



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

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

July 9, 2015

Exemption No. 11997  
Regulatory Docket No. FAA-2015-1233

Mr. Russell A Wheeler  
Manager, Member, and Founder  
Sky Aerial, LLC  
5279 Creekside Blvd v-41  
Brunswick, Ohio 44212

Dear Mr. Wheeler :

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 27, 2015, you petitioned the Federal Aviation Administration (FAA) on behalf of Sky Aerial, LLC (hereinafter petitioner or operator) for an exemption. The petitioner requested to operate an unmanned aircraft system (UAS) to conduct film and photography for the insurance industry..

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 Phantom 2, DJI Phantom 2 Vision+, and DJI Phantom Vision.

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>. 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, Sky Aerial, 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

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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.

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, Sky Aerial, 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 2, DJI Phantom 2 Vision+, and DJI Phantom Vision 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.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 July 31, 2017, unless sooner superseded or rescinded.

Sincerely,

/s/

John S. Duncan

Director, Flight Standards Service

Enclosures



# **Sky Aerial, LLC**

5279 Creekside Blvd V-41  
Brunswick, Ohio 44212  
216-372-4139

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

Sky Aerial LLC's Petition for Exemption to  
Operate a U.A.S.  
or Unmanned Aircraft System for photo and or  
Filming of structures  
in need of inspections for Insurance Companies  
and Insurance Repair Companies

## **Petitioner and Chief Pilot**

**Sky Aerial, LLC**  
Attn: Russell A Wheeler  
5279 Creekside Blvd v-41  
Brunswick, Ohio 44212  
216-372-4139  
mrhappywheeler@gmail.com

## Petition Summary

The proposed exemptions, if passed would allow Sky Aerial, LLC to operate small unmanned aircraft equipped with a camera to take photos and film for Insurance and Insurance Repair Companies , areas that may be unstable for Adjusters and Estimators to scope when inspecting damaged properties

Sky Aerial, LLC's Unmanned Aircraft Operation falls in all rules Congress set forth in Section 333, Additionally the safety achieved by not putting humans in danger and the amount of Dollars going to be saved by not paying for the labor and if god forsaken someone was to get hurt while doing inspection ,therefor Sky Aerial, LLC gives the FAA good cause to find the UAS operations a safer way to scope damaged unsafe areas and requested exemptions should be granted.

## Background

Sky Aerial, LLC falls in the Federal Aviation Regulations for allowing commercial operations of it Unmanned Aircraft so as long as such operations are conducted within and under the conditions outlined herein or as may be established by the FAA as required by Section 333.

Sky Aerial, LLC's Operation would operate in the following matter

Photo and Film provided by UAS's equipped with cameras, of structures of residential and commercial properties damaged by fire/wind/flood earthquake, hurricane etc. In the field of insurance this would be a great help in many ways, safety being the main in my honest opinion.

Being in the Insurance field for 23 years starting as laborer up to carpenter to foreman to estimator , knowing with age does not get easier climbing roofs this would be safer way and would save not only mine but many jobs of gentleman that are not as agile as once was therefor Approval of this exemption would enhance safety and fullfill the Secretary of Transportation's responsibilities to establish requirements for the safe operation of such aircraft systems in the national airspace system.

By providing safe service at the highest level and by eliminating possible human disaster, Sky Aerial, LLC seeks regulatory exemptions that will allow Sky Aerial LLC to employ UAS technology in the Insurance Inspection Field.

## Statutory Authority

Special Rules for Certain Unmanned Aircraft Systems, The FAA has committed to complying with this mandate by granting several petitions, therefore by Sky Aerial, LLC following Section 333(b), Rules and Regulations would hope the FAA would take in consideration and grant this exemption to Sky Aerial LLC.



## Requested Exemptions

Sky Aerial request relief from the following regulations

- Section 61.113
- Section 61.113A
- Section 91.7A
- Section 91.7B2
- Section 91.103B1
- Section 91.119C
- Section 91.121
- Section 151A
- Section 91.203
- Section 91.405A
- Section 91.409A1
- Section 91.409A2
- Section 91.417a
- Section 91.417B

Sky Aerial,LLC proposes to use five UAS's two DJI PHANTOM 2's equipped with GOPRO3's,two DJI PHANTOM 2 VISION PLUS (built in cameras) and DJI PHANTOM VISION used for Practice for last year, These aircraft are the quadcopter type, 4 motors in the x form , all UAS's weigh less than 55lbs including payload. They operate under normal conditions at a speed of no more 50 knots and have the ability to hover and move in the vertical and horizontal plane simultaneously. All UAS's are equiped with GPS and auto return functions.

Sky Aerial,LLC will only operate in the line of site and will only operate in safe areas to as not to create hazardous conditions,Sky Aerial,LLC request that the FAA grant the requested exemption.

## Safety Operations

Sky Aerial, LLC's UAS's are equipped with safety mechanisms allowing them to be operated safely, along with the GPS equipped in every UAS, prop guards and are UAS's are equipped with Flytrex core 1 which records flight parameters with each flight this acts as a Blackbox which records flight map, stats for speed, distance, altitude, ascent and time.

Sky Aerial, LLC will comply with safety and procedures included in all applicable UAS manufacturer's instructions and operating manuals (provided at the end of the application).

Prior to each flight, we will inspect the UAS and the area of inspection to make sure we are in a safe zone, the UAS in operation will be following what rules set forth by the FAA, and shall not cross those rules set forth to Sky Aerial, LLC.

As of yet upon speaking to the FAA there is no established practical test nor examiners, Sky Aerial, LLC will conduct these tests in accordance with its operations manuals and that which the FAA has put towards operating a UAS.



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Aircraft and operation safety

all our UAS's will weigh less than 55lbs

all flights will be in visual sight of operator and observer

flights will be no more than 12 minutes long, finding that the batteries only hold 25 minutes of flight time, which allows plenty of time for return to starting point

All batteries in transmitter and receiver including UAS will be fully charged prior to each flight

flight operations will not operate above an altitude of 400 ft

Sky Aerial, LLC will only operate in safe

conditions on ground and in air space

Sky Aerial,LLc will only operate in  
conditions set forth by the FAA exemptions

Sky Aerial,LLc will contact local Building  
Departments , Homeowners prior to inspections  
for written/verbal permission

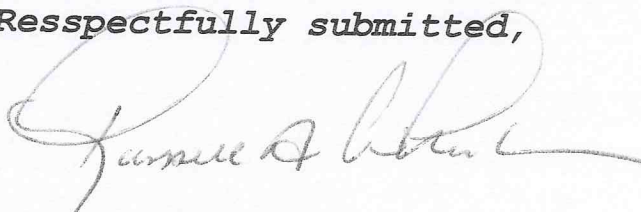


## Final statement

Sky Aerial, LLC request that the FAA grant the exemption request.

We at Sky Aerial, LLC feel that Satisfaction of the criteria provided in Section 333 of the Reform Act of 2012 provide more than adequate justification for the grant of the requested exemptions allowing commercial operation of applicants UAS in Insurance Inspections, which provide a safe way to evaluate damage to properties in a safer way and to not put humans in harms way, for the foregoing reasons, the regulatory exemptions request herein should be granted and Sky Aerial, LLC should be permitted to conduct small UAS operations for the purpose of Insurance Inspections.

Respectfully submitted,



By

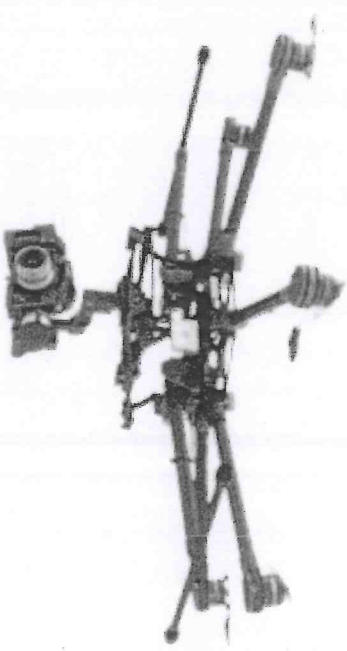
Russell A Wheeler

Manager, Member and Founder

Sky Aerial, LLC

*Phantom & Flytex Manuals*

**Insurance Repair**  
Structural Inspections  
Property Surveying



*Russ Wheeler owner/operator*

216-372-4139

**WHEELER LLC**