



Federal Aviation Administration

August 19, 2015

Exemption No. 12528 Regulatory Docket No. FAA-2015-1126

Ms. Christina Martinez Owner Precision Approach Aerial Photography LLC 15909 Elmwood Way Apple Valley, MN 55124

Dear Ms. Martinez:

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

By letters posted to the public docket on April 22, 2015, and July 22, 2015, you petitioned the Federal Aviation Administration (FAA) on behalf of Precision Approach Aerial Photography LLC (hereinafter petitioner or operator) for an exemption. The petitioner requested to operate an unmanned aircraft system (UAS) to conduct aerial photography and video for real estate, land surveying, architecture, public events, inspection of commercial property including cell towers and commercial construction, and flight training <sup>1</sup>.

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.

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<sup>&</sup>lt;sup>1</sup> The petitioner also requested authority to conduct UAS training. At this time, the FAA is unable to authorize UAS operations for training until a further assessment is completed. When the FAA completes its review, we will proceed accordingly and no further action will be required by the petitioner. However, the petitioner is permitted to train its own pilot in commands and visual observers in accordance with condition no. 14 and the other conditions and limitations in this exemption.

#### **Airworthiness Certification**

The UAS proposed by the petitioner is a DJI Phantom 3.

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<sup>2</sup>. 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,

<sup>&</sup>lt;sup>2</sup> 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.

delegated to me by the Administrator, Precision Approach Aerial Photography LLC is granted an exemption from 14 CFR §§ 61.23(a) and (c), 61.101(e)(4) and (5), 61.113(a), 61.315(a), 91.7(a), 91.119(c), 91.121, 91.151(a)(1), 91.405(a), 91.407(a)(1), 91.409(a)(1) and (2), and 91.417(a) and (b), to the extent necessary to allow the petitioner to operate a UAS to perform aerial data collection. This exemption is subject to the conditions and limitations listed below.

#### **Conditions and Limitations**

In this grant of exemption, Precision Approach Aerial Photography LLC is hereafter referred to as the operator.

Failure to comply with any of the conditions and limitations of this grant of exemption will be grounds for the immediate suspension or rescission of this exemption.

- 1. Operations authorized by this grant of exemption are limited to the DJI Phantom 3 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: <a href="www.ntsb.gov">www.ntsb.gov</a>.

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 August 31, 2017, unless sooner superseded or rescinded.

Sincerely,

/s/

John S. Duncan Director, Flight Standards Service

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# Precision Approach Aerial Photography LLC - Exemption/Rulemaking

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# Content

This is an exemption request pursuant to Section 333 of the FAA Reform Act of 2012 for Precision Approach Aerial Photography LLC. Precision Approach Aerial Photography LLC requests to perform aerial photography through the use of its small unmanned aircraft commercially in airspace regulated by the FAA. The owner and pilot is a Certified Flight Instructor with a Bachelor of Science in Aeronautics. Having firsthand knowledge of the National Airspace System gives Precision Approach Aerial Photography an advantage in safely operating small UAS within our airspace.

#### Description of Petitioner

Christina Martinez is the owner of Precision Approach Aerial Photography LLC. Christina is a Certified Flight Instructor and has vast experience operating in the National Airspace System. She has experience flying RC Planes, blimps in indoor college hockey arenas, and small quad copters for pleasure.

Contact information:

Christina Martinez 15909 Elmwood Way Apple Valley, MN 55124 paaerialphotography@gmail.com 952-412-3656

#### Exemptions

Regulations from which the exemption is requested:

14 CFR Part 21

14 C.F.R. 45.23(b)

14 CFR 61.113 (a) & (b)

14 C.F.R. 91.7 (a)

14 CFR 91.9 (b) (2)

14 C.F.R. 91.103

14 C.F.R. 91.109

14 C.F. R. 91.119

14 C.F.R. 91.121

14 CFR 91.151 (a)

14 CFR 91.203 (a) & (b)

14 CFR 91.405 (a)

14 CFR 91.407 (a) (1)

14 CFR 91.409 (a) (2)

14 CFR 91.417 (a) & (b)

#### Description of UAS and Equivalent Level of Safety

The primary UAS system that will be used is the DJI Phantom 3. The UAS will be safely operated in the NAS by maintaining line of sight visual contact, flown only during daylight, and less than 400ft above the ground. Flights will be operated at a lateral distance of no less than 100 feet from any persons or property not associated with the operation. Additional safety features on the DJI Phantom 3 include return to home functionality when GPS is available and failsafe technology that return the aircraft to the takeoff point if batteries run low.

The specifications for the UAS are as follows:

Weight: 1280 g

Diagonal Size: 590 mm Max Ascent Speed: 5 m/s Max Descent Speed: 5 m/s Max Speed: 16 m/s

Additionally, the max flight time for the UAS will be limited to maintain a reserve of 25% battery power. At all times, the UAS will be operated in accordance with the safety and operational requirements of the manual.

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#### **Document Information**

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#### Submitter Information

**Submitter Name:** 

Christina Martinez

Mailing Address:

15909 Elmwood Way

City:

Apple Valley

Country:

United States

State or Province:

ZIP/Postal Code:

55124

#### Comments

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#### **Docket Information**

This document is contained in

FAA-2015-1126

Related Dockets:

None

Related RINs: None

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Related Documents:

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#### **UAS Operations**

Preflight would include checking the operation of the UAS to include the battery in both the transmitter and the UAS, the condition of the body of the UAS and its propellers. Updates to the firmware will be done as they become available and maintenance will be performed pursuant to the manufacturers recommendations. The area in which the drone will be flown will be checked for powerlines, antennas, and other obstructions. The weather conditions will be monitored throughout the flight. Wind conditions will be reviewed and the UAS will only be flown in daylight. As the pilot, Christina would ensure that she is safe to operate the drone as she would if she were flying in the aircraft herself.

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Connact With

The pilot will abide by the following currency and proficiency requirements:

The pilot will posses at least a private pilot certificate

The pilot will have a minimum of 25 hours total time as a UAS rotorcraft pilot

The pilot will have a minimum of 5 hours in the make and model utilized

About He

Precision Approach Aerial Photography, a small woman-owned business, would like to safely operate a UAS aerial photography business. Having a Section 333 Exemption and entering into the NAS legally would give the business a competitive advantage. The safe and compliant operations would discourage illegal operations and improve the industry.

Thank you for your consideration.

Sincerely,

Christina Martinez

Owner/Pilot

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Precision Approach Aerial Photography LLC

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

Request for Section 333 Exemption, Revision Provided 14 July 2015

This is an exemption request pursuant to Section 333 of the FAA Reform Act of 2012 for Precision Approach Aerial Photography LLC. Precision Approach Aerial Photography LLC requests to perform aerial photography through the use of its small unmanned aircraft commercially in airspace regulated by the FAA. The owner and pilot is a Certified Flight Instructor with a Bachelor of Science in Aeronautics. Having firsthand knowledge of the National Airspace System gives Precision Approach Aerial Photography an advantage in safely operating small UAS within our airspace.

#### **Description of Petitioner**

Christina Martinez is the owner of Precision Approach Aerial Photography LLC. Christina is a Certified Flight Instructor and has vast experience operating in the National Airspace System. She has experience flying RC planes, blimps in indoor college hockey arenas, and small quad copters for pleasure.

Contact information: Christina Martinez 15909 Elmwood Way Apple Valley, MN 55124 paaerialphotography@gmail.com 952-412-3656

# **Commercial Operations:**

Exemption is requested for commercial operations for aerial photography and/or video for commercial use including real estate, land surveying, architecture, and other related activities. Aerial photography and/or video for commercial use including public events. Aerial photography and/or video for inspection of commercial property including cell towers and commercial construction. And, the ability to offer flight training to others.

# **Exemptions**

Regulations from which the exemption is requested: 14 CFR Part 21 14 C.F.R. 45.23(b) 14 CFR 61.113 (a) & (b)

14 C.F.R. 91.7 (a)

14 CFR 91.9 (b) (2)

14 C.F.R. 91.109

14 C.F. R. 91.119 (c) 14 C.F.R. 91.121 14 CFR 91.151 (a) 14 CFR 91.203 (a) & (b) 14 CFR 91.405 (a) 14 CFR 91.407 (a) (1) 14 CFR 91.409 (a) (2) 14 CFR 91.417 (a) & (b)

# **Description of UAS and Equivalent Level of Safety**

The primary UAS system that will be used is the DJI Phantom 3. The UAS will be safely operated in the NAS by maintaining line of sight visual contact, flown only during daylight, and less than 400ft above the ground. Flights will be operated at a lateral distance of no less than 100 feet from any persons or property not associated with the operation. All flights will be preplanned and owner approval will be obtained for flights over personal property. Additional safety features on the DJI Phantom 3 include return to home functionality when GPS is available and failsafe technology that return the aircraft to the takeoff point if batteries run low.

The specifications for the UAS are as follows:

Weight: 1280 g

Diagonal Size: 590 mm Max Ascent Speed: 5 m/s Max Descent Speed: 5 m/s

Max Speed: 16 m/s

Additionally, the max flight time for the UAS will be limited to maintain a reserve of 25% battery power. At all times, the UAS will be operated in accordance with the safety and operational requirements of the manual.

#### **UAS Operations**

Preflight would include checking the operation of the UAS to include the battery in both the transmitter and the UAS, the condition of the body of the UAS and it's propellers. Updates to the firmware will be done as they become available and maintenance will be performed pursuant to the manufacturer's recommendations. The area in which the drone will be flown will be checked for powerlines, antennas, and other obstructions. The weather conditions will be monitored throughout the flight. Wind conditions will be reviewed and the UAS will only be flown in daylight during visual flight rules meteorological conditions.

# Regulations from which an exemption is requested: 14 CFR Part 21 subpart H

An exemption is requested from applying for an airworthiness certificate. Given the size and limited operating area of the aircraft to be used, an exemption meets the requirements of an equivalent level of safety. The UAS will be operating in an area

and under conditions that would be at least as safe as a conventional aircraft operating with an airworthiness certificate.

# 14 C.F.R. 45.23(b) - Display of Marks

An exemption is requested from displaying the aircraft "N" number on the aircraft and from displaying the words "limited", "restricted", "light-sport", "experimental", or "provisional" as applicable. There is no entrance into a UAS and the aircraft is not large enough to display letters 2 inches tall. The equivalent level of safety will be provided by marking "Experimental" on the UAS casing where the pilot or other observers will see the identification.

# 14 CFR 61.113 (a) & (b) - Private Pilot

An exemption is requested from holding a private pilot certificate and the requirements for compensation or hire. An equivalent level of safety is met because UAS do not carry passengers, property or pilots. The risk is far less than that of commercial activities of a private or commercial pilot.

# 14 C.F.R. 91.7 (a) - Civil Aircraft Airworthiness

An exemption is requested due to the fact that an airworthiness certificate will not be issued.

# 14 CFR 91.9 (b) (2) – Civil Aircraft Flight Manual, Marking and Placard Requirements

An exemption is requested from carrying a current and approved Flight Manual, markings and placards. The UAS is not large enough to carry any of these items. An equivalent level of safety will be maintained by keeping the flight manual at the launch site where the pilot will have access to it.

# 14 C.F.R. 91.109 - Flight Instruction

An exemption is requested from operating a civil aircraft for flight instruction unless that aircraft has dual controls. The UAS is remotely piloted and control is established through the transmitter. Because there is no one aboard the aircraft and the instructor is able to handle the controls at the same time as the pilot, an equivalent level of safety is achieved.

# 14 C.F. R. 91.119 - Minimum Safe Altitude

An exemption is requested from operating over sparsely populated areas closer than 500 feet. An exemption is requested to operate up to 400ft AGL. Given the size weight, and controllability of the UAS, an equivalent level of safety will be met. No flight will operate over property without the permission of the owner. All UAS activities will be preplanned.

# 14 C.F.R. 91.121 - Altimeter Setting

An exemption is requested from operating by reference to an altimeter set to the departure elevation. An equivalent level of safety is met by using an Above Ground Level measurement that is displayed on the aircraft transmitter held by the pilot.

# 14 CFR 91.151 (a) - Fuel Requirements for VFR Conditions

An exemption from the requirement to operate an aircraft with 30 minutes of fuel reserve is requested. The battery power of the UAS is approximately 25 minutes in length. An equivalent level of safety is met by the transmitter display. A digital readout of the batter percentage is available. Additionally the aircraft LED lights flash red and an audible alarm is sounded when the aircraft is low battery. If the aircraft is not landed, the return to home safety feature is engaged. The max flight time for the UAS will be limited to maintain a reserve of 25% battery power.

# 14 CFR 91.203 (a) & (b) - Civil Aircraft: Certifications

An exemption is requested from carrying an airworthiness certificate that is displayed and legible. The UAS is not large enough to carry additional items. An equivalent level of safety will be met by storing any registration documents at the aircraft launch point with the pilot. Additional, the UAS will be marked "Experimental".

# 14 CFR 91.405 (a), 91.407 (a) (1), 91.409 (a) (2), 91.417 (a) & (b) – Maintenance Inspections

An exemption is requested from having the UAS inspected as prescribed in Subpart E. These inspections only apply to aircraft carrying an airworthiness certificate. Maintenance will be done according to the UAS manual, manufacturer recommendations and firmware upgrades will be performed as they are made available. In order to ensure an equivalent level of safety, the pilot will inspect the aircraft before each flight.

#### **Public Interest**

Precision Approach Aerial Photography will be using UAS in applications that either required full-size aircraft, or were unable to be completed in the past. Reducing the risks of flying full sized aircraft at low altitude and providing safe operations is in the public's interest. By granting an Exemption, Precision Approach Aerial Photography will provide safe and compliant operations while safely promoting the UAS business model.

#### Conclusion

Precision Approach Aerial Photography, a small woman-owned business, would like to safely operate a UAS aerial photography business. Having a Section 333 Exemption and entering into the NAS legally would give the business a competitive advantage. The safe and compliant operations would discourage illegal and unsafe operations and improve the industry.

Thank you for your consideration.

Sincerely,

Christina Martinez

Owner/Pilot Precision Approach Aerial Photography LLC