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

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

September 3, 2015

Exemption No. 12752
Regulatory Docket No. FAA−2015−2400

Mr. Richard Fournier
Rhody Air LLC
35 Sachuest Way
Middletown, RI 02842

Dear Mr. Fournier:

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 June 9, 2015, you petitioned the Federal Aviation Administration (FAA) on behalf of Rhody Air LLC (hereinafter petitioner or operator) for an exemption. The petitioner requested to operate an unmanned aircraft system (UAS) to conduct aerial photography and videography.

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 Horizon Blade 350 QX3 and the 3D Robotics Solo.

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[1]. 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, Rhody Air 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.

[1] 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.

Conditions and Limitations

In this grant of exemption, Rhody Air 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 Horizon Blade 350 QX3 and 3D Robotics Solo 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.ntsb.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 September 30, 2017, unless sooner superseded or rescinded.

Sincerely,

/s/
John S. Duncan
Director, Flight Standards Service

Enclosures

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June 9, 2015

U.S. Department of Transportation, Docket Operations
West Building Ground Floor, Room W12-140
1200 New Jersey Avenue, SE
Washington, DC 20590

Dear Sir or Madam:

Pursuant to Section 333 of the FAA Modernization and Reform Act of 2012 (the Reform Act), Rhody Air, LLC (the operator) and Richard Fournier and Barry Schubert (the applicants and co-owners) hereby apply for an exemption from Federal Aviation Regulations (FARs) detailed below to allow for commercial operations of a Horizon Blade 350 QX3, a four rotor UAS with an attached CGO2 Camera and integrated 3-axis gimbal, and a 3D Robotics Solo, a four rotor UAS with a custom Solo gimbal holding a GoPro Hero 4 camera for the purpose of aerial photography and video for a variety of industries.

As the Reform Act allows the FAA to "establish requirements for the safe operation of such aircraft systems in the national airspace system", Rhody Air's use of the Blade 350 QX3 and the 3D Robotics Solo will provide the following benefits and enhance or provide an equivalent level of safety.

1. The Blade 350 QX3 and the 3DR Solo have a maximum takeoff weight of less than 3 pounds and thus offers a lightweight, small and compact video platform compared to manned aircraft.

2. Alex Paiva, a licensed FAA pilot with a Commercial grade pilot certificate will be the primary PIC (Pilot in Command) of all of Rhody Air operations. In addition, Barry Schubert is a licensed FAA pilot with a Private grade pilot certificate, along with John Felisberto, another member of the LLC with a Private grade pilot certificate.

3. Both the Blade 350 QX3 and the 3DR Solo offer significant safety, noise, emission, security and environmental benefits not available to larger manned aircraft.

4. Both the Blade 350 QX3 and the 3DR Solo have numerous safety features such as Failsafe mode, automatic landing should signal between PIC and UAS be interrupted, GPS based altitude and distance locks, Flight Limits function and low battery warnings. We feel that these features addressed in more detail below and in the Blade 350 QX3 and the 3DR Solo User Manuals provide an equivalent level of safety.

5. Operations utilizing both the Blade 350 QX3 and the 3DR Solo will provide a benefit to the general public and serve the public interest by providing the service of aerial photographic images and videos to numerous businesses and individuals for considerably less than the previously only available option of utilizing manned aircraft at an equivalent level of safety.

The Aircraft, Operations and an Equivalent Level of Safety

1. The safe operation of the UAS will be the first priority before, during and after every operation.

2. The UAS pilot will be an FAA licensed Commercial grade airman and will be considered the PIC whether flying or supervising and will be responsible for the safe operation of the UAS at all times.

3. Both the Blade 350 QX3 and the 3DR Solo have a maximum takeoff weight of 1300 grams or approximately 2.9 pounds. They both have a diagonal length of 350mm and a maximum speed of 15 meters per second.

4. The UAS's utilize GPS coordinated location sensors and are controlled by a 2.4 GHz transmitter.

5. All UAS operations will be conducted at Visual Line Of Sight (VLOS) at no more than 200 feet AGL.

6. No UAS operations will be conducted within 5 NM of an airport.

7. No UAS operations shall occur over densely populated areas, large assemblies of people, stadiums, government buildings, power lines, or major roads.

8. All nonparticipating persons shall be a minimum of 500 feet from the UAS.

9. If a nonparticipating person comes within 500 feet of the UAS, flight operations will cease immediately.

10. All UAS operations shall take place during daylight hours under conditions equivalent to Visual Flight Rules (VFR) with the UAS no more than 1/4 NM from the PIC.

11. All UAS operations will have a PIC and a Visual Observer (VO) present and all operations will be within line of sight (LOS) of the PIC and VO.

12. The UAS will yield to all manned aircraft at all times.

13. All required permits and permissions will be obtained from local and state government should they be required.

14. A pre-flight inspection by the PIC will be performed prior to each flight to assure that the UAS is safe for flight. A post-flight inspection will also be performed as an added level of safety. An aircraft check will also occur after every two hours of flight. See Appendix B for aircraft checklist.

15. At no time shall the UAS be operated with missing or manufacturer unapproved parts, or in any condition that could pose a hazard to any other aircraft or structure or person on the ground.

16. Prior to all UAS operations a pre-flight meeting will be held by the PIC to determine the parameters of flight in a given location, any hazards present, weather conditions, safety procedures at the specific location and approximate duration and route of flight.

17. The PIC will have accumulated and accurately logged a minimum of 25 hours total time as a UAS rotorcraft pilot with a minimum of 10 hours as a UAS pilot with a multi-rotor UAS and 5 hours as a UAS pilot operating the same make and model of UAS to be used for operations under the exemption.

18. The Blade 350 QX3 and the 3DR Solo UAS's will utilize GPS location, auto return home and will never be operated at below 20% batter capacity.

Both the Blade 350 QX3 and the 3DR Solo UAS's are small and safe sub 3 pound plastic and composite aircraft utilizing four propellers driven by a 2800mAh, 11.1V, LiPo smart battery with an average flight time of 17-18 minutes.

The remote control/transmitter operates at 2.4 GHz. The aircraft's software can be calibrated to limit both AGL and distance from the transmitter. The aircraft will automatically return to point of origin or descend in place should signal with the transmitter be lost.

The UAS is unmanned, operates at low altitudes, does not run on combustible fuel, has very low decibel level noise emissions and has a small payload capacity and short flight time, thus significantly reducing current risk levels involved with utilizing manned aircraft for aerial photography. Additionally, past purchasers of aerial photography have had to contract with manned aircraft operations at a significant expense.

Rhody Air's UAS operations will provide a public benefit in allowing more people to access aerial photography images and videos at a significantly lower price and in the process we will be providing that data at a greater or at least equivalent level of safety as compared to similar manned operations.

It is the applicants belief that the small size of the Blade 350 QX3 and the 3DR Solo UAS's, the basic operating parameters outlined above, the specific exemptions discussed below, the fully trained, certified and vetted crew and the equivalent level of safety provided at a much lower cost to the general public will allow the FAA to grant an exemption to Rhody Air LLC for commercial UAS aerial photography operations under the Reform Act of 2012.

The exemption requests follow below as well as Appendix A and Appendix B. The Blade 350 QX3 and the 3DR Solo User's Manuals are available upon request..

Sincerely,

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EXEMPTION REQUESTS AND EQUIVALENT LEVEL OF SAFETY

Rhody Air, LLC, requests an exemption from the following regulations as well as any additional regulations that may technically apply to the operation of the Blade 350 QX3 and he 3DR Solo UASs.

14 CFR Part21, Subpart H: Airworthiness Certificates

This part establishes the procedures for the issuance of an airworthiness certificate. While the FAA continues to work to develop airworthiness standards for UAS, we request an experimental certificate be issued for the UAS operated by the applicant! under either or both of the following provisions:

21 .191 Experimental Certificates

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Experimental certificates are issued for the following purposes:

(a) Research and development. Testing new aircraft design concepts, new aircraft equipment, new aircraft installations, new aircraft operating techniques, or new uses for aircraft.

(b) Showing compliance with regulations. Conducting flight tests and other operations to show compliance with the airworthiness regulations including flights to! show compliance for issuance of type and supplemental type certificates, flights to! substantiate major design changes, and flights to show compliance with the function and reliability requirements of the regulations. Since the experimental certificate can be used for commercial purposes such as market surveys, sales demonstrations, and customer crew training, we would expect that an experimental certificate would permit our commercial purpose as well.

The aircraft will not carry persons or property and will only fly under strict operational requirements. As the Blade 350 QX3 and the 3DR Solo UAS also carries no combustible fuel, weighs less than3 pounds and is constructed primarily of plastics and composites, we propose the UAS is at least as safe, if not significantly safer than conventionally certified aircraft used within similar parameters.

If an experimental airworthiness certificate is not appropriate for this application, then we! request an exemption of 14 CFR Part21, Subpart H, and the requirement for an! airworthiness certificate in general, citing the equivalent level of safety outlined in the previous paragraph.

14 CFR 91.203(a) & (b) Civil aircraft: Certifications required.

The regulation provides that an airworthiness certificate, with the registration number assigned to the aircraft and a registration certificate must be aboard the aircraft. Additionally, subparagraph (b) provides that the airworthiness certificate be "displayed at! the cabin or cockpit entrance so that it is legible to passengers or crew."

As the UAS is too small to carry documentation, does not have an entrance and does not carry a crew, we propose the following in order to meet the intent of 91.203 and provide an equivalent level of safety. All documents deemed appropriate by the FAA for this aircraft will be located at the operational ground station for each flight in proximity to the PIC and VO and will be available for inspection on request. In order to identify the aircraft, we propose to use the manufacturers model and production codes located on the aircraft as well as appropriate registration numbers and the telephone number of the manufacturer and Rhody Air LLC affixed to the aircraft as well. Should the FAA deem appropriate, we will also affix the word "EXPERIMENTAL" in the largest possible lettering given the size of the UAS, as discussed further below.

14 CFR 45.23 Display of marks; general and 45.29 Size of marks.

These regulations provide that each aircraft must display "N" and the aircraft's! registration number in letters at least 3 inches high. Additionally, the aircraft must display! the word "EXPERIMENTAL" in letters at least 2 inches high near the entrance to the! cabin, cockpit, or pilot station.

As the UAS does not have an entrance, may not have an FAA assigned registration number and is of such small size, we propose to affix the word "EXPERIMENTAL" in the largest possible lettering appropriate for the aircraft. Additionally, for each operation the ground station will be clearly identified with a banner containing the words "UAS Ground Station" that will be of appropriate size to be seen by any observer of the aircraft operations. The ground station will also have all registration and identity documents relating to the UAS.

14 CFR 91.9 Civil aircraft flight manual, marking, and placard requirements.

This regulation provides that no person may operate an aircraft unless a current,! approved flight manual is in the aircraft. The intent of this requirement is to ensure that flight manual information is available to the aircrew while operating the aircraft. Rhody Air LLC requests an exemption to this requirement as the UAS cannot, given its size, carry the flight manual. To meet an equivalent level of safety, we propose to have the current manufacturers flight manual and the Rhody Air flight manual at the operational ground station of each flight, available to both the PIC and VO.

14 CFR 91.109 Flight instruction; Simulated instrument flight and certain flight tests.

The regulation provides that "No person may operate a civil aircraft that is being used for flight instruction unless that aircraft has fully functioning dual controls."

The controls for the UAS do not currently have a set of fully functioning dual controls. If a UAS pilot is being trained, the pilot performing the training would be directly supervising and could take over the controls from the pilot in training if the need arose.

This would be similar to the technique of a "throw-over type" control wheel in some fixed wing aircraft. We feel that this technique meets the intent 91 .109 and provides an equivalent level of safety.

14 CFR 91.119 Minimum safe altitudes: General.

The regulation provides that over sparsely populated areas the aircraft cannot be! operated closer than 500 feet to any person, vessel, vehicle, or structure.

Since the UAS will be operating at a maximum 200 feet AGL, we cannot comply with this requirement and thus ask for an exemption. In order to provide an equivalent level of safety, we propose the following.

A. The UAS will only be operated within VLOS of the PIC and VO at a maximum range of 1/4 NM from the ground station.

B. A preflight safety risk assessment will be completed prior to each flight to ensure the UAS is in a condition for safe flight and that the planned operation can be completed safely. Rhody Air's Flight Manual and Pre-Flight Checklist is included as Appendix A and Appendix B.

C. The UAS will not be operated within 5 NM of any airport.

D. The UAS will only operate over private property with the approval of the owner of that property.

E. The UAS will not operate over any open air assemblies of people, congested or crowded areas, or within 500 feet of any nonparticipating person.
Overall, we believe that the above restrictions and the UAS's small size, light weight, low maximum speeds, and high degree of maneuverability and stability combine to provide an equivalent level of safety compared to manned aircraft.

14 CFR 9l.l21Altimeter settings.

The regulation provides that aircraft shall maintain cruising altitudes by reference to an altimeter setting available within 100 nautical miles of the aircraft.

The UAV will always be flying below 200 feet AGL within VLOS of the PIC and VO that will provide separation from terrain, structures and other aircraft. Also, the UAS will continually transmit an AGL reading back to the controller at the ground station and the AGL lock in the UAS's software will be set to 200 feet, providing an equivalent level of safety.

14 CFR 91.151 Fuel requirements for flight in VFR conditions.

The regulation provides that no person may begin a flight in an airplane under day-VFR! conditions unless there is enough fuel to fly to the first point of intended landing and to fly after that for at least 30 minutes.

We feel that the intention here is to provide a reserve of fuel to remain aloft should a landing be delayed or the landing point changed. The UAS is smart battery powered and continually transmits battery charge information back to the ground station to be evaluated by the PIC who will return the UAS back to the ground station when the battery shows 20% remaining capacity. We feel that this combined with the fact that the UAS will have a maximum range of 1/4 NM from the ground station provides an equivalent level of safety.

14 CFR Subpart E (91.401 -91.4171- Maintenance, Preventive Maintenance, and Alterations.

The regulation provides that the operator is primarily responsible for maintaining the! aircraft in an airworthy condition, including compliance with part 39 and 43. Paragraphs 91.407 and 91.409 require that the aircraft be "approved for return to service by a person! authorized under 43.7" after maintenance and inspection.

We propose that the PIC perform maintenance and inspection and "be authorized to approve the aircraft for return to service." As provided for in Appendix A, the PIC will inspect the aircraft prior to every flight to ensure it is in airworthy condition. A maintenance check will also be performed after every 2 hours of flight. Any general maintenance and repair or replacement of components will be completed by the PIC following the manufacturers recommendations and documented in accordance with 91.417. In any case where the UAS cannot be returned to service by the PIC, or is suspected to be unsafe, the UAS will not be operated until returned to all manufacturer specifications. We feel that due to the simplicity, size, robustness and construction of the aircraft. the PIC can assure an equivalent level of safety.

8900.227 Paragraph 16(cXa) PIG Medical. and Paragraph 16(eX1) Observer Medical.

This policy provides that both the PIC and observer must have a valid FAA second-class medical certificate issued under part 67 in order to perform as a pilot or observer. We feel that requiring the PIC and VO to meet the same medical requirements as a commercial pilot carrying passengers in a large aircraft is an unnecessary burden.

However, in our case, the PIC is a commercial grade airman with the appropriate medical certificate, so we would ask for a waiver regarding the VO's medical certificate only.

Since the UAV is of small size, unmanned and required to be in VLOS of the PIC and VO at all times and given the highly unlikely scenario of both the PIC and VO becoming incapacitated simultaneously, the PIC's medical certificate should be sufficient. Furthermore, given the aircrafts auto return home feature and low operating altitude, we feel that the above provide an equivalent level of safety. We propose that the medical requirements for the VO be vision corrected to 20/20 and a valid state issued driver's license.

APPENDIX A

RHODY AIR'S FLIGHT MANUAL

FLIGHT PARAMETERS AND RESTRICTIONS

A. The PIC will be an FAA licensed airman with a Commercial Pilot certificate and associated medical certificate or the UAS pilot will be directly supervised by an FAA licensed airman with a Commercial Pilot certificate and associated medical certificate.

B. The PIC will have accumulated and logged a minimum of 25 flight hours as a UAS rotorcraft pilot and a minimum of 10 hours logged as a UAS pilot with a multi-rotor UAS and 5 hours as a UAS pilot operating the same make and model of UAS to be used for operations under the exemption. A current logbook of all training flights and all flight operations will be at the ground station during all operations.

C. All flights will occur in FAA Class G airspace at no more than 200 feet AGL and no further than 1/4 NM from the PIC.

D. All operations will utilize a PIC and VO with the PIC and VO able to communicate verbally at all times.

E. All operations will occur only during daylight hours and in weather conditions equivalent to VFR.

F. All operations will occur at VLOS from the PIC and VO.

G. The PIC and VO will have a pre-flight meeting at the site of the operation just prior to the flight to assess weather, area of operation, topography, flight time, route, hazard mitigation and overall operational and safety parameters. Also during this meeting, the pre-flight aircraft checklist (see Appendix B) will be implemented.

H. No flight operations shall occur within 5 NM of an airport, nor shall flight operations occur over open assemblies of people, congested roadways, densely populated areas, air shows, or other restricted areas.

I. The UAS will always operate at a minimum of 500 feet from any nonparticipating (nonessential flight personnel) persons and UAS operations shall cease should a nonparticipant be closer than 500 feet to the UAS.

J. All operations will be conducted over private property with the full permission of the property owner and the property owner will be briefed as to the flight parameters.

K. Flight planning will include the termination of the flight with 20% battery remaining, as determined by the data link between the UAS and ground station.

L. The UAV will at all times give way to manned aircraft.

M. Prior to every flight, a highly visible banner with the words "UAS Ground Station" will be placed at the site of the ground station to allow an outside observer to determine the location of the UAS's origin and command point.

N. All permits required by state and local governments will be obtained prior to any operations.

O. No flight operations will occur without a successful pre-flight inspection by the PIC before each flight to determine that the UAS is in a condition for safe flight.

P. At the conclusion of each flight a post-flight inspection will be done to assess the condition of the UAS.

Q. A full pre-flight check of the aircraft will be performed after every 2 hours of flight.

R. Replacement of parts shall only be done according to manufacturer's instructions.

S. All flight operations will be logged in a flight logbook.

T. All maintenance done and inspections performed will be lodged in a maintenance log.

U. Check for software updates weekly and upload to UAS as needed to continually keep the UAS software as current as possible.

APPENDIX B

RHODY AIR PRE-FLIGHT AIRCRAFT CHECKLIST

1. Inspect all propellers for proper tightness and that they are free of cracks, dings, chips and excessive wear.

2. Review Rhody Air's Flight Manual.

3. Review manufacturer's user manual.

4. Inspect all wiring and motors.

5. Inspect the airframe for cracks or damage.

6. Inspect battery voltage of UAS on-board battery and Remote Controller/Transmitter battery to ensure there is sufficient energy in both systems for safe flight.

7. Recalibrate compass according to manufacturer's instructions.

8. Always turn on Remote Controller/Transmitter before turning on UAS battery.

9. Ensure that a link between Transmitter and UAS is established and that GPS link is established.

10.Engage throttle, lift aircraft off the ground and verify the aircraft responds properly to all inputs and hovers accurately.

11. Adjust transmitter "trims" if required.

12. Check wind direction and sun glare.

13. Verify all UAS LED indicators are correct for both color and solid/flashing.