



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

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

July 23, 2015

Exemption No. 12132  
Regulatory Docket No. FAA-2015 -1655

Mr. Scott Randall  
Pikes Peak Aerial LLC  
2555 Hot Springs Court  
Colorado Springs, CO 80919

Dear Mr. Randall:

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 Pikes Peak Aerial LLC (hereinafter petitioner or operator) for an exemption. The petitioner requested to operate an unmanned aircraft system (UAS) to conduct aerial surveying, mapping, photography, videography, filmmaking, inspections, monitoring, training, surveillance, and search and rescue operations.

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.

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

## **Airworthiness Certification**

The UAS proposed by the petitioner are a DJI S900, DJI Inspire 1, DJI F550, and Tarot 690.

In accordance with the statutory criteria provided in Section 333 of Public Law 112–95 in reference to 49 U.S.C. § 44704, and in consideration of the size, weight, speed, and limited operating area associated with the aircraft and its operation, the Secretary of Transportation

has determined that this aircraft meets the conditions of Section 333. Therefore, the FAA finds that relief from 14 CFR part 21, *Certification procedures for products and parts, Subpart H—Airworthiness Certificates*, and any associated noise certification and testing requirements of part 36, is not necessary.

## **The Basis for Our Decision**

You have requested to use a UAS for aerial data collection<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,

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<sup>2</sup>Aerial data collection includes any remote sensing and measuring by an instrument(s) aboard the UA. Examples include imagery (photography, video, infrared, etc.), electronic measurement (precision surveying, RF analysis, etc.), chemical measurement (particulate measurement, etc.), or any other gathering of data by instruments aboard the UA.

delegated to me by the Administrator, Pikes Peak 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 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, Pikes Peak 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 S900, DJI Inspire 1, DJI F550, and Tarot 690 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



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

April 28th, 2015

**RE: Exemption Request Under Section 333 of the FAA Reform Act of 2012 and Part 11 of the Federal Aviation Regulations**

**Attachments:** (A) S900 Pilot Operating Manual; (B) S900 User Manual; (C) S900 Preflight Checklist; (D) Inspire 1 Pilot Operating Manual; (E) Inspire 1 User Manual; (F) F550 User Manual; (G) NAZA-M Flight Controller Manual; (H) A2 Flight Controller Manual

References: 1) FAA Exemption No. 11256, Regulatory Docket No. FAA-2014-0908 in the matter of petition of SkyPhilly, Inc.  
2) FAA Exemption No. 11359, Regulatory Docket No. FAA-2014-1128 in the matter of petition of Celestial Imaging, LLC  
3) FAA Exemption No. 11397, Regulatory Docket No. FAA-2015-0144 in the matter of petition of Colorado Cartographics, LLC  
4) FAA Exemption No. 11221, Regulatory Docket No. FAA-2014-0557 in the matter of petition of Microcopter Professional Services, Inc.  
5) FAA Exemption No. 11336, Regulatory Docket No. FAA-2014-1056 in the matter of petition of Pacific Aviation, LLC

Attn: To whom it may concern

Pursuant to Section 333 of the Federal Aviation Administration (FAA) Modernization and Reform Act of 2012, Pub. L. No. 112-95 (2012), 126 Stat. 11 ("Section 333") and the FAA general exemption authority under 49 U.S.C. section 44701(f), Pikes Peak Aerial LLC, a licensed business in the state of Colorado ("Petitioner") hereby petitions for exemptions from 14 C.F.R. Part 21, Subpart H (Airworthiness Certificates), 14 C.F.R. Part 27 (Airworthiness Standards: Normal Category Rotorcraft), 14 C.F.R. sections 61.113(a)-(b), 91.103(b)(1), 91.119(c), 91.121, 91.151, 91.203, 91.405(a), 91.407(a)(1), 91.409(a)(2), and 91.417(a)-(b).

The proposed exemption, if granted, would allow the petitioner to conduct commercial operations of small Unmanned Aircraft Systems ("UAS") meeting or exceeding all of the operational and safety requirements Congress has set forth in Section 333. An approved exemption would also mitigate the risk to manned aircraft carrying crew and flammable fuel since many operations that have traditionally required such manned aircraft can now be accomplished with a specially equipped UAS.

The exemptions, as requested by the petitioner Pikes Peak Aerial LLC, are similar to already approved exemption numbers (referenced above) 11256, 11359, 11397, 11221, and 11336 with respect to the services performed and the UAS platforms utilized.

The petitioner requests these exemptions in order to perform commercial flights in the following areas:

- Aerial Surveying & Mapping
- Agriculture & crop surveying
- Real estate photography & videography
- Aerial filmmaking and photography
- Development, Building Site, & Pipeline inspections and monitoring
- UAS Training and Safety Operations
- Event photography and videography
- Search and Rescue Operations
- Aerial Surveillance in Fire Prevention

## **STATUTORY AUTHORITY**

Section 333, titled “Special Rules for Certain Unmanned Aircraft Systems”, provides a mechanism for seeking expedited FAA authorization of safe civil UAS operations in the NAS. Section 333(a) states that the FAA “shall determine if certain unmanned aircraft systems may operate safely in the national airspace system before completion of the (comprehensive) plan and rulemaking required by section 332(b)(1) of this Act or the guidance required by section 334 of this Act.” In Section 332(b)(1), Congress made it clear that Section 333 provides a mechanism for “expedited operation authorization” if several factors are met. Petitioner meets all requirements to permit FAA approval of commercial UAS operations.

## **UNMANNED AIRCRAFT SYSTEMS (UAS)**

The petitioner states that the UASs to be operated under this request are less than 55 pounds including the payload and flies at a speed of no more than 50 knots. The UASs carries neither a pilot nor passenger, carries no explosive materials or flammable liquid fuels, and operates exclusively within a secured area.

1. DJI S900 Multi-rotor (6-propeller hexagonal frame, carbon fiber):
  - a. Total weight with maximum allowable payload: 18lbs
  - b. Dimensions: Width: 900mm (35.43in), Height (with landing gear): 24”
  - c. Maximum speed: 50kts
  - d. Battery system (6-cell, 22.2 volt, 22,000 mAh lithium-polymer) provides approximately twenty two (22) minutes of flight time
  - e. DJI A2 Flight Controller
  - f. Use of First-Person View (“FPV”) for advanced flight safety; provides real-time video-downlink from sUAS to video monitor on transmitter.
  - g. Reference FAA Exemption No. 11256, Regulatory Docket No. FAA-2014-0908 in the matter of petition of SkyPhilly, Inc. This already approved exemption granted permission of the DJI S900 for commercial use.
2. DJI Inspire 1 Multi-rotor (4-propeller quad frame, carbon fiber):
  - a. Total weight with maximum allowable payload: 6.8lbs,

- b. Dimensions: Width: 451mm (17.75in), Height (with landing gear): 301mm (11.85")
  - c. Maximum speed: 30kts
  - d. Battery system (6-cell, 22.8 volt, 5,700 mAh lithium-polymer) provides eighteen (18) minutes of flight time
  - e. DJI A2 Technology-based Flight Controller
  - f. Use of First-Person View ("FPV") for advanced flight safety; provides real-time video-downlink from sUAS to video monitor on transmitter.
  - g. Reference FAA Exemption No. 11359, Regulatory Docket No. FAA-2014-1128 in the matter of petition of Celestial Imaging, LLC. This already approved exemption granted permission of the DJI Inspire 1 for commercial use.
- 3. DJI F550 Flamewheel Multi-rotor (6-propeller hexagonal frame, plastic/metals):
  - a. Total weight with maximum allowable payload: 6.5lbs,
  - b. Dimensions: Width: 550mm (21.65in), Height (with landing gear): 10.5"
  - c. Maximum speed: 30kts
  - d. Battery system (2x 6-cell, 22.2 volt, 10,000 mAh lithium-polymer) provides fifteen (20) minutes of flight time
  - e. DJI NAZA-M V2 Flight Controller
  - f. Use of First-Person View ("FPV") for advanced flight safety; provides real-time video-downlink from sUAS to video monitor on transmitter.
  - g. Reference FAA Exemption No. 11397, Regulatory Docket No. FAA-2015-0144. This already approved exemption granted permission of the DJI F550 for commercial use.
- 4. Tarot 690 Multi-rotor (6-propeller hexagonal frame, carbon fiber):
  - a. Total weight with maximum allowable payload: 9.3lbs,
  - b. Dimensions: Greatest width: 810mm (31.9in), Height (with landing gear): 14.25"
  - c. Maximum speed: 30kts
  - d. Battery system (2x 6-cell, 22.2 volt, 10,000 mAh lithium-polymer) provides fifteen (20) minutes of flight time
  - e. DJI NAZA-M V2 Flight Controller
  - f. Use of First-Person View ("FPV") for advanced flight safety; provides real-time video-downlink from sUAS to video monitor on transmitter.
  - g. Reference FAA Exemption No. 11221, Regulatory Docket No. FAA-2014-0557 in the matter of petition of Microcopter Professional Services, Inc. This already approved exemption granted permission of the Tarot 690 for commercial use.

## **PILOT IN COMMAND AND OBSERVER OPERATIONS & QUALIFICATIONS**

The Pilot in Command (PIC) and Visual Observer (VO) will operate all Unmanned Aircraft (UA) while adhering to the following:

- The UA will not be operated at a speed exceeding 87 knots (100 miles per hour) nor will the UA be operated at airspeeds greater than the maximum UA operating airspeed recommended by the aircraft manufacturer.
- The UA will be operated at an altitude of no more than 400 feet above ground level.
- The UA will be operated within Visual Line of Sight (VLOS) of the PIC at all times.
- All operations will utilize a VO. The UA will be operated within the VLOS of the PIC and VO at all times. The PIC will be designated before the flight and will not transfer his

or her designation for the duration of the flight. The PIC will ensure that the VO can perform the duties required of the VO.

- All operating documents attached to this application will be accessible during UAS operations and made available to an administrator upon request.
- Any UAS that has undergone maintenance or alterations that affect the UAS operation or flight characteristics will undergo a functional test flight prior to conducting further operations. Functional test flights will only be conducted by a PIC with a VO and will remain at least 500 feet from other people. The functional test flight will be conducted in such a manner so as to not pose an undue hazard to persons and property.
- The operator will be responsible for maintain and inspecting the UAS to ensure that it is in a condition for safe operation.
- Prior to each flight, the PIC must conduct a pre-flight inspection and determine the UAS is in a condition for safe flight. If the inspection reveals a condition that affects the safe operation of the UAS, the aircraft will be prohibited from operating until the necessary maintenance has been performed and the UAS is found to be in a condition for safe flight.
- The operator will follow the UAS manufacturer's maintenance, overhaul, replacement, inspection, and life limit requirements for the aircraft and aircraft components.
- All UAS operations will comply with all manufacturer safety bulletins.
- The Pilot in Command (PIC) will maintain a private pilot license and current FAA airman medical certificate or a valid U.S. driver's license issued by the federal government. In addition, the PIC will maintain 40 hours cumulative flying time for the UAS utilized in operations. In addition, two (2) hours flying time and three (3) takeoffs and landings within thirty (30) days of the type of UAS utilized in operations will also be maintained.
- The operator will not permit any PIC to operate unless the PIC has demonstrated the ability to safely operate the UAS.
- UAS operations will not be conducted during night.
- The UA will not operate within 5 nautical miles of an Airport Reference Point (ARP).
- The UA 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.
- If the UAS loses communication or loses its GPS signal, the UA will return to a pre-determined location within the private or controlled-access property.
- The PIC will abort the flight in the event of unpredicted obstacles or emergencies.
- The PIC will ensure at least a 5 minute reserve powered flight time when completing all flight operations.
- All operations will be conducted in accordance with an Air Traffic Organization (ATO) Certificate of Waiver or Authorization (COA).
- All UA operated will be identifiable by serial number and/or equivalent marking
- All documents used by the operator to ensure the safe operation and flight of the UAS will be available to the PIC (and administrator or any law enforcement upon request) any time the aircraft is operating.
- The UA will remain clear and give way to all manned aviation operations and activities at all times.
- The UAS will not be operated by the PIC from any moving device or vehicle.
- All flight operations will be conducted at least 500 feet from all non-participating persons, vessels, vehicles, and structures unless protective barriers or structures are in place to protect such persons or 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 to determine that it does not present an undue hazard.

- All operations will be conducted over private or controlled-access property with permission from the property owner/controller or authorized representative.
- Any incident, accident, or flight operation that transgresses the lateral or vertical boundaries of the operational area as defined by the applicable COA will be reported to the FAA's UAS Integration Office within 24 hours. Accidents will also be reported to the National Transportation Safety Board (NTSB).

## **UAS PILOT IN COMMAND BACKGROUND & INTENT**

Petitioner's UAS Pilot-in-Command (PIC), and owner of Pikes Peak Aerial LLC, is Scott Randall. At the time of this application for exemption submission, Scott Randall is a Major in the United States Air Force with an approved retirement date of 30 September 2015 and 20+ years active duty service. He has more than 5 years of experience as an enlisted aircraft maintainer on B1-Bombers and KC-135 Stratotankers. Scott Randall earned his commission as an Air Force officer in 2000 and has since maintained his experience in the aircraft industry as a remote controlled aircraft enthusiast. He has logged over 1000+ hours in the current UAS platforms identified in this exemption request. Scott Randall is currently on track to earn his Private Pilot's License in August 2015.

With an approved Section 333 exemption, Scott Randall is planning to work closely with his community in Colorado Springs, CO and assist the Park and Recreational Services in much needed aerial services for future park projects. There has also been an increasing need in fire prevention services due to devastating forest fires in the past two years that were responsible for destroying over 800 homes and a number of deaths. As a result, development of homes and key infrastructure has an even greater need for UAS services in the area of survey and inspection type work. Pikes Peak Aerial LLC is one of the very few companies in the Colorado Springs and Denver surrounding area specializing in professional grade UASs and aerial data capture capability.

## **CONCLUSION**

Pikes Peak Aerial LLC (the petitioner) seeks an exemption pursuant to 14 C.F.R. and Section 333 of the FAA Modernization and Reform Act (FMRA) of 2012, which will permit the safe operation of our UASs for commercial and business use. By granting these exemptions, the FAA Administrator will be fulfilling the Congressional mandate of the FMRA while also providing a community critical UAS services and resources necessary for its future growth and development. The petitioner respectfully requests that the Administrator grants these exemptions under Section 333.

Sincerely,



Scott Randall  
Pikes Peak Aerial LLC  
2555 Hot Springs Ct.  
Colorado Springs, CO 80919

## **Exemption Requests and Equivalent Level of Safety:**

**Section 61.113(a) and (b)** prescribes that—

- (a) no person who holds a private pilot certificate may act as a pilot in command of an aircraft that is carrying passengers or property for compensation or hire; nor may that person, for compensation or hire, act as pilot in command of an aircraft.
- (b) a private pilot may, for compensation or hire, act as pilot in command of an aircraft in connection with any business or employment if:
  - (1) The flight is only incidental to that business or employment; and
  - (2) The aircraft does not carry passengers or property for compensation or hire.

**Section 91.103** prescribes, in pertinent part that each pilot in command shall, before beginning a flight, become familiar with all available information concerning that flight, to include—

- (a) For a flight under IFR or a flight not in the vicinity of an airport, weather reports and forecasts, fuel requirements, alternatives available if the planned flight cannot be completed, and any known traffic delays of which the pilot in command has been advised by ATC;
- (b) For any flight, runway lengths at airports of intended use, and the following takeoff and landing distance information:
  - (1) For civil aircraft for which an approved Airplane or Rotorcraft Flight Manual containing takeoff and landing distance data is required, the takeoff and landing distance data contained therein;
  - (2) For civil aircraft other than those specified in paragraph (b)(1) of this section, other reliable information appropriate to the aircraft, relating to aircraft performance under expected values of airport elevation and runway slope, aircraft gross weight, and wind and temperature.

**Section 91.119** prescribes that, except when necessary for takeoff or landing, no person may operate an aircraft below the following altitudes: “Over other than congested areas. An altitude of 500 feet above the surface, except over open water or sparsely populated areas. In those cases, the aircraft may not be operated closer than 500 feet to any person, vessel, vehicle, or structure.”

**Section 91.121** requires, in pertinent part, each person operating an aircraft to maintain cruising altitude by reference to an altimeter that is set “to the elevation of the departure airport or an appropriate altimeter setting available before departure.”

**Section 91.151(a)** prescribes that no person may begin a flight in an airplane under VFR conditions unless (considering wind and forecast weather conditions) there is enough fuel to fly to the first point of intended landing and, assuming normal cruising speed, (1) during the day, to fly after that for at least 30 minutes; or (2) At night, to fly after that for at least 45 minutes.

**Section 91.203** prohibits, in subpart (a), any person from operating a civil aircraft unless it has within it (1) an appropriate and current airworthiness certificate; and (2) an effective U.S.

registration certificate issued to its owner or, for operation within the United States, the second copy of the Aircraft Registration Application as provided for in § 47.31(c). Section 91.203 prescribes, in subpart (b), that no person may operate a civil aircraft unless an airworthiness certificate or a special flight authorization issued under § 91.715 legible to passengers or crew is displayed at the cabin or cockpit entrance.

**Section 91.405(a)** requires, in pertinent part, that an aircraft operator or owner shall have that aircraft inspected as prescribed in subpart E of the same part and shall, between required inspections, except as provided in paragraph (c) of the same section, have discrepancies repaired as prescribed in part 43 of the chapter.

**Section 91.407(a)(1)** prohibits, in pertinent part, any person from operating an aircraft that has undergone maintenance, preventive maintenance, rebuilding, or alteration unless it has been approved for return to service by a person authorized under § 43.7 of the same chapter.

**Section 91.409(a)(2)** prescribes, in pertinent part, that no person may operate an aircraft unless, within the preceding 12 calendar months, it has had an inspection for the issuance of an airworthiness certificate in accordance with part 21 of this chapter.

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

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

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

- (i) A description (or reference to data acceptable to the Administrator) of the work performed; and
- (ii) The date of completion of the work performed; and
- (iii) The signature, and certificate number of the person approving the aircraft for return to service.

(2) Records containing the following information:

- (i) The total time in service of the airframe, each engine, each propeller, and each rotor.
- (ii) The current status of life-limited parts of each airframe, engine, propeller, rotor, and appliance.
- (iii) The time since last overhaul of all items installed on the aircraft which are required to be overhauled on a specified time basis.
- (iv) The current inspection status of the aircraft, including the time since the last inspection required by the inspection program under which the aircraft and its appliances are maintained.

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

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

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

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

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

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

The petitioner will execute according to the attached user manual, operating manuals, and included checklists.