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

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

July 30, 2015

Exemption No. 12241
Regulatory Docket No. FAA–2015–2040

Mr. Jacob Davis
President
WesTec Tower Services, Inc.
3961 Main Street
Anacoco, LA 71403

Dear Mr. Davis:

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

By letter dated February 12, 2015, you petitioned the Federal Aviation Administration (FAA) on behalf of WesTec Tower Services, Inc. (hereinafter petitioner or operator) for an exemption. The petitioner requested to operate an unmanned aircraft system (UAS) to conduct aerial photography, inspection, 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 are theDJI Phantom 2 Vision +, DJI S-900, DJI S-1000, and DJI Inspire.

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, WesTec Tower Services, Inc. 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, WesTec Tower Services, Inc. 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 Phantom 2 Vision +, DJI S-900, DJI S-1000, and DJI Inspire 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 July 31, 2017, unless sooner superseded or rescinded.

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

Enclosures

U.S. Department of Transportation

Docket Management System

1200 New Jersey Avenue, SE

Washington, D.C. 20590

February 12, 2015

Westec Tower Services, Inc.

Jacob Davis / President

RE: Exemption Request Section 333 of the **FAA Reform Act of the Federal Aviation Regulations** from 14 CFR 91.7(a); 91.9(B)(2);91.119 (c); 91.121; 91.151(a)(1); 91.203(a)(b); 91.405(a); 91.407(a)(1); 91.409(a)(1)and (2); 91.417(a)&(b); 45.23(b); Part 21; 61.113(a)(b)

Dear Sir or Madam:

We are writing pursuant to the FAA Modernization and Reform Act of 2012 (Reform Act), and the procedures contained in 14 C.F.R. 11, to request that WesTec Tower Services, Inc., A Telecom General contractor an owner and operator of small unmanned aircraft, be exempted from the Federal Aviation Regulations (FARs) listed above so that WesTec Tower Services may operate its small unmanned aircraft / lightweight unmanned aircraft system (UAS) commercially in airspace regulated by the Federal Aviation Administration (FAA); as long as such operations are conducted within and under the conditions outlined herein or as may be established by the FAA as required by Section 333.

WesTec Tower Services formally known as IWS / WCCS Inc. was founded in 1989 to provide heavy civil and full service general contracting services to the telecommunication industry WesTec is a full service Telecom General Contractor/ Federal Government vendor which provides services to the telecommunication, Heavy civil, and federal construction industries. Westec provides structural and civil Engineering / Program and Project Management / Structural tower mods/ Structural Tower erection / Tower structural and civil augmentations / Tower Retrofitting /Tower Foundation Engineering / Tower Foundation construction / Electric / Telco service / New site build / New Microwave system construction / Radio integration / Structural inspections and maintenance.

WesTec Tower Services employs a group of experienced UAS Operators / Pilots. These pilots have all been trained and received operator certifications from multi-rotor manufacturers on several different platforms including the ones listed here-in. They are also FAA licensed light sport, private & commercial pilots. The chief pilot / instructor / program manager has operated multi-rotor aircraft for several years as a hobbyist with over 500 hours PIC. He has spent many years operating several different unmanned systems stateside & overseas for the U.S. Military. This includes fixed wing and rotor-craft platforms. He has trained Army personnel to use UASs in combat operations. He has been trained on all aspects of a UAS - piloting (internal & external), CRM, payloads, maintenance & repair, trouble shoot computer systems & auto-pilot software, flight planning & briefings, radio link communications and frequency de-conflicting, ATC communications (operations with airspace controllers and towers). He is a licensed FAA Commercial Pilot with an Instrument Rating with over 600 hours PIC. He retains a Class II Medical Certificate.

It is the request of the petitioner for exemptions listed above in order to legally and safely operate the **DJI Phantom 2 Vision + , DJI S-900 / S-1000 and the DJI Inspire UAS** in the National Airspace System, for the purpose of Unmanned Aerial Photography , Inspection and Videography for the utility, telecommunications and petro chemical industries. In order to perform these duties effectively we request operational altitude of 400 ft AGL and below. Enhancement of Public awareness of UAS operation and finally enhanced safety for both the General Public, Flight Crews and the Labor Force described herein.

The main purpose for the requested Exemption is to allow WesTec Tower Services to utilize its UASs to inspect cellular, radio and broadcast towers for telecommunications Carriers, Tower operator company's, broadcast company's and there vendors. WesTec Tower Services has been given consent to access these secure sites. The site access allows WesTec Tower Services to perform all inspections at low altitude and always within VLOS. All flight operations will be with a 25 ft radius around the cell tower, so the flight plan foot print is very small. Operations will remain below 400 ft AGL. WesTec Tower Services will cordon off the site to keep the public safe. Not only would public safety be of utmost concern but also the safety of the climbing crews tasked with routine inspection of the towers. WesTec Tower Services and its UASs would alleviate the day to day height exposure and potential risk for an accident while preforming the vertical inspection portion. This will allow them to concentrate on service and maintenance. Telcom Structural Climbers have one of the highest incidents of death in the labor force. This is why we seek this exemption to help provide a alternative method for tower inspection. We are confident that if we are allowed to implement the use of our UAS program it will save lives.

The secondary request for Exemption is to allow WesTec Tower Services to utilize its UASs to inspect power transmission lines for the utility companies and their subcontractors. This would reduce the need for low flying manned helicopters. These manned flight systems have a relatively good safety record. The use of UASs would reduce the carbon foot print and noise pollution. Limiting and/or reducing these manned operations would also reduce exposure to the public and power grid infrastructure in general. The operations that WesTec Tower Services would perform would be localized, remain VLOS, under 400 ft AGL , utilize a PIC & VO.

The third request for Exemption is to allow WesTec Tower Services to utilize its UASs to assist industrial petro / chemical plants to inspect the conditions of their infrastructure. WesTec Tower Services has for many years been involved with construction and inspection of tower / vertical infrastructure at these plants. These areas are controlled by the plant owners and limit access to plant employees and prohibit access to the general public. Access to these areas is only granted with supervision by plant management / safety inspectors. WesTec Tower Services currently inspects and

maintains vertical structure using manned crews. UASs are to be implemented as part of their current operations. This would enable the inspection division to quickly and safely perform day to day operations without shutting down plant processes. The use of UASs would create a safer environment for the climbers and plant employees on the ground. The operations that WesTec Tower Services would perform would be localized, remain VLOS, under 400 ft AGL, utilize a PIC & VO.

WesTec Tower Services exemption request would permit its operation of lightweight, unmanned (remotely controlled in line of sight) UAS in tightly controlled and limited airspace. Predetermined, specifically marked areas of operation, cordoned off locations and corresponding enhancements to operate within current safety parameters and new ones being implemented.

It is the petitioners position that the operations for which exemption is requested are safer and more cost effective than using manned aircraft, and for those reasons are in the Public Interest; and would be of benefit in identifying areas of operation that may need additional oversight as well as raising public awareness and interest in this rapidly growing facet of aviation.

The petitioner will outline in this document:

1. **Request for exemptions by Part and Subpart**
2. **Petitioners protocols and procedures for operations**
3. **Request for relief from Airport Proximity Limitation**
4. **The Unmanned Aircraft System (UAS)**
5. **The Public Interest**

1. REQUESTS FOR EXEMPTION BY PART AND SUBPART

14 CFR 91.7(A)

Airworthiness Certificate;

Prohibits the operation of an aircraft without an airworthiness certificate. Petitioner requests exemption based on previous **Exemption No. 11138**. The FAA has ruled that this make and model of aircraft (UAS) does not require an airworthiness certificate.

14 CFR 91.9 (B) (2)

Aircraft Flight Manual in the aircraft;

Requires an aircraft flight manual in the aircraft. As there are no pilots or passengers, and given the size of the UAS, this regulation is inapplicable. An equivalent level of safety will be achieved by maintaining a manual at the flight operations center. The FAA has previously issued exemptions to this regulation in **Exemption No. 10700 and 32827**

14 CFR 91.119(C)

Minimum Safe Altitudes;

States that no person may operate an aircraft below the following altitudes: *over other than congested areas,* an altitude of 500 feet above the surface, except over open water or sparsely populated areas. In those cases, the aircraft may not be operated closer than 500 feet to any person, vessel, vehicle, or structure.

The petitioner will never operate any UAS over an altitude of 400 AGL. The majority of the operations proposed will operate around 200 to 300 ft AGL as this usually provides the best angle of capture for the type of photography and videography operations proposed.

The UAS utilized for this exemption is of exceptionally light weight and is not capable of speeds over 30 knots. The UAS is equipped with GPS guided auto pilot with a return home function in case loss of control by the PIC and is powered by sealed batteries thereby reducing the chance of post impact fire to nearly zero.

There will be cases when the 500 foot distance from structures will need to be exempted. (Example: Aerial Video of a 2 story home roof to determine and/or document extent of storm damage.) In this type of operation every assurance will be made to keep persons outside of a

reasonable, safe, clear area of operations and will only be conducted with the express permission of the property owner. See **Protocols and Procedures Section**.

The petitioner will implement procedures and policies to ensure that any person in the general vicinity of operations will be aware of such operations and ensure that all non-essential personnel are cleared of the area of operations. See **Protocols and procedures Section 3.**

The petitioner therefore requests relief in part from **14 CFR 91.119(C)**

14 CFR 91.121

Altimeter Settings;

The petitioner requests relief from **91.121** for the following reason. The UAS is equipped with GPS derived altitude capability, however due to the limited altitude requested in this exemption, the FAA has previously granted Exemption for these types of operations. **Reference Exemption No. 11138**

14 CFR 91.151(a)

Fuel for Flight;

No person may begin a flight in an airplane under VFR conditions unless (considering wind and forecast weather conditions) unless there is enough fuel to fly to the first point of intended landing and, assuming normal cruise speeds

(a)(1)During the day to fly for at least 30 minutes.

The petitioner requests relief from **91.151(a)** due to the fact that the UAS is equipped with a battery and percentage indicator system. The UAS has a flight capability on full charge of approximately 20 to 25 minutes depending on camera usage and other variables. The petitioner has established that the maximum flight will be 10 minutes on a fully charged battery. This constitutes landing with approximately 50 percent fuel remaining. The petitioner believes that this follows the spirit and intent of the rule with a great margin of safety.

No UAS operations will be conducted at night, as defined by Federal Aviation Regulations.

14 CFR 91.203(a)(b)

Carrying of civil aircraft Certifications and Registrations;

Provides for the carrying of civil aircraft certifications and registrations. They are inapplicable for the same reasons described above. The equivalent level of safety will be achieved by maintaining such certifications and registrations at the UAV Field Services flight operations center.

14 CFR 91.405(a)

Maintenance required;

The petitioner requests relief in part from **91.405(a)(1)** based on the **Protocols and Procedures Section** on **Maintenance and Maintenance Records**. **Also reference Exemption No. 11138**

14 CFR 91.407(a)(1)

Operation after maintenance, preventive maintenance, rebuilding, or alteration;

The petitioner requests relief from **91.407(a)(1)** based on the **Protocols and Procedures Section** on **Maintenance, Return to service after maintenance, and Maintenance records. Reference Exemption No. 11138**

14 CFR 91.409(a)(1)(2)

Inspections;

The petitioner requests relief from **91.409(a)(1)(2)** based on the **Protocols and Procedures Section** on **Inspections. Reference Exemption No. 11138**

14 CFR 91.417(a)(b)

Maintenance records;

The petitioner requests relief from **91.417(a)(b)** based on the **Protocols and Procedures Section** on **Maintenance records**.

14 CFR 45.23(b)

Marking of the Aircraft;

Applicable codes of Federal Regulation require aircraft to be marked according to certain specifications. WesTec Tower Services UASs are, by definition, unmanned. They therefore do not have a cabin, cockpit or pilot station on which to mark certain words or phrases. Further, two inch lettering is difficult to place on such small aircraft. Regardless, WesTec Tower Services will mark its UASs in the largest possible lettering by placing the word "EXPERIMENTAL" on its fuselage as required by 14 CFR 45.29 (f) so that the pilot, technician, spotter and others working with the UAV will see the markings. The FAA has previously issued exemptions to this regulation through **Exemption No 10167 and 10700**

14 CFR 21, Sub Part H

Airworthiness Certificates;

Entitled Airworthiness Certificates, set forth requirements for procurement of necessary airworthiness certificates in relation to FAR 91.203(a)(1). The size, weight and enclosed operational area of WesTec Tower Services UASs permits exemption from Part 21 because WesTec Tower Services UASs meet an equivalent level of safety pursuant to Section 333 of the Reform Act. The FAA is authorized to exempt aircraft from the airworthiness certificate requirement under both the Act (49 USC 44701(f)) and Section 333 of the Reform Act. Both pieces of the legislation permit the FAA to exempt UASs from the airworthiness certificate requirement in consideration of the weight, size, speed, maneuverability and proximity to areas such as airports and dense populations. WesTec Tower Services UASs meet or exceed each of the elements.

14 CFR 61.113(a)(b)

Private Pilot Privileges and Limitations / PIC;

Private pilots are limited to non-commercial operations. WesTec Tower Services can achieve an equivalent level of safety as achieved by current Regulations because UAV Field Services UASs do not carry any pilots or passengers. Further, while helpful, a pilot license will not ensure remote control piloting skills, though UAV Field Services pilot vetting and training program will. Further, private pilot licensees will operate WesTec Tower Services UASs with the same skill. Further, the risk attendant to the operation of WesTec Tower Services UASs is far less than the risk levels inherent in the commercial activities outlined in CFR 61. Thus, allowing WesTec Tower Services to operate its UASs with a private pilot as the pilot in control will exceed current safety levels in relation to CFR 61.113(a)(b).

WesTec Tower Services

2. Protocols and Procedures for UAS operations.

A. Preflight
B. Area Security
C. Limitations of Operations
D. Airworthiness
E. Maintenance and Records
F. Pilot in Command Requirements
G. Visual Observer and Requirements
H. Reporting of Incidents and Accidents

A. Preflight Inspection of UAS

(1). Preflight of the Unmanned Aerial System will follow the instructions in the DJI instruction and User Manual. The Pilot in Command will certify that a preflight inspection has been accomplished with the date and time and signature in the UAS logbook. The preflight shall include the aircraft, transmitter, and batteries, motors, rotors, landing gear, camera and gimbal mount. As a part of the preflight the Pilot in Command will assure that weather conditions, area security, and any other information essential to safe operation has been obtained.

B. Area Security

(1). The PIC of the UAS will ensure that the operational area for the purposes of UAS flight shall be cleared of all nonessential persons at all times the UAS is in flight. Additionally all nonessential persons shall be required to remain clear of the operations area by a minimum distance of 150 feet during operations. PIC shall ensure that clearly marked signs are posted at all ingress\egress points to the operations areas. These signs will be of white background with red lettering stating the following: "Unmanned aircraft operations underway. Please remain clear."

(2). In the event of a breach by nonessential persons into the operations area during the flight of UAS, the PIC shall immediately terminate flight operations until such time as the area can be cleared of these persons.

(3). The UAS area of operation is defined as the Horizontal flight path(s) of the UAS as well as the Vertical flight path and Maximum altitude to be reached. Additionally the area

between the UAS's current position and its Home location is also considered operational area as it will proceed direct to its home location in the event of loss of ground control. **All nonessential persons will not be allowed within 150 feet of any part of the operational area during flight operations.**

C. Limitations of Operations

(1) The UAS shall be operated in Day time only, as defined by **14 CFR**
(2) UAS night operations are prohibited.
(3) The UAS shall be operated by VLOS at all times
(4) A Visual Observer shall be utilized at all times and must maintain VLOS at all times.
(5) The UAS shall remain within 1000ft horizontal distance of the PIC at all times.
(6) The UAS to be utilized is the **DJI Phantom 2 Vision + Unmanned Aircraft System**. No other systems will be operated.
(7) The UAS will have an altitude restriction of 400ft AGL.
(8) The UAS will not be operated at a speed exceeding 30 Knots.
(9) Operations Documents will be accessible to the PIC at all times and must be accessible during UAS operations and made available to the Administrator on request.
(10) PIC must inspect and ensure that UAS and ground control station is in airworthy condition prior to each operation; if determined un-airworthy, all operations will be suspended until such time as necessary maintenance has been performed and the UAS is determined to be in a safe condition for flight.
(11) An operational flight test is required after any maintenance or alterations that may affect UAS operation or flight.
(12) UAS maintenance must follow Manufactures aircraft/component, maintenance, overhaul, and replacement, inspection, and life limit requirements.
(13) The operator must carry out its maintenance, inspections, and record keeping requirements, in accordance with the operating documents. Maintenance and inspection, and alterations must be noted in the aircraft records, including total flight hours, description of work performed, and the signature of the authorized person returning the UAS to service.
(14) UAS must comply with all Manufacturers' Safety Bulletins.
(15) An authorized person must make an entry in the aircraft record of the corrective action taken against discrepancies discovered between inspections.
(16) UAS must by operated by a PIC possessing at least a Private Pilot Certificate, with most appropriate Class and Category and at least a current Third Class Medical.
(17) PIC must meet the flight review requirements of 14 CFR 61.56 in an aircraft in which the PIC is rated.
(18) Prior to operations for which exemption is requested the PIC must have accumulated and logged , in a manner consistent with 14 CFR 61.51(b), a minimum of 25 hours of total time as a UAS rotorcraft pilot including at least 10 hours of UAS multi-rotor.
(19) Prior to operations PIC must have accumulated and logged a minimum of 5 hours as a UAS pilot in make and model listed in exemption. PIC must log at a minimum 3 takeoffs and landings in the preceding 90 days to meet currency requirements.
(20) PIC is required to operate the UAS in accordance with 14 CFR 91.119.

(21) No Private Pilot may operate UAS within 5 nautical miles of an airport reference point as denoted on a current FAA chart.

(22) Operations with 5 NM of an airport must be conducted by a PIC who holds at least a Commercial Pilot Certificate and a current Second Class Medical.

(23) No operations are allowed in the surface areas of Class B, C, and D airspace.

(24) No operations are allowed if the return home function and\or autopilot are, or are suspected to be malfunctioning.

(25) UAS shall not be operated from a moving platform of any type.

(26) No operations shall be conducted without an appropriate Certificate of Authority issued by the Administrator.

(27) A Visual Observer shall be utilized at all times when operating the UAS.

(28) Should the PIC or Visual Observer detect that a manned aircraft is being operated in close proximity to the operations area, the UAS shall give right of way to the manned aircraft, and the PIC shall cease operations and land until such time as the manned aircraft has cleared the area.

(29) The UAS will not be operated any closer than 500 feet to any structure without the express permission of the structure owner.

D. UAS Airworthiness

(1) The PIC shall ensure that the UAS is in an airworthy condition before each flight. Airworthiness shall be determined by a preflight inspection in accordance with DJI operating documents and any and all applicable Federal Aviation Regulations, and any additional requirements as defined by the Administrator. PIC shall document each preflight inspection by date, Aircraft total Flight time to date, any discrepancies noted, and signature and certificate number. Any discrepancy noted shall be addressed before UAS operation.

E. UAS Maintenance and Records

(1). the operator shall maintain aircraft maintenance logbooks. Each UAS shall have its own and separate maintenance log book. DJI documents, handbooks, user manuals, supplements, Safety Bulletins, etc., shall be the only approved documents for performing repairs, maintenance, inspections, overhauls, or replacement of life limited components. A record of each preflight inspection will additionally be recorded in these logbooks. The preflight inspection must be conducted by the PIC for that operation. Preflight signoff shall include at least the following information: date of operation, Aircraft Total time, aircraft serial or operating number, PIC signature and certificate number.

Example: Preflight inspection completed, No defects noted. 1-1-15, ACFTT 50.1 hours, UAS number 1, Name - PIC

(2). Any required maintenance, inspection, alteration or repair must be completed by an approved person. At the completion of this work the approved person must make an entry

in the aircraft log book that at least includes: Date, Aircraft serial or operating number, brief description of the discrepancy, inspection, alteration or repair, the reference material used as guidance for the repair, statement approving the aircraft for return to service, and signature of person who completed the work.

Example: 1-1-15 UAS 1, ACFTT 50.1 hours, replaced number 3 rotor with new rotor, IAW DJI Phantom 2 Vision + User Manual. Flight or ops check completed. Aircraft is approved for return to service.

(3). Maintenance records shall be kept with the UAS at all times and shall be made available to any authorized agency or the Administrator upon request.

F. Pilot in Command Requirements

(1). The Pilot in Command shall hold at least a Private Pilot Certificate and a current Third Class Medical whenever conducting operations. Operator prefers that the Certificate be in the most appropriate Class and Category to the UAS being operated.
(2). The Pilot in Command shall have at least 25 hours of rotorcraft UAV flight time before performing any operation for which exemption is requested.
(3). The Pilot in Command shall have at least 5 hours in make and model before performing any operation for which exemption has been requested.
(4). The Pilot in Command shall perform a pre-flight inspection before each flight is conducted.
(5). The Pilot in Command shall observe all Federal Aviation Regulations at all times with the exceptions of the exemptions requested by the operator. In those cases the Pilot in Command shall adhere to company operating standards or Federal Aviation Administration Limitations placed upon exemptions, whichever is more stringent.
(6). The Pilot in Command must hold a Commercial Pilot Certificate and a current Second Class Medical to operate within 5 NM of an airport.
(7). The Pilot in Command will not operate the UAS without a Visual Observer present.
(8). The Pilot in Command must have 3 takeoff and landings within the preceding 90 days.
(9). The Pilot in Command must maintain a record of flight information to establish currency and that he or she meets the requirements of this section.

G. Visual Observers: Responsibilities and Requirements

(1). A Visual Observer shall be used during any and all operations of the UAS System.
(2). The Visual Observer shall maintain communication with the PIC at all times during UAS operation.

(3). The Visual Observer shall maintain Visual Contact with the UAS at all times. In the event that Visual Contact is lost the VO will notify the PIC who will immediately cease operations and land the aircraft.
(4). The Visual Observer shall also help the PIC maintain area of operations security and ensure that all nonessential persons remain clear of the area of operations. In the event of a breach by unauthorized person(s) the VO shall notify the PIC and operations will cease immediately.
(5). The Visual Observer shall also assist the PIC in looking for manned aircraft traffic near the operations area. If manned aircraft traffic is observed near the operations area, the VO will notify the PIC who will immediately cease operations and land the UAS.

H. Reporting of Incidents and/or Accidents

Any incident or accident, or flight operation that transgresses the lateral or vertical boundaries of the operational area as defined by the applicable COA will be reported within 24 hours to:

FAA UAS Integration Office (AFS-80)

Accidents: National Transportation Safety Board

www.ntsb.gov.

3. Request for Relief from Airport Proximity Limitation

The petitioner understands the FAA's concern for placing restrictions on the proximity a UAS can be operated in relation to an airport. However, the petitioner believes that certain relief can be granted in this matter based on the circumstances of the flight, altitude of the flight, and the area of the flight in relation to traffic patterns and protected instrument approach corridors. Also, the size and traffic of the airport certainly should be considered as a factor. The petitioner believes that pilot qualifications, ratings, and aeronautic experience; as well as communication with the airport, any ATC controlling facility, and aircraft in the area would fully mitigate any dangers. The petitioner also believes that since many rural airports often host model and remote controlled aircraft clubs and events without affecting normal operations, that measures could be put in place to ensure the safety of operation and integration of UASs' in close proximity to certain airports. From a commercial standpoint a great deal of potential opportunity is lost when an area of close to 78.5 square miles is off limits. As UAS operations become more prominent consumers will demand these services closer to airport facilities. It would not be in the interest of aviation or the public in general, to restrict these consumers from products or services because of their proximity to an airport. This

could cause a negative impact to both the consumer and the airport. The petitioner therefore proposes the following reasonable restrictions that would ensure that the majority of these consumers could be serviced and the safety of operation of manned aircraft could be assured.

As previously stated most operations in the Scope of this requested Exemption will be conducted at or below 400 ft AGL. Any manned aircraft operating in the vicinity of an airport should not be at these altitudes over persons or property unless they are in the process of a take-off or landing. Additionally they should be well aligned with either the approach or departure runway at these altitudes.

The petitioner therefore requests relief in part from the 5 NM limitation concerning proximity to an airport based on the following restrictions. Note: Class B, C, and D airports not included in this relief request. Airspace must be E or G for relief to be requested.

1. Altitude restriction of 150 feet AGL within 3 to 5 Nautical miles of an airport.

2. Altitude restriction of 100 feet AGL within 1 to 3 Nautical miles of an airport.

3. No flight on the extended centerlines or 5 degrees to either side of any active or used runway out to 2 Nautical miles from Airport reference point.

4. Notify airport of proposed time, distance and heading from airport of UAS operation.

5. Request issuance of NOTAM specifying UAS operations.

6. No flight within 1 NM of airport. This would mitigate the possibly of operating near the airport traffic patterns.

7. The PIC shall make "in the blind" broadcasts of UAS operations on the appropriate frequency stating. "Unmanned Aircraft Operations underway. Distance and bearing from airport and operating altitude".

8. The Pilot in Command of the UAS must be a Certificated Commercial Pilot with Class and Category Rating most appropriate to the UAS for which the Exemption is granted. In this case. Commercial Pilot Instrument Rated with a current Second Class Medical.

9. Anytime the PIC or Visual Observer has visual contact with a manned aircraft, or anytime an aircraft requests, operations will be immediately suspended and UAS will descend and land immediately.

10. Aircraft has onboard programmable altitude restriction capability to help mitigate the possibility of inadvertent altitude deviation. This function must be used during operations within 5 nautical miles of an airport.

11. The dorsal (top) area of the aircraft will be painted a bright safety orange to increase visibility of the aircraft from manned aircraft.

The petitioner believes that these restrictions and requirements safely mitigate the potential hazards associated with operations near small, low volume airports. In fact, the petitioner believes that this limitation would make this operation safer than many others that are conducted at these

types of airports; to include: aerobatics training, parachute operations, and Amateur Radio Controlled Aircraft Clubs that are frequently located on these types of airports.

The altitude restrictions requested would eliminate the possibility of a collision with manned aircraft as there is no reasonable circumstance where a manned aircraft should be at or near these altitudes, unless being on short final for approach or on departure. In fact the petitioner believes that any manned aircraft operating at, or near these altitude restrictions, other than on short final for approach or on departure, would be operating in a careless and reckless manner.

Petitioner also believes that requiring that the PIC hold a Commercial Pilot Certificate of most appropriate Class and Category helps to ensure that the operator has the knowledge, aeronautical experience, radio communication skills, and ability to safely operate within close proximity to airports located in class E and G airspace.

Petitioner also believes that in the highly unlikely event of a collision between a UAS and a manned aircraft that the damage possibility, is no more than that of a small sized bird strike due to the extremely light weight and size of the UAS. However, the petitioner should like to reiterate that the restrictions requested in this relief would make such a collision improbable, if not nearly impossible.

4. The Unmanned Aircraft System UAS

The petitioner will operate the DJI Phantom 2 Vision + , DJI S-900 / S-1000 and the DJI Inspire 1 UAS Systems. The petitioner has attached the operating and user documents for the system as additional supplements for this petition in the comments area. No modification to the factory system is to be utilized other than the dorsal surface area of the aircraft will be painted a bright safety orange to help manned aircraft see the unit while in flight. Please see attached supplemental documents.

5. The Public Interest

The request for this exemption is in the Public Interest as it is safe to assume that there are many consumer applications for the services that can be provided by UAS systems. It is clear that the Congress of the United States, the business sector, and the consumer want to integrate Unmanned Aircraft Systems into the National Airspace System and utilize their unique and cost effective capabilities. It is also in the Public Interest that many of the low level flight operations now conducted by manned aircraft could be accomplished with these light, fire resistant unmanned aircraft that can operate at a fraction of the cost to both the operator and consumer. These aircraft can be operated without risk of loss of life or limb, and without significant financial impact to the operator or any person or property on the ground in the event of the loss of an aircraft. The main focus of UAS flight operation by WesTec Tower Services, Inc is to inspect cell towers, power transmission lines and petro / chemical plant vertical infrastructure. Utilizing these UASs will create a safer more productive work environment for the climbers , minimize exposure to people and property on the ground, reduce environmental

pollution (noise & carbon foot print) and have a positive impact on the local community which is in the Public Interest. Finally the petitioner believes that granting this exemption would help to further by Administrators process of integration of UAS systems and possibility help to create additional regulations and guidance to be used as these systems become more widely utilized.

Abbreviations

VLOS VISUAL LINE OF SIGHT

PIC PILOT IN COMMAND

VO VISUAL OBSERVER

UAS UNMANNED AIRCRAFT SYSTEM

Please forward any questions or concerns to the address or email below.

Sincerely, DATE : 5-18-2015

Jacob J Davis

Jacob Davis / President

WesTec Tower Services, Inc