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

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

June 25, 2015

Exemption No 11918
Regulatory Docket No. FAA–2015–1262

Mr. Peter Tully Owen
Pueo Communications
1025 Kalo Place #1105
Honolulu, HI 96826

Dear Mr. Owen:

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 April 19, 2015, you petitioned the Federal Aviation Administration (FAA) on behalf of Pueo Communications (hereinafter petitioner or operator) for an exemption. The petitioner requested to operate an unmanned aircraft system (UAS) to conduct academic/educational and community demonstrations for the purpose of promoting the safe, innovative and creative use of UAS.

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, Pueo Communications 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, Pueo Communications 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 June 30, 2017, unless sooner superseded or rescinded.

Sincerely,

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

Enclosures

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19 April 2015

U.S Department of Transporation
Docket Management System
1200 New Jersey Ave., SE
Washington, D.C. 20590

Re: Petition of Pueo Communications ("Petitioner") for an Exemption Pursuant to Section 333 of the FAA Modernization and Reform Act of 2012

Greetings:

Pursuant to Section 333 of the FAA Modernization and Reform Act of 2012 and 14 C.P.R. Part 11, Petitioner, hereby applies for an exemption from the Federal Aviation Regulations ("FARs") identified below, to allow commercial operations of small unmanned aircraft and associated elements ("UAS").

Purpose of Request for Exemption

The exemption sought would allow the petitioner, **Pueo Communications (owned, operated and represented here by Peter Tully Owen)**, to operate an unmanned aircraft system (UAS) to conduct commercial aerial cinematography for the promotion, advertisement and marketing of Hawaii tourism, as well as various other businesses and industries in the state of Hawaii. Additionally, Pueo Communications proposes to conduct academic/educational and community demonstrations for the purpose of promoting the safe, innovative and creative use of UAS.

Precedent

Pueo Communications requests to use the DJI Inspire 1 for aerial imaging. The FAA has previously issued Grants of Exemption in circumstances similar in nearly all material respects to those presented in this petition. In previous 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 with the specifications described by the petitioners, carrying no passengers or crew—rather than a manned aircraft of far greater proportions, carrying crew and flammable fuel—gave the FAA good cause to find that the UAS operations were in the public interest. Pueo Communications feels that the reasons stated by the FAA for granting Exemption Nos. 11062, 11109, 11112, and 11213 would also reasonably apply to the situation presented by this petition. Additionally, we feel that considering the enhanced safety features provided by the DJI Inspire 1 (the "No-Fly Zone" feature in particular), as well as the cost-effectiveness of small UAS aerial photography, a grant of exemption would be in the public interest.

Specific Sections of Title 14 CFR for which Exemption is Sought

14 C.F.R. 21, Subpart H, entitled Airworthiness Certificates. The size, weight and operational area of Pueo Communications' UAS permits exemption from Part 21 because the UAS meets (and exceeds) 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 U.S.C. § 44701 (f)) and Section 333 of the Reform Act. Both pieces of legislation permit the FAA to exempt UAS from the airworthiness certificate requirement in consideration of the weight, size, speed, maneuverability and proximity to areas such as airports. Pueo Communications UAS meet or exceed each of the elements.

14 C.F.R. 91.7(a) prohibits the operation of an aircraft without an airworthiness certificate. As no such certificate will be applicable in the form contemplated by the FARs, this Regulation is inapplicable.

14 C.F.R. § 91.9 (b) (2) As there are no on board 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 safety/flight manual delineating areas of where safety can be defined. The FAA has previously issued exemptions to this regulation in Exemption Nos. 8607, 8737, 8738, 9299, 9299A, 9565, 9565B, 10167, 10167A, 10602, 10700 and 32827.

14 C.F.R. § 91.121 regarding altimeter settings is inapplicable insofar as the UAS utilizes electronic global positioning systems and a barometric sensor, with readings transmitted to the the controller.

14 C.F.R. § 91.203 (a) and (b). These are inapplicable for the same reasons described above. The equivalent level of safety will be achieved by maintaining any such required certifications and registrations by Pueo Communications.

14 C.F.R. § 45.23: Marking of The Aircraft. The aircraft operated will 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 will be *as large as practicable*.

14 C.F.R. § 61.113: Private Pilot Privileges and Limitations: PIC. The PIC will hold either an airline transport, commercial, private, recreational, or sport pilot certificate. The PIC will hold a current FAA airman medical certificate or a valid U.S. driver's license. The PIC will 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 C.F.R. 91.119: Minimum Safe Altitudes. 14 C.F.R. § 91.119 prescribes safe altitudes for the operation of civil aircraft. It allows helicopters to operate at lower altitudes in certain conditions. The Inspire 1 firmware will not allow the aircraft to operate at an altitude greater than 400 AGL. Pueo Communications will operate its UAS in safe areas away from public and traffic, providing a level of safety at least equivalent to or below those in relation to minimum safe altitudes. Given the size, weight, maneuverability and speed of the Inspire 1 UAS, an equivalent or higher level of safety will be achieved.

14 C.F.R. 91.405 (a); 407 (a) (1); 409 (a) (2); 417(a) & (b): Maintenance Inspections. The above-cited regulations require, amongst other things, aircraft owners and operators to "have [the] 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. . . ." The operator will follow the UAS manufacturer's maintenance, overhaul, replacement, inspection, and life limit requirements for the aircraft and aircraft components.

Description of the Aircraft

Model: DJI Inspire 1

Weight (Battery Included): 2935 g (6.47 lbs)

Hovering Accuracy (P Mode)
Vertical: 0.5 m
Horizontal: 2.5 m

Max Angular Velocity
Pitch: 300°/s
Yaw: 150°/s

Max Ascent Speed
5 m/s

Max Descent Speed
4 m/s

Max Speed
22 m/s (ATTI mode, no wind)

Max Flight Altitude
4500 m

Max Wind Speed Resistance
10 m/s

Max Flight Time
Approximately 18 minutes

Dimensions
438x451x301 mm

Safety Features of the DJI Inspire 1
The Inspire 1 is arguably the most technologically-advanced UAS developed by DJI to date. Below are many of the safety features incorporated by DJI in its Inspire design. *(Much of this info has been re-purposed from DJI's website, with light editing.)*

NO-FLY ZONES
With its latest firmware update, DJI has incorporated "No-Fly Zones" into the controller application, which alerts the PIC when the aircraft is approaching restricted airspace, (such as an airport or other sensitive site). The software prevents the AC from entering restricted airspace by taking over the flight controls and returning the AC to its home point. Likewise, the new software will not permit the Inspire to fly beyond parameters established by DJI, including the 400' AGL limit.

MAIN CONTROLLER
This is the "brain" of the entire system, receiving thousands of bits of data every second and translating that data into action on-the-fly. The Main Controller tells every part of the Inspire 1 what to do, calculates environmental conditions in real-time, and ensures that the aircraft responds to control commands instantly.

DUAL OPERATOR CONTROL
With dual controllers, the PIC controls the aircraft, while the second controller acts as camera operator. Both remotes receive live data and video straight from the Inspire 1, but only the Master controller sends commands to the aircraft. The second controller must be linked to the Master via secure password to control the gimbal.

AUTO-TAKEOFF AND LANDING
Takeoff and landing is easier than ever before, with both functions just a tap away. Tap once to takeoff and the Inspire 1 will hover and raise its landing gear, ready to start filming. Then tap again to make it transform into landing mode and auto land.

POSITIONING
As it flies, the position of the Inspire 1 is constantly updated and recorded using a high-strength, intelligent GLONASS + GPS system. This dual positioning system enables higher precision and quicker satellite acquisition, allowing the PIC to see where the aircraft is on a live map, and establishing hover point when the controls are released. In addition to traditional GPS, GLONASS offers an even greater level of precision by providing even more satellites. The Inspire 1 remembers its takeoff point and dynamically tracks the controller's current position, so the Inspire 1 can return to either its take-off location or to the controller location at the press of a button.

INERTIAL MEASUREMENT UNIT (IMU)
DJI's advanced Inertial Measurement Unit (IMU) automatically keeps the Inspire 1 stable and steady during flight. The IMU incorporates both a 6-axis gyroscope and an accelerometer to monitor minuscule changes in tilt and movement. This allows the aircraft to compensate and adjust immediately and automatically, holding its position at all times, without input from the PIC.

ELECTRONIC SPEED CONTROLLERS (ESC)
Electronic Speed Controllers (ESC) handle communication between the Main Controller and the Inspire. ESC tell each motor exactly how fast to spin and how much power to use at all times. In flight, each motor moves at its own speed as calculated by DJI's advanced algorithms.

FAILSAFE
If the Inspire battery runs low or if the connection with the Main Controller is lost, the Inspire 1 uses its positioning system and smart flight technology to return to its take-off point or to the Main Controller's current position.

INTELLIGENT POWER MANAGEMENT SYSTEM
A fully integrated intelligent battery powers the Inspire 1 and virtually manages itself. When in flight, remaining battery power and flying time is shown on the controller screen in real time. Advanced algorithms calculate the distance of the aircraft and estimated remaining flight time, alerting the PIC when it's time to return. The battery reports the voltage of each cell, the total lifetime charges and discharges, and the overall health and battery status.

How Proposed UAS Operation will be Conducted Safely

Pueo Commutations requests exemption from §§ 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 photography.

After careful review of the FAA's previous Grants of Exemption, Pueo Communications has identified the following regulations, requirements and prohibitions to which the company and its operators will strictly adhere should a Grant of Exemption be issued:

- ❑ The UA will not be operated at a speed exceeding 87 knots (100 miles per hour), and in no case will the UA be operated at airspeeds greater than the maximum UA operating airspeed recommended by the aircraft manufacturer, DJI. We plan to use the DJI pilot application airspeed indicators to determine compliance with the 87-knot speed restriction.
- ❑ The UA will be operated at an altitude of no more than 400 feet above ground level (AGL). Altitude will be reported in feet AGL.

- ❑ The UA will be operated within visual line of sight (VLOS) of the PIC at all times. The PIC will 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.
- ❑ All operations will utilize a visual observer (VO) and the UA will be operated within the visual line of sight (VLOS) of the PIC and VO at all times.
- ❑ The VO and PIC will be able to communicate verbally at all times, without the aid of electronic messaging or texting during flight operations; the PIC will be designated before the flight and will not transfer his or her designation for the duration of the flight.
- ❑ The Operating Documents will be accessible during UAS operations and made available to the Administrator upon request.
- ❑ Maintenance or alterations that affect the UAS operation or flight characteristics, e.g. replacement of a flight critical component, will require the UA to undergo a functional test flight prior to conducting further operations. Functional test flights will only be conducted by a PIC with a VO and will remain at least 500 feet from other personnel. The functional test flight will be conducted in such a manner so as to not pose an undue hazard to persons and property.
- ❑ The operator will be responsible for maintaining and inspecting the UAS to ensure that it is in a condition for safe operation.
- ❑ Prior to each flight, the PIC will conduct a pre-flight inspection and determine the UAS is in a condition for safe flight. The pre-flight inspection will 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 will be prohibited from operating until the necessary maintenance has been performed and the UAS is found to be in a condition for safe flight.
- ❑ The operator will follow the UAS manufacturer's maintenance, overhaul, replacement, inspection, and life limit requirements for the aircraft and aircraft components.
- ❑ Any UAS operated under an FAA exemption will comply with all manufacturer safety bulletins.
- ❑ The PIC will hold either an airline transport, commercial, private, recreational, or sport pilot certificate.
- ❑ The PIC will hold a current FAA airman medical certificate or a valid U.S. driver's license.
- ❑ The PIC will 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.
- ❑ The operator will not permit any PIC to operate unless the PIC demonstrates the ability to safely operate the UAS, including evasive and emergency maneuvers and maintaining appropriate distances from persons, vessels, vehicles and structures.
- ❑ PIC qualification flight hours and currency will be logged in a manner consistent with 14 CFR § 61.51(b).
- ❑ Training operations will only be conducted during dedicated training sessions. During training, proficiency, and experience-building flights, all persons not essential for flight

operations will be considered nonparticipants, and the PIC will operate the UA with appropriate distance from nonparticipants in accordance with 14 CFR § 91.119.

- ❑ UAS operations will not be conducted during night, as defined in 14 CFR § 1.1.
- ❑ All operations will be conducted under visual meteorological conditions (VMC). Flights under special visual flight rules (SVFR) will not be conducted.
- ❑ The UA will 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 Pueo Communications. The letter of agreement with the airport management will be made available to the Administrator or any law enforcement official upon request.
- ❑ The UA will 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.
- ❑ If the UAS loses communications or loses its GPS signal, the Inspire 1 will return to a pre-determined location within the private or controlled-access property.
- ❑ The PIC will abort the flight in the event of unpredicted obstacles or emergencies.
- ❑ The PIC will be 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 DJI Pilot Application, if greater.
- ❑ All operations will be conducted in accordance with an ATO-issued COA. Pueo Communications will apply for a new or amended COA if it intends to conduct operations that cannot be conducted under the terms of a Grant of Exemption issued in response to this petition.
- ❑ The aircraft operated will 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.
- ❑ 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 will be available to the PIC at the Ground Control Station of the UAS any time the aircraft is operating. These documents will be made available to the Administrator or any law enforcement official upon request.
- ❑ The UA will remain clear of and give way to all manned aviation operations and activities at all times.
- ❑ The UAS will not be operated by the PIC from any moving device or vehicle.
- ❑ All Flight operations will be conducted at least 500 feet from all nonparticipating persons, vessels, vehicles, and structures unless:

    1. Barriers or structures are present that sufficiently protect nonparticipating persons from the UA and/or debris in the event of an accident. The operator will 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,

2. 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.

- ❑ All operations will 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.
- ❑ Any incident, accident, or flight operation that transgresses the lateral or vertical boundaries of the operational area as defined by the applicable COA will be reported to the FAA's UAS Integration Office (AFS-80) within 24 hours.
- ❑ Accidents will be reported to the National Transportation Safety Board (NTSB) per instructions on the NTSB Web site.

Should you have any questions regarding this petition, please feel free to contact me at 808-366-4162 or petertullyowen@gmail.com.

Aloha,

Peter Tully Owen
Pueo Communications