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

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

April 30, 2015

Exemption No. 11403
Regulatory Docket No. FAA–2015–0148

Mr. Steven J. Combs
Droneview, LLC
13550 Donop Road
Elmendorf, TX 78112

Dear Mr. Combs:

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 January 20, 2015, you petitioned the Federal Aviation Administration (FAA) on behalf of Droneview, LLC (hereinafter petitioner or operator) for an exemption. The exemption would allow the petitioner to operate an unmanned aircraft system (UAS) to conduct aerial cinematography and photography on rural ranch sites, rural RV resorts, enhancing real estate listings and other such tasks for business in the greater San Antonio Texas area.

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 Phantom 2 Vision +.

The petitioner requested relief from 14 CFR part 21, *Certification procedures for products and parts, Subpart H—Airworthiness Certificates*. In accordance with the statutory criteria provided in Section 333 of Public Law 112−95 in reference to 49 U.S.C. § 44704, and in consideration of the size, weight, speed, and limited operating area associated with the aircraft and its operation, the Secretary of Transportation has determined that this aircraft meets the conditions of Section 333. Therefore, the FAA finds that the requested relief from 14 CFR part 21, *Certification procedures for products and parts, Subpart H—Airworthiness Certificates*, and any associated noise certification and testing requirements of part 36, is not necessary.

The Basis for Our Decision

You have requested to use a UAS for aerial data collection. 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, Droneview, 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, Droneview, 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 Phantom 2 Vision + when weighing less than 55 pounds including payload. Proposed operations of any other aircraft will require a new petition or a petition to amend this exemption.

2. Operations for the purpose of closed-set motion picture and television filming are not permitted.

3. The UA may not be operated at a speed exceeding 87 knots (100 miles per hour). The exemption holder may use either groundspeed or calibrated airspeed to determine compliance with the 87 knot speed restriction. In no case will the UA be operated at airspeeds greater than the maximum UA operating airspeed recommended by the aircraft manufacturer.

4. The UA must be operated at an altitude of no more than 400 feet above ground level (AGL). Altitude must be reported in feet AGL.

5. The UA must be operated within visual line of sight (VLOS) of the PIC at all times. This requires the PIC to be able to use human vision unaided by any device other than corrective lenses, as specified on the PIC's FAA-issued airman medical certificate or U.S. driver's license.

6. All operations must utilize a visual observer (VO). The UA must be operated within the visual line of sight (VLOS) of the PIC and VO at all times. The VO may be used to satisfy the VLOS requirement as long as the PIC always maintains VLOS capability. The VO and PIC must be able to communicate verbally at all times; electronic messaging or texting is not permitted during flight operations. The PIC must be designated before the flight and cannot transfer his or her designation for the duration of the flight. The PIC must ensure that the VO can perform the duties required of the VO.

7. This exemption and all documents needed to operate the UAS and conduct its operations in accordance with the conditions and limitations stated in this grant of exemption, are hereinafter referred to as the operating documents. The operating documents must be accessible during UAS operations and made available to the Administrator upon request. If a discrepancy exists between the conditions and limitations in this exemption and the procedures outlined in the operating documents,

the conditions and limitations herein take precedence and must be followed. Otherwise, the operator must follow the procedures as outlined in its operating documents. The operator may update or revise its operating documents. It is the operator's responsibility to track such revisions and present updated and revised documents to the Administrator or any law enforcement official upon request. The operator must also present updated and revised documents if it petitions for extension or amendment to this grant of exemption. If the operator determines that any update or revision would affect the basis upon which the FAA granted this exemption, then the operator must petition for an amendment to its grant of exemption. The FAA's UAS Integration Office (AFS−80) may be contacted if questions arise regarding updates or revisions to the operating documents.

8. Any UAS that has undergone maintenance or alterations that affect the UAS operation or flight characteristics, e.g. replacement of a flight critical component, must undergo a functional test flight prior to conducting further operations under this exemption. Functional test flights may only be conducted by a PIC with a VO and must remain at least 500 feet from other people. The functional test flight must be conducted in such a manner so as to not pose an undue hazard to persons and property.

9. The operator is responsible for maintaining and inspecting the UAS to ensure that it is in a condition for safe operation.

10. Prior to each flight, the PIC must conduct a pre-flight inspection and determine the UAS is in a condition for safe flight. The pre-flight inspection must account for all potential discrepancies, e.g. inoperable components, items, or equipment. If the inspection reveals a condition that affects the safe operation of the UAS, the aircraft is prohibited from operating until the necessary maintenance has been performed and the UAS is found to be in a condition for safe flight.

11. The operator must follow the UAS manufacturer's maintenance, overhaul, replacement, inspection, and life limit requirements for the aircraft and aircraft components.

12. Each UAS operated under this exemption must comply with all manufacturer safety bulletins.

13. Under this grant of exemption, a PIC must hold either an airline transport, commercial, private, recreational, or sport pilot certificate. The PIC must also hold a current FAA airman medical certificate or a valid U.S. driver's license issued by a state, the District of Colombia, 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 April 30, 2017, unless sooner superseded or rescinded.

Sincerely,

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

01/20/2015

Steven J. Combs
Droneview LLC
13550 Donop Road
Elmendorf TX 78112
(208) 610-6285
sccombs@earthlink.net

I formally petition the Federal Aviation Administration (FAA) for an exemption from part 21, subpart H; and Sections 45.23(b), 61.113(a) and (b), 91.7(a), 91.119 (c) 91.121, 91.151(a), 91.203(a) and (b), 91.405(a), 91.407(a)(1), 91.409(a)(2), and 91.417(a) and (b) of Title 14, Code of Federal Regulations (14 CFR).

Outlined below are the descriptions of the parts, subparts and sections in which I request exemptions and my reason for requesting the exemptions.

Part 21 prescribes the procedural requirements for issuing and changing design approvals, productions approvals, airworthiness certificates, and airworthiness approvals.

Section 45.23(b) prescribes that when marks include only the Roman capital letter "N" and the registration number is displayed on limited, restricted or light-sport category aircraft or experimental or provisionally certificated aircraft, the operator must also display on that aircraft near each entrance to the cabin, cockpit, or pilot station, in letters not less than 2 inches nor more than 6 inches high, the words "limited," "restricted," "light-sport," "experimental," or "provisional," as applicable.

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 91.7(a) prescribes that no person may operate a civil aircraft unless it is in an airworthy condition.

Section 91.119 prescribes that, except when necessary for takeoff or landing, no person may operate an aircraft below the following altitudes:

(c) 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.

(1) A helicopter may be operated at less than the minimums prescribed in paragraph (b) or (c) of this section, provided each person operating the helicopter complies with any routes or altitudes specifically prescribed for helicopters by the FAA; and

(2) A powered parachute or weight-shift-control aircraft may be operated at less than the minimums prescribed in paragraph (c) of this section.

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 [emphasis added].

Section 91.203(a) prohibits, in pertinent part, 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(b) prescribes, in pertinent part, that no person may operate a civil aircraft unless the airworthiness certificate or a special flight authorization issued under § 91.715 is displayed at the cabin or cockpit entrance so that it is legible to passengers or crew.

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.

Droneview LLC's exemption requests from the above are detailed below:

Unmanned Aircraft System:

Droneview LLC plans to operate a UAS, the PHANTOM 2 Vision+ v3, which is comprised of an unmanned aircraft (UA or PHANTOM). The PHANTOM 2 Vision + v3 is a quad-copter with a gross weight of about 3 pounds. It is equipped with four rotors that are driven by electric motors which is powered by batteries. The UA has a maximum airspeed of 30 mph.

Droneview LLC plans to use this UAS in aerial cinematography and photography on rural ranch sites, rural RV resorts, enhancing real-estate listings and other such tasks for businesses in the greater San Antonio Texas area which could benefit from an aerial view for their planning of future expansions and/or advertising of their products or business. For most businesses and realtors in the area, standard aerial photography has been very cost prohibitive. The economic impact of being able to assist your business using aerial photography would be substantial.

The use of this UAS in the above named applications greatly reduces risk to the public and property as there is no fuel carried by the Phantom 2 Vision + v3, aircraft noise is greatly reduced as opposed to a standard aircraft or rotorcraft both of which require numerous passes or extended lengths of hover time to accomplish the same task as the Phantom can in only a few minutes. The Phantom only weighs about 3 pounds and is by far a much smaller hazard to persons or property than a standard aircraft or helicopter in the event of a catastrophic in-flight failure.

There is no higher priority for Droneview LLC other than the safety of the public and property.

Droneview LLC makes the following representations of its operation in which to abide by to ensure these exemptions if granted, will provide a level of safety at least equal to existing rules:
The Phantom 2 Vision + v3 will only be operated by, at a minimum, a private pilot with at least a 3rd class airman medical certificate. The PIC will have completed at a minimum, 25 hours of documented flight time using the Phantom 2 Vision + v3 with focus being:

a) Collision avoidance
b) Loss of C2 link procedures as outlined in the Operators manual for the Phantom 2 Vision + v3.
c) Identification of inflight hazards i.e. aerial wires, birds in the area, changing weather etc.
d) Estimating distance from objects, persons, vehicles and vessels.
e) Communication with the spotter(s)
f) Completed the DJI Phantom 2 vision +v3 pilot training guide maneuvers and skills. (PDF) attached.
g) The ability to recognize persons or objects that are **not** part of the intended and permitted part of the project that enter the 500 foot operational area unless such persons or objects are deemed permitted by the owner or controller of the property or area and the PIC makes a safety assessment of the risk of operating closer and it does not pose undue or significant risk.
h) The ability to quickly and safely land the Phantom 2 vision + v3 in the event of intrusion into the safe zone.

1.) A complete pre-flight systematic check by the PIC of the Phantom's physical condition, i.e. props, prop guards, landing gear, position indicator lights, battery capacity and overall airframe condition. If any of the above are not within the manufacturers minimum standards no flight will take place until such time as the issue(s) is repaired to manufacturers standards. *Although prop guards are not required on the Phantom 2 vision + v3, Droneview LLC will not operate without them.
2.) Written documentation of each physical inspection and repairs if any, by the PIC (pilot in command) will be kept with the Phantom and will be on-site and available for review.

3.) Software in relation to the Phantom's operation will be checked for proper function. The most current DJI vision APP and the current firmware will be installed to assure the most up to date safety features.
4.) Prior to every flight, the compass on the Phantom 2 vision + will be calibrated as to ensure precision location.
5.) Droneview will ensure the altimeter setting on the Phantom 2 vision + is that of AGL (above ground level) rather than GPS or barometric pressure derived settings.
6.) Every safety feature offered through the DJI vision APP will be enabled for every flight, every time.
Please refer to the attached DJI Phantom 2 Vision + V.1.6 PDF file starting at page 39 for a description of the following safety features:
(6) Enable ground station
(7) Compass calibration
(8) Low battery auto go home
(9) Dynamic home point
(10) Current RTH (return to home) altitude (AGL)
(14) Low battery alarm

7.) Use of the DJI Ground Station GUI (graphical user interface)
Refer to attached DJI Phantom 2 Vision + V.1.6 PDF for detailed descriptions starting at page 34.
Of particular interest are the following:
[3] Flight attitude and radar function
[4] Flight parameters-RTH (return to home) altitude, horizontal distance from home point, altitude-vertical distance from home point, speed-horizontal flying speed.
[6] Flight Battery Level indication
[7} There is a built in preflight checklist within the DJI vision APP which is completed prior to each flight.
[8] Aircraft GPS Status-Droneview LLC's Phantom 2 vision + v3 will not fly with less than (7) GPS Satellites available.
[14] Hide or show flight parameters- Droneview LLC's Phantom 2 vision + v3 will ALWAYS fly with parameters displayed in order to assist in maintaining safe distances from persons and objects and to adhere to the flight plan.

8.) Droneview LLC will operate with a minimum of (1) one, trained spotter for every flight. "Trained" meaning familiarization with the Phantom 2 Vision Plus v3, its abilities according to the operators' manual as well as the abilities of PIC. Spotters will participate in documented training developed in-house prior to being allowed on the flight line. Training will consist of, at a minimum the following:

a) The ability to roughly identify minimum distance from objects
b) The ability to quickly recognize unusual flight maneuvers/attitudes of the Phantom 2 vision + v3
c) The ability to communicate with the PIC the visual limitations and to never let the Phantom 2 vision + v3 out of the visual capabilities of the PIC and the spotter(s).
d) The ability to recognize persons or objects that are **not** part of the intended and permitted part of the project that enter the 500 foot operational area unless such persons and objects are deemed permitted by the owner or controller of the property or area and the PIC makes a safety assessment of the risk of operating at a closer range and it does not pose undue or significant risk to those persons or objects. "
e) The ability to accurately describe to the PIC, the orientation of the Phantom in relation to the pre-set home point as well as the direction of travel.
f)

The training will take place under strict, safe conditions away from persons or large obstacles. I.e. large open fields.

9.) Prior to each flight, the PIC and the Spotter(s) will perform a pre-flight briefing detailing the estimated flight distance, estimated flight level AGL and the goal of the particular flight. Each preflight briefing will be documented by the PIC to include flight details, pilot name, spotter(s) name, weather details, time and date.

Written and/or verbal consent will be obtained from the person/business requesting the flight.

A post-flight briefing will also be conducted and documented with the PIC and the

The Documented Pre-flight, the raw pictures and/or the raw video footage as well as the post-flight brief and written consent will be kept by Droneview LLC for a period of at least (2) years.

Droneview LLC believes that given the size, weight, speed, and limited operating area associated with the Phantom 2 Vision + V3, requests an exemption from 14 CFR part 21, Subpart H (Airworthiness Certificates) and § 91.203 (a) and (b) (Certifications required), subject to certain conditions and limitations, is warranted and meets the requirements for an equivalent level of safety under 14 CFR part 11 and Section 333 of P.L. 112-95 (Section 333).

Droneview LLC requests exemption from § 45.23 *Marking of the aircraft.* The Phantom 2 vision plus v3 does not have a cabin, does not have a cockpit or a pilot station. Minimum sized lettering and wording are difficult to place on the Phantom 2 vision + v3. Droneview will however affix a sticker on the unit which will contain contact information for the company in case of aircraft loss.

Droneview LLC requests an exemption from §§ 91.405(a), 91.407(a) (1), 91.409(a) (2) and 91.417(a) and (b) *Maintenance inspections* and feel it should be granted since they only

apply to aircraft with an airworthiness certificate. Droneview LLC has developed maintenance inspections and documentation methods for the Phantom 2 vision + v3 from personal experience as well as the manufacturer's user manual. (See attached pdf Phantom 2 vision plus user manual v1.6.)

UAS Pilot in Command (PIC)

Under § 61.113 (a) and (b) private pilots are limited to non-commercial operations. Droneview LLC will only use, at a minimum a pilot with a private pilot license, current 3rd class airmen medical certificate.

Under current regulations, civil operations for compensation or hire require a PIC holding a commercial pilot certificate per 14 CFR part 61. Based on the private pilot limitations in accordance with pertinent parts of 14 CFR 61.113(a) and (b), a pilot holding a private pilot certificate cannot act as a PIC of an aircraft for compensation or hire unless the flight is only incidental to a business or employment. "However, in Grant of Exemption No. 11062 to Astraeus Aerial (Astraeus), the FAA determined that a PIC with a private pilot certificate operating the Astraeus UAS would not adversely affect operations in the NAS or present a hazard to persons or property on the ground." Droneview requests that an exemption allowing a private pilot employed by Droneview be allowed to be the PIC of the Phantom 2 vision plus v.3 for compensation similar to the grant of exemption No.11602 to Astraeus Aerial.

Droneview LLC requests relief from § 91.119(c) because the aircraft will be operated at altitudes below 300 feet AGL. Section 91.119(c) states that 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. Droneview LLC will operate pursuant to the following restrictions related to § 91.119:

-Operate in reasonably safe environments that are closely monitored by ground assistants and signage placed in locations that would be considered reasonable locations for pedestrians, vehicles or vessels to enter the area.

-Within 5 miles of airports and congested areas. Congested areas will be defined by VFR charts as well as by contacting the local FSDO (flight standards district office)

- Conduct all operations under Droneview LLC's guidelines contained in the operating documents and will analyze flight data and other sources of information such as the manufacturer's website to constantly update and enhance safety.

-Contact respective airports if operations will be within 5 miles to advise them of estimated flight time, flight duration, elevation of flight and other pertinent information deemed important by the airport.

- Always obtain all necessary permissions prior to operation. Permissions include but are not limited to a (COA) and a request for a (NOTAM) as well as permission from the property owner or person in control of the property and when practical will be in writing and kept on file for 2 years for review. If it's not possible to obtain written permission, the PIC will document in writing how permission was obtained i.e. phone call with date, time and party information.

Droneview LLC requests relief from 14 CFR 91.121 *Altimeter Settings*. Droneview's Phantom 2 vision + has a barometric altimeter and GPS derived altitude capabilities. The FAA requires any altitude

reported to ATC to be in feet AGL. Droneview will set the altimeter on the Phantom 2 vision + to zero feet AGL rather than local barometric pressure or field altitude before flight.

Droneview LLC requests relief from § 91.151 (a) *Fuel requirements for flight in VFR conditions* based on the following:

No fuel is used in the Phantom 2 vision + but it is battery operated. Batteries have, in our experience have about 15 minutes of quality flying time. In the interest of safety, Droneview LLC generally lands with 35% of battery remaining which gives about 9 minutes of flying time per battery. The Phantom 2 vision + v3 has an audible battery state warning system. Droneview LLC will always follow the manufactures minimum battery warning which is 30% remaining. There is also an on-screen warning of not enough battery to return to home message if flight distance has exceeded battery capacity. In this event, an emergency landing would be made as soon as safe and practical. The Phantom 2 vision + also has an automated function which results in immediate landing when a low battery is detected. Researching previous relief requests, relief has been granted for manned aircraft to operate at less than prescribed minimums, including Exemption Nos. 2689, 5745, and 10650. In addition, similar UAS-specific relief has been granted in exemption Nos. 8811, 10808, and 10673 for daytime, VFR conditions. Droneview LLC will adhere to all VFR minimums as well as VMC conditions when planning and/or executing any flights. There is little purpose for aerial video or pictures if the weather is less than desirable. Following VFR minimum standards will at least ensure a safe flight. Wind and forecast weather will be a key in deciding suitable conditions. Local weather can be attained from the nearest airport by using AWOS. No flight will take place in any condition that would potentially be outside of the Phantom 2 vision + capabilities in wind. Droneview will always fly within its 30% minimum remaining battery life at its first intended landing point.

Droneview LLC will obtain an Air Traffic Organization (ATO) issued Certificate of Waiver or Authorization (COA) prior to conducting any operations. Droneview will also request a Notice to Airman (NOTAM) not more than 72 hours in advance, but not less than 48 hours prior to the operation.

If there are any areas that have not been addressed, please contact me for supplemental information.

Sincerely,

Steven J. Combs
Droneview LLC
13550 Donop Road
Elmendorf, Tx 78112
(208) 610-6285
sccombs@earthlink.net