



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

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

April 16, 2015

Exemption No. 11332  
Regulatory Docket No. FAA-2015-0010

Mr. Richard Gillette  
RKGmedia, LLC  
4 Marble Beach Road NW  
Gig Harbor, WA 98332

Dear Mr. Gillette:

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.

### **The Basis for Our Decision**

By letter dated December 30, 2014, you petitioned the Federal Aviation Administration (FAA) on behalf of RKGmedia, LLC (hereinafter petitioner or operator) for an exemption. The exemption would allow the petitioner to operate an unmanned aircraft system (UAS) to safely collect various forms of aerial images for commercial use.

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

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

### **Airworthiness Certification**

The UAS proposed by the petitioner is a Seahawk 1.2.

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 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. 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 Astraesus 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, RKGmedia, 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, RKGmedia, 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 Seahawk 1.2 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 April 30, 2017, unless sooner superseded or rescinded.

Sincerely,

/s/

John S. Duncan  
Director, Flight Standards Service

UNITED STATES OF AMERICA  
DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
WASHINGTON, DC

Regulatory Docket No. \_\_\_\_\_

**IN THE MATTER OF THE PETITION FOR EXEMPTION OF:  
RKGmedia, LLC  
FOR AN EXEMPTION SEEKING RELIEF FROM THE REQUIREMENTS OF  
TITLE 14 OF THE CODE OF FEDERAL REGULATIONS  
SECTIONS 14 C.F.R. §§ 91.7(a), 91.119(c), 91.121, 91.151(b),  
91.405(a), 91.407(a), 91.409(a) and 91.417(a)  
CONCERNING OPERATION OF AN UNMANNED AIRCRAFT SYSTEM  
PURSUANT TO SECTION 333 OF THE  
FAA MODERNIZATION AND REFORM ACT OF 2012**

Submitted on December 30, 2014

RKGmedia, LLC  
Attn: Richard Gillette  
4 Marble Beach Rd. NW  
Gig Harbor, WA 98332  
Tel: (253) 370-6451  
Email: RKGmedia@comcast.net



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## SUMMARY

RKGmedia LLC (RKGmedia), a video production company, seeks exemption from the requirements of 14 C.F.R. §§ 91.7(a), 91.119(c), 91.121, 91.151(b), 91.405(a), 91.407(a), 91.409(a) and 91.417(a). This exemption would permit RKGmedia, a privately held video production company, to operate its proprietary sUAS to safely collect various forms of aerial images for commercial use.

### 14 C.F.R. 91.7(a) *Civil aircraft airworthiness*

An equivalent level of safety will be provided given the size of the aircraft and the requirements contained in the Aircraft Information/Operator's Manual for maintenance and use of safety checklists prior to each flight.

### 14 C.F.R. 91.119(c) *Over other than congested areas*

Operations of the sUAS will be conducted at distances less than 500 feet from participating persons, vessels, vehicles or structures that perform an essential function in connection with these special purpose operations.

### 14 C.F.R. 91.121 *Altimeter settings*

Altitude of the sUAS will be provided to the PIC via a radio communications telemetry data link, which downlinks from the aircraft to the PIC for active monitoring of the aircrafts altitude.

### 14 C.F.R. 91.151(b) *Fuel requirements for flight in VFR conditions*

The sUAS will not begin a flight unless (considering wind and forecast weather conditions) there is enough fuel to fly to the first point of intended landing and, assuming normal cruising speed, to fly after that for at least 2 minutes.

### 14 C.F.R. 91.405(a) *Maintenance required*, 14 C.F.R. 91.407(a) *Operation after maintenance, preventive maintenance, rebuilding, or alteration*, 14 C.F.R. 91.409(a) *Inspections*, 14 C.F.R. 91.417(a) *Maintenance records*

RKGmedia's sUAS Aircraft Information/Operator's Manual contains daily, preflight, monthly and yearly checks for the aircraft. Adherence to this Manual is sufficient to ensure that safety is not adversely affected.

RKGmedia will carry out its maintenance, inspections, and record keeping requirements in accordance with the Aircraft Information/Operator's Manual. Maintenance, inspection, and alterations will be noted in the aircraft logbook, including total flight hours, description of work accomplished, and the signature of the authorized sUAS technician returning to service.

## INTRODUCTION AND INTERESTS OF PETITIONER

Pursuant to Section 333 of the FAA Modernization and Reform Act of 2012 (the “Reform Act”) and 14 C.F.R. Part 11, RKGmedia, LLC. (RKGmedia), a video production company, hereby applies for an exemption from the listed Federal Aviation Regulations (“FARs”) to allow commercial operation of its Small Unmanned Aircraft Systems (sUAS) for aerial imaging, so 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.

As detailed in this document and the attached proprietary Aircraft Information/Operator’s Manual, the requested exemption would permit the operation of sUAS under controlled conditions in airspace that is 1) limited 2) predetermined 3) controlled as to access and 4) would provide safety enhancements to the collection of aerial media (photography, videography, infrared, etc.).

Approval of this exemption would thereby enhance safety and fulfill the Secretary of Transportation’s (the FAA Administrator’s) responsibilities to “...establish requirements for the safe operation of such aircraft systems in the national airspace system.” Section 333(c) of the Reform Act.

Richard Gillette is the owner and operator of RKGmedia and will serve as PIC. He holds a Commercial Pilot Certificate with Airplane Single and Multiengine Land; Instrument Airplane ratings. His associate is David Schilling and will serve as safety coordinator as well as VLOS spotter. Mr. Schilling is a retired Wild Land Firefighter with Heli-crew certifications. He has extensive experience in the building, testing and operation of similar sUAS as a hobbyist. RKGmedia has experimented, tested, and built many sUAS in this category (in a non-commercial, hobbyist setting), followed industry advancements in safety and navigation, and employed this knowledge into the development of the Seahawk 1.2.

## NAME AND ADDRESS OF PETITIONER

The name and address of the applicant is:

RKGmedia, LLC  
Attn: Richard Gillette  
4 Marble Beach Rd. NW  
Gig Harbor, WA 98332  
Tel: (253) 370-6451  
Email: RKGmedia@comcast.net

## THE SPECIFIC SECTIONS OF 14 C.F.R. FROM WHICH RKG MEDIA SEEKS EXEMPTION

14 C.F.R. 91.7(a)  
14 C.F.R. 91.119(c)  
14 C.F.R. 91.121  
14 C.F.R. 91.151(b)  
14 C.F.R. 91.405(a)  
14 C.F.R. 91.407(a)  
14 C.F.R. 91.409(a)  
14 C.F.R. 91.417(a)

## EXTENT OF RELIEF RKG MEDIA SEEKS AND THE REASON RKG MEDIA SEEKS THE RELIEF

### 14 C.F.R. 91.7(a) *Civil aircraft airworthiness*

An equivalent level of safety will be provided given the size of the aircraft and the requirements contained in the Aircraft Information/Operator's Manual for maintenance and use of safety checklists prior to each flight.

### 14 C.F.R. 91.119(c) *Over other than congested areas*

Operations of the sUAS will be conducted at distances less than 500 feet from participating persons, vessels, vehicles or structures that perform an essential function in connection with these special purpose operations.

### 14 C.F.R. 91.121 *Altimeter settings*

Altitude of the sUAS will be provided to the PIC via a radio communications telemetry data link, which downlinks from the aircraft to the PIC for active monitoring of the aircraft's altitude.

### 14 C.F.R. 91.151(b) *Fuel requirements for flight in VFR conditions*

The sUAS will not begin a flight unless (considering wind and forecast weather conditions) there is enough fuel to fly to the first point of intended landing and, assuming normal cruising speed, to fly after that for at least 2 minutes.

### 14 C.F.R. 91.405(a) *Maintenance required*, 14 C.F.R. 91.407(a) *Operation after maintenance, preventive maintenance, rebuilding, or alteration*, 14 C.F.R. 91.409(a) *Inspections*, 14 C.F.R. 91.417(a) *Maintenance records*

RKGmedia's sUAS Aircraft Information/Operator's Manual contains daily, preflight, monthly and yearly checks for the aircraft. Adherence to this Manual is sufficient to ensure that safety is not adversely affected.

RKGmedia will carry out its maintenance, inspections, and record keeping requirements in accordance with the Aircraft Information/Operator's Manual. Maintenance, inspection, and alterations will be noted in the aircraft logbook, including total flight hours, description of work accomplished, and the signature of the authorized sUAS technician returning to service.

RKGmedia supports its request with the following information, organized into three sections:

- 1) The unmanned aircraft system
- 2) The sUAS Pilot in Command (PIC)
- 3) The sUAS operating parameters

1) The Unmanned Aircraft System:

The Unmanned Aircraft System that RKGmedia intends to use is a custom built proprietary sUAS, The Seahawk 1.2, (see included Aircraft Information/Operator's Manual) used primarily for aerial image acquisition.

The Seahawk 1.2 is a radio controlled, electric powered (battery), carbon fiber hexacopter measuring 36 inches wide by 18 inches tall with 12 inch props. It weighs 5lbs. empty, 9lbs 2oz with camera and battery and has a maximum takeoff weight of 10lbs. The on-board controller is a DJI Naza M V2. The aircraft carries a Panasonic GH4 camera or similar device, stabilized by a 3 axis gimbal. Communications between the PIC and the sUAS will be accomplished using a standard hand held R/C transmitter on the ground and a receiver on the sUAS. This system operates on a frequency of 2.4 Ghz which is permitted by the FCC. The transmitter/receiver uses telemetry to send certain data, such as altitude and battery levels, back to the PIC via the transmitter. Further details of the use and maintenance can be found in the attached Aircraft Information/Operator's Manual of the Seahawk 1.2. The sUAS it seeks to operate weighs no more than 10 pounds when fully loaded, operates under normal conditions, at speeds no greater than 50 knots, carries no explosive materials or flammable liquid fuels, operates exclusively within a secured area detailed in this application with no pilots or passengers on board. In the event of GPS or communication signal loss, the sUAS possesses the ability to return to a pre-determined location within the secured perimeter and land. The sUAS also can abort a flight in case of emergency, facilitated in part by an on-board parachute that can be deployed in the event of motor loss or other emergency. Parachute deployment deactivates the aircraft's motors and enables the vehicle to float to the ground.

RKGmedia will perform maintenance by following procedures outlined in the Aircraft Information/Operator's Manual. The Aircraft Information/Operator's Manual prescribes required maintenance and requires the operator to keep a log pertaining to each flight. RKGmedia notes that because of the aircraft's limited size, payload, and operational constraints, immediate landings can be performed in case of mechanical issues.

Given the size and weight of the sUAS, the fact that it has a limited range (20 min. max battery), carries no flammable fuel, carries no crew or passengers and employs redundant fail safe features, RKGmedia believes it can be operated within the NAS with minimal risk to persons and property in the air and on the ground.

## 2) The sUAS Pilot in Command (PIC):

RKGmedia proposes that, lacking any current sUAS PIC licensing procedures, the operator of its sUAS should hold at least a FAA Commercial Pilot Certificate and a second-class airman medical certificate. 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.

Richard Gillette is the owner and operator of RKGmedia and will serve as PIC. He holds a Commercial Pilot Certificate with Airplane Single and Multiengine Land; Instrument Airplane ratings. His associate is David Schilling and will serve as safety coordinator as well as VLOS spotter. Mr. Schilling is a retired Wild Land Firefighter with Heli-crew certifications. He has extensive experience in the building, testing and operation of similar sUAS as a hobbyist. RKGmedia has experimented, tested, and built many sUAS in this category (in a non-commercial, hobbyist setting), followed industry advancements in safety and navigation, and employed this knowledge into the development of the Seahawk 1.2.

Anyone else that would be acting as PIC of RKGmedia's Seahawk 1.2 would first have to demonstrate to Richard Gillette that he or she has met the qualifications outlined above and is capable to safely act as PIC of the sUAS.

## 3) The sUAS Operating Parameters:

Operations authorized by this grant of exemption would be limited to RKGmedia's proprietary sUAS, the Seahawk 1.2, as described in the Aircraft Information/Operator's Manual, which is included in this petition.

The sUAS will not be flown at an indicated airspeed exceeding 50 knots.

The sUAS will be operated at an altitude of no more than 400 feet above ground level (AGL), as indicated by the procedures specified in the Aircraft Information/Operator's Manual. All altitudes reported to ATC will be in feet AGL.

The sUAS will be operated within visual line of sight (VLOS) of the PIC at all times.

All operations will utilize a visual observer (VO). The VO and PIC will be able to communicate verbally at all times. The PIC will be designated before the flight and cannot transfer his or her designation for the duration of the flight. The PIC will ensure that the VO can perform the functions prescribed in the Aircraft Information/Operator's Manual.

Prior to each flight the PIC will inspect the sUAS to ensure it is in a condition for safe flight. If the inspection reveals a condition that affects the safe operation of the sUAS, the aircraft will be taken out of service until the necessary maintenance has been performed and the sUAS is found to be in a condition for safe flight. The Ground Control Station will be included in the preflight inspection. All maintenance and alterations will be properly documented in the aircraft records.

If the sUAS has undergone maintenance or alterations that affect the sUAS operation or flight characteristics, it will undergo a functional test flight in accordance with the Aircraft Information/Operator's Manual. The PIC who conducts the functional test flight will make an entry in the sUAS aircraft records of the flight.

RKGmedia will carry out its maintenance, inspections, and record keeping requirements in accordance with the Aircraft Information/Operator's Manual. Maintenance, inspection, and alterations will be noted in the aircraft logbook, including total flight hours, description of work accomplished, and the signature of the authorized Seahawk 1.2 technician returning the Seahawk 1.2 to service.

RKGmedia Seahawk 1.2 maintenance personnel will make a record entry in the sUAS logbook or equivalent document of the corrective action taken against discrepancies discovered between inspections.

The PIC will possess at least a FAA Commercial Pilot Certificate and a second-class airman medical certificate. The PIC will also meet the flight review requirements specified in 14 CFR 61.56 in an aircraft in which the PIC is rated on his or her pilot certificate.

If the sUAS loses communications or loses its GPS signal, the sUAS will return to a pre-determined location within the private or controlled-access property and land or be recovered in accordance with the Aircraft Information/Operator's Manual.

The PIC will abort the flight in the event of unpredicted obstacles or emergencies in accordance with the Aircraft Information/Operator's Manual.

The PIC will not begin a flight unless (considering wind and forecast weather conditions) there is enough power to fly to the first point of intended landing and, assuming normal cruising speed, to fly after that for at least 2 minutes.

Before conducting operations, the radio frequency spectrum used for operation and control of the sUAS will comply with the Federal Communications Commission (FCC) or other appropriate government oversight agency requirements.



The documents required under 14 CFR 91.9 and 91.203 will be available to the PIC at the Ground Control Station of the sUAS any time the aircraft is operating. These documents will be made available to the Administrator or any law enforcement official upon request.

The sUAS will remain clear and yield the right of way to all other manned operations and activities at all times (including, but not limited to, ultralight vehicles, parachute activities, parasailing activities, hang gliders, etc.).

sUAS operations will not be conducted during night, as defined in 14 CFR 1.1.

All operations will be conducted in Class G airspace.

All operations will be conducted under visual meteorological conditions (VMC). The sUAS will not be operated less than 500 feet below or less than 2,000 feet horizontally from a cloud or when visibility is less than 3 statute miles from the PIC.

During operations in Class G airspace, the sUAS will not operate within 5 nautical miles of the geographic center of an airport as denoted on a current FAA-published aeronautical chart unless a letter of agreement with that airport's management is obtained, and the operation is conducted in accordance with a NOTAM as required by the operator's COA. The letter of agreement with the airport management will be made available to the Administrator upon request.

The sUAS will not be operated over congested or densely populated areas.

Operation of the sUAS will be conducted at least 500 feet from all nonparticipating persons, vessels, vehicles, and structures.

Operations of the sUAS may be conducted at distances less than 500 feet from participating persons, vessels, vehicles or structures that perform an essential function in connection with these special purpose operations.

Operations of the sUAS may be conducted at distances less than 500 feet from unoccupied vessels, vehicles or structures owned by the land owner/controller when the land owner/controller grants such permission and the PIC makes a safety assessment of the risk from operations closer to these objects.

All operations will be conducted over private or controlled-access property with permission from the land owner/controller or authorized representative. Permission from land owner/controller or authorized representative will be obtained for each flight to be conducted.

## REASONS WHY GRANTING RKG MEDIA'S REQUEST WOULD BE IN THE PUBLIC INTEREST

RKGmedia submits this Petition to perform commercial operations using its sUAS for aerial image acquisition.

Our clients will be privately owned businesses such as those in the motion picture/television industry, agriculture, inspection and construction. Also benefitting will be government entities such as The Washington State Departments of Transportation, Fish and Wildlife, and Natural Resources. We will be assisting with the planning of freeway projects, traffic flow conceptual presentations, search and rescue, and fire prevention. Other fields of great potential lie in scientific research, wildlife monitoring, forestry, and the oil and gas industries.

The risk to life and property in the air and on the ground, which is usually associated with traditional manned aircraft flight operations, will be substantially reduced or completely eliminated. Aside from the lack of aircrew members located onboard the aircraft, the sUAS, with its small size and weight, has less physical potential for collateral damage to life and property on the ground, and in the air, compared to the manned aircraft that typically conduct aerial acquisitions (weighing approximately 6,500 pounds with a wingspan of approximately 40 feet, a length of 34 feet, and a fuel capacity of 180 gallons).

These public and private entities will perform their jobs safer and at a lower economic cost than previously. This will in turn lower prices for consumers and conserve resources for the taxpayer, the general public.

## REASONS WHY GRANTING THE EXEMPTION WOULD NOT ADVERSELY AFFECT SAFETY

Many of the same reasons that this exemption would be in the public interest apply to why it would not adversely affect safety. As previously stated, the risk to life and property in the air and on the ground, which is usually associated with traditional manned aircraft flight operations, will be substantially reduced or completely eliminated. Aside from the lack of aircrew members located onboard the aircraft, the sUAS, with its small size and weight, has less physical potential for collateral damage to life and property on the ground, and in the air, compared to the manned aircraft that typically conduct aerial acquisitions (weighing approximately 6,500 pounds with a wingspan of approximately 40 feet, a length of 34 feet, and a fuel capacity of 180 gallons).

Properly using sUAS to perform the tasks outlined above would be safer than traditional methods.

## SUMMARY THAT CAN BE PUBLISHED IN THE FEDERAL REGISTER

RKGmedia LLC (RKGmedia), a video production company, seeks exemption from the requirements of 14 C.F.R. §§ 91.7(a), 91.119(c), 91.121, 91.151(b), 91.405(a), 91.407(a), 91.409(a) and 91.417(a). This exemption would permit RKGmedia to operate its proprietary sUAS to safely collect various forms of aerial images for commercial use.

### 14 C.F.R. 91.7(a) *Civil aircraft airworthiness*

An equivalent level of safety will be provided given the size of the aircraft and the requirements contained in the Aircraft Information/Operator's Manual for maintenance and use of safety checklists prior to each flight.

### 14 C.F.R. 91.119(c) *Over other than congested areas*

Operations of the sUAS will be conducted at distances less than 500 feet from participating persons, vessels, vehicles or structures that perform an essential function in connection with these special purpose operations.

### 14 C.F.R. 91.121 *Altimeter settings*

Altitude of the sUAS will be provided to the PIC via a radio communications telemetry data link, which downlinks from the aircraft to the PIC for active monitoring of the aircrafts altitude.

### 14 C.F.R. 91.151(b) *Fuel requirements for flight in VFR conditions*

The sUAS will not begin a flight unless (considering wind and forecast weather conditions) there is enough fuel to fly to the first point of intended landing and, assuming normal cruising speed, to fly after that for at least 2 minutes.

### 14 C.F.R. 91.405(a) *Maintenance required*, 14 C.F.R. 91.407(a) *Operation after maintenance, preventive maintenance, rebuilding, or alteration*, 14 C.F.R. 91.409(a) *Inspections*, 14 C.F.R. 91.417(a) *Maintenance records*

RKGmedia's sUAS Aircraft Information/Operator's Manual contains daily, preflight, monthly and yearly checks for the aircraft. Adherence to this Manual is sufficient to ensure that safety is not adversely affected.

RKGmedia will carry out its maintenance, inspections, and record keeping requirements in accordance with the Aircraft Information/Operator's Manual. Maintenance, inspection, and alterations will be noted in the aircraft logbook, including total flight hours, description of work accomplished, and the signature of the authorized sUAS technician returning to service.

## ANY ADDITIONAL INFORMATION, VIEWS, OR ARGUMENTS AVAILABLE TO SUPPORT RKG MEDIA'S REQUEST

The following statement from The Washington State Department of Transportation is included in this application.

To whom it may concern,

My name is Kurt Stiles. I am the Visual Communications Program Manager of the Visual Engineering Resource Group (VERG), GeoMetrix division of Washington State Department of Transportation (WSDOT). VERG provides clear and effective communication of project & program development, design and delivery issues through various forms of visual media.

We are very interested in using sUAS to supplement our aerial photography and video production. Currently we use full size piloted helicopters when capturing footage. I believe that by using sUAS, we will be able to gain unique, elevated visual perspectives that are impossible for full size helicopters to obtain. Also, by using sUAS, there will be far less personal risk and greatly reduced utilization costs. Lastly, using sUAS vehicles will strategically enhance visual analysis of damaged infrastructure during emergency situations – a work responsibility of VERG.

We look forward to working with RKGMedia and this emerging technology and aiding in its integration into our National Airspace System.

Sincerely,

Kurt Stiles

## CONCLUSION

As set forth above, RKGmedia seeks an exemption pursuant to 14 C.F.R. § 11.61 and Section 333 of the FAA Modernization and Reform Act of 2012, which will permit safe operation of its sUAS commercially, for the special purpose of conducting aerial acquisitions. By granting this Petition, the FAA Administrator will be fulfilling the Congressional mandate of the FAA Modernization and Reform Act of 2012, while also advancing the interests of the public, by allowing RKGmedia to safely, efficiently, and economically operate its sUAS commercially within the NAS.