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

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

September 1, 2015

Exemption No. 12704
Regulatory Docket No. FAA–2015–1150

Mr. Carson Wade Lee
President
Turbine Aircraft Logistics, LLC
5715 Oak Hollow Lane
Oviedo, FL 32765

Dear Mr. Lee:

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

By letters dated April 13, 2015, and June 28, 2015, you petitioned the Federal Aviation Administration (FAA) on behalf of Turbine Aircraft Logistics, LLC (hereinafter petitioner or operator) for an exemption. The petitioner requested to operate an unmanned aircraft system (UAS) to conduct aerial photography and videography.

See Appendix A for the petition submitted to the FAA describing the proposed operations and the regulations that the petitioner seeks an exemption.

The FAA has determined that good cause exists for not publishing a summary of the petition in the Federal Register because the requested exemption would not set a precedent, and any delay in acting on this petition would be detrimental to the petitioner.

Airworthiness Certification

The UAS proposed by the petitioner is a DJI Inspire 1.

The petitioner requested relief from 14 CFR part 21, *Certification procedures for products and parts, Subpart H—Airworthiness Certificates*. In accordance with the statutory criteria provided in Section 333 of Public Law 112−95 in reference to 49 U.S.C. § 44704, and in

consideration of the size, weight, speed, and limited operating area associated with the aircraft and its operation, the Secretary of Transportation has determined that this aircraft meets the conditions of Section 333. Therefore, the FAA finds that the requested relief from 14 CFR part 21, *Certification procedures for products and parts, Subpart H—Airworthiness Certificates,* and any associated noise certification and testing requirements of part 36, is not necessary.

The Basis for Our Decision

You have requested to use a UAS for aerial data collection[1]. The FAA has issued grants of exemption in circumstances similar in all material respects to those presented in your petition. In Grants of Exemption Nos. 11062 to Astraeus Aerial (*see* Docket No. FAA−2014−0352), 11109 to Clayco, Inc. (*see* Docket No. FAA−2014−0507), 11112 to VDOS Global, LLC (*see* Docket No. FAA−2014−0382), and 11213 to Aeryon Labs, Inc. (*see* Docket No. FAA−2014−0642), the FAA found that the enhanced safety achieved using an unmanned aircraft (UA) with the specifications described by the petitioner and carrying no passengers or crew, rather than a manned aircraft of significantly greater proportions, carrying crew in addition to flammable fuel, gives the FAA good cause to find that the UAS operation enabled by this exemption is in the public interest.

Having reviewed your reasons for requesting an exemption, I find that—

- They are similar in all material respects to relief previously requested in Grant of Exemption Nos. 11062, 11109, 11112, and 11213;
- The reasons stated by the FAA for granting Exemption Nos. 11062, 11109, 11112, and 11213 also apply to the situation you present; and
- A grant of exemption is in the public interest.

Our Decision

In consideration of the foregoing, I find that a grant of exemption is in the public interest. Therefore, pursuant to the authority contained in 49 U.S.C. 106(f), 40113, and 44701, delegated to me by the Administrator, Turbine Aircraft Logistics, LLC 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.

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

Conditions and Limitations

In this grant of exemption, Turbine Aircraft Logistics, LLC 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 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 September 30, 2017, unless sooner superseded or rescinded.

Sincerely,

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

Enclosures

Turbine Aircraft Logistics, LLC
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April 13, 2015

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

Turbine Aircraft Logistics, LLC's Petition for Exemption to Operate Unmanned Aircraft System for Aerial Photography and Filming

FAA Regulatory Docket

NAME AND ADDRESS OF PETITIONER

Turbine Aircraft Logistics, LLC
Attn: Carson Wade Lee
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Pursuant to Section 333 of the FAA Modernization and Reform Act of 2012,

Pub. L. No. 112-95 (2012), 126 Stat. 11 ("Section 333") and the Federal Aviation Administration's ("FAA") general exemption authority under 49 U.S.C. § 44701(f), Turbine Aircraft Logistics, LLC ("Petitioner or Operator") hereby petitions for exemptions from 14 C.F.R. Part 21, 14 C.F.R. §§ 61.113(a) and (b), 61.133(a), 91.7(a), 91.9(b)(2), 91.103(b)(1), 91.119(c), 91.121, 91.151, 91.203(a) and (b), 91.405(a), 91.409(a)(1) 91.409(a)(2).

I. Petition Summary

If granted, this exemption would allow the operator to operate a small UAS (under 55lbs) with an attached camera for the purpose of aerial photography and videography. With a combination of factors below, the operator is confident that it can operate the UAS in a manner equal to the safety standards set forth by the FARs for civilly manned aircraft:

- Reliability
- Return to designated point in the event of a lost control link
- Return to designated point automatically with a low battery that is dynamically updated depending how far away the UAS is from the designated point
- Low weight
- Slow speed
- No passengers to be carried
- Experience of the crew members
- Stringent maintenance program

The operator will be operating the UAS for the purpose of providing photographs and video as needed to the public for a fee. Bringing more competition to the market place in a currently very small industry can be found to be in the public interest and therefor the FAA can find good cause to grant the exemption.

II. Exemptions Requested

The operator is requesting relief from the following FAA regulations:

- FAR part 21 (Certification procedures)
- FAR 61.113 (a) and (b) (Private pilot privileges and limitations)
- FAR 61.133(a) (Commercial pilot privileges and limitations)
- FAR 91.7(a) (Civil aircraft airworthiness)
- FAR 91.9(b)(2) (Civil aircraft flight manual, markings, placards requirement)
- FAR 91.103(b)(1) (Preflight action)

- FAR 91.119(c) (Minimum safe altitudes)
- FAR 91.121 (Altimeter settings)
- FAR 91.151 (Fuel requirements)
- FAR 91.203(a) and (b) (Civil aircraft certifications required)
- FAR 91.405(a) (Maintenance Required)
- FAR 91.409(a)(1) and (a)(2) (Inspections)

III. Operational Procedures to Satisfy Section 333

1 Unmanned Aircraft System

1.1 The UAS the operator seeks exemption for is manufactured by DJI and the model is the Inspire 1. This UAS is the most recent model DJI offers and was a highly improved from what was learned from the previous highly popular and reliable DJI Phantom series. The DJI Inspire 1 is a 6.47lb multi-rotor (4 rotors) UAS with approximately 18 minutes of endurance. The Inspire 1's purpose is to carry a small camera as its payload. The Inspire 1 has the ability to be controlled by a single crewmember acting as pilot in command by wireless remote control on a 2.4GHz band having a transmitting distance of 2km (1.08nm).

1.2 The Inspire 1 is equipped with lost link protection (referred to as "Return To Home" (RTH) in the Inspire 1 User Manual), allowing the UAS to automatically climb vertically to a safe altitude to clear obstacles; then proceed to a pre-designated point to automatically land. At anytime the UAS and the controller reestablish link, the PIC can cancel the RTH and resume control of the UAS. In the event of lost GPS signal, control to the Inspire UAS is not lost. Since all operations will be conducted under Visual Line of Sight VLOS the PIC can control the aircraft back to a safe location to land.

1.3 Because the Inspire 1 UAS does not have the endurance to meet the requirements of FAR 91.155(b), the operator is requesting exception from this regulation and substituted with the following standard: All flights will be terminated at a maximum of a 25-minute flight or when the battery level reaches 25% (which ever occurs first).

1.4 The operator will register the UAS IAW FAR part 47. The operator's UAS will have identification makings in accordance with FAR 45(c). The Inspire 1 UAS is too small to practically display registration markings IAW FAR 45.29(a) though (e). The registration marks will be affixed as large as practical IAW FAR 45.29(f).

1.5 The operator is requesting relief from FAR 91.121 because the Inspire 1 UAS is not equipped with a standard adjustable barometric altimeter system. The Inspire 1 UAS collects altitude information for two sources: GPS and barometric aiding. Upon powering one the Inspire 1, the system will reset the altitude readout on the controllers base station to 0 feet above ground level (AGL). The PIC then will reference the digitally displayed altitude in AGL for the duration of the flight.

1.6 Because of the small size, low weight, slow speed, and limited operating area of the Inspire 1 UAS, the operator is requesting relief from CFR part 21(h) (airworthiness certificates). The operator has determined that it can operate the Inspire 1 UAS to an equivalent level of safety set forth under part 21 of the CFRs and meets the requirements set forth in the 333 exemption.

1.7 Prior to flight the Inspire 1 UAS will be determined to be in an airworthy condition IAW the pre-flight checklist outlined in appendix A Inspire 1 User Manual V1.0 page 49. The operator is requesting exemption from required inspections of FAR 91.409(a)(1) and (2) and will adopt the manufactures recommended inspections program as outlined in the following paragraph. Because the FAA has not established an inspection standard for UAS as have been established for manned aircraft under FAR 43.13 appendix D, the operator is requesting an exemption from the maintenance scope and detail of FAR 43.13 appendix D and replaced with the manufactures recommended maintenance program: The operator will inspect and maintain the Inspire 1 UAS IAW DJI Inspire 1 Maintenance Manual (See appendix B Inspire 1 Maintenance Manual). The operator will follow the manufactures recommended inspection interval to preform comprehensive maintenance of the Inspire 1 every 50 flight hours or 200 flights, whichever comes first as outlined in the Inspire 1 Maintenance Manual. A FAA certified Airframe & powerplant mechanic would preform the above maintenance and inspections.

1.8 The operator will adopt maintenance record requirements set forth under FAR 91.417.

1.9 The DJI Inspire UAS operates on the 2.4GHz frequency band for both UAS control as well as video downlink. Both the Inspire 1 UAS as well and the UAS remote controller comply with part 15 of the FCC rules (see page appendix A, page 62 of the DJI Inspire user manual). The Inspire 1 is equipped with a vision positioning system along with a sonar system in order to be able to fly inside a building and still remain stable. The Inspire 1's primary payload is a small X3 model FC350 camera mounted with a Zenmuse X3 gimbal.

1.10 Refer to appendix A Inspire 1 User Manual V1.0 for more detail on the Inspire 1 UAS.

2. **Unmanned Aircraft PIC**

2.1 The operator has designated Carson Wade Lee, Airline Transport Pilot (ATP) as the chief pilot for its UAS operations. Carson currently holds 13 years of flight experience with over 4700 flight hours in manned aircraft. Carson holds an Airline Transport Pilot Certificate for both single and multi-engine land aircraft. Carson also holds an Airframe & Powerplant FAA mechanic certificate with Inspection Authorization under FSDO-15. Carson also has 2 years of experience with hundreds of hours with UAS for recreational use. Carson has accrued 12 hours as PIC with the DJI Inspire 1 model UAS

2.2 The operator is requesting that the operators chief UAS pilot be allowed to designate any UAS pilot with the following experience requirements:

- Hold a FAA Private Pilot
- Hold a FAA third class medical or higher
- Meets the flight review requirements of FAR 61.56 in manned aircraft
- Meets the recent flight experience for PIC of FAR 61.57 (UAS takeoff/landings)
- Has accrued 25 hour total time operating UAS
- Has a minimum of 10 hours operating similar model UAS.
- Has a minimum of 5 hours make and model of UAS
- Pass a knowledge and skill test for the UAS developed by the chief UAS pilot

2.3 The PIC will designate a Visual Observer (VO) prior to any flight to be conducted. Any VO to be used by the PIC must be authorized by the UAS chief pilot. Further, the VO shall be familiar with UAS operations to the extent their designated role as VO requires. The VO will be require to be able to communicate with the PIC verbally at all times.

2.4 It will be the PICs responsibility to review weather conditions, flight battery requirements, and UAS performance limitations prior to conducting the flight.

3. **UAS Operating Procedures**

3.1 All UAS flight operations will be conducted during daylight hours.

3.2 All UAS operations will be conducted in VFR conditions.

3.3 No UAS operation will be conducted with less cloud clearance or visibly then is allowed by FAR 91.155.

3.4 No UAS flight operations will be conducted beyond the visual sight of both the PIC and the VO.

3.5 No UAS flight operation will be conducted above a vertical height of 400ft AGL.

3.6 NO UAS flight operations will be conducted within highly populated areas.

3.7 The PIC will not fly the UAS at speeds to exceed 50KTS ground speed.

3.8 The PIC will insure that no person, other then those trained and designated by the Chief UAS pilot in UAS operations, are within 500ft of horizontal distance from the UAS during flight operations or while the rotors are turning.

3.9 The PIC will insure that the UAS in flight comes no closer then 500ft of vehicles or structures, with the exception of those that are a part of the filming operation. PIC will obtain a signed consent form from the owner or authorized representative of any vehicle or structure the UAS in flight will come within 500ft of.

3.10 Prior to any UAS flight operation the PIC will consult current FAA aeronautical sectional charts and airport facility directory to insure that no flight operation will come within 5NM of an airport with a control tower, 3NM of an airport not having an operational control tower but having a published instrument approach procedure, 2NM of an airport not having an operational control tower or instrument approach procedure, or 2NM of a heliport having an instrument approach procedure without having an appropriate authorization from the ATC controlling facility and airport manager.

3.11 PIC will remain clear and yield right of way to all manned aircraft operations of all category and classes.

3.12 The PIC prior to conducting UAS flight operations will review current aeronautical charts, TFRs, and NOTAMS to insure that no flight operations will be conducted within an active restricted area, prohibited area, warning area, or TFR.

3.13 Prior to UAS operations for the motion picture or television industry, the operator will comply with regulations set forth in FAA order 8900.1, Volume 3, chapter 8, section 1 (Certificate of Waiver for Motion Picture and Television Filming).

3.14 Operator will obtain an Air Traffic Organization (ATO) certificate of waiver or authorization (COA) prior to conduction UAS operations.

3.15 Operator, as required by the COA, will request a NOTAM be filed for the UAS operation at least 48 hours in advance, but not more than 72 hours in advance.

4. Conclusion

We feel confidant that with the above provided information the FAA can find Turbine Aircraft Logistics to qualify for the exemptions allowed under section 333 of the FAA Modernization and Reform Act of 2012. We would be happy to answer any questions regarding this exemption request if needed.

Sincerely,

Carson W. Lee
President
Turbine Aircraft Logistics, LLC

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June 28, 2015

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

Turbine Aircraft Logistics, LLC's Submission of Requested Information for 333 Exemption

FAA Regulatory Docket
FAA-2015-1150

NAME AND ADDRESS OF PETITIONER

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To Whom It May Concern:

This letter is addressing requested information requested from a letter dated June 24, 2015 for a section 333 exemption to be granted to Turbine Aircraft Logistics, LLC, Public Docket FAA-2015-1150.

The following reasons were cited as cause for the exemption request to not be granted:

1. The reasons why granting the request would be in the public interest; that is, how it would benefit the public as a whole.
2. The reasons why 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 you seek an exemption
3. Any additional information, views, or arguments available to support your request.

Please treat the following paragraphs as an amendment to my exemption request dated April 13, 2015.

Public Best Interest

Turbine Aircraft Logistics believes with exemption from the requested regulations it can serve the public best interest by providing photo and video services at a fraction of the cost that would exist preforming the same services in manned aircraft. With aircraft rental cost well over a hundred dollars per hour, using a UAS will accomplish these same tasks with more then a 98% reduction is operating cost. The public will befit from this reduction in cost, as the end consumer will be charged considerably less for a better quality product. Safety is the top goal of Turbine Aircraft Logistics and the pubic as a whole. We believe we can offer services in a much safer manner to the public with our unmanned aircraft then we could with our manned aircraft. If the service we provide was accomplished in a manned helicopter, the risk of flying at low attitudes inherently increases the risk to the public in the event of a mechanical difficulty. The UAS has very few moving parts, greatly decreasing the likelihood of a mechanical failure. However, even in the event of a mechanical problem with a UAS, the likelihood of damage or injury to persons or property is very low due to the UAS's very light weight (under 10lbs), no flammable fuels carried on board, and plastic propellers. This exemption can also be found in public interest as it is very quite comparatively to a manned aircraft, low energy usage, and zero carbon emissions.

Equivalent Safety to Regulations Pertaining to Manned Aviation

Turbine Aircraft Logistics is uniquely capable of providing a level of safety at least equal to that provided by the rule from which we seek an exemption. Carson Lee,

the chief pilot for both manned and UAS operations at Turbine Aircraft Logistics, has 13 years of manned aviation experience with over 5000 hours of flight time accrued in manned aircraft and hundreds of hours in UAS for hobby use. Carson also holds a FAA issued Airframe & Powerplant mechanic certificate with Inspection Authorization. We would treat our UAS just as we do our manned aircraft with similar inspection practices and record keeping. Because the FAA has not developed inspection and repair methods with UAS, we will follow the manufactures recommendation for inspection intervals and repair (see Appendix B of our filed exemption request). UAS, while highly technically advanced, are very simple in design with very few moving parts. The Inspire 1 UAS has 4 rotors, giving it considerable redundancy as it can continue in flight with a loss of one motor as the other motors adjust in speed to compensate. Our UAS is capable in the event of lost link to return to a designated safe location and auto land. We are highly filmier with FARs, aeronautical charts, NOTAM research and filing, TFRs, etc. We will conduct preflight planning to review all necessary information, including but not limited to: reviewing VFR sectionals to insure remaining clear of prohibited/restricted/MOAs/warning areas; airspace other then class G (unless a COA has been granted). Review of TFRs, NOTAMs, and submitting a NOTAM for our proposed flight as required. Much more detail on our safety procedures can be found in section III of our exemption request dated April 13, 2015.

Additional Information, Views, or Arguments to Support our Request

Turbine Aircraft Logistics views our long experience aviation, working closely with the local FAA FSDO highly qualifies us to be granted exemption from the requested FAR's. With the above provided information, we are able to bring a far higher level of safety to our operations that few section 333 exemption holds will be able to offer. With our manned aircraft relationship with the FAA, we feel confidant we will be well capable of adjusting to new regulations and procedures as they are issued by the FAA.

Please contact us if additional information is needed.

Sincerely,

Carson W. Lee
President
Turbine Aircraft Logistics, LLC