.
5. Minimum crew for each operation will consist of the sUAS Pilot/"Operator", and the Visual Observer.
6. sUAS Pilot/"Operator" will be Pilot in Command (PIC). If the Pilot/"Operator" deems another "Pilot/"Operator" " to be qualified with the necessary skills to be the "Pilot/"Operator", that person can also be designated as "Pilot/"Operator" " provided they have a minimum of 40 hours of flight time with the sUAS.
7. Flights will be operated at a lateral distance of at lest 50 feet from any inhabited structures, buildings, vehicles, vessels, or people not associated with the operation.
8. A briefing will be conducted in regard to the planned sUAS operations prior to each flight activity. It will be mandatory that all personnel involved with the operational duties of the flight be present for this briefing.
9. Pilot/"Operator" and observer will have been trained in operation of sUAS generally and received up-to-date information on the particular sUAS to be operated.
10. The "Pilot/"Operator" " will have at least a class 3 medical certificate.
11. Observer and Pilot/"Operator" will at all times be able to communicate by voice, radio, and/or text.
12. Written and/or oral permission from the relevant property holders or property representatives will be obtained.
13. If the sUAS loses communications or loses its GPS signal, the sUAS will have the capability to return to a pre-determined location and land autonomously.
14. The sUAS will have the capability to abort a flight in case of unpredicted obstacles, weather, or emergencies.

14 CFR §91.109: Flight Instruction

No person may operate a civil aircraft (except a manned free balloon) that is being used for flight instruction unless that aircraft has fully functioning dual controls.
sUAS and remotely piloted aircraft, by their design do not have fully functional dual. Flight control is accomplished through the use of a control box that communicates with the aircraft via radio communication. The FAA has approved exemptions for flight training without full functional dual controls for a number of aircraft and for flight instruction in experimental aircraft. See Exemption Nos. 5778K & 9862A. The equivalent level of safety is provided by the fact the neither a pilot nor passengers will be carried in the aircraft and by the size and speed of the aircraft.

14 CFR §91.119: Minimum Safe Altitudes

Section 91.119 established safe altitudes for operation of civil aircraft. Section 91.119 (d) allows that helicopter may be operated at less than the minimums prescribed in paragraph (b) or (c) of this section, provided each person operating the helicopter complies with any routes or altitudes specifically prescribed for helicopters by the FAA. As this exemption is for a sUAS that is a helicopter and the exemption requests authority to operate at altitudes up to 500 feet AGL, an exemption may be needed to allow such operations. As set forth herein, the sUAS will never operate higher that 500 AGL with the exception that in circumstances where the sUAS is used to survey or photograph a structure whose height exceeds 500 feet AGL, the sUAS will not be operated more than 100 feet above the highest point on the structure.

The equivalent level of safety will be achieved given the size, weight, speed of the sUAS as well as the location where it is operated. No flight will be taken without the permission of the property owner. Because of the advance notice to the property owner and other participants in the activity, all affected individuals will be aware of the planned flight operations. Compared to flight operations with aircraft or rotorcraft weighing far more than the maximum 55 lbs. proposed herein and the lack of flammable fuel, any risk associated with these operations is far less than those presently presented with conventional aircraft operating at or below 500 feet AGL. In addition, the low-altitude operations of the sUAS will ensure separation between the sUAS operations and the operations of conventional aircraft that must comply with Section 91.119.

14 CFR §91.121 Altimeter Settings

This regulation requires each person operating an aircraft to maintain cruising altitude by reference to an altimeter that is set "...to the elevation of the departure airport or an appropriate altimeter setting available before departure." As the sUAS may not have a barometric altimeter, but instead a GPS altitude readout, and exemption may be needed. An equivalent level of safety will be achieved by the Pilot/"Operator", pursuant to the safety checklist and live flight data monitoring, confirming the altitude of the launch site shown on the GPS altitude indicator before flight.

14 CFR §91.151(a): Fuel Requirements for Flight in VFR Conditions

Sections 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."

The battery powering the sUAS provides less than 30 minutes of powered flight. To meet the 30 minute reserve requirement in 14 CFR §91.151, sUAS flights would be limited to approximately 10 minutes in length. Given the limitations of the sUAS's proposed flight area and the location of its proposed operations within a predetermined area, a longer timeframe for flight in daylight or twilight CFR conditions is reasonable.

Applicant believes that an exemption from 14 CFR §91.151 (a) falls within the scope of prior exemptions. See Exemption 10673 (allowing Lockheed Martin Corporation to operate without compliance with FAR 91.151 (a)). Operating the sUAS, in a limited area where only people and property owners or representative with less than 30 minutes of reserve fuel, does not engender the type of risk that Section 91.151 (a) was intended to alleviate given the size and speed of the sUAS. Additionally, limiting the sUAS flight to 10 minutes would greatly reduce the utility for which the exemption will be granted.

Applicant believes that an equivalent level of safety can be achieved by limiting flights to 30 minutes or 20% of battery power – whichever happens first. This restriction would be more than adequate to return the sUAS to its planned landing zone from anywhere in its limited operating area. Similar exemptions have been granted to other operations, including Exemptions 2689F, 5745, 10673, and 10808.

14 CFR §91.203 (a) and (b): Carrying Civil Aircraft Certification and Registration

The regulation provides in the pertinent part:

(a) Except a provided in § 91.715, no person may operate a civil aircraft unless it has within it the following: (1) An appropriate and current airworthiness certificate. . . .
(b) No person may operate a civil aircraft unless the airworthiness certificate required by paragraph (a) of this section or a special flight authorization issued under §91.715 is displayed at the cabin or cockpit entrance so that it is legible to passengers or crew.

The sUAS fully loaded weighs less that 55 lbs. and is operated without an onboard pilot. As such, there is no ability to place to carry certification and registration documents or to display them on the sUAS.

An equivalent level of safety will be achieved by keeping these documents at the ground control point where the Pilot/"Operator" flying the sUAS will have immediate access to the documents to the extent they are applicable to the sUAS. The FAA has issued numerous exemptions to this regulation. A representative sample of other exceptions includes Exemption Nos. 9565, 9665, 9789, 9789A, 9797 9797A, and 10700.

14 CFR §91.215 (a) and (b); 14 CFR §91.131 (d); ATC transponder and altitude reporting equipment and use

The pertinent section of 91.215 (a) & (b) requires the "(a) *All airspace: U.S.-registered civil aircraft.* For operations not conducted under part 121 or 135 of this chapter, ATC transponder equipment installed. . .
(b) *All airspace.* Unless otherwise authorized or directed by ATC, no person may operate an aircraft in the airspace described in paragraphs (b)(1) through (b)(5) of this section, unless that aircraft is equipped with an operable coded radar beacon transponder". . .

This requirement applies
(1) All aircraft. In Class A, Class B, and Class C airspace areas;

(2) All aircraft. In all airspace within 30 nautical miles of an airport listed in appendix D, section 1 of this part from the surface upward to 10,000 feet MSL;

Likewise, the pertinent section of 91.131 (d); Operating Rule in Class B Airspace

(d) other equipment requirements.

"No person may operate an aircraft in a Class B airspace area unless the aircraft is equipped with

(1) The applicable operating transponder and automatic altitude reporting equipment specified in §91.215 (a) . . . and

(2) After January 1, 2020 , the applicable Automatic Dependent Surveillance-Broadcast Out equipment specified in §91.225."

Because of the small size and limited lifting capacity of the sUAS, the sUAS cannot be fitted with and operate a transponder and automatic altitude reporting equipment specified in paragraph of 91.215 (a) and (b) and 91.131 (d). An exemption from these requirements is requested. The equivalent level of safety can be assured using the procedures defined for each class of airspace.

Within the surface areas of Class "B", Class "C", Class "D" airspace
Within the lateral boundaries of the airspace, the Pilot/"Operator" " will establish 2 way communications with the ATC facility having jurisdiction for that area. The Pilot/"Operator" will provide the location (heading and distance) relative to the center of the airspace and request clearance to "Maneuver" above that location at or below 400 feet AGL. The Pilot/"Operator" will be responsible for "see and avoid" traffic conflicts. The Pilot/"Operator" will at all times yield right of way to ANY and ALL manned flight operations. All operations within 2 miles of the primary airport will be pre-arranged with that controlling facility. Any and all restrictions placed on the operations will be complied with so that all manned operations can be conducted without negatively impacting flight safety.

14 CFR §91.405 (a); 407 (a) (1); 409 (a) (2); 417 (a) & (b): Maintenance Inspections

These regulations require that an aircraft operator or owner "shall have that aircraft inspected as prescribed in subpart E of this part and shall between required inspections, except as provided in paragraph (c) of this section, have discrepancies repaired as prescribed in part 43 of this chapter…," and others shall inspect or maintain the aircraft in compliance with Part 43.

Given that these sections and Part 43 apply only to aircraft with an airworthiness certificate, these sections will not apply to the applicant. Maintenance will be accomplished by the Pilot/"Operator" pursuant to the flight manual and operating and handbook. An equivalent level of safety will be achieved because these small sUASs are very limited in size and will carry small payload and operate only in limited areas for short periods of time. If mechanical issues arise the sUAS and land immediately and will be operating from no higher than 500 feet AGL. The Pilot/"Operator" will ensure that the sUAS is in working order prior to initiating flight, perform required maintenance, and keep a log of any maintenance performed. Moreover, the Pilot/"Operator" is the person most familiar with the aircraft and is best suited to maintain the aircraft in an airworthy condition to provide the equivalent level of safety. An equivalent level of safety will be achieved because maintenance and inspections will be performed and accordance with the sUAS manufacturer's manual, as referenced in the Aircraft Operations Manual. As provided in the Operations Manual, the Pilot/"Operator" will ensure that the sUAS is in working order prior to initiating flight and perform required maintenance needed.

Additional Views and Information

Of the applicant, David Simmons has been involved in building and piloting of radio controlled vehicles for over 10 years without incident.

Summary

Pursuant to 14 CFR Part 11, the following summary is provided for publication in the Federal Register, should it be determined that publication is needed:

Applicant seeks an exemption from the following rules: 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; 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 91.215 (a) & (b); 14 CFR 91.131 (d); 14 CFR 91.405 (a); 14 CFR 407 (a) (1); 14 CFR 409 (a) (2); 14 CFR 417 (a) & (b) to commercially operate a small unmanned vehicle (55 lbs. or less) equipped to conduct aerial photography and cinematography services.

Approval of exemptions allowing commercial operations of sUAs to conduct aerial photography and cinematography services will enhance safety by reducing risk. Conventional photography operations, using jet or piston powered aircraft, at extremely low altitudes, often very close to the subject being filmed and in close proximity to people and structures; and present the risks associated with vehicles that exceed 3,000 lbs., carrying large amounts of jet A or other fuel. In contrast, a sUAS weighing fewer than 55 lbs. and powered by batteries eliminates virtually all of the risk given the reduced mass and lack of combustible fuel carried on board. The sUAS is carried to the location. The sUAS will carry no passengers or crew and, therefore, will not expose them to the risks associated with manned aircraft flights.

The operation of small sUASs, weighing less than 55 lbs., conducted in the conditions outlined above, will provide an equivalent level of safety supporting the granting of the exemptions requested herein, including exempting the applicant from the requirements of Part 21 and allowing commercial operations. These lightweight aircraft operate at slow speeds, close to the ground but under 400 feet AGL, and within the limited area and, as a result, are far safer than conventional flight operations conducted with turbine helicopters operating in close proximity to the ground and people.

Privacy

All flights will occur over private or controlled access property with the property representative or owner's prior consent and knowledge. Filming will be of people who have also consented to being filmed or otherwise have agreed to be in the area where filming will take place.

All flights will occur in accordance with any state or local laws regarding privacy.

Satisfaction of the criteria provided in Section 333 of the Reform Act of 2012—size, weight, speed, operating capabilities, proximity to airports and populated areas and operations within visual line of sight (VLOS) and national security – provide more than adequate justification for the granting of the requested exemptions allowing commercial operation of applicants sUAS in the aerial photography and cinematography services industry.

Sincerely,

David Simmons

Viewpoint Elevated Imagery, LLC