



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

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

July 20, 2015

Exemption No. 12088
Regulatory Docket No. FAA-2015-0532

Mr. Jonas L. Marcinko
Mr. Ivan J. Marcinko
RC Aerial Cam, L.L.C
1025 West Highway 26
Blackfoot, ID 83221

Dear Messrs. Marcinko:

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 March 2, 2015, you petitioned the Federal Aviation Administration (FAA) on behalf of RC Aerial Cam, L.L.C (hereinafter petitioner or operator) for an exemption. The exemption would allow the petitioner to operate an unmanned aircraft system (UAS) to conduct high definition feature film quality aerial 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 are the TREX 800E DFC PRO, DJI S1000, and 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 collection¹ and closed set motion picture and filming. 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, RC Aerial Cam, L.L.C 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 and closed set motion picture and filming. This exemption is subject to the conditions and limitations listed below.

¹ Aerial data collection includes any remote sensing and measuring by an instrument(s) aboard the UA. Examples include imagery (photography, video, infrared, etc.), electronic measurement (precision surveying, RF analysis, etc.), chemical measurement (particulate measurement, etc.), or any other gathering of data by instruments aboard the UA.

Conditions and Limitations

In this grant of exemption, RC Aerial Cam, L.L.C 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 TREX 800E DFC PRO, DJI S1000, and 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 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 5 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 July 31, 2017, unless sooner superseded or rescinded.

Sincerely,

/s/

John S. Duncan

Director, Flight Standards Service

Enclosures

From: RC Aerial Cam L.L.C.

Date: March 2, 2015

To: United States Department of Transportation,
Docket Management System 1200 New Jersey Ave.,
SE West Building Ground Floor Room W12-140
Washington, DC 20590

Re: Exemption Request Pursuant To Section 333 of the FAA Reform Act of 2012

Dear Sir or Madam:

Pursuant to Section 333 of the FAA Modernization and Reform Act of 2012 (the Reform Act) and the procedures contained in 14 C.F.R. Part 11, RC Aerial Cam an owner and operator of small unmanned aircraft, be exempted from the Federal Aviation Regulations (FARs) listed below so that RC Aerial Cam may operate its small unmanned aircraft / lightweight unmanned aircraft systems (UAS) commercially in airspace regulated by the Federal Aviation Administration ("FAA").

RC Aerial Cam, L.L.C hereby applies for an exemption from the Federal Aviation Regulations to allow commercial operation of its UASs for the purpose of capturing high definition (HD) feature film quality aerial cinematography.

RC Aerial Cam has been operating its lightweight UASs for several years outside the United States obtaining HD feature film quality aerial cinematography without incident. For example, RC Aerial Cam has conducted videography at an archeological research site in Guatemala, an expedition on Mt. Kilimanjaro in Tanzania, backcountry skiing in Canada, and landscapes in Dubai.

Granting RC Aerial Cam's request conforms with the Secretary of Transportation's (FAA Administrator's) responsibilities to not only integrate UASs into the national airspace system, but to "...establish requirements for the safe operation of such aircraft systems [UASs] in the national airspace system" under Section 333(c) of the Reform Act. Further, RC Aerial Cam will conduct its operations in compliance with the protocols described herein or as otherwise established by the FAA.

RC Aerial Cam contact information:

RC Aerial Cam L.L.C.,
1025 W. Hwy 26,
Blackfoot, Idaho 83221

Attention: Jonas L. Marcinko / Ivan J. Marcinko
Tel.: (208) 681-4450 / (206) 919-6205 ivan99snow@gmail.com

For the reasons stated below, RC Aerial Cam respectfully requests the grant of an exemption allowing it to operate lightweight, remote controlled UAS's.

The Specific Sections of Title 14 of the Code of Federal Regulations From Which RC Aerial Cam requests exemption are:

14 CFR 21; 14 C.F.R. 45.23(b); 14 CFR 61.113 (a) & (b); 14 C.F.R. 91.103; 14 C.F. R. 91.119; 14 C.F.R. 91.121; 14 CFR 91.151(a); 14 CFR 91.405(a); 14 CFR 407 (a) (1); 14 CFR 409 (a) (2); and, 14 CFR 417 (a) & (b).

UASs operated by RC Aerial Cam weigh less than 55 pounds, including the payload (i.e. camera, lens, and gimbal). They operate at speeds of no more than 50 knots, can hover, and can simultaneously move vertically and horizontally. RC Aerial Cam will only operate its UASs in line of sight and will operate only within the areas described in the RC Aerial Cam, Flight Operations and Procedures Manual (the "FOPM"). Such operations will insure that the UAS will "not create a hazard to users of the national airspace system or the public."

Given the small size of RC Aerial Cam's UASs and the environments within which they will operate, RC Aerial Cam's UAS operations adhere to the Reform Act's safety requirements. Additionally, due to the size of the UASs and the limited areas in which they will operate, approval of this application presents no national security issues. Based on the substantial level of safety surrounding the proposed operations, and the significant public benefit (enhanced safety), reduction in environmental impacts (reduced emissions and noise), the granting of the requested exemption is in the public interest. Accordingly, RC Aerial Cam respectfully requests that the FAA grant the requested exemption.

Aircraft And Equivalent Level Of Safety

The operating limitations proposed by RC Aerial Cam provide for at least an equivalent or higher level of safety because operations further enhance safety of aerial videography.

As set forth in the RC Aerial Cam, Flight Operations and Procedures Manual (FOPM), the limitations and conditions include:

- The UASs will weigh less than 55 pounds.
- The UAS will be operated by qualified Pilot in Command (PIC).
- The PIC and Visual Observer (VO) will be able to communicate by voice at all times.
- Maximum flight time for each operational flight will be 20 minutes. Flights will be terminated at 25% battery power reserve should that occur prior to the 20 minute limit. (In general, RC Aerial Cam flights are from 5 to 15 minutes.)
- Flights will be operated at an altitude of no more than 400 feet AGL, and not more than 200 feet above an elevated platform from which filming is planned.
- Flights will be operated within visual line of sight (VLOS) of the PIC and/or VO at all times. The UA will 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.

- Minimum crew for each operation will consist of the UAS PIC, the VO, and the Camera Operator.
- The UAS Pilot will be an FAA licensed airman with at least a private pilot's certificate and third class medical.
- The UAS Pilot will be the PIC.
- A flight operations "Security Perimeter" will be established for each flight.
- All UAS flights will also be performed as identified in the FOPM in regards to UAS preflight inspections, maintenance, alterations, UAS manufacture's requirements, and record keeping.
- A briefing will be conducted for planned UAS operations prior to each day's flight that will be attended by all personnel performing duties associated with the flight.
- The UAS will only operate within a predetermined controlled area as defined in the FOPM.
- The operator will file a FAA Form 7711-1, or its equivalent, as modified in light of the requested exemption, with the appropriate Flight Standards District Office (FSDO).
- The operator will obtain consent of all persons involved in the filming and ensure that only consenting persons will be allowed within 500 feet of the flight operation. This radius may be reduced to 30 feet based upon an equivalent level of safety determination, as required under the FOPM. With the advanced permission of the FSDO, operations at closer range can be approved.
- The operator will ensure that no nonparticipating persons are allowed within 500 feet of the area except those consenting to be involved and necessary for the filming production. This provision may be reduced to no less than 200 feet if it would not adversely affect safety and the Administrator has approved it.
- The operator will submit a written Plan of Activities to the FSDO three days before the proposed shoot as required in the FOPM.
- The PIC will be trained in UAS operations and have received current information on the particular UAS to be operated as required by the FOPM.
- Written and/or oral permission from relevant property holders will be obtained.
- All required permission and permits will be obtained from territorial, state, county, or city jurisdictions, including local law enforcement, fire, or other appropriate governmental agencies.
- UAS operations are limited to conducting operations for the purpose of capturing HD feature film quality aerial cinematography.
- If the UAS loses communications or loses its GPS signal, the UAS will have the capability to return and land at a predetermined location within the Security Perimeter.
- The PIC will have the capability to abort a flight in case of unpredicted obstacles or emergencies.

14 C.F.R. § 61.113(a) and (b): Private Pilot Privileges and Limitations: Pilot in Command

Sections 61.113 (a) and (b) limit private pilots to non-commercial operations. Because the UAS will not carry a pilot or passengers, the proposed operations can achieve the equivalent level of safety of current operations by requiring the PIC operating the aircraft to have a private pilot's license rather than a commercial pilot's license to operate a small UAS. Unlike a conventional manned aircraft, a UAS is remotely controlled by a ground-based operator (the PIC). The operational area is controlled and restricted, and all flights are planned and coordinated in advance. The level of safety exceeds that provided by a single individual holding a commercial pilot's certificate operating a conventional aircraft. The risks associated with the use of a UAS are so diminished from the level of risk associated with commercial operations contemplated by Part 61 allowing UAS use by a private pilot as the PIC exceeds the present level of safety sought by 14 C.F.R. §61.113 (a) and (b).

RC Aerial Cam only operates its UASs in predetermined controlled areas and only in compliance with established safety protocols.

14 C.F.R. § 91.103: Preflight Action

Section 91.103 requires each pilot to preflight an aircraft before flight to insure the safety of flight. As FAA approved rotorcraft flight manuals will not be used, an exemption is requested. However, an equivalent level of safety will be provided. The PIC will take all actions, including reviewing weather, flight battery requirements, landing and takeoff distances, and aircraft performance data before commencement of flight.

14 C.F.R. §91.119(c): Minimum Safe Altitudes

Section 91.119 establishes safe altitudes for operation of civil aircraft. Section 91.119 provides, in pertinent part, that: "except when necessary for takeoff or landing, no person may operate an aircraft below the following altitudes:

(c) Over other than congested areas. An altitude of 500 feet above the surface, except over open water or sparsely populated areas. In those cases, the aircraft may not be operated closer than 500 feet to any person, vessel, vehicle, or structure."

Because RC Aerial Cam requests authority to operate at altitudes only up to 400 feet AGL, and not more than 200 feet above an elevated platform from which filming is planned, an exemption is needed to allow such operations. The UAS will never operate higher than 400 feet AGL. It will also be operated in a predetermined controlled area, where buildings and people will not be exposed to operations.

The equivalent level of safety will be achieved given the size, weight, and speed of the UAS as well as the location where it is operated. No flight will be taken without the permission of property owners or local officials. Because of the advance notice to the property owners and participants in the filming activity, all affected individuals will be

informed of the planned flight operations. Compared to flight operations for manned aircraft and the lack of flammable fuel, any risk associated with the proposed UAS operations is far less than conventional aircraft operating at or below 500 AGL. In addition, the low-altitude operations of the UAS will ensure separation between a UAS and conventional aircraft.

14 C.F.R. §91.121 Altimeter Settings

Section 91.121 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 a UAS may not have a barometric altimeter, but instead a GPS altitude data, an exemption is needed. An equivalent level of safety will be achieved by the operator, pursuant to the FOPM and Safety Check list, confirming the altitude of the launch site shown on the GPS altitude indicator before flight.

14 C.F.R. §91.151(a): Fuel Requirements for Flight in VFR Conditions

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”

The battery powering the RC Aerial Cam UASs provides a maximum of 30 minutes of powered flight. Therefore, it would not be possible to meet the 30-minute daylight reserve requirement in 14 CFR §91.151. Given the limitations on the UAS’s proposed flight area and its proposed operations within a predetermined location, a 25% battery power reserve would provide an adequate safety factor. Furthermore, operating the UASs in a predetermined controlled area where only people, property owners, or official representatives who have signed waivers will be allowed, less than 30 minutes of reserve fuel does not lead to the type of risk that §91.151(a) was intended to address.

RC Aerial Cam believes that safety can be achieved by limiting flights to 20 minutes or 25% of battery power, whichever occurs first. (In general, RC Aerial Cam flights are from 5 to 15 minutes.) This restriction would be more than adequate to return the UAS to its pre-determined landing zone from anywhere in its limited operating area.

RC Aerial Cam is not seeking an exemption for night-time UAS operations as identified in 14 CFR 1.1.

14 C.F.R. §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 RC Aerial Cam operations. Maintenance will be accomplished by the operator. An equivalent level of safety will be achieved because the UASs are limited in size, will carry a small payload and operate only in predetermined controlled areas for limited periods of time. If mechanical issues arise, the UAS can land immediately and will be operating from no higher than 400 feet AGL. As provided in the FOPM, the operator will ensure that the UAS is in working order prior to flight, perform any required maintenance, and keep a log of any maintenance performed. Moreover, the operator is the person most familiar with the UAS and best suited to maintain it in an airworthy condition.

Summary

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

RC Aerial Cam seeks an exemption from the following rules:

14 CFR 21; 14 C.F.R. 45.23(b); 14 CFR 61.113 (a) & (b); 14 C.F.R. 91.103; 14 C.F. R. 91.119; 14 C.F.R. 91.121; 14 CFR 91.151(a); 14 CFR 91.405(a); 14 CFR 407 (a) (1); 14 CFR 409 (a) (2); and, 14 CFR 417 (a) & (b) to allow commercial operation of its UASs for the purpose of capturing high definition (HD) feature film quality aerial cinematography.

As established by the UAS exemptions already granted by the FAA, allowing commercial operations of UASs in the film industry will enhance safety by reducing risk. Conventional film operations, using turbine aircraft, operate at low altitudes and present the risks associated with aircraft that weigh around 4,000 pounds, and which carry large amounts of Jet A fuel. Such aircraft must also fly to and from the film location. In contrast, a UAS weighing fewer than 55 pounds and powered by batteries eliminates virtually all of that risk given the small size and lack of combustible fuel. The UAS is carried, and not flown, to a film location. In this regard, the UAS carries no passengers or crew and, therefore, will not expose them to the risks associated with manned flights.

The operation of UASs conducted in the strict conditions outlined in our FOPM will provide an equivalent level of safety supporting the grant of the exemption requested herein. The UASs operate at slow speeds, close to the ground, and in a controlled environment. As a result, they are far safer than conventional operations conducted with turbine helicopters flying near the ground and people.

Privacy

All flights will occur over private or predetermined controlled access areas with the property owner's prior consent and knowledge. Filming will be only of people who have given their consent or otherwise have agreed to be in the area where filming will take place.

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 operation within visual line of sight and national security) provide more than adequate justification to grant RC Aerial Cam requested exemption, allowing for RC Aerial Cam's UAS commercial operations pursuant to the FOPM included herewith.

If you have any questions or need any additional information, please contact me at any time at (208) 681-4450 or at jonasmarcinko@gmail.com.

Sincerely yours,

Jonas L. Marcinko, Owner RC Aerial Cam L.L.C.