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

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

May 11, 2015

Exemption No. 11535
Regulatory Docket No. FAA–2015–0396

Mr. Robert Patton
Littlebirds VIEW
5549 Old Plank Road
Iron Station, NC 28080

Dear Mr. Patton:

This letter is to inform you that we have granted your request for exemption. It transmits our decision, explains its basis, and gives you the conditions and limitations of the exemption, including the date it ends.

The Basis for Our Decision

By letter dated February 12, 2015, you petitioned the Federal Aviation Administration (FAA) on behalf of Littlebirds VIEW (hereinafter petitioner or operator) for an exemption. The petitioner requested to operate an unmanned aircraft system (UAS) to conduct aerial acquisitions of imagery in support of construction progress, production, and forestry survey.

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 Littlebirds VIEW X−10 and a DJI Inspire 1.

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, *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. 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, Littlebirds VIEW 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, Littlebirds VIEW 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 Littlebirds VIEW X−10 and DJI Inspire 1 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 May 31, 2017, unless sooner superseded or rescinded.

Sincerely,

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

UNITED STATES OF AMERICA DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION WASHINGTON, DC

Regulatory Docket No. _____

IN THE MATTER OF THE PETITION FOR EXEMPTION OF: LITTLEBIRDS VIEW FOR AN EXEMPTION SEEKING RELIEF FROM THE REQUIREMENTS OF TITLE 14 OF THE CODE OF FEDERAL REGULATION SECTIONS 91.7(a), 91.121, 91.151(b), 91.203(a)(1), 91.405(a), 91.407(a)(1), 91.409(a)(1) & (a)(2), AND 91.417(a) & (b) CONCERNING COMMERCIAL OPERATION OF THE X-10 AND INSPIRE 1 UNMANNED AIRCRAFT SYSTEM PURSUANT TO SECTION 333 OF THE FAA MODERNIZATION AND REFORM ACT OF 2012

Submitted by;

Robert Patton

5549 Old Plank Rd. Iron Station, NC 28080

Submitted on February 12, 2015

CONTENTS

SUMMARY

Littlebirds VIEW seeks exemption from the requirements of 14 C.F.R § 91.7(a), 91.121, 91.151(b), 91.203(a)(1), 91.405(a), 91.407(a)(1), 91.409(a)(1) & (a) (2), and 91.417(a) & (b), to operate an Unmanned Aircraft System pursuant to Section 333 of the FAA Modernization and Reform Act of 2012 (FMRA). This exemption will permit Littlebirds VIEW to operate an Unmanned Aircraft System (UAS) for the aerial acquisitions of imagery across the United States, commercially, in support of construction progress, production, and forestry survey.

INTRODUCTION AND INTERESTS OF THE PETITIONER

Littlebirds VIEW (hereinafter referred to as "LBV") is an imaging group specializing in aerial photography/videography. LBV has an exceptional history of providing it's clients with beneficial imagery safely and efficiently from manned, fixed-wing aircraft. LBV serves a wide range of clientele that utilize their imagery for various applications. These applications serve artistic, corporate, industrial, and production purposes. LBV has pursued their interest in construction progress with an emphasis on safety which has led to their acquisition of an X-10 UAS

as well as an Inspire 1 UAS. Utilizing the UAS for this type of imagery production allows for even higher safety standards than previously prescribed. As set forth in this Petition, LBV seeks to operate its UAS equipment for the purposes of performing aerial acquisitions of imagery across the United States, commercially, in support of construction progress, production, and forestry survey.

BACKGROUND

Unmanned Aircraft System: X-10 and Inspire 1 UAS

LBV seeks an exemption to operate the LBV X-10 and Inspire 1 UAS's for compensation or hire within the NAS. The X-10 and Inspire 1 UAS are comprised of a vertical takeoff and landing Unmanned Aircraft. The X-10 and Inspire 1 UAS have a maximum gross weight of less than 55 pounds, and maximum speed of less than 50 mph. The X-10 and Inspire 1 UAS are driven by Lithium Polymer batteries and powered by electric motors.

BASIS FOR PETITION

Petitioner, LBV pursuant to the provisions of the Federal Aviation Regulations (14 C.F.R. § 11.61) and the FAA Modernization and Reform Act of 2012, Section 333, *Special Rules for Certain Unmanned Aircraft Systems*, hereby petitions the Administrator to operate the X-10 and Inspire 1 UAS in the National Airspace System (NAS), and for an exemption from the requirements of 14 C.F.R §§ 91.7(a), 91.121, 91.151(b), 91.203(a)(1), 91.405(a), 91.407(a)(1), 91.409(a)(1) & (a)(2), and 91.417(a) & (b).

In consideration of the size, weight, speed, and limited operating area associated with the unmanned aircraft and its operation, LBV's operation of the X-10 and Inspire 1 UAS meets the conditions of Section 333 and therefore, will not require an airworthiness certificate in accordance with 14 C.F.R. Part 21, Subpart H.

LBV requests relief from Sections 91.405(a), 91.407(a)(1), 91.409(a)(1) & (a)(2), and 91.417(a) & (b), as these sections set forth requirements for maintenance that only apply to aircraft with an airworthiness certificate.

LBV submits that the requested relief is proper since an equivalent level of safety will be ensured. LBV will use its authorized technicians to perform maintenance, alterations, or preventive maintenance on the

UAS using the methods, techniques, and practices prescribed in the manufacturer's maintenance manual. LBV will document and maintain all maintenance records for the X-10 and Inspire 1 UAS.

LBV seeks relief from Section 91.7(a), entitled *Civil aircraft airworthiness,* because the X-10 and Inspire 1 UAS do not require an airworthiness certificate in accordance with 14 C.F.R. Part 21, Subpart H. As such, LBV submits that it will ensure that the X-10 and Inspire 1 UAS are in an airworthy condition, prior to every flight, by determining that the UAS's are in compliance with the X-10 and Inspire 1 Flight Manuals, and that the aircraft are in a condition for safe flight.

LBV also seeks an exemption from the requirements of Section 91.121, entitled *Altimeter Settings*, as the LBV UAS will not have a typical barometric altimeter onboard. However, altitude information of the LBV UAS will be provided to the pilot in command via Global Positioning System which downlinks to the operator for active monitoring of the flight path. This altitude information, combined with LBV's operation of the X-10 and Inspire 1 UAS within visual line of sight, at or below 400 feet AGL, will ensure a level of safety equivalent to Section 91.121. LBV seeks an exemption from the requirements of Section 91.151(b), entitled *Fuel requirements for flight in VFR conditions*. LBV submits that safety will not be affected by terminating

flights of the battery powered LBV UAS after 20 minutes of continuous flight, which would allow for five minutes of battery power remaining.

In accordance with 14 C.F.R. § 11.81, LBV provides the following information in support of its petition for exemption:

A. Name And Address Of The Petitioner.

The name and address of the Petitioner is:

Littlebirds VIEW
5549 Old Plank Rd. Iron Station, North Carolina 28080

B. The Specific Sections Of 14 C.F.R. From Which LBV Seeks Exemption.

1. LBV Seeks Exemption From The Requirements Of Section 91.7(a).

Section 91.7, entitled *Civil aircraft airworthiness*, subsection (a), states the following:

(a) No person may operate a civil aircraft unless it is in an airworthy condition.

2. LBV Seeks Exemption From The Requirements Of Section 91.121.

Section 91.121, entitled *Altimeter settings*, subsection (a), states the following, in part:

(a) Each person operating an aircraft shall maintain the cruising altitude or flight level of that aircraft, as the case may be, by reference to an altimeter that is set, when operating--

(1) Below 18,000 feet MSL, to--

(i) The current reported altimeter setting of a station along the route and within 100 nautical miles of the aircraft;

(ii) If there is no station within the area prescribed in paragraph (a)(1)(i) of this section, the current reported altimeter setting of an appropriate available station; or

(iii) In the case of an aircraft not equipped with a radio, the elevation of the departure airport or an appropriate altimeter setting available before departure;

3. LBV Seeks Exemption From The Requirements Of Section 91.151(b).

Section 91.151, entitled *Fuel requirements for flight in VFR conditions*, subsection (b), states the following:

(b) No person may begin a flight in a rotorcraft 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, to fly after that for at least 20 minutes.

4. LBV Seeks Exemption From The Requirement Of Section 91.203(a)(1).

(a) Except as provided in Sec. 91.715, no person may operate a civil aircraft unless it has within it the following:

(1) An appropriate and current airworthiness certificate. Each U.S. airworthiness certificate used to comply with this subparagraph (except a special flight permit, a copy of the applicable operations specifications issued under Sec. 21.197(c) of this chapter, appropriate sections of the air carrier manual required by parts 121 and 135 of this chapter

containing that portion of the operations specifications issued under Sec. 21.197(c), or an authorization under Sec. 91.611) must have on it the registration number assigned to the aircraft under part 47 of this chapter. However, the airworthiness certificate need not have on it an assigned special identification number before 10 days after that number is first affixed to the aircraft. A revised airworthiness certificate having on it an assigned special identification number, that has been affixed to an aircraft, may only be obtained upon application to an FAA Flight Standards district office.

5. LBV Seeks Exemption From The Requirement Of Section 91.405(a).

Section 91.405, entitled Maintenance required, subsection (a), states the following: Each owner or operator of an aircraft—

(a) 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.

6. LBV Seeks Exemption From The Requirements Of Section 91.407(a)(1).

Section 91.407, entitled *Operation after maintenance, preventive maintenance, rebuilding, or alteration*, subsection (a)(1), states the following:

(a) No person may operate any aircraft that has undergone maintenance, preventive maintenance, rebuilding, or alteration unless--

(1) It has been approved for return to service by a person authorized under § 43.7 of this chapter.

7. LBV Seeks Exemption From The Requirements Of Sections 91.409(a)(1) And 91.409(a)(2).

Section 91.409, entitled *Inspections*, subsection (a), states the following: (a) Except as provided in paragraph (c) of this section, no person may operate an aircraft

unless, within the preceding 12 calendar months, it has had --

(1) An annual inspection in accordance with part 43 of this chapter and has been approved for return to service by a person authorized by § 43.7 of this chapter; or

(2) An inspection for the issuance of an airworthiness certificate in accordance with part 21 of this chapter.

8. LBV Seeks Exemption From The Requirements Of Sections 91.417(a) And 91.417(b).

Section 91.417, entitled *Maintenance records*, subsections (a) and (b), state the following:

(a) Except for work performed in accordance with §§ 91.411 and 91.413, each registered owner or operator shall keep the following records for the periods specified in paragraph (b) of this section:

(1) Records of the maintenance, preventive maintenance, and alteration and records of the 100-hour, annual, progressive, and other required or approved inspections, as appropriate, for each aircraft (including the airframe) and each engine, propeller, rotor, and appliance of an aircraft. The records must include--

(i) A description (or reference to data acceptable to the Administrator) of the work performed; and

(ii) The date of completion of the work performed; and

(iii) The signature, and certificate number of the person approving the aircraft for return to service.

(2) Records containing the following information:
(i) The total time in service of the airframe, each engine, each propeller, and each rotor.

(ii) The current status of life-limited parts of each airframe, engine, propeller, rotor, and appliance.

(iii) The time since last overhaul of all items installed on the aircraft which are required to be overhauled on a specified time basis.

(iv) The current inspection status of the aircraft, including the time since the last inspection required by the inspection program under which the aircraft and its appliances are maintained.

(v) The current status of applicable airworthiness directives and safety directives including, for each, the method of compliance, the airworthiness directive or safety directive number and revision date. If the airworthiness directive or safety directive involves recurring action, the time and date when the next action is required.

(vi) Copies of the forms prescribed by § 43.9(d) of this chapter for each major alteration to the airframe and currently installed engines, rotors, propellers, and appliances.

(b) The owner or operator shall retain the following records for the periods prescribed:

(1) The records specified in paragraph (a)(1) of this section shall be retained until the work is repeated or superseded by other work or for 1 year after the work is performed.

(2) The records specified in paragraph (a)(2) of this section shall be retained and transferred with the aircraft at the time the aircraft is sold.

(3) A list of defects furnished to a registered owner or operator under § 43.11 of this chapter shall be retained until the defects are repaired and the aircraft is approved for return to service.

C. The Extent Of Relief LBV Seeks And The Reason LBV Seeks The Relief.

1. Extent of Relief LBV Seeks And The Reason LBV Seeks Relief From Section 91.7(a).

Relief from Section 91.7(a) entitled *Civil aircraft airworthiness*, is requested to the extent required to allow LBV to determine that the X-10 and Inspire 1 UAS's are in an airworthy condition prior to every flight by ensuring that the UAS's are in compliance with the X-10 and Inspire 1 Flight Manuals, and that the aircraft are in a condition for safe flight. LBV seeks the requested relief because the X-10 and Inspire 1 UAS's do not require an airworthiness certificate in accordance with 14 C.F.R. Part 21, Subpart H. Therefore, LBV will ensure that the X-10 and Inspire 1 UAS's are in an airworthy condition based upon its compliance with the operating documents prior to every flight.

2. Extent of Relief LBV Seeks And The Reason LBV Seeks Relief From Section 91.121.

Relief from Section 91.121 entitled *Altimeter settings*, may be required to allow flight operations of the X-10 and Inspire 1 UAS, which utilizes GPS equipment that downlink altitude information to the operator. Safety will be maintained as a result of the X-10 and Inspire 1 UAS's altitude readout via GPS equipment, and LBV's operation of the X-10 and Inspire 1 UAS within visual line of sight, at or below 400 feet AGL.

3. Extent Of Relief LBV Seeks And The Reason LBV Seeks Relief From Section 91.151(b).

Relief from Section 91.151(b) entitled *Fuel requirements for flight in VFR conditions*, is requested to the extent required to allow flights of the battery powered X-10 and Inspire 1 UAS during daylight hours in visual meteorological conditions, under visual flight rule conditions, to continue for a total duration of 20 minutes, which
will ensure that the UAS will land with five minutes of battery power remaining. LBV seeks the requested relief because without an exemption from Section 91.151(b), the flight time duration of the battery powered X-10 and Inspire 1 UAS will constrain the aerial acquisition flight operations that LBV proposes to conduct pursuant to this Petition. The technical specifications of the X-10 and Inspire 1 UAS, the X-10 and Inspire 1 Flight Manuals, and LBV's proposed operating limitations, ensure that LBV will safely operate the battery powered X-10 and Inspire 1 UAS during daylight hours in visual flight rule conditions, for a total flight duration of 20 minutes, landing with five minutes of battery power remaining.

4. Extent Of Relief LBV Seeks And The Reason LBV Seeks Relief From Sections 91.203(a)(1), 91.405(a), 91.407(a)(1), 91.409(a)(1) & (a)(2), And 91.417(a) & (b).

Since Sections 91.203(a)(1), 91.405(a), 91.407(a)(1), 91.409(a)(1) & (a)(2), and 91.417(a) & (b) only apply to aircraft with an airworthiness certificate, LBV requests relief from these Sections because the X-10 and Inspire 1 UAS do not require an airworthiness certificate.The X-10 and Inspire 1 UAS meets the conditions of Section 333 of the FMRA for operation without an airworthiness certificate. LBV will use authorized technicians to perform maintenance, alterations, or preventive maintenance on the UAS using the methods, techniques, and practices prescribed in the manufacturer's maintenance manual. Furthermore, LBV will document and maintain all maintenance records for the X-10 and Inspire 1 UAS.

D. The Reasons Why Granting LBV's Request Would Be In The Public Interest; That Is, How It Would Benefit The Public As A Whole.

Granting the present Petition will further the public interest by allowing LBV to safely, efficiently, and economically perform aerial acquisitions of imagery across the United States, commercially, in support of construction progress, production, and forestry survey. Additionally, use of the X-10 and Inspire 1 UAS will decrease congestion of the NAS, reduce pollution, and provide benefits to the economy. The benefits of LBV's proposed operation the X-10 and Inspire 1 UAS will be realized

without implicating any privacy issues.

1. The Public Will Benefit From The Aerial Acquisition of Imagery

LBV submits this Petition to commercially operate the X-10 and Inspire 1 UAS and perform aerial acquisition of imagery throughout the United States, in support of construction progress, production, and forestry survey. The X-10 and Inspire 1 UAS will provide safe, efficient, and economical aerial acquisition to further each of these areas, all of which are beneficial to the well-being of the general public. The specific operations that LBV will perform with the X-10 and Inspire 1 UAS demonstrate how the requested exemption will directly benefit the above referenced areas and the public. In regard to the construction progress, unmanned aircraft equipped with photographic equipment are able to give contractors and skilled laborers a unique perspective on their projects throughout every stage of construction. These craft can be put to use to relay real-time imaging of the exterior of a building, reaching areas and vantages that were previously difficult if not impossible to attain. This allows crews to scan the work in progress for any errors or

inconsistencies, and to correct those issues before any danger might be posed to workers or the public.

In regards to forestry, the X-10 and Inspire 1 UAS can survey large tracts of land and forested areas in a short period of time. The resulting data could be used for Forestry Department project planning, fire survey operations and more. Mapping technology is yet another area in which the use of these aircraft provides a valuable public service.

2. The Public Will Benefit From Decreased Congestion Of The NAS

The X-10 and Inspire 1 UAS is battery powered and serves as a safe, efficient, and economical alternative to the manned aircraft traditionally utilized to obtain aerial imagery. By reducing the amount of manned aircraft needed to perform aerial acquisitions, an exemption allowing the use of an X-10 and Inspire 1 UAS would reduce the amount of manned aircraft in the NAS, reduce noise and air pollution, as well as increase the safety of life and property in the air and on the ground.

By reducing the number of manned aircraft operating in the NAS, congestion around airports caused by arriving and departing aircraft will

be reduced. The X-10 and Inspire 1 UAS does not require an airport to takeoff or land. A reduction of manned aircraft conducting aerial survey missions would result in fewer aircraft that must be handled by air traffic control during the ground, takeoff, departure, arrival, and landing phases of flight operations.

3. The Pubic Will Benefit From The Safety And Efficiency Of The X-10 and Inspire 1 UAS.

Conducting aerial acquisitions with the X-10 and Inspire 1 UAS, instead of manned aircraft will greatly benefit the public by drastically reducing the levels of air and noise pollution generated during traditional aerial survey flight operations. Perhaps more importantly are the obvious implications of the reductions in substantial risk to life and property in the air and on the ground which is usually associated with traditional manned aircraft when used in these operations.

4. Performing Aerial Acquisition Operations With The X-10 and Inspire 1 UAS Will Benefit The Economy.

Operating the X-10 and Inspire 1 UAS provides an economical alternative to using manned aircraft to conduct aerial acquisitions. This allows US based LBV to remain competitive in their field and contribute

to the growth of the US economy. Not only will the public benefit from the job stability provided by a profitable company like LBV, but the imagery acquired via LBV can dramatically benefit the specific target areas in which it is utilized. Inspectors, working with trained pilot operators, would have the ability to view a structure from virtually any exterior angle at various stages of construction. This previously unattainable, "bird's-eye" view could identify areas in which a danger to public safety exists. In the case of projects that are moving ahead according to the established code and safety requirements, the use of unmanned craft would serve to streamline the inspection process. This allows inspectors to cover more projects in a shorter period of time, and allows contractors to move forward without undue delay. Both results translate into lowered costs for the public, both on the side of tax dollars saved and lowered construction costs.

5. There Are No Privacy Issues.

LBV's proposed operation of the X-10 and Inspire 1 UAS will not implicate any privacy issues. The X-10 and Inspire 1 UAS will be

operated in accordance with all Federal Aviation Regulations, including the minimum altitude requirements of 14 C.F.R. § 91.119. Additionally, the X-10 and Inspire 1 UAS will not be operated closer than 500 feet to any person, vessel, vehicle, or structure, which is not directly involved in the operation.

E. The Reasons Why Granting The Exemption Would Not Adversely Affect Safety, Or How The Exemption Would Provide A Level Of Safety At Least Equal To That Provided By The Rule From Which LBV Seeks Exemption.

1. Reasons Why The X-10 and Inspire 1 UAS Meets The Conditions Of The FAA Modernization and Reform Act of 2012 (FMRA) Section 333.

In consideration of the size, weight, speed, and limited operating area associated with the unmanned aircraft and their operation,LBV's operation of the X-10 and Inspire 1 UAS meets the conditions of FMRA Section 333, and will not require an airworthiness certificate in accordance with 14 C.F.R. Part 21, Subpart H.

Section 333 provides authority for a UAS to operate without airworthiness certification and sets forth requirements for considering whether a UAS will create a hazard to users of the NAS or the public, or otherwise pose a threat to national security. FMRA Section 333 states the following, in part:

(a) In General.--Notwithstanding any other requirement of this subtitle, and not later than 180 days after the date of enactment of this Act, the Secretary of Transportation shall determine if certain unmanned aircraft systems may operate safely in the national airspace system before completion of the plan and rulemaking required by section 332 of this Act or the guidance required by section 334 of this Act.

(b) Assessment of Unmanned Aircraft Systems.--In making the determination under subsection (a), the Secretary shall determine, at a minimum--

(1) which types of unmanned aircraft systems, if any, as a result of their size, weight, speed, operational capability, proximity to airports and populated areas, and operation within visual line of sight do not create a hazard to users of the national airspace system or the public or pose a threat to national security; and

(2) whether a certificate of waiver, certificate of authorization, or airworthiness certification under section 44704 of title 49, United States Code, is required for the operation of unmanned aircraft systems identified under paragraph (1).

(c) Requirements for Safe Operation.--If the Secretary determines under this section that certain unmanned aircraft systems may operate safely in the national airspace system, the Secretary shall establish requirements for the safe operation of such aircraft systems in the national airspace system.

In seeking this exemption, LBV submits that the X-10 and Inspire 1 UAS can operate safely in the NAS pursuant to FMRA Section 333, as demonstrated by: (a) the characteristics of the X-10 and Inspire 1 UAS; (b) the pilot certification requirement; and (c) the specific operating (c) limitations.

a. The Specifications Of The X-10 and Inspire 1 UAS Demonstrate their Safe Characteristics.

The X-10 and Inspire 1 UAS do not create a hazard to users of the NAS or the public, or otherwise pose a threat to national security considering its size, weight, speed, and operational capability.

i. Technical Specifications Of The X-10 and Inspire 1 UAS.

The technical specifications of the X-10 and Inspire 1 UAS are in Exhibit C and D. Exhibit C and D contains proprietary information and is to be held in a separate file pursuant to 14 C.F.R. § 11.35(b).

ii. The X-10 and Inspire 1 UAS Navigation Modes Enable The UAS To Remain Within A Defined Operational Area.

A complete description of the methods of navigation of the X-10 and Inspire 1 UAS is provided in Exhibit C and D. Exhibits C and D contain proprietary information and is to be held in a separate file pursuant to 14 C.F.R. § 11.35(b).

iii. The X-10 and Inspire 1 UAS Is Designed For Automatic Return To Launch In The Event Of Loss Of The Control Link Or Navigation.

A complete description of the X-10 and Inspire 1 UAS's automatic return to launch function in the event of a break in communication or loss of telemetry data is attached in Exhibit C and D. Exhibit C and D contains proprietary information and is to be held in a separate file

pursuant to 14 C.F.R. § 11.35(b).

b. Flight Operations Of The X-10 and Inspire 1 UAS Are Limited To The Line Of Sight Of A Commercially Rated Certificated Pilot.

LBV will only utilize commercially certificated pilots who possess a valid second class airman medical certificate to act as a pilot in command of the X-10 and Inspire 1 UAS. The pilot in command must complete the X-10 or Inspire 1 UAS training and qualification, as posted in LBV's Flight Operations Manual in Exhibit A. Exhibit A contains proprietary information and is to be held in a separate file pursuant to 14 C.F.R. § 11.35(b).

c. Flights Of The X-10 and Inspire 1 UAS Will Be Conducted Pursuant To Specific Operating Limitations.

In seeking this exemption, LBV proposes to commercially operate the LBV UAS to perform aerial acquisitions of imagery across the United States, in support of construction progress, production, and forestry survey, pursuant to the following specific operating limitations:

1) Operations authorized by this grant of exemption are limited to the following aircraft described in the operator's manual which are multi rotor aircraft weighing less than 55 pounds: X-10 and Inspire 1 Unmanned Aircraft System.

2) The UAS may not be flown at an indicated airspeed exceeding 50 miles per hour.

3) The UAS must be operated at an altitude of no more than 400 feet above ground level (AGL), as indicated by the procedures specified in

the operator's manual. All altitudes reported to ATC must be in feet AGL.

4) The UAS must be operated within visual line of sight of the pilot in command at all times. This requires the pilot in command to be able to use human vision unaided by any device other than corrective lenses, as specified on the FAA-issued airman medical certificate.

5) The pilot in command must be designated before the flight and cannot transfer his or her designation for the duration of the flight.

6) The operator's manual and this grant of exemption must be maintained 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 operator's manual, the conditions and limitations herein take precedence and must be followed. Otherwise, the operator must follow the procedures as outlined in its operator's manual. The operator may update or revise its operator's manual. It is the operator's responsibility to track such revisions and present updated and revised documents to the Administrator upon request. The operator must also present updated and revised documents if it petitions for extension or amendment. 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 amendment to their exemption. The FAA's UAS Integration Office (AFS-80) may be contacted if questions arise regarding updates or revisions to the operator's manual.

7) Prior to each flight the pilot in command must inspect the UAS to ensure it is in a condition for safe flight. 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. All maintenance and alterations must be properly documented in the aircraft records.

8) Any UAS that has undergone maintenance or alterations that affect the UAS operation or flight characteristics must undergo a functional test flight in accordance with the operator's manual. The pilot in command who conducts the functional test flight must make an entry in the UAS aircraft records of the flight. The requirements and procedures for a functional test flight and aircraft record entry must be added to the operator's manual.

9) The preflight inspection must account for all discrepancies, i.e. inoperable components, items, or equipment, not covered in the relevant preflight inspection sections of the operator's manual.

10) The operator must follow the manufacturer's UAScomponent, maintenance, overhaul, replacement, inspection, and life limit requirements, with particular attention to flight critical components that may not be addressed in the manufacturer's manuals.

11) LBV must carry out their maintenance, inspections, and record keeping requirements in accordance with the operator's manual. Maintenance, inspection, and alterations must be noted in the aircraft logbook, including total flight hours, description of work accomplished, and the signature of the authorized UAS technician or pilot in command returning the UAS to service.

12) LBV UAS technicians must receive and document training referenced in the operator's manual.

13) Each UAS operated under this exemption must comply with all manufacturer System and Safety Bulletins.

14) LBV maintenance personnel must make a record entry in the UAS logbook or equivalent document of the corrective action taken against discrepancies discovered between inspections.

15) The pilot in command must possess at least a commercial pilot certificate and a second-class airman medical certificate. The pilot in command must also meet the flight review requirements specified in 14

C.F.R. § 61.56 in an aircraft in which the pilot in command is rated on his or her pilot certificate.

16) The operator may not permit any pilot in command to operate unless that pilot in command has demonstrated, through the training and currency requirements set forth in the operator's manual, that the pilot in command is able 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 people, vessels, vehicles and structures.

17) UAS operations may not be conducted during night, as defined in 14 C.F.R. § 1.1. All operations must be conducted under visual meteorological conditions.

18) The UAS may not operate within 5 nautical miles of the airport reference point as denoted on a current FAA-published aeronautical chart.

19) The UAS 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 pilot in command.

20) If the UAS loses communications or loses its signal, the UAS must return to a pre-determined location within the private or controlled-access property and land, or be recovered in accordance with the operator's manual.

21) The pilot in command must abort the flight in the event of unpredicted obstacles or emergencies in accordance with the operator's manual.

22) The pilot in command is prohibited from beginning a UAS flight unless there is enough power to fly to the first point of intended landing prior to utilizing battery reserve power.

23) The operator must obtain an Air Traffic Organization issued Certificate of Waiver or Authorization prior to conducting any

operations under this grant of exemption. This Certificate of Waiver will also require the operator to request issuance of a Notice to Airman not more than 72 hours in advance, but not less than 48 hours prior to the operation.

24) All aircraft operated in accordance with this exemption must be identified by serial number.

25) Before conducting operations, the radio frequency spectrum used for operation and control of the UAS must comply with the Federal Communications Commission or other appropriate government oversight agency requirements.

26) The documents required under 14 C.F.R. 91.9 must be available to the pilot in command any time the aircraft is operating. These documents must be made available to the Administrator or any law enforcement official upon request.

27) The UAS must remain clear and yield the right of way to all other manned aviation operations and activities at all times.

28) The UAS may not be operated by the pilot in command from any moving device or vehicle.

29) Ultimately, it is the pilot in command's responsibility to maintain the minimum safe altitudes required by § 91.119.

30) 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 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 UAS, flight operations must cease immediately and/or;

b. the aircraft is operated near vessels, vehicles or structures where the land owner/controller has granted permission and the pilot in command has made a safety assessment of the risk of operating closer to those objects and;

c. operations near the pilot in command do not present an undue hazard to the pilot in command, per § 91.119(a).

31) All operations shall be conducted over private or controlled-access property with permission from the land owner/controller or authorized representative. Permission from land owner/controller or authorized representative will be obtained prior to the beginning of every flight.

32) Any incident, accident, or flight operation that transgresses the lateral or vertical boundaries of the operational area as defined by the applicable Certificate of Waiver 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 per instructions contained on the NTSB Web site.

2.Reasons Why An Exemption From The Requirements Of Section 91.7(a) Would Not Adversely Affect Safety.

The equivalent level of safety established by Section 91.7(a) will be maintained because prior to every flight, LBV will ensure that the X-10 and Inspire 1 UAS are in an airworthy condition based upon the X-10 and Inspire 1 UAS compliance with its operating documents.

3. Reasons Why An Exemption From The Requirements Of Section 91.121 Would Not Adversely Affect Safety.

The equivalent level of safety established by Section 91.121 will be maintained because the altitude information of the X-10 and Inspire

UAS will be provided to the pilot in command for active monitoring of the flight path. This altitude information, combined with LBV's operation of the X-10 and Inspire 1 UAS within visual line of sight, at or below 400 feet AGL, will ensure a level of safety equivalent to Section 91.121. The altitude information will be generated onboard the aircraft. Prior to each flight, a zero altitude initiation point will be established and confirmed for accuracy by the UAS pilot in command.

4. Reasons Why An Exemption From The Requirements Of Section 91.151(b) Would Not Adversely Affect Safety.

A grant of this exemption would ensure an equivalent level of safety established by 14 C.F.R. Section 91.151(b) as a result of (1) the technical specifications of the X-10 and Inspire 1 UAS; (2) the limitations on the proposed flight operations; and (3) the location of the proposed flight operations. LBV will ensure that it can safely operate t he battery powered X-10 and Inspire 1 UAS during daylight hours, in VFR conditions, for a total flight duration of no more than 20 minutes, resulting in a landing with five minutes of battery power remaining. Previous exemptions granted by the FAA concerning Section 91.151 establish that safety is not adversely affected when the technical characteristics and operating limitations of the UAS are considered. Relief has been granted for manned aircraft to operate at less

than the minimums prescribed in Section 91.151, including Exemption Nos. 2689, 5745, and 10650.

5. Reasons Why An Exemption From The Requirements Of Sections 91.405(a), 91.407(a)(1), 91.409(a)(1) & (a)(2), And 91.417(a) & (b) Would Not Adversely Affect Safety.

In seeking this exemption, LBV submits that the equivalent level of safety with regard to the regulatory maintenance and alteration requirements established by Sections 91.405(a), 91.407(a)(1), 91.409(a)(1) & (a)(2), and 91.417(a) & (b) will be met because LBV will use its trained technicians to perform maintenance, alterations, or preventive maintenance on the unmanned aircraft system using the methods, techniques, and practices prescribed in the manufacturer's maintenance manual. LBV will document and maintain all maintenance records for the X-10 and Inspire 1 UAS.

Since the X-10 and Inspire 1 UAS will be inspected as prescribed by the manufacturer's maintenance manual, LBV will maintain the equivalent level of safety established by Sections 91.405(a), 91.409(a)(1), and 91.409(a)(2). The Flight Manual For The X-10 and Inspire 1 UAS sets forth airworthiness requirements for the UAS, including preflight and post flight inspections.

The exemption sought will not adversely affect safety because LBV will perform maintenance, alterations or preventive maintenance on the

UAS using the methods, techniques, and practices prescribed by the manufacturer's maintenance manual.

A complete description of the X-10 and Inspire 1 UAS airworthiness and maintenance requirements is contained in Exhibit C and D. Exhibit C and D contains proprietary information and is to be held in a separate file pursuant to 14 C.F.R. § 11.35(b).

The exemption sought would maintain an equivalent level of safety established by Sections 91.407, 91.417(a) and 91.417(b), because all maintenance of the X-10 and Inspire 1 UAS will be performed by LBV trained technicians, who will document and maintain maintenance records for the X-10 and Inspire 1 UAS. LBV submits that safety will not be adversely affected by granting exemption from 14 C.F.R. Sections 91.405(a), 91.407(a)(1) and (a)(2), 91.409(a)(2), and 91.417(a) and (b).

The FAA has previously granted relief specific to UAS in circumstances similar, in all material respects, to those presented herein (e.g.Exemption Nos. 11062, 11063, 11064, 11065, 11066, 11067, 11080, 11109, 11110, 11112, 11136, 11138).

7. The FAA May Prescribe Any Other Conditions For Safe Operation.

In accordance with Section 333 of the FAA Modernization and Reform Act of 2012 (FMRA) and 14 C.F.R. § 21.16 entitled *Special Conditions*, LBV requests that the FAA prescribe special conditions for the intended

operation of the X-10 and Inspire 1 UAS, which contain such safety standards that the Administrator finds necessary to establish a level of safety equivalent to that established by 14 C.F.R. Part 21, Subpart H, and 14 C.F.R §§ 91.7 (a), 91.121, 91.151(b), 91.203(a)(1), 91.405(a), 91.407(a)(1), 91.409(a)(1) & (a)(2), and 91.417(a) & (b). Such special conditions will permit safe operation of the UAS for the limited purpose of conducting aerial acquisitions over certain rural areas of the United States. FMRA Section 333 sets forth the requirements for considering whether a UAS will create a hazard to users of the NAS or the public, or otherwise pose a threat to national security; and further, provides the authority for such UAS to operate without airworthiness certification in accordance with any requirements that must be established for the safe operation of the UAS in the NAS.

The Administrator may prescribe special conditions pursuant to 14 C.F.R.§ 21.16, for operation of the X-10 and Inspire 1 UAS, since the airworthiness regulations of 14 C.F.R. Part 21 do not contain adequate or appropriate safety standards, due to the novel or unusual design features of the aircraft. Section 21.16, entitled *Special Conditions*, states the following:

If the FAA finds that the airworthiness regulations of this subchapter do not contain adequate or appropriate safety standards for an aircraft,

aircraft engine, or propeller because of a novel or unusual design feature of the aircraft, aircraft engine or propeller, he prescribes special conditions and amendments for the product. The special conditions are issued in accordance with Part 11 of this chapter and contain such safety standards for the aircraft, aircraft engine or propeller as the FAA finds necessary to establish a level of safety equivalent to that established in the regulations. *See* 14 C.F.R. § 21.16.

In accordance with FMRA Section 333 and 14 C.F.R. § 21.16, the FAA may prescribe special conditions for LBV's intended operation of the X-10 and Inspire 1 UAS, which contain such safety standards that the Administrator finds necessary to establish a level of safety equivalent to that established by 14 C.F.R. Part 21, Subpart H, and 14 C.F.R Sections 91.7(a), 91.121, 91.151(b), 91.203(a)(1), 91.405(a), 91.407(a)(1), 91.409(a)(1) & (a)(2), and 91.417(a)& (b).

A. A Summary That Can Be Published In The *Federal Register,* stating: The Rules From Which LBV Seeks Exemption:
Littlebirds VIEW seeks exemption from the requirements of 14 C.F.R Sections 91.7(a), 91.121, 91.151(b), 91.203(a)(1), 91.405(a), 91.407(a)(1), 91.409(a)(1) & (a)(2), and 91.417(a) & (b).

A Brief Description Of The Nature Of The Exemption LBV Seeks:
This exemption will permit Littlebirds VIEW to commercially operate an Unmanned Aircraft System (UAS) for the purpose of conducting aerial acquisitions of imagery across the United States, commercially, in support of construction progress, production, and forestry survey.

B. Any Additional Information, Views, Or Arguments Available To Support LBV's Request.

This Petition is made pursuant to the FAA Modernization and Reform Act of 2012 (FMRA) Section 333, which directs the Secretary of Transportation to determine if certain UAS may operate safely in the NAS. As such, LBV's request for exemption may be granted pursuant to the authority of FMRA Section 333 and 14 C.F.R. Part 11, as set forth above. FMRA Section 333 sets forth the requirements for considering whether a UAS will create a hazard to users of the NAS or the public, or otherwise pose a threat to national security; and further, provides the authority for such UAS to operate without airworthiness certification. As discussed in detail above, LBV will operate the X-10 and Inspire 1 UAS safely in the NAS, without creating a hazard to users of the NAS, or the public, or otherwise pose a threat to national security.

CONCLUSION

LBV seeks an exemption pursuant to 14 C.F.R. § 11.61 and Section 333 of the FAA Modernization and Reform Act of 2012 (FMRA), which will permit safe operation of the X-10 and Inspire 1 UAS commercially, without an airworthiness certificate, for the purpose of conducting aerial acquisitions to support of construction progress, production, and forestry survey across the United States.

By granting this Petition, the FAA Administrator will be fulfilling the Congressional mandate of the FAA Modernization and Reform Act of 2012, while also advancing the interests of the public, by allowing LBV to safely, efficiently, and economically operate the X-10 and Inspire 1 UAS commercially within the NAS.

In accordance with the Federal Aviation Regulations and the FAA Modernization and Reform Act of 2012, Section 333, LBV respectfully requests that the Administrator grant this Petition for an exemption from the requirements of 14 C.F.R Sections 91.7(a), 91.121, 91.151(b), 91.203(a)(1), 91.405(a), 91.407(a)(1), 91.409(a)(1) & (a)(2), and 91.417(a) & (b), and permit LBV to operate the X-10 and Inspire 1 UAS commercially for the purpose of conducting aerial acquisitions in support of construction progress, production, and forestry survey.