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

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

July 21, 2015

Exemption No. 12097
Regulatory Docket No. FAA–2015–0742

Ms. Amy Anderson
SwingPointMedia, Inc.
54102 Avenida Bermudez
La Quinta, CA 92254

Dear Ms. Anderson:

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 posted to the public docket on March 25, 2015, you petitioned the Federal Aviation Administration (FAA) on behalf of SwingPointMedia, Inc. (hereinafter petitioner or operator) for an exemption. The petitioner requested to operate an unmanned aircraft system (UAS) to conduct aerial photography.[1]

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.

[1] On June 23, 2015, the petitioner withdrew its request to conduct UAS operations for closed-set filming.

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

The Basis for Our Decision

You have requested to use a UAS for aerial data collection[2]. 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, SwingPointMedia, 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.

[2] 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, SwingPointMedia, 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 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 July 31, 2017, unless sooner superseded or rescinded.

Sincerely,

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

Petition for Exemption

(PURSUANT to 14 CFR SECTION 11.81)

Identification of Petitioner

This petition for exemption is submitted on behalf of SwingPointMedia, Inc., including its principals, Jeff Harrison and Amy Anderson (collectively referred to as "SPM"), 54102 Avenida Bermudez, La Quinta, California 92254, (760) 413-3508 (via email at sps.jdh@gmail.com).

Company Profile

SPM is the owner and operator of Small Unmanned Aircraft Systems ("SUASs") equipped to conduct aerial photography for the motion picture and television industry for scripted closed set filming. SPM is an innovative media producer focused on providing value to small businesses seeking affordable advertising via online and television commercials utilizing aerial photography.

SPM believes that Unmanned Aircraft is truly the future direction of cutting edge media production. Unmanned Aircraft provides for an efficient, affordable, and safe way to enhance the commercials of our clients when compared to the use of helicopters or fixed wing aircraft. This efficiency and cost savings can be passed on to SPM clients, who in turn can more readily promote their business, attract new clientele and provide greater employment opportunities for local residents.

Petition Based Upon Precedence—Prior Exemption

This petition is based, in part, upon prior exemption granted pursuant to, and in the matter of, Astreaus Aerial (Regulatory Docket No. FAA-2014-0352, on September 25, 2014).

Description of Relief Sought

SPM is seeking an exemption to operate commercially a small unmanned vehicle (55 pounds or less) in motion picture and television operations.

Petitioner Seeks the Following Exemptions

SPM applies for an exemption from specific Federal Aviation Regulations ("FARs") to allow commercial operation of its SUASs, within and under the conditions outlined in this petition, and under such other limitations as may be established by the FAA as required by Section 333 of the FAA Modernization and Reform Act of 2012, Pub. Law 112-95, 126 Stat. 11 (2012) (the "2012 Act").

SPM requests exemptions from section of 14 CFR: part 21 (Certification), 45.23(b) (N number identification), 61.113(a) and (b) (flying for hire), 91.7(a), 91.9(b) and (2) (Airworthiness), 91.103 (preflight, airport), 91.109 (dual controls), 91.119, 91.121, 91.151(a), 91.203(a) and (b), 91.405(a), 91.407(a)(1) (Airframe mechanic), 91.409(a)(2) (Annual Inspections), 91.417(a), and 91.417(b) (Maintenance records), which sections are delineated as follows:

Part 21 prescribing the procedural requirements for issuing and changing design approvals, productions approvals, airworthiness certificates, and airworthiness approvals. (SPM believes relief from this section is not necessary under the statutory criteria provided in Section 333 of Public Law 112-95 [P.L. 112-95] in reference to 49 USC Section 44794 given the size, weight, speed, and limited operating area associated with the proposed UAS.)

Section 45.23(b) prescribing that when marks include only the Roman capital letter "N" and the registration number is displayed on limited, restricted or light-sport category aircraft or experimental or provisionally certificated aircraft, the operator must also display on that aircraft near each entrance to the cabin, cockpit, or pilot station, in letters

not less than 2 inches nor more than 6 inches high, the words "limited," "restricted," "light-sport," "experimental," or "provisional," as applicable. (SPM believes relief from this section is not necessary as the proposed UAS is not certificated under Section 21.191 and this petition is submitted in connection with proposed operations as a Civil UAS.)

Section 61.31(a) prescribing that a person who acts as a pilot in command of any of the following aircraft must hold a type rating for that aircraft for other aircraft specified by the Administrator through aircraft type certificate procedures:

(1) Large aircraft (except lighter-than-air).

(2) Turbojet-powered airplanes.

(3) Other aircraft specified by the Administrator through aircraft type certificate procedures.

SPM believes relief from this section is not necessary under the statutory criteria provided in Section 333 of P.L. 112-95 in reference to 49 USC Section 44794 given the size, weight, speed, and limited operating area associated with the proposed UAS. SPM, however, respectfully requests exemption of 14 CFR 61.113(a) and (b), and if granted the UAS will fully comply with the qualifications of PIC's noted herein. Furthermore, in light of recent developments, Petitioner Amy Anderson, a skilled UA Pilot with 500 plus airtime hours dedicated exclusively to UA flying, requests leave to amend this petition should new Federal Aviation Administration rules preclude the requirements noted in 14CFR 6.113(a) and (b), for PIC's flying UA's.

Section 91.7(a) prescribing that no person may operate a civil aircraft unless it is in an airworthy condition. (SPM requests relief from this section by Pilot in Command (PIC) compliance with the applicable operational documents published by the manufacturer and the Proposed Conditions and Limitations set forth in this petition.)

Section 91.9(b)(2) prohibits operation of U.S.-registered civil aircraft unless there is available in the aircraft a current approved Airplane or Rotorcraft Flight Manual,

approved manual material, markings, and placards, or any combination thereof. (SPM believes relief from this section is not necessary as the FAA has previously determined relief is not required provided the relevant materials published by the manufacturer are kept in a location accessible to the PIC in compliance with the regulations.)

Section 91.103(b) prescribing that a pilot shall for any flight, become familiar with runway lengths at airports of intended use, and takeoff and landing distance information. (SPM believes relief from this section is not necessary provided the PIC complies with the Proposed Conditions and Limitations set forth in this petition.)

Section 91.109(a) prescribing, in pertinent part, that no person may operate a civil aircraft (except a manned free balloon) that is being used for flight instruction unless that aircraft has fully functioning dual controls. (SPM believes relief from this section is not necessary provided the P1C complies with the Proposed Conditions and Limitations set forth in this petition or utilizes the DII Inspire 1 UAS dual control feature.)

Section 91.119 prescribing that, except when necessary for takeoff or landing, no person may operate an aircraft below the following altitudes:

(a) Anywhere. An altitude allowing, if a power unit fails, an emergency landing without undue hazard to persons or property on the surface. (SPM believes relief from this section is not necessary provided the Pilot in Command (PIC) complies with the applicable operational documents published by the manufacturer and the Proposed Conditions and Limitations set forth in this petition.)

(b) Over congested areas. Over any congested area of a city, town, or settlement, or over any open air assembly of persons, an altitude of 1,000 feet above the highest obstacle within a horizontal radius of 2,000 feet of the aircraft. (SPM believes relief from this section is not necessary provided the Pilot in Command (PIC) complies with the applicable

operational documents published by the manufacturer and the Proposed Conditions and Limitations set forth in this petition)

(c) 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. (SPM requests relief from this section by Pilot in Command (PIC) compliance with the applicable operational documents published by the manufacturer and the Proposed Conditions and Limitations set forth in this petition.)

Section 91.121 requires, in pertinent part, each person operating an aircraft to maintain cruising altitude by reference to an altimeter that is set "...to the elevation of the departure airport or an appropriate altimeter setting available before departure." (SPM believes relief from this section is not necessary provided the PIC complies with the Proposed Conditions and Limitations set forth in this petition.)

Section 91.151(a) prescribing that no person may begin a flight in an airplane under VFR conditions unless (considering wind and forecast weather conditions) there is enough fuel to fly to the first point of intended landing and, assuming normal cruising speed, (1) during the day, to fly after that for at least 30 minutes [emphasis added]. (SPM requests relief from this section by Pilot in Command (PIC) compliance with the applicable operational documents published by the manufacturer and the Proposed Conditions and Limitations set forth in this petition.)

Section 91.203(a) prohibits, in pertinent part, any person from operating a civil aircraft unless it has within it (1) an appropriate and current airworthiness certificate; and (2) an effective U.S. registration certificate issued to its owner or, for operation within the United States, the second copy of the Aircraft registration Application as provided for in § 47.31(c). (SPM believes relief from this section is not necessary as the FAA has previously determined relief is not required provided the relevant materials published by

the manufacturer and the Proposed Conditions and Limitations are kept in a location accessible to the PIC in compliance with the regulations.)

Section 91.203(b) prescribing, in pertinent part, that no person may operate a civil aircraft unless the airworthiness certificate or a special flight authorization issued under § 91.715 is displayed at the cabin or cockpit entrance so that it is legible to passengers or crew. (SPM believes relief from this section is not necessary as the FAA has previously determined relief is not required provided the relevant materials published by the manufacturer and the Proposed Conditions and Limitations are kept in a location accessible to the PIC in compliance with the regulations.)

Section 91.405(a) requires, in pertinent part, that an aircraft operator or owner shall have that aircraft inspected as prescribed in subpart E of the same part and shall, between required inspections, except as provided in paragraph (c) of the same section, have discrepancies repaired as prescribed in part 43 of the chapter. (SPM requests relief from this section by Pilot in Command (PIC) compliance with the applicable operational documents published by the manufacturer and the Proposed Conditions and Limitations set forth in this petition.)

Section 91.407(a)(1) prohibits, in pertinent part, any person from operating an aircraft that has undergone maintenance, preventive maintenance, rebuilding, or alteration unless it has been approved for return to service by a person authorized under § 43.7 of the same chapter. (SPM requests relief from this section by Pilot in Command (PIC) compliance with the applicable operational documents published by the manufacturer and the Proposed Conditions and Limitations set forth in this petition.)

Section 91.409(a) prescribing that no person may operate an aircraft unless, within the preceding 12 calendar months, it has had …. (2) that no person may operate an aircraft unless, within the preceding 12 calendar months, it has had an inspection for the issuance of an airworthiness certificate in accordance with part 21 of this chapter. (SPM requests relief from this section by Pilot in Command (PIC) compliance with the

applicable operational documents published by the manufacturer and the Proposed Conditions and Limitations set forth in this petition)

Section 91.417(a) and (b) prescribing, in pertinent part, that—

(a) Each registered owner or operator shall keep the following records for the periods specified in paragraph (b) of this section:

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

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

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

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

(2) Records containing the following information:

(i) The total time in service of the airframe, each engine, each propeller, and each rotor.

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

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

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

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

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

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

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

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

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

(SPM requests relief from this section by Pilot in Command (PIC) compliance with the applicable operational documents published by the manufacturer and the Proposed Conditions and Limitations set forth in this petition.)

Unmanned Aircraft System (UAS)

SPM intends to operate The INSPIRE1, T600 (UAS), which is specifically designed for aerial media production. The specifications of the Inspire1, T600 are as follows:

Aircraft Model

T600

Weight 2935gm (Battery Included)

Hovering Accuracy (GPS Mode)

Vertical: 0.5 m

Horizontal: 2.5 m

Max Angular Velocity

Pitch: 300°/s

Yaw: 150°/s

Max Tilt Angle

35°

Max Ascent Speed

5 m/s

Inspire1 T600 Specifications-Continued

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

Motor Model

DJI 3510

Propeller Model

DJI 1345

Indoor Hovering

Enabled by default

Operating Temperature Range

-10° to 40° C

Diagonal Distance

559 to 581 mm

Dimensions

438x451x301 mm

Mounting

Detachable

Remote Controller

Name

C1

Inspire1 T600 Specifications-Continued

Operating Frequency

922.7~927.7 MHz (Japan Only)

5.725~5.825 GHz

2.400~2.483 GHz

Transmitting Distance (Outdoor And Unobstructed)

2 km

EIRP

10dBm@900m, 13dBm@5.8G, 20dBm@2.4G

Video Output Port

USB, mini-HDMI

Power Supply

Built-in battery

Charging

DJI charger

Dual User Capability

Host-and-Slave connection

Mobile Device Holder

Tablet or Phone

Max Mobile Device Width

170mm

Output Power

9 W

Operating Temperature Range

-10° to 40° C

Storage Temperature Range

Less than 3 months: -20° to 45° C

More than 3 months: 22° to 28° C

Inspire1 T600 Specifications-Continued

Charging Temperature Range

0-40° C

Battery

6000 mAh LiPo 2S

Charger

Model

A14-100P1A

Voltage

26.3 V

Rated Power

100 W

Battery (Standard)

Name

Intelligent Flight Battery

Model

TB47

Capacity

4500 mAh

Voltage

22.2 V

Battery Type

LiPo 6S High voltage battery

Energy

99.9 Wh

Net Weight

570 g

Operating Temperature Range

-10° to 40° C

Inspire1 T600 Specifications-Continued

Storage Temperature Range

Less than 3 months: -20° to 45° C

More than 3 months: 22° C to 28° C

Charging Temperature Range

0° to 40° C

Max Charging Power

180 W

Battery (Optional)

Name

Intelligent Flight Battery

Model

TB48

Capacity

5700 mAh

Voltage

22.8 V

Battery Type

LiPo 6S

Energy

129.96 Wh

Net Weight

670 g

Operating Temperature Range

-10° to 40° C

Storage Temperature Range

Less than 3 months: -20 to 45° C

More than 3 months: 22° to 28° C

Inspire1 T600 Specifications-Continued

Charging Temperature Range

0° to 40° C

Max Charging Power

180 W

DJI Pilot App

Mobile Device System Requirements

iOS 8.0 or later

Android 4.1.2 or later

Supported Mobile Devices

* Compatible with iPhone 5s, iPhone 6, iPhone 6 Plus, iPad Air, iPad Air Wi-Fi + Cellular, iPad mini 2, iPad mini 2 Wi-Fi + Cellular, iPad Air 2, iPad Air 2 Wi-Fi + Cellular, iPad mini 3, and iPad mini 3 Wi-Fi + Cellular. This app is optimized for iPhone 5s, iPhone 6, and iPhone 6 Plus.
* Samsung S5, Note 3, Sony Z3 EXPERIA, Google Nexus 7 II, Google Nexus 9, Mi 3, Nubia Z7 mini.

The UA is specifically designed with the safety of the NAS and persons/property on the ground. The design features of the UA include an advanced Inertial Measurement Unit (IMU) incorporates both a 6-axis gyroscope and an accelerometer to monitor miniscule changes in tilt and movement. This allows the aircraft to compensate and adjust immediately, holding its position at all times.

As UA flies, its position 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 PIC to see where the aircraft is on a live map and giving it a point to hover at when the controls are released. In additional to traditional GPS, GLONASS offers an even greater level of precision by providing even

more satellites. The UAS remembers its takeoff point and dynamically tracks current position, so the PIC can bring the UA back to his/her location at the press of a button. This UA Main Controller receives thousands of bits of data every second and translates that data into action as the PIC flies the UA. The Main Controller tells every part of the UA what to do, calculates environmental conditions in real-time, and ensures that the aircraft responds the PIC's control commands instantly.

The UA's Electronic Speed Controllers (ESCs) handle communication between the Main Controller and the motors. The ESC's tell each motor exactly how fast to spin and how much power to use at all times. As the PIC flies and maneuvers around, each motor moves at its own speed as calculated by advanced algorithms, providing the PIC complete control.

If the battery runs low or connection with the UA remote controller is lost, the UAS uses its positioning system and smart flight technology to return back to the PIC.

Pre-Flight Inspection, Maintenance and Repair
All pre-flight inspection by the PIC, as well as maintenance and repair, shall be conducted by the UAS operator in accordance with the UA manufacturer's user manual, safety guidelines and maintenance manual. (See attached.)

Us Radio Frequency Spectrum and Associated Equipment
The UA utilizes a Radio Frequency (RF) of 5.725-927.7 GHz/2.400-2.483 GHz.

Qualifications of PIC's Operating the UA

A. PIC must possess a private pilot's certificate and a valid third-class medical certificate.
B. PIC must have accumulated and logged a minimum of 200 flight cycles and 25 hours of total time as a UAS rotorcraft pilot and at least 10 hours logged as a UAS pilot with a similar UAS type (single blade or multirotor).

C. PIC must have accumulated and logged a minimum of five hours as UAS pilot with the make and model of UAS to be utilized for operations under the exemption and three take-offs and landings in the preceding 90 days.

D. The PIC must have successfully completed the qualification process as verified by manufacturer's representative. Visual observers possessing similar skill levels will be utilized during operations to provide line- of-sight guidance (VLOS) to the PIC as an adjunct to the built in systems aboard the UA.

Medical Standards and Certification of Pic's

PIC's directly responsible for the operation of the UAS pursuant to CFR parts 61, 67, shall maintain a Class 3 medical certificate subsequent to a flight physical obtained from a qualified Aviation Medical Examiner (AME.)

Operation of the UAS

The intended operation of the UAS involves aerial photography for use in internet and television commercials in primarily remote areas, or within clearly defined boundaries relevant to a specific intended subject of the aerial photography.

Historically this type of photography has been accomplished via the use of helicopter's holding a standard airworthiness certificate issued under 14 CFR, part 21, Subpart H. When equipped for aerial photography this type of helicopter could weigh between 5,500-6,500 pounds. Operations of this sort include an onboard pilot and crew members as needed.

The UAS weighs approximately 7 pounds fully loaded and has no onboard pilot or crew. The PIC and crew (if any) will be located remotely from the aircraft. The limited weight of the UAS substantially reduces any potential for harm to participating and non-participating persons or property in the event of any incident, fuel spillage, or fire, as the

UAS carries no fuel. Additionally, the risk of injury to an onboard pilot and crew is eliminated.

When applicable to the operation, the danger of filming in close proximity to participating persons is substantially mitigated by the limited weight and size of the UAS. Traditional filming risks utilizing a helicopter in close proximity to participating persons using an FAA issued Certificate of Waiver has been historically mitigated via standard airworthiness certification under 14 CFR, part 21, Subpart H.

Operation of the UA

The level of safety provided by the UA meets, or more realistically exceeds the provided by 14 CFR, part 21, Subpart H. The UA will be operational within defined boundaries specific to the subject of the aerial photography. This encompasses an area where the specific subject is located. As part of the filming process spotters will be utilized at the target location on the ground to ensure the safety of participating and non-participating persons within the defined area. Spotters will be in communication with a designated Communications Person (CP) (part of the UA crew) via two-way radio or cell phone, utilizing frequencies of non-interference to UA controls. The CP will then relate any pertinent information to the PIC. All non-participating personnel will be kept 500-feet from flight operations.

Maximum Operating Speed and Altitude

The proposed maximum altitude for the UA is 400 feet, and proposed maximum speed is 22 m/s (ATTI mode, no wind.) For flight visibility, distance from hazards, etc., please see attached specifications and safety manuals.

Characteristics of the Area of Operation

In accordance with statutory mandate under Section 333, the intended area of operation consists of a sparsely populated region with little or no human traffic, minimum structures, little to no electrical structures, and light business/residential.

Operation Near an Airport

In accordance with statutory mandate under Section 333, the intended operation in not located anywhere near a commercial or private airport.

Visual Line-of-Sight (VLOS)

In accordance with Statutory mandate under Section 333(b)(1), the PIC will utilize VLOS in addition to any built-in controls on board the UA. This will be accomplished by a qualified member of the flight crew (Non-PIC) and augmented by spotters in communication with the qualified flight crew member (CP).

Pre-Flight Safety Risk Assessment

In accordance with 14 CFR 91.7(b), pre-flight safety risk assessments shall be completed pursuant to guidelines contained in the manufacturer's safety and operation manuals (Attached.)

Operations Involving Flight Standards District Office (FSDO)

The UAS intends to coordinate its operations with the local FSDO with respect to any proposed aerial photography, and accordingly be guided by FSDO's instructions.

Certificate of Waiver or Authorization (COA)

The UAS intends to complete the COA application should a waiver be granted.

Public Interest and Benefit

The above "aerial work" services, normally provided in manned aircraft, may be provided with increased safety and at significantly lower cost in situations where the use of unmanned UAS aircraft would supplement or replace the use of manned aircraft as a result of safety or economic considerations in certain applications where extended operational range and limited time aloft are not a factor. The proposed UAS operations will pose no threat to the public given its small size and lack of combustible fuel when

compared to larger manned aircraft, minimize potential ecological affects or damage, and promote economic growth by providing data information to individuals or companies requiring aerial survey or imaging data. Additionally, the growth of the UAS industry has precipitated a large influx of "recreational" UAS pilots without formal knowledge or training regarding the effects or potential danger of UAS flight with the National Airspace System (NAS). While it is unclear what, if any, pilot certification requirements will ultimately apply to UAS pilots operating for commercial purposes under the final rulemaking process, there is a present need for training and dissemination of the applicable federal aviation regulations and flight characteristics of UAS to the general public; specifically current and potential UAS operators. UAS flight and ground demonstration and instruction for compensation utilizing the current system of certificated flight instructors provides economic incentive to accomplish the public goal of integration of both recreational and commercial UAS into the NAS while promoting safety and maintenance public awareness of current regulations affecting UAS operation.

Exemptions Provide a Level of Safety Equal to or Greater than the Existing Level Under Current Regulations

The use of UAS operated under the requested exemptions as set forth above have the capacity to operate with less risk of accident or injury and the associated loss of property or life while performing the same aerial work services offered in manned aircraft in certain situations where extended operational range and limited time aloft are not a factor. Likewise, UAS flight and ground demonstration and instruction for compensation promote and encourage the existing system of certificated flight instructors to participate in the public educational process utilizing UAS rather than manned aircraft.

Manned aircraft are at risk of fuel spillage and fire in the event of an incident or accident. The Inspire 1 carries no fuel, and therefore the risk of fire following an incident or accident due to fuel spillage is eliminated.

This petition for exemption does not propose an electronic means to monitor and communicate with other aircraft, such as transponders or sense and avoid technology. Rather the risk is mitigated by placing limits on altitude, requiring stand-off distance from clouds, permitting daytime operations only, and requiring that the UAS be operated within VLOS and yield right of way to all manned operations. Additionally, the Proposed Conditions and Limitations provide that the SPM will request a notice to airmen (NOTAM) prior to operations to alert other users of the NAS.

SPM's UAS has the capability -to operate safely after experiencing certain in-flight contingencies or failures and uses an auto-pilot system to maintain UAS stability augmentation and control. The UAS is also able to respond to a loss of GPS or a lost-link event with pre-coordinated automated flight maneuvers. These safety features provide an equivalent or higher level of safety compared to a manned aircraft holding an airworthiness certificate (restricted or otherwise) performing a similar operation.

Federal Register Summary

SwingPointMedia, including its pilot Amy Anderson, seeks exemption from the following regulations for the purpose of conducting flight instruction and commercial "aerial work" flight operations utilizing Unmanned Aerial Systems ("UAS") as set forth under the provisions of 14 CFR Section 119.1 (e)(1) Student instruction, Section 119.1 (e)(4)(iii) Aerial photography or survey, and Section 119.1 (e)(4)(vi) Powerline or pipeline patrol and the following additional relief:

14 CFR	Summary of Regulation	FAA Consideration or Action Requested
Part 21: Certification procedures for products and parts, Airworthiness Certificates		Relief not necessary pursuant to prior exemption
PART 61: Certification: Pilots, Light Instructors, and Ground Instructors		Relief not necessary pursuant to prior exemption[1]
61.31(a)	Type ratings required.	Relief not necessary (Section 333 of P.L. 112-95)
61.31(c)	Aircraft category, class, and type ratings: Limitations on the carriage of persons, or operating for compensation or hire.	Relief not necessary (Section 333 of P.L. 112-95)[2]

61.31(d)	Aircraft category, class, and type ratings: Limitations on operating an aircraft as the pilot in command.	Relief not necessary (Section 333 of P.L. 112-95)[2]
Part 91: Standard Instrument Procedures		Relief not necessary pursuant to prior exemption[1]
91.7(a)	Civil aircraft worthiness	Relief granted in prior exemption with conditions and limitations[1]
91.7(b)	Civil aircraft worthiness	Relief not necessary pursuant to prior exemption[1]
91.9(b)(2)	Civil aircraft flight manual, marking, and placard requirements	Relief not necessary pursuant to prior exemption[1]
91.103(b)	Preflight action	Relief not necessary pursuant to prior exemption[1]
91.109(a)	Flight instruction; simulated instrument flight and certain flight tests	Relief not necessary pursuant to prior exemption[1]
91.119	Minimum safe altitudes; general	Relief [paragraph (c)] granted in prior exemption with conditions and limitations[1]
91.121	Altimeter settings	Relief granted in prior exemption with conditions and limitations[1]
91.151(a)	Fuel requirements for flight in VFR conditions	Relief [paragraph 91.151(a)(1), day] granted in prior exemption with conditions and limitations[1]
91.203(a) and (b)	Civil aircraft: Certifications required	Relief not necessary pursuant to prior exemption[1]
91.405(a)	Maintenance required	Relief granted in prior exemption with conditions and limitations[1]
91.407(a)(1)	Operation after maintenance, preventive maintenance, rebuilding, or alteration	Relief granted in prior exemption with conditions and limitations[1]
91.409(a)(1) and (2)	Inspections	Relief granted in prior exemption with conditions and limitations[1]
91.417(a) and (b)	Maintenance records	Relief granted in prior exemption with conditions and limitations[1]

CONCLUSION

Approval of the Petition for Exemption for SwingPointMedia should be granted for aerial photography and movie production limited to two years for movie production subject to the following provisions and restrictions:

1. Specific liability insurance coverage for remote aircraft operation shall be maintained.

2. Formal mandatory safety procedures shall be adopted and maintained to include marking and maintaining a restricted area excluding those not directly involved in

operation of the remotely piloted aircraft and cameras. Those safety operations should exclude operating less than 50 feet over an open-air assembly of persons or over active railroads, roadways or highways.

3. Visual Line of Sight with the aircraft must be maintained by the Pilot in Control at all times. If VLOS cannot be maintained the aircraft must be immediately brought in and landed.

4. The Pilot in Control shall have passed an FAA “ground school” exam but shall not be required to hold a current pilot’s license or medical certificate.

5. No operation shall be above 400 feet or in any restricted airspace without specific prior clearance/approval from ATC for the location. A UAV flight plan filing may be required by the ATC so that a NOTAM may be issued.

6. An observer/spotter shall be required who is in direct communication with the Pilot in Command at all times. Communication may be by radio or by verbal communication within proximity to the Pilot in Command.

7. The remotely piloted aircraft must have automatic provision for Return to Base upon loss of remote control signal. Nothing in this restriction shall prohibit autonomous operation of the aircraft providing the Pilot in Command or UAV operator can regain direct control at any time during the automated flight.

8. The Pilot in Command must have available a (portable) transceiver capable of monitoring and communicating on aircraft frequencies (118.000 to 136.975 MHz.) if it becomes necessary.

9. At any time that the Pilot in Command must communicate with an aircraft in the area or Air Traffic Control, the transmission shall be identified by the letters “U A V” or “Unmanned Aircraft” followed by the name of the company conducting the video production.

10. The Pilot in Control be in possession of a current sector map of the area of operation (paper or electronic) in at the time of flight and must be aware of restrictions and communication frequencies applicable for that location.

11. If the designated Pilot in Command lacks sufficient specific skills to operate the UAV being used the PIC may be in direct supervision of and be fully responsible for an operator who has sufficient skills for operating (flying) the specific UAV being used.

12. Such limited operating approval may be rescinded or suspended by the FAA or NTSB in the event of an accident or if there is cause to believe any of the stated provisions have not been met or maintained.

Unless otherwise specified in this grant of exemption, the UAS, the USA 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.

Respectfully submitted,

SWINGPOINTMEDIA

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Amy Anderson