



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

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

August 11, 2015

Exemption No. 12432  
Regulatory Docket No. FAA-2015-1559

Mr. Paul Woessner  
Aerial Enterprises, Inc.  
73 Coquina Ridge Way  
Ormond Beach, FL 32174

Dear Mr. Woessner:

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 28, 2015, you petitioned the Federal Aviation Administration (FAA) on behalf of Aerial Enterprises, Inc. (hereinafter petitioner or operator) for an exemption. The petitioner requested to operate an unmanned aircraft system (UAS) to conduct photographic data collection and closed set motion picture and television filming.

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

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

#### **Airworthiness Certification**

The UAS proposed by the petitioner are the DJI Spreading Wings S1000+ and 3D Robotics Iris+.

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>1</sup> and closed set motion picture and filming. 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, Aerial Enterprises, 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

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<sup>1</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.

and closed set motion picture and filming. This exemption is subject to the conditions and limitations listed below.

### **Conditions and Limitations**

In this grant of exemption, Aerial Enterprises, 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 Spreading Wings S1000 + and 3D Robotics Iris + 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 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.nts.gov](http://www.nts.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 August 31, 2017, unless sooner superseded or rescinded.

Sincerely,

/s/

John S. Duncan

Director, Flight Standards Service

Enclosures



# Aerial Enterprises, Inc.

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73 Coquina Ridge Way, Ormond Beach, Florida 32174 | Tel (386)-576-7404

April 28, 2015

U.S. Department of Transportation, Docket Operations  
Attn: Federal Aviation Administration (FAA) Administrator  
West Building Ground Floor, Room W12-140  
1200 New Jersey Avenue, SE  
Washington, DC 20590

Dear Administrator,

Aerial Enterprises (AE) would like the FAA to consider this letter as its Section 333 Waiver application to operate sUAS for photographic data collection for the insurance industry in a post catastrophe environment.

AE was established in 1991 as a commercial operator of hot air balloons, Helium gas Balloons, Hot air Airships, and Helium Gas Airships providing a variety of aerial platforms to conduct a wide range of aerial work including operating under FAA Part 91 and 135. AE's aerial work includes operating manned balloons and blimps as aerial platforms for live television coverage of major sporting events, television commercial production, and filmmaking in "closed set" environments.

In early 2014, a large insurance-adjusting firm who were seeking a sUAS aerial platform and operator that could aid them in their work to quickly settle claims through documenting post catastrophe wind and hail damage post tornado and/or hurricane contacted AE. As the principal of AE I would like the Administrator to know that I am a Commercial Pilot of 35 years, an Academy of Model Aeronautics (AMA) member, an AUVSI member and have most recently become a Licensed Certified Insurance Adjuster in the States of Florida and Louisiana. I am on the roster of three (3) major insurance adjusting companies Renfroe, Worley, and National Claims who together serve State Farm, Liberty Mutual, Tower Hill, and Citizens insurance companies for all their property claims in the states of Florida and Louisiana. It is important to note that during times of post catastrophe states such as California, Texas, Alabama, North Carolina, South Carolina, Maryland and New Jersey all routinely issue emergency adjuster licenses to existing adjusters such as myself and other AE staff members. Furthermore, holders of Florida and Louisiana adjuster licenses enjoy reciprocity in nearly every state in the union except New York. For these reasons just mentioned and the unpredictability of where the next catastrophe will strike AE is seeking the Section 333 Waiver for this purpose for the entire continental United States.

It is important for the Administrator to understand that insurance companies are required by law in a post catastrophe environment to "promptly investigate and adjust the claim" in order to help property owners return their property and life style to the pre-storm condition as quickly as possible. Insurance companies strive to make the first initial settlement within 10 days of the loss. In certain large catastrophic events such as Super Storm Sandy it can literally take years to settle all claims. In order to process the claim a licensed adjuster must document all the damage and estimate repairs. This data collection process is primarily done utilizing digital still photography taken by a licensed adjuster climbing on rooftops. In a post catastrophe environment the infrastructure, such as roads and

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power lines, are often compromised and large amounts of debris often times makes the job of the adjuster time consuming and dangerous attempting to get to the site of the loss to inspect the damage. This process is further slowed when a large event takes place wiping out entire neighborhoods. Unfortunately, this translates into long delays for property owners to get their first settlement check who are often times displaced from their homes for extended periods of time adding significant costs to their loss which only adds to insurance premium increases for all property owners.

The benefits of using a sUAS operated by licensed pilots and observers for this purpose are both obvious and very much in the public interest.

Upon the granting of this waiver application, AE intends to add multiple sUAS devices to its fleet and qualified personnel to its staff in order to address the specific need to conduct aerial photographic data collection in a post catastrophe environment for the insurance industry.

Aerial Enterprises commends the Federal Aviation Administration's (FAA) recent action in publishing the new proposed sUAS rule and the Blanket COA provision for Section 333 Waiver holders. AE agrees with the FAA position that in some instances it is not necessary for the pilot and observer to hold an Airman's Certificate, however, AE firmly believes that in a post catastrophe environment where the airspace may become temporarily restricted it will be critical that AE sUAS pilot and observer teams are licensed under the CFR Title 14. AE understands that until the new rule becomes law the FAA still needs to ensure the safety of the NAS (National Airspace System) for all users. For that reason AE is staffed only with licensed pilots and subject matter experts (SME's) from the aviation, insurance, and photography industries. AE both already has and will continue to be trained in the best practices and standard operating procedures (SOPs) of the Original Equipment Manufacturer (OEM) for each sUAS AE intends to operate, while at the same time incorporating these same SOPs in AE's Operational Specifications (Ops Specs).

AE has invested significant resources in sUAS platforms, as well as imaging and sensing devices in the effort to provide our customers with aerial photography services using only qualified and licensed pilot and observer operator teams who are familiar with applicable Federal Aviation regulations.

It has been reported that there are now over 1 million sUAS platforms in operation today. Many of these ultra small lightweight (under 4.4 lb) devices are currently being operated by hobbyists and people with no prior aviation experience in complete defiance and or ignorance of the FAA position on commercial operations of sUAS. In contrast AE will provide the same level of safety to its sUAS operations as it has for its manned Part 91 operations for the last 24 years, ensuring sUAS operations are also conducted within the legal guidelines as manned flight as well as any stipulations by the Administrator that may become part of this exemption if granted.

It is the sincere hope of Aerial Enterprises, and its entire workforce, that the Administrator grants this exemption, as AE believes it has met the congressional mandate to "operate safely in the National Airspace System."

Furthermore, it is AE's belief that in most cases AE can collect the photographic evidence insurance companies need without exceeding the 200 ft. AGL stipulation contained in the FAA Blanket COA provision which adds another layer a safety to AE's proposed operations.

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## Information Supporting this Petition as Specified in 14 C.F.R. §11.81

### A. Mailing address and other contact information:

Paul Woessner  
Aerial Enterprises  
73 Coquina Ridge Way  
Ormond Beach, FL 32174

[Paul.woessner2@gmail.com](mailto:Paul.woessner2@gmail.com)

Cell 1-386-576-7404

### B. The specific section or sections of 14 C.F.R from which Aerial Enterprises seeks exemption are as follows:

1. 14 CFR Part 21, Subpart H: Airworthiness Certificates.
2. 14 CFR 91.203(a) & (b) Civil aircraft: Certifications required.
3. 49 USC § 44711 Prohibitions and exemption
4. 14 CFR 45.23 Display of Marks; General and 45.29 Size of Marks.
5. 14 CFR 91.9 Civil Aircraft Flight Manual, Marking, and Placard Requirements.
6. 14 CFR 91.119 Minimum Safe Altitudes.
7. 14 CFR 91.121 Altimeter Settings.
8. 14 CFR 91.151 Fuel Requirements for Flight in VFR Conditions.
9. 14 CFR Subpart E (91.401 - 91.417) - Maintenance, Preventive Maintenance, and Alterations.
10. FAA Notice 8900.227 Paragraph 16(c) (4) PIC Medical and Paragraph 16(e)(1) Observer Medical.

### C. The extent of relief AE seeks, and the reason AE seeks the relief.

Aerial Enterprises is requesting relief from multiple regulatory constraints under Title 14 of the Code of Federal Regulations (CFR) Parts 21, 45, 61, 65, 91 as well as other UAS regulatory guidance under FAA Notice 8900.227, Public Law 112-95, Title 49 United States Code (USC), with regards to Unmanned Aerial System (UAS) operations, more specifically small UAS (sUAS) operations for commercial operations.

AE would like, with the permission of the Administrator, to provide sUAS aerial imaging and sensing services with the intended use to include but not limit the following:

- Aerial work including aerial photography, cinematography and survey
- Surveying improved or unimproved properties
  - Roof tops and other structures
  - Exterior walls
  - Exterior appliances

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- Power lines and poles
- Gas line and refinery
- Marinas and boat slips
- Infra structure assessment at post natural disaster and or other catastrophic event sites

Detailed below is a list of operational safeguards AE believes are essential for safe operations of which many have been previously approved by the Administer for similar sUAS operations. In addition, AE will not commence a sUAS operation that would create an undue hazard to users of the national airspace system (NAS), the public, or pose a threat to national security.

AE believes this request is consistent with the congressional mandate in Section 333 of the FAA modernization and Reform Act of 2012 and will allow AE to operate sUAS in a legal, safe, and publicly beneficial way which far exceed the standards currently permitted for recreational use.

**D. The reasons why granting Aerial Enterprises' request would be in the public interest; that is, how it would benefit the public as a whole.**

By granting this exemption the public will directly benefit by aiding insurance companies to more quickly handle their property loss claims without compromising the safety of the public. Indirectly the public gains by insuring that the only sUAS devices permitted to be operating over a natural disaster site will be conducted by safe, professional, and accountable operators who will be conducting work in the public's interest under the parameters set forth in the requested Section 333 Waiver approval and under the jurisdiction of the FAA.

The benefits of sUAS operations is exhaustive and the uses of these devises will allow public, private, and personal entities to benefit from the expertise AE has to offer while mitigating the physical safety hazards of the current legally approved imaging methods, as well as, the cost reduction and total time required to inspect made possible by sUAS platforms.

- Public safety
- United States infrastructure
  - Bridges inspection
  - Utility inspection
    - Power
    - Communication
- Unimproved Property Imaging
  - Agricultural
    - Surveying
    - Crop Inspection
- Improved Property Imaging
  - Commercial and Residential
  - Structural inspection
  - Exterior appliance inspection

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- Economic Development Benefits
- Advertisement

AE is confident that the granting of this exemption will allow AE to begin providing a high quality solution for the insurance adjusting industry while minimizing the risk of accidents and/or damage to persons or property. The positive impact of getting a community “back up on its feet” after a storm will be felt by the families of our employees and the improved safety of our neighbors.

**E. The reasons why granting the exemption would not adversely affect safety, or how the exemption would provide a level of safety at least equal to that provided by the rule from which Aerial Enterprises seeks the exemption:**

As previously stated AE sUAS operations will provide a level of safety that far exceeds the level of safety currently required by the FAA for hobbyist, as well as, manufacturers of model aircraft. The following operating procedures will apply during all sUAS operations under this exemption.

1. The sUAS's that AE has chosen to add to it's fleet with are as follows:
  - i. DJI Spreading Wings S1000+ with an MTOW of 24 lbs.
    - a. Optional DJI Lightbridge (Advanced Data link System)
  - ii. 3D Robotics Iris+ with a MTOW of 4.6 lbs.

For detailed specifications, operational procedures, and optional equipment please see included documentation.

2. Approved airframes will not exceed an airspeed of 87 knots (100 miles per hour) or “maximum never-exceed speed ( $V_{NE}$ )” published and/or recommended by the airframe manufacturer, whichever is lower.
3. AE's sUAS operations will not exceed the reported absolute altitude of 400 feet or 50 feet above and 50 feet laterally from the highest point of the target structure.
4. All AE's sUAS PIC's will operate with visual line of sight (VLOS) at all times where the VLOS will be human unaided vision by any device other than corrective lenses as specified on the PIC's FAA-issued airman medical certificate or U.S. driver's license.
5. Operations – AE's use of Visual Observers (VO)
  - All AE sUAS operations not employing geo-fencing technology.
  - All AE operations operating more than 50 feet laterally of a target structure and/or over 100 feet AGL.
  - All AE operations where individuals not associated with the operation are within visual line of sight (VLOS) of the operation.
6. Visual Observer requirements
  - All AE sUAS devices will be operated within VLOS of the PIC and VO at all times.
    - i. The VO will be used to satisfy the VLOS requirement as long as the PIC always maintains VLOS capability.
    - ii. The VO and PIC will be able to communicate verbally at all times.
    - iii. The PIC will be designated before the flight. The PIC will ensure that the VO can perform the duties required of the VO.

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- iv. The VO shall be a AMA member in good standing and abide by the AMA Code of Ethics
- 7. The PIC will have all available information available required ensuring successful flight. This information will be accessible during sUAS operations.
  - All available information will include the following:
    - i. All documents needed to operate the sUAS and conduct its operations in accordance with the conditions and limitations stated in the exemption, if granted.
    - ii. The PIC/VO team will follow the procedures as outlined in its operating documents and will provide them to the Administrator or any law enforcement official upon request.
- 8. AE will be responsible for maintaining and inspecting the UAS to ensure that it is in a condition for safe operation.
- 9. Prior to each flight, AE's PIC will conduct a pre-flight inspection and determine the UAS is in a condition for safe flight.
- 10. AE will follow the UAS manufacturer's maintenance, overhaul, replacement, inspection, and life limit requirements for the aircraft and aircraft components and will comply with all manufacturer safety bulletins.
- 11. All AE PIC's will hold a Private Pilot certificate with Instrument Flight endorsement issued under 14 CFR Part 61.
  - All AE PIC's will also hold a current FAA airman medical certificate.
  - All AE PIC's shall be an AMA member in good standing and abide by the AMA Code of Ethics
- 12. AE will 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 including evasive and emergency maneuvers and maintaining appropriate distances from persons, vessels, vehicles and structures.
  - AE will only utilize a PIC who has completed OEM training and has minimum documented flight experience prior to any exempted commercial operation contemplated and requested in this application as follows:
    - i. 25 hours total time in sUAS devices
    - ii. 10 hours on each sUAS device category
      - a. Fixed wing
      - b. Vertical takeoff
    - iii. 5 Hours on each sUAS model AE operates or intends to operate>
  - PIC qualification flight hours and currency will be logged in a manner consistent with 14 CFR § 61.51(b).
- 13. AE sUAS operations will not be conducted during night, as defined in 14 CFR § 1.1. All AE operations will be conducted under visual meteorological conditions (VMC).
- 14. AE sUAS will not operate at or above 400 feet above the ground (AGL) or within 5 nautical miles of an airport reference point (ARP) as denoted in the current FAA Airport/Facility

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Directory (AFD) or for airports not published aeronautical chart, unless a letter of agreement with that airport's management is obtained or otherwise permitted by a COA issued to AE.

- AE hereby additionally requests to operate below an altitude of 200 feet AGL providing AE has gained prior written approval from the air traffic authority responsible for the restricted airspace.
15. AE will not operate its sUAS 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.
  16. All AE's sUAS are equipped with a Lost Signal Return to Base fail safe system so if the device loses communications or loses its GPS signal it is reprogramed to return to a pre-determined launch location that is free and clear of hazards and people.
  17. In the event of unpredicted obstacles or emergency AE's PIC will immediately abort the flight.
  18. AE's PIC will not begin a flight unless there is enough available power for AE's sUAS to conduct the intended operation and to operate after that for at least five minutes taking into consideration the local weather conditions.
  19. AE anticipates and agrees in advance to identify all of its sUAS 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.
  20. All documents used by AE will ensure the safe operation and flight of the sUAS and any documents required under 14 CFR §§ 91.9 and 91.203 and will be available to the AE PIC at the Ground Control Station of the sUAS any time the aircraft is operating. All documents are available upon request.
  21. AE's sUAS will remain clear and give way to all manned aviation operations and activities at all times.
  22. AE's UAS will not be operated by the PIC from any moving device or vehicle.
  23. All AE Flight operations will be conducted at least 500 feet from all nonparticipating persons, vessels, vehicles, and structures unless:
    - Barriers or structures are present that sufficiently protect nonparticipating persons from the UA and/or debris in the event of an accident.
    - The owner/controller of any vessels, vehicles or structures has granted permission to AE for operating closer to those objects and the AE PIC will make a safety assessment of the risk of operating closer to those objects and determined that it does not present an undue hazard.
  24. All AE sUAS 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.
  25. In the event of any incident, accident, or flight operation that transgresses the lateral or vertical boundaries of the operational area AE will report to the FAA's UAS Integration Office (AFS-80) within 24 hours of such an event. Accidents will be reported to the National Transportation Safety Board (NTSB).
  26. When AE operations are for the purpose of closed-set motion picture and television filming and production AE will observe and abide by all procedures as is contained in a motion picture and television operations manual (MPTOM). (Copy attached hereto for reference)

# Aerial Enterprises, Inc.

73 Coquina Ridge Way, Ormond Beach, Florida 32174 | Tel (386)-576-7404

27. For any AE operations outside of the "blanket" COA as described on the [www.FAA.gov](http://www.FAA.gov) website, regarding UAS operations under 200 feet, AE will, at least 3 days before the scheduled aerial filming, submit a written Plan of Activities to the local Flight Standards District Office (FSDO) with jurisdiction over the area of proposed filming.

- The plan of activities will include the following:
  - i. Dates and times for all scheduled flights
  - ii. Name and phone number of AE's PIC and VO for the scheduled sUAS aerial filming
  - iii. Name and phone number of the PIC and VO responsible for the on-scene operation of AE's sUAS
  - iv. Make, model, and serial or N-Number of the sUAS AE intends on using
  - v. Name and certificate number of UAS PICs
  - vi. A copy of written permission from property owners and/or local officials to conduct the filming production event counter signed by the principal and owner of AE.
  - vii. 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.

28. For flight operations closer than 500 feet from participating persons consenting will be conducted in accordance with and as specified in AE's MPTOM.

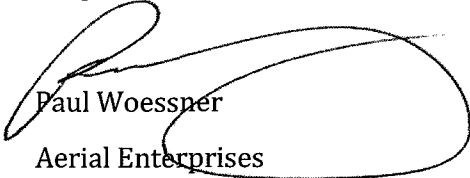
## F. Additional information and AE's view

Aerial Enterprises would ask that the Administrator consider all previously awarded exemptions as supporting arguments to this exemption request.

Aerial Enterprises and all of its employees would like to thank you for your consideration as we anxiously await a positive outcome to this request.

Should the Administrator require any additional information or clarification please do not hesitate to contact me directly.

Respectfully,



Paul Woessner  
Aerial Enterprises

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