HELINET AVIATION

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September 29, 2014

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

Re: Exemption Request Pursuant to Section 333 of the FAA Reform Act and Part 11 of the Federal Aviation Regulations from: 14 CFR 61.113(a) and (b); 91.103; 91.119(c); 91.121; 91.151(a); 91.405(a); 91.407(a)(1); 91.409 (a)(1) and (2); 91.417(a) and (b).

Dear Sir or Madam:

Pursuant to Section 333 of the FAA Modernization and Reform Act of 2012 (the "Reform Act") and 14 C.F.R. Part 11, Helinet Aviation Services, LLC ("Helinet") an operator of Unmanned Aircraft Systems ("UASs") for aerial photography for the motion picture and television industry, hereby applies for an exemption from the Federal Aviation Regulations ("FARs") to allow commercial operation of its UASs.

On or about September 25, 2014, the FAA granted exemptions to six UAS operators, including Astraeus Aerial (the "Astraeus Exemption"). As set forth in Helinet's Flight Operations and Procedures Manual (the "FOPM") and Motion Picture Television Operations Manual (both submitted under separately under 14 CFR 11.35(b)), Helinet will adhere to the terms of the Astraeus Exemption.

Helinet's requested exemption would permit the operation of small, unmanned UAS under controlled and "sterile" conditions in motion picture and television airspace that is: (i) limited, (ii) predetermined, (iii) subject to controlled access, and (iv) provide greater safety in connection with aircraft operations in the film and television industry. As established by the exemptions already granted by the FAA, approval of Helinet's exemption would enhance safety and fulfill the Secretary of Transportation's (the FAA Administrator's) responsibilities to "…establish requirements for the safe operation of such aircraft systems in the national airspace system." Section 333(c) of the Reform Act.

The name and address of the applicant is:

Helinet Aviation Services, LLC
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Regulations from which the exemption is requested:

14 CFR 61.113(a) and (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)
14 CFR 417(a) and (b)

UASs operated by Helinet 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. Helinet will only operate its UASs in line of sight and will operate only within the sterile area described in 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 Helinet's UASs and the restricted sterile environment within which they will operate, Helinet'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 grant of the requested exemption is in the public interest. Accordingly, Helinet respectfully requests that the FAA grant the requested exemption without delay.

Aircraft And Equivalent Level Of Safety

The operating limitations proposed by Helinet provide for at least an equivalent or higher level of safety because operations further enhance safety of movie and television filming using conventional aircraft.

As set forth in the FOPM, the limitations and conditions include:

- The UASs will weigh less than 55 pounds
- Flights will be operated within line of sight of a pilot and/or observer.
- Maximum flight time for each operational flight will be 30 minutes. Flights will be terminated at 25% battery power reserve should that occur prior to the 30 minute limit.
- 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.
- Minimum crew for each operation will consist of the UAS Pilot, the Visual Observer, and the Camera Operator.
- A UAS pilot will be an FAA licensed airman with at least a private pilot's certificate and third class medical.
- A UAS Pilot will be Pilot in Command (PIC). If a pilot certificate holder other than the UAS Pilot, who possesses the necessary PIC qualifications, is also present on set (i.e. the Aerial Coordinator), that person can also be designated as PIC.

- The UAS will only operate within a confined “Sterile Area” as defined in the FOPM.
- The FOPM requires the establishment of a “Security Perimeter” for the flight operations area.
- A briefing will be conducted for planned UAS operations prior to each day’s flight. All personnel performing duties within the boundaries of the safety perimeter are required to attend.
- 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 100 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 submit a written Plan of Activities to the FSDO three days before the proposed shoot as required in the FOPM.
- The Pilot and observer must be trained in UAS operations and have received current information on the particular UAS to be operated as required by the FOPM.
- The Observer and pilot will at all times be able to communicate by voice and/or text.
- Written and/or oral permission from the relevant property holders will be obtained.
- All required permissions and permits will be obtained from territorial, state, county, or city jurisdictions, including local law enforcement, fire, or other appropriate governmental agencies.
- If the UAS loses communications or loses its GPS signal, the UAS will have the capability to return to a pre-determined location within the Security Perimeter and land.
- The UAS 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 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).

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 Helinet requests authority to operate at altitudes only up to 400 AGL, and not more than 200 above an elevated platform from which filming is planned, an exemption is needed to allow such operations. Except for the limited conditions stated in the FOPM, the UAS will never operate higher than 400 AGL. It will, however, be operated in a restricted area within a security perimeter, where buildings and people will not be exposed to operations without their pre-obtained consent.

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 Helinet UASs provides approximately 40 minutes of powered flight. To meet the 30-minute reserve requirement in 14 CFR §91.151, UAS flights will be limited to approximately 10 minutes in length. Given the limitations on the UAS's proposed flight area and its proposed operations within a predetermined location, a longer time frame for flight in daylight VFR conditions is reasonable. Furthermore, operating the UASs in a tightly 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 engender the type of risk that §91.151(a) was intended to address.

Helinet believes that safety can be achieved by limiting flights to 30 minutes or 25% of battery power, whichever occurs first. This restriction would be more than adequate to return the UAS to its pre-determined landing zone from anywhere in its limited operating area.

Helinet is not seeking an exemption for night-time UAS operations.

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 Helinet 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 restricted 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 for Publication

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:

Helinet seeks an exemption from the following rules:

> 14 C.F.R. §§ 61.113(a) and (b); 91.103; 91.119(c); 91.121; 91.151(a); 91.405(a); 91.407(a)(1); 91.409(a)(2); and 91.417(a) and (b) to operate commercially a small unmanned vehicle (55 pounds or less) in motion picture and television operations.

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 set. 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 the 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 sterile environment. As a result, they are far safer than conventional operations conducted with turbine helicopters flying near the ground and people.

Privacy

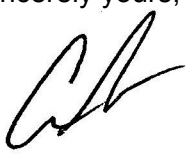
All flights will occur over private or controlled access areas with the property owner's prior

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 Helinets requested exemption, allowing for Helinet's UAS commercial operations for the motion picture and television industry pursuant to the FOPM included herewith.

If you have any questions or need any additional information, please contact the undersigned at 818-398-0757 or at apurwin@helinet.com.

Sincerely yours,



Alan D. Purwin
President
Helinet Aviation Services, LLC