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

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

July 23, 2015

Exemption No. 11804A
Regulatory Docket No. FAA-2015-0413

Mr. David Child
Orbic Air, LLC
10750 Sherman Way
Burbank, CA 91505

Dear Mr. Child:

This letter is to inform you that we have granted your petition for an amendment. It explains the basis for our decision, describes its effect, and lists any changes to the original conditions and limitations.

By letter dated February 16, 2015, you petitioned the Federal Aviation Administration (FAA) on behalf of Orbic Air, LLC (hereinafter petitioner or operator) to operate the DJI S1000, DJI S900, DJI Phantom 2, DJI Phantom 3, Freefly Cinestar 8, DJI Inspire 1, and Intuitive Aerial Aerigon to perform aerial data collection and closed-set motion picture and filming. In the June 15, 2015 decision letter, the FAA was unable to approve the Intuitive Aerial Aerigon. The FAA is now prepared to act on that request.

The FAA has determined that good cause exists for not publishing a summary of the petition in the Federal Register because the requested amendment to the exemption would not set a precedent, and any delay in acting on this petition would be detrimental to the petitioner. The unmanned aircraft authorized in the original grant are comparable in type, size, weight, speed and operating capabilities to those in this petition.

Airworthiness Certification

In accordance with the statutory criteria provided in Section 333 of Public Law 112−95 in reference to 49 U.S.C. § 44704, and in consideration of the size, weight, speed, and limited operating area associated with the aircraft and its operation, the Secretary of Transportation has determined that this aircraft meets the conditions of Section 333. Therefore, the FAA finds that relief from 14 CFR part 21, C*ertification procedures for products and parts, Subpart H—Airworthiness Certificates*, and any associated noise certification and testing requirements of part 36, is not necessary.

Our Decision

The FAA has determined that the justification for the issuance of Exemption No. 11804 remains valid and is in the public interest. Therefore, under the authority contained in 49 U.S.C. 106(f), 40113, and 44701, delegated to me by the Administrator, the operator is granted an amendment to add new aircraft to its UAS operations.

The operator shall add this amendment to its original exemption.

Conditions and Limitations

All conditions and limitations within Grant of Exemption No. 11804 remain in effect except as follows. Condition No. 1 has been updated to reflect the additional aircraft.

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 the DJI S1000, DJI S900, DJI Phantom 2, DJI Phantom 3, Freefly Cinestar 8, DJI Inspire 1, and Intuitive Aerial Aerigon 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.

This exemption terminates on June 30, 2017, unless sooner superseded or rescinded.

Sincerely,

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

Enclosures

February 16, 2015

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 45.23 (b); 14 CFR 21; 14 CFR 61.113(a) and (b); 14 CFR 61.113 (a) & (b); 91.7 (a); 91.9 (b) (2); 91.103; 91.109; 91.119(c); 91.121; 91.151(a); 91.203 (a) & (b); 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, Orbic Air, LLC an operator of Unmanned Aircraft Systems ("UASs") for aerial photography and video production, hereby applies for an exemption from the Federal Aviation Regulations ("FARs") to allow commercial operation of its UASs.

To date, the FAA granted numerous exemptions to UAS operators, including Astraeus Aerial, Team 5 LLC, and Helinet Aviation Services.

Orbic Air's requested exemption would permit the operation of small, unmanned UAS under controlled and "sterile" 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 Orbic Air'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:

Orbic Air, LLC
David Child
10750 Sherman Way
Burbank, CA 91505

818-561-4838

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 UASs 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 UAS's size, weight, speed, and operational capability;
- Operation of the UAS in close proximity to airports and populated areas; and
- Operation of the UAS within visual line of sight of the operator.

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.

UASs operated by Orbic Air 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. Orbic Air will only operate its UASs in line of sight and will operate only within the sterile area. Such operations will insure that the UAS will "not create a hazard to users of the national airspace system or the public."

Orbic Air seeks an exemption to operate the DJI Phantom series, DJI Inspire series, and DJI Spreading Wings series UAS for compensation or hire within the NAS. A copy of the operating handbook for each aircraft will be submitted with this exemption request. Each UAS has a maximum gross weight under 10 pounds, maximum speed of 49 mph (approximately 42 knots), a run time of approximately 30 minutes.

Each UAS operated by Orbic Air will be registered in accordance with 49 U.S.C. 44103, Registration of Aircraft, as well as 14 C.F.R Part 47, Aircraft Registration, and marked in accordance with 14 C.F.R. Part 45, Identification and Registration Marking.

Given the small size of Orbic Air's UASs and the restricted sterile environment within which they will operate, Orbic Air'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, Orbic Air respectfully requests that the FAA grant the requested exemption without delay.

Aircraft and equivalent level of safety

The applicant proposes that the exemption requested apply to civil aircraft that have the characteristics and that operate with the limitations listed. These limitations provide for at least an equivalent or even higher level of safety to operations under the current regulatory structure because the proposed operations represent a safety enhancement to the already safe aerial photography and aerial filming for movie and television filming operations conducted with conventional aircraft.

These limitations and conditions to which Orbic Air 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 line of sight of a pilot and/or observer.
3. Maximum total 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.
4. Flights will be operated at an altitude of no more than 400 feet AGL.
5. Minimum crew for each operation will consist of the sUAS Pilot and the Visual Observer.
6. sUAS pilot will be an FAA licensed airman with at least a private pilot's certificate and third class medical.
7. sUAS Pilot assume all duties and responsibilities as Pilot in Command (PIC).
8. The sUAS will only operate within a confined "Sterile Area". Security will be performed by the operator and designated security personnel.
9. A briefing will be conducted in regard to the planned sUAS operations prior to each day's production activities. It will be mandatory that all personnel who will be performing duties within the boundaries of the safety perimeter be present for this briefing.
10. The operator will obtain the consent of all persons involved in the mission and ensure that only consenting persons will be allowed within 100 feet of the flight operation, and this radius may be reduced to 30 feet based upon an equivalent level of safety determination. With the advanced permission of the relevant FSDO, operations at closer range can be approved.
11. When required, the operator will submit a written Plan of Activities to the FSDO three days before the proposed shoot.
12. Pilot and observer will have been trained in operation of UAS generally and received up-to-date information on the particular UAS to be operated.
13. ALL crew members will at all times be able to communicate by ONLY voice communications as to ensure all crew members maintain a visual contact with the UAS at ALL TIME.
14. Written and/or oral permission from the relevant property holders will be obtained.
15. 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.
16. If the sUAS loses communications or loses its GPS signal, the UAS will have capability to return to a pre-determined location within the Security Perimeter and land.
17. The sUAS will have the capability to abort a flight in case of unpredicted obstacles or emergencies.

<u>UAS Crew Requirements:</u>

UAS Pilot in Command must:

1. Hold at least a FAA Private Pilot with current 3rd class medical
2. Have a minimum of 200 flight cycles and 25 hours of total time as a sUAS rotorcraft pilot and at least 10 hours as a sUAS pilot with a similar sUAS type (single blade or multirotor);
   a minimum of 5 hours as sUAS pilot with the make and model of sUAS to be utilized for operations under the exemption and 3 take offs and landings in the preceding 90 days;

3. Received training in the safe operation of the UAS to be operated. Training will include:
    a. Normal and emergency modes of operation
    b. Familiarization with the operation manual published by the UAS manufacturer.
    c. Types of maneuvers to be performed during operations including safe operation in relation to persons, property and applicable airspace using the actual UAS or manufacturers simulation software

Camera Operator must:

1. Become familiar with the operation manual published by the UAS manufacturer.
2. Receive training in the safe operation of the systems operated onboard the UAS. Training will include:
    a. Proper method of loading, rigging, or attaching the camera mount, lighting, and any external equipment
    b. Types of maneuvers to be performed during operations
    c. Safe operation in relation to persons, property and applicable airspace.
    d. Receive training on basic VFR weather minimums outlined in 14 CFR 91.155

In a dual control configuration, the Camera Operator will not operate the master controller.

Visual Observer must:

1. Be familiar with the use of VHF / FM radio communication.
2. Have received training on the National Airspace System 14 CFR 71 and the basic VFR weather minimums outlined in 14 C.F.R. 91.155.

<u>The Plan of Activities</u>

The Plan of Activities must include the following:

1. Dates and times for all flights;
2. Name and phone number of the person responsible for the photography / filming event;
3. Name and phone number of the person responsible for the aircraft;
4. Make, model and serial number and/or registration number of all UAS t to be used;
5. Name and certificate number, if applicable, of all crewmembers to be utilized in the event including copies of FAA Medical Certificates and endorsements;
6. A statement that the Waiver Holder has obtained permission from property owners and/or local governmental officials to conduct the event;
7. Signature of Waiver Holder or representative;
8. 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 minimum altitudes essential to accomplish the operation.

Briefing

Orbic Air and the event representative will conduct a verbal and written briefing for the members involved, including emergency, if applicable, and security personnel. This briefing will be conducted prior to each day's UAS activities and will include the following items.

1. Authorization UAS flight operations, Plan of Activities, special provisions and any additional provisions issued by the Flight Standards District Office having jurisdiction over the photo / filming area.
2. Radio communications.
3. Takeoff procedures.
4. Aviation activities to be conducted during the event.
5. Approach and landing procedures.
6. Alternate landing zone in the event of emergency or security breach.
7. Recall procedures.
8. Emergency procedures.
9. Possible risk to personnel that are involved.
10. Control of non-participating persons.
11. Location of boundaries or deadlines, man-made or natural, readily visible to the participants.
13. Local governmental limitations, restrictions, or any special circumstances, such as noise sensitive areas, time of day restrictions or changes in operating procedures.

Security

The exclusion from the flight operations area of unauthorized persons, vehicles or aircraft will be enforced by designated event personnel, private security officers or sworn law enforcement officers at the direction of Orbic Air.

Orbic Air or his designated representative will halt flight operations in the event unauthorized persons, vehicles or aircraft enter the flight operations area.

A predetermined abort signal will be used to halt flight operations should a breach of perimeter security occur, or for any other reason in the interest of safety.

Alternate UAS landing sites will be made available prior to the start of the event.

Regulations from which the exemption is requested:

14 CFR Part 21
14 C.F.R. 45.23(b)
14 CFR 61.113 (a) & (b)
14 C.F.R. 91.7 (a)
14 CFR 91.9 (b) (2)
14 C.F.R. 91.103
14 C.F.R. 91.109
14 C.F. R. 91.119
14 C.F.R. 91.121

14 CFR 91.151 (a)
14 CFR 91.203 (a) & (b)
14 CFR 91.405 (a)
14 CFR 407 (a) (1)
14 CFR 409 (a) (2)
14 CFR 417 (a) & (b)

14 C.F.R. Part 21, Subpart H: Airworthiness Certificates 14 C.F.R. §91.203 (a) (1)

Subpart H, entitled Airworthiness Certificates, establishes the procedural requirements for the issuance of airworthiness certificates as required by FAR §91.203 (a) (1). Given the size and limited operating area associated with the aircraft to be utilized by the Applicant, an exemption from Part 21 Subpart H meets the requirements of an equivalent level of safety under Part 11 and Section 333 of the Reform Act. The Federal Aviation Act (49 U.S.C.§44701 (f)) and Section 333 of the Reform Act both authorize the FAA to exempt aircraft from the requirement for an airworthiness certificate, upon consideration of the size, weight, speed, operational capability, and proximity to airports and populated areas of the particular UAS. In all cases, an analysis of these criteria demonstrates that the UAS operated without an airworthiness certificate, in the restricted environment and under the conditions proposed will be at least as safe, or safer, than a conventional aircraft (fixed wing or rotorcraft) operating with an airworthiness certificate without the restrictions and conditions proposed.

The sUAS to be operated hereunder is less than 55 lbs. fully loaded, carries neither a pilot nor passenger, carries no explosive materials or flammable liquid fuels, and operates exclusively within a secured area as set out in the Manual. Unlike other civil aircraft, operations under this exemption will be tightly controlled and monitored by both the operator, pursuant to the Manual's requirements, and under the requirements and in compliance with local public safety requirements, to provide security for the area of operation as is now done with conventional filming. The FAA will have advance notice of all operations. These safety enhancements, which already apply to civil aircraft operated in connection with motion picture and television production, provide a greater degree of safety to the public and property owners than conventional operations conducted with airworthiness certificates issued under 14 C.F.R. Part 21, Subpart H. Lastly, application of these same criteria demonstrates that there is no credible threat to national security posed by the UAS, due to its size, speed of operation, location of operation, lack of explosive materials or flammable liquid fuels, and inability to carry a substantial external load.

14 C.F.R. § 45.23 (b). Marking of the Aircraft

The regulation requires:

> When marks include only the Roman capital letter "N" and the registration number is displayed on limited, restricted or light-sport category aircraft or experimental or provisionally certificated aircraft, the operator must also display on that aircraft near each entrance to the cabin, cockpit, or pilot station, in letters not less than 2 inches nor more than 6 inches high, the words "limited," "restricted," "light-sport," "experimental," or "provisional," as applicable.

Even though the UAS will have no airworthiness certificate, an exemption may be needed as the UAS will have no entrance to the cabin, cockpit or pilot station on which the word

Experimental" can be placed. Given the size of the sUAV, two-inch lettering will be impossible. The word "Experimental" will be placed on the fuselage in compliance with §45.29 (f).

The equivalent level of safety will be provided by having the sUAV marked on its fuselage as required by §45.29 (f) where the pilot, observer and others working with the sUAV will see the identification of the UAS as "Experimental." The FAA has issued the following exemptions to this regulation to Exemptions Nos. 10700, 8738, 10167 and 10167A.

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

Sections 61.113 (a) & (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 this small UAS. Unlike a conventional aircraft that carries the pilot and passengers, the sUAS is remotely controlled with no living thing on board. The area of operation is controlled and restricted, and all flights are planned and coordinated in advance as set forth in the Manual. The level of safety provided exceeds that provided by a single individual holding a commercial pilot's certificate operating a conventional aircraft. The risks associated with the operation of the sUAS are so diminished from the level of risk associated with commercial operations contemplated by Part 61 when drafted, that allowing operations of the sUAS as requested with a private pilot as the PIC exceeds the present level of safety achieved by 14 C.F.R. §61.113 (a) & (b).

14 C.F.R. §91.7(a): Civil aircraft airworthiness.

The regulation requires that no person may operate a civil aircraft unless it is in airworthy condition. As there will be no airworthiness certificate issued for the aircraft, should this exemption be granted, no FAA regulatory standard will exist for determining airworthiness. Given the size of the aircraft and the requirements contained in the Manufacturers Operating Manual for maintenance and use of safety check lists prior to each flight, an equivalent level of safety will be provided.

14 C.F.R. § 91.9 (b) (2): Civil Aircraft Flight Manual in the Aircraft.

Section 91.9 (b) (2) provides:

> No person may operate a U.S.-registered civil aircraft …
>
> (2) For which an Airplane or Rotorcraft Flight Manual is not required by §21.5 of this chapter, unless there is available in the aircraft a current approved airplane or Rotorcraft Flight Manual, approved manual material, markings, and placards, or any combination thereof.

The sUAS, given its size and configuration has no ability or place to carry such a flight manual on the aircraft, not only because there is no pilot on board, but because there is no room or capacity to carry such an item on the aircraft.

The equivalent level of safety will be maintained by keeping the flight manual at the ground control point where the pilot flying the sUAS will have immediate access to it. The FAA

has issued the following exemptions to this regulation: Exemption Nos. 8607, 8737, 8738, 9299, 9299A, 9565, 9565B, 10167, 10167A, 10602, 32827, and 10700.

14 C.F.R. § 91.103: Preflight action

This regulation requires each pilot in command to take certain actions before flight to insure the safety of flight. As FAA approved rotorcraft flight manuals will not be provided for the aircraft an exemption will be needed. The PIC will take all actions including reviewing weather, flight battery requirements, landing and takeoff distances and aircraft performance data before initiation of flight.

14 C.F.R. §91.109: Flight instruction:

Section 91.103 provides that 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.

sUASs and remotely piloted aircraft, by their design do not have fully functional dual controls. Flight control is accomplished through the use of a control box that communicates with the aircraft via radio communications. The FAA has approved exemptions for flight training without fully 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 can be achieved as neither a pilot nor passengers will be carried in the aircraft in addition to the small size and low speed of the aircraft.

14 C.F.R. §91.119: Minimum safe altitudes

Section 91.119 establishes safe altitudes for operation of civil aircraft. Section 91.119 (d) allows helicopters to be operated at less than the minimums prescribed, provided the person operating the helicopter complies with any route or altitudes 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 400 AGL, or not more than 200 above an elevated platform from which filming is planned, an exemption may be needed to allow such operations. As set forth herein, except for the limited conditions stated in the Manual, the UAS will never operate at higher than 400 AGL. It will however be operated in a restricted area with 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, speed of the UAS as well as the location where it is operated. No flight will be taken without the permission of the property owner or local officials. Because of the advance notice to the property owner and participants in the filming activity, all affected individuals will be aware of the planned flight operations. Compared to flight operations with aircraft or rotorcraft weighting far more than the maximum 55lbs. 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 AGL in the movie industry. In addition, the low-altitude operations of the sUAS will ensure separation between these small-UAS operations and the operations of conventional aircraft that must comply with Section 91.119.

14 C.F.R. §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 read out, an exemption may be needed. An equivalent level of safety will be achieved by the operator, pursuant to the Manual and Safety Check list, by receiving altitude information via a digitally encoded telemetric data feed, which downlinks from the aircraft to a ground-based on-screen display. This altitude information will be generated by equipment installed on board the aircraft, using GPS triangulation, or digitally encoded barometric altimeter, or radio altimeter, or any combination thereof. Prior to each flight, a zero altitude initiation point will be established and confirmed for accuracy by the pilot.

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; or (2) At night, to fly after that for at least 45 minutes."

The battery powering the sUAS provides approximately 40 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 on the UAS's proposed flight area and the location of its proposed operations within a predetermined area, a longer time frame for flight in daylight or night VFR conditions is reasonable.

Orbic Air 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 small UAS, in a tightly controlled area where only people and property owners or official representatives who have signed waivers will be allowed, with less than 30 minutes of reserve fuel, does not engender the type of risks that Section 91.151(a) was intended to alleviate given the size and speed of the small UAS. Additionally, limiting sUAS flights to 10 minutes would greatly reduce the utility for which the exemption will be granted.

Orbic Air believes that an equivalent level of safety can be achieved by limiting flights to 30 minutes or 25% 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 C.F.R. §91.203 (a) and (b): Carrying Civil Aircraft Certification and Registration

The regulation provides in pertinent part:

> (a) Except as 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 UAS fully loaded weighs no more than 55 lbs and is operated without an onboard pilot. As such, there is no ability or 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 flying the sUAS will have immediate access to them, 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, 9816A, and 10700.

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 section 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 operator pursuant to the flight manual and operating handbook. As the manufacturer does not provide specific maintenance instructions, maintenance will be "on condition" for all aircraft and each aircraft will have a maintenance log.

An equivalent level of safety will be achieved because these small UASs are very limited in size and 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 Manual, the operator will ensure that the UAS is in working order prior to initiating flight, perform required maintenance, and keep a log of any maintenance performed. Moreover, the operator is the person most familiar with the aircraft and best suited to maintain the aircraft in an airworthy condition to provide the equivalent level of safety. If the operator encounters a maintenance issue which cannot be addressed, the UAS will be returned to the manufacturer or a qualified repair facility where such repairs or maintenance can be performed.

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:

Applicant seeks an exemption from the following rules:
14 C.F.R. §21, subpart H; 14 C.F.R 45.23(b);14 C.F.R. §§ 61.113(a) & (b);91.7 (a); 91.9 (b) (2);91.103(b);91.109; 91.119; 91.121; 91.151(a);91.203(a) and (b); 91.405 (a); 91.407 (a) (1); 91.409 (a) (2); 91.409 (a) (2) and 91.417 (a) & (b) to operate commercially a small unmanned vehicle (55lbs or less) in aerial photography and aerial filming operations.

Approval of exemptions allowing commercial operations of sUASs in the aerial photo and film industry will enhance safety by reducing risk. Conventional film operations, using jet or

piston power aircraft, operate at extremely low altitudes just feet from the subject being filmed and in extreme proximity to people and structures; and present the risks associated with vehicles that weigh in the neighborhood of 4,000lbs., carrying large amounts of jet A or other fuel. Such aircraft must fly to and from the film location. In contrast, a sUAS weighing fewer than 55 lbs. and powered by batteries eliminates virtually all of that risk given the reduced mass and lack of combustible fuel carried on board. The sUAS is carried to the film set and not flown. 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 UASs, weighting less than 55 lbs., conducted in the strict conditions outlined above, will provide an equivalent level of safety supporting the grant 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, and in a sterile environment and, as a result, are far safer than conventional 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 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.

If you have any questions or need any additional information, please contact the undersigned at 818-561-4838 or dave@orbicair.com.

Sincerely yours,

David Child
President