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

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

September 25, 2015

Exemption No. 13030
Regulatory Docket No. FAA−2015−2817

Mr. Joseph I Cullen
CEO
DronzView
380 County Road 252
Athens, TN 37303

Dear Mr. Cullen:

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 DronzView (hereinafter petitioner or operator) for an exemption. The petitioner requested to operate an unmanned aircraft system (UAS) to conduct aerial filming and photographing to include: infrastructure inspections, aerial acquisition (mapping), real estate.

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 DJI Phantom 2.

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, DronzView 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, DronzView is hereafter referred to as the operator.

Failure to comply with any of the conditions and limitations of this grant of exemption will be grounds for the immediate suspension or rescission of this exemption.

1. Operations authorized by this grant of exemption are limited to the DJI Phantom 2 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 October 31, 2017, unless sooner superseded or rescinded.

Sincerely,

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

Enclosures

DronzView 423-506-7854
9 June 2015

Dear Sir or Madam,

Pursuant to § 333 of the FAA Modernization and Reform Act of 2012 (the Reform Act) and 14 C.F.R. Part 11, DronzView, operator of Small Unmanned Aircraft Systems (sUAS) equipped to conduct aerial filming and photographing to include: infrastructure inspections, aerial acquisition (mapping), real estate, and other applicable areas for pre-planned, controlled areas, hereby applies for an exemption from the listed Federal Aviation Regulations (FARs) to allow commercial operation of its sUASs, so long as such operations are conducted within and under the conditions outlined herein or as may be established by the Federal Aviation Administration (FAA) as required by § 333. DronzView current operation of sUAS for commercial purposes has been halted to comply with recently enacted federal aviation regulations pertaining to sUAS. As described more fully below, the requested exemption would permit the operation of small, unmanned and quad copter aircraft under controlled conditions in airspace that is 1) contained 2) predetermined 3) has on-site safety personnel controlling access, and 4) would provide increased safety and enhancements to clients' business operations. We are prepared to modify or amend any part of this request to satisfy the need for an equivalent level of safety. We look forward to working with your office. Please contact us at any time if you require additional information or clarification.
The name and address of the applicant is:

DronzView,
Joseph I Cullen
CEO
Phone: 423-506-7854
Email: joseph.ian.cullen@gmail.com
Address: 380 Co Rd 252, Athens TN, 37303

MY BACKGROUND
DronzView, is a small company in operated by only me and father a real estate appraiser that helped me see the potential in aerial photography. I have always been an avid RC operator and video editor and never did i think the two could come together in such a way.
DronzView currently operates two DJI phantom 2 quad copters equipped with GoPro camera's.

HOW OUR COMPANY CAN BENEFIT THE PUBLIC

The exemption request will permit DronzView to operate sUASs commercially for the purpose of aerial filming and photographing inspections of infrastructure, aerial acquisition (mapping), real estate, and other applicable areas. DronzView will provide a service that will change the way we view things, sUAS This will benefit the public with the controlled operation of sUASs and increase integration into the National Airspace System (NAS).

DronzView sUASs are battery powered and serve as a safe, efficient, and economical alternative to the manned aircraft traditionally utilized to obtain aerial imagery. By reducing the amount of manned aircraft needed to perform aerial acquisitions, an exemption allowing the use of a sUAS would reduce the amount of manned aircraft in the NAS, reduce noise and air pollution, as well as increase the safety of life and property in the air and on the ground.

PUBLIC SAFETY

DronzView's number one priority will be the safety of the public our operators will always have a spotter to insure line of sight and only fly in the safest possible weather conditions. Our mission is to use these devices for the greater good of everyone as a whole which includes making sure the operation of these "drones" is safe.

PRIVACY

All flights will occur over private or controlled access property with the property owner’s or controlling authority’s prior consent and knowledge. Aerial photography/filming will be of people who have also consented to being photographed or otherwise have agreed to be in the area where filming will take place.

CONDITIONS AND LIMITATIONS:

As set forth in the Flight Operations and Procedures Manual (FOPM) and Manufacturers Pilot Training Guide (MPTG), the applicant proposes the following limitations and conditions:

1. UAS must weigh less than 55 pounds;
2. UAS airspeed not to exceed 50 knots;
3. UAS flights may not operate at more than 400 AGL and Altitudes reported to ATC must be in feet AGL;
4. UAS must be operated within Visual Line of Sight (VLOS) of the PIC;
5. All operations will utilize a Visual Observer (VO). The VO may be utilized as long as the PIC maintains VLOS capability and can communicate with the VO at all times;
6. The conditions and limitations will be added or amended in the operator’s manual;
7. The PIC will inspect the UAS to ensure it is safe for flight, along with the Ground Control Station (GCS) if utilized. All maintenance and alterations must be properly documented.
8. A functional test flight must be performed for any UAS that has undergone maintenance or alterations and be performed by the PIC and added to the operator’s manual;
9. The operator must follows the manufacturer’s UAS aircraft/component, maintenance, overhaul, replacement inspection and life limit requirements.

The following must be included in the operator's manual;
a. Actuators / Servos;
b. Transmission (single rotor);
c. Power plant (motors);
d. Propellers;
e. Electronic speed controller;
f. Batteries;
g. Mechanical or dynamic components (single rotor);
h. Remote command and control;
i. Ground control station (if used); and any other component(s) as determined by

THE OPERATOR.
10. The PIC must possess a private pilot certificate, a current third-class medical certificate and meet the flight review requirements specified in 14 CFR § 61.56;
11. A PIC must have accumulated and logged, in a manner consistent with 14 CFR § 61.51 (b), a minimum of 200 flight hours and 25 hours as a UAS rotorcraft pilot and at least ten hours logged as a UAS pilot with a similar sUASs type;
12. A PIC must have accumulated and logged, in a manner consistent with 14 CFR § 61.51 (b), a minimum of five hours as a sUAS pilot operating the make and model of sUAS to be utilized for operations under the exemption and three takeoffs and three landings in the preceding 90 days. The PIC must operate the sUASs with appropriate distance from nonparticipants in accordance with 14 CFR § 91.119;
13. The PIC and VO must have completed a qualification process;
14. A flight demonstration, administered by an operator approved and a qualified pilot must be completed and documented in accordance with the operator's manual;
15. The sUASs may not be operated directly over any person, except authorized and consenting inspection personnel, below an altitude that is hazardous to persons or property;
16. All participating persons must be essential and consent to the UAV operation which should require no further FSDO or ASI approval;
17. The operator must ensure that no persons are allowed within 500 feet of the area except those consenting to be involved and who are necessary for the on-going operation of the entity being inspected;
18. If the UAS loses communications or loses its GPS signal, the UAS must return to a predetermined
location within the security perimeter and land or be recovered in
accordance with the operator's manual;
19. The UAS must abort the flight in the event of unpredicted obstacles or emergencies in accordance with the operator's manual;
20. Each operation must be completed within 30 minutes flight time or with 25% battery power remaining, whichever occurs first;
21. The operator must contain an Air Traffic Organization (ATO) issued Certificate of Waiver or Authorization (COA) prior to conducting any operations under this grant of

exemption. This COA will also require the operator to request a Notice to Airman (NOTAM) not more than 72 hours in advance, but no less than 48 hours prior to the operation;
22. All aircraft operated in accordance with this exemption must be identified by serial number, registered in accordance with 14 CFR part 47and have identification (NNumber) markings in accordance with 14 CFR part 45, Subpart C. Markings must be as large as possible;
23. The operator must develop procedures to document and maintain a record of the UAS maintenance, alterations, status of replacement/overhaul component parts, and the total time in service of the UAS;
24. Each UAS operated under this exemption will comply with all manufacturing safety bulletins;
25. The operator will develop UAS technician qualification criteria. And the criteria will be in the operator's manual;
26. The pre-flight inspections section of the operator's manual will include the requirement that the pre-flight inspection will account for all discrepancies, i.e. inoperable components, items, or equipment;
27. Before conducting operations, the radio frequency spectrum used for operation and control of the UA will comply with the FCC or other appropriate government oversight agency requirements;
28. At least three days before a scheduled inspection the operator of the UAS affected by this exemption will submit a written plan of activity to the local FSDO with jurisdiction over the area of the proposed inspection. The 3-day notification may be waived with the concurrence of the FSDO. The plan of activities will include the following:

a. Dates and times for all flights
b. Name and phone number of the operator for the sUASs inspection conducted under this grant of exemption
c. Name and phone number of the person responsible for the on-site operation of the UAS
d. Make, model, and serial or N-number of UAS to be used
e. Name and certificate number of UAS PIC s involved in the inspection process
f. A statement that the operator has obtained permission from property owners and/or local officials to conduct the inspection; the list of those who gave permission shall be made available to the inspector upon request
g. Signature of exemption-holder or representative
h. The description of the flight activity, including maps or diagrams of any area, city, town, county, and/or state over which the inspection will be conducted and the altitudes essential to accomplish the operation
i. The documents required under 14 CFR §§91.9 and 91.203 must be available to the PIC at the ground control station of the sUASs any time the aircraft is operating. These documents must be made available to the Administrator or any law enforcement official upon request.

29. The UAS must remain clear and yield the right of way to all other manned operations and activities at all times (including, but not limited to ultra-light vehicles, parachute activities, parasailing activities, hand gliding, etc.);
30. 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;
31. The UAS cannot be operated by the PIC from any moving device or vehicle;
32. The UAS may not be operated less than 500 feet below or less than 2000 feet horizontally from a cloud or when visibility is less than 3 statute miles from the PIC;
33. The UAS may not be operated in class B, C, or D airspace without written approval from the FAA. The UAS may not operate within 5 nautical miles of the geographic center of a non-towered airport as denoted on a current FAA- published aeronautical chart unless a letter of agreement with the airport's management is obtained, and the operation is conducted in accordance with a NOTAM as required by the operator's COA. The letter of agreement with the airport management must be made available to the administrator upon request;
34. Any I) Incident, 2) Accident, or 3) Flight operation that transgresses the lateral or vertical boundaries of the operational area as defined by the applicable COA must be reported to the Federal Aviation Administration's (FAA) UAS Integration Office (AFS-80) within 24 hour. Accidents must be reported to the National Transportation Safety Board (NTSB) per instruction contained on the NTSB 'web site: www.ntsb.gov. Further flight operations may not be conducted until the incident, accident, or transgression is reviewed by the A FS-80 and authorized to resume operations is provided;
35. The UAS, PIC and operator will comply with all applicable parts of 14 CFR including, but not limited to, parts 45, 47, 61, and 91.

REGULATIONS FROM WHICH THE EXEMPTION IS REQUESTED:
14 CFR Part 21
14 CFR 61.113 (a) & (b)
14 CFR 61.133 (a)
14 C.F.R. 91.7 (a)
14 CFR 91.9 (b) (2)
14 C.F.R. 91.109 (a)
14 C.F. R. 91.119
14 C.F.R. 91.121
14 CFR 91.151 (a)
14 CFR 91.203 (a) & (b)
14 CFR 91.405 (a)
14 CFR 407 (a) (1)
14 CFR 409 (a) (2)
14 CFR 417 (a) & (b)
14 C.F.R. 21: Certification Procedures for Products and Parts

This section outlines requirements for the issue of design and production approvals, airworthiness certificates, and other airworthiness approvals. DronzView is aware that if an exemption is granted as per Section 333, an airworthiness certificate would be issued and a request for exemption from Part 21 is unnecessary. However, as outlined in the List of Limitations and Conditions in this application, as well as all of the Attachments to this application, including the FOPM, DronzView seeks to uphold the same level or exceeded level of safety as described in Part 21 of 14 C.F.R.

14 C.F.R. § 61.113 (a) & (b), 61.133 (a): Private Pilot Privileges and Limitations: Pilot in Command. Commercial Pilot Privileges and Limitations.

Sections 61.113 (a) & (b) limit private pilots to non-commercial operations. Because the UAS will not carry a pilot or passengers, the proposed operations can achieve the equivalent level of safety of current operations by requiring the PIC operating the aircraft to have a private pilot's license rather than a commercial pilot's license to operate this small UAS. Unlike a conventional aircraft that carries the pilot and passengers, the sUAS is remotely controlled with no living thing on board. The area of operation is controlled and restricted, and all flights are planned and coordinated in advance as set forth in the FOPM. The level of safety provided by the requirements included in the FOPM exceeds that provided by a single individual holding a commercial pilot's certificate operating a conventional aircraft. The risks associated with the operation of the sUAS are so diminished from the level of risk associated with commercial operations contemplated by Part 61 when drafted, that allowing operations of the sUAS as requested with a private pilot as the PIC exceeds the present level of safety achieved by 14 C.F.R. §61.113 (a) & (b).

14 C.F.R. § 91.7 (a): Civil aircraft airworthiness.

The regulation requires that no person may operate a civil aircraft unless it is in airworthy condition. As there will be no airworthiness certificate issued for the aircraft, should this exemption be granted, no FAA regulatory standard will exist for determining airworthiness. Given the size of the aircraft and the requirements contained in the FOPM for maintenance and use of safety check lists prior to each flight, an equivalent level of safety will be provided.

14 C.F.R. § 91.9 (b) (2): Civil Aircraft Flight Manual in the Aircraft.

Section 91.9 (b) (2) provides: No person may operate a U.S.-registered civil aircraft …

(2) For which an Airplane or Rotorcraft Flight Manual is not required by §21.5 of this chapter, unless there is available in the aircraft a current approved airplane or Rotorcraft Flight Manual, approved manual material, markings, and placards, or any combination thereof. The sUAS, given its size and configuration has no ability or place to carry such a flight manual on the aircraft, not only because there is no pilot on board, but because there is no room or capacity to carry such an item on the aircraft.

14 C.F.R. § 91.109 (a): FLIGHT INSTRUCTION

Section 91.109 provides that no person may operate a civil aircraft (except a

manned free balloon) that is being used for flight instruction unless that aircraft has fully functioning dual controls. UAS and remotely piloted aircraft, by their design do not have fully functional dual controls. Flight control is accomplished through the use of a control box that communicates with the aircraft via radio communications. The FAA has approved exemptions for flight training without fully functional dual controls for a number of aircraft and for flight instruction in experimental aircraft.

14 C.F.R. § 91.119: Minimum safe altitudes

Section 91.119 establishes safe altitudes for operation of civil aircraft. Section 91.119 (d) allows helicopters to be operated at less than the minimums prescribed, provided the person operating the helicopter complies with any route or altitudes prescribed for helicopters by the FAA. As this exemption is for a sUAS that is a helicopter and the exemption requests authority to operate at altitudes up to 400 AGL, or not more than 200 above an elevated platform from which filming is planned, an exemption may be needed to allow such operations. As set forth herein, except for the limited conditions stated in the Manual, the UAS will never operate at higher than 400 AGL. It will however be operated in a restricted area with security perimeter, where buildings and people will not be exposed to operations without their pre-obtained consent. The equivalent level of safety will be achieved given the size, weight, speed of the sUASs as well as the location where it is operated. No flight will be taken without the permission of the property owner or local officials. Because of the advance notice to the property owner and participants in the activity, all affected individuals will be aware of the planned flight operations as set forth in the FOPM.

14 C.F.R. § 91.121 Altimeter Settings

This regulation requires 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." As the sUAS may not have a barometric altimeter, but instead a GPS altitude read out, an exemption is needed. An equivalent level of safety will be achieved by the operator, pursuant to the FOPM and Safety Check list, confirming the altitude of the launch site shown on the GPS altitude indicator before flight.

14 C.F.R. § 91.151 (a): Fuel Requirements for Flight in VFR Conditions

This regulation prohibits an individual from beginning "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."

The battery powering the sUAS provides approximately 40 minutes of powered flight. To meet the 30 minute reserve requirement in 14 CFR § 91.151, sUASs flights would be limited to approximately 10 minutes in length. Given the limitations on the UAS's proposed flight area and the location of its proposed operations within a predetermined area, a longer time frame for flight in daylight or night VFR conditions is reasonable. Limiting sUAS flights to 10 minutes would greatly reduce the utility for which the exemption will be granted.

An equivalent level of safety can be achieved by limiting flights to 30 minutes or 25% of battery power whichever happens first. This restriction would be more than adequate to return the sUAS to its planned landing zone from anywhere in its limited operating area.

14 C.F.R. § 91.203 (a) and (b): Carrying Civil Aircraft Certification and Registration

The regulation provides in pertinent part:

(a) Except as provided in § 91.715, no person may operate a civil aircraft unless it has within it the following:

(1) An appropriate and current airworthiness certificate. . . .

(b) No person may operate a civil aircraft unless the airworthiness certificate required by paragraph (a) of this section 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.

The sUAS fully loaded weighs no more than 55 lbs. and is operated without an onboard pilot. As such, there is no ability or place to carry certification and registration documents or to display them on the sUAS. An equivalent level of safety will be achieved by keeping these documents at the ground control point where the pilot flying the sUAS will have immediate access to them, to the extent they are applicable to the sUAS.

14 C.F.R. § 91.405 (a); 407 (a) (1); 409 (a) (2); 417 (a) & (b): Maintenance Inspections

These regulations require that an aircraft operator or owner “shall have that aircraft inspected as prescribed in subpart E of this part and shall between required inspections, except as provided in paragraph (c) of this section, have discrepancies repaired as prescribed in part 43 of this chapter...,” and others shall inspect or maintain the aircraft in compliance with Part 43. Given that these section and Part 43 apply only to aircraft with an airworthiness certificate, these sections will not apply to the applicant. Maintenance will be accomplished by the operator pursuant to the FOPM. An equivalent level of safety will be achieved because these small UASs are very limited in size and will carry a small payload and operate only in restricted areas for limited periods of time. If mechanical issues arise the sUAS can land immediately and will be operating from no higher than 400 feet AGL. As provided in the FOPM, the operator will ensure that the sUAS is in working order prior to initiating flight, perform required maintenance, and keep a log of any maintenance performed. Moreover, the operator is the person most familiar with the aircraft and best suited to maintain the aircraft in an airworthy condition to provide the equivalent level of safety.

THE APPLICABLE LEGAL STANDARD UNDER SECTION 333

DronzView submits that grant of this exemption application advances the Congressional mandate in Section 333 of the Reform Act to accelerate the introduction of UASs into the NAS if it can be accomplished safely. This law directs the Secretary of Transportation to consider whether certain UASs may operate safely in the NAS before completion of the rulemaking required under Section 332 of the Reform Act. In making this determination, the Secretary is required to determine which types of UASs do not create a hazard to users of the NAS, the public, or pose a threat to national security in light of the following:

● The UAS’s size, weight, speed, and operational capability;

● Operation of the UAS in close proximity to airports and populated areas; and
● Operation of the UAS within visual line of sight of the operator.
Reform Act § 333 (a) (1). If the Secretary determines that such vehicles "may operate safely in the national airspace system, the Secretary shall establish requirements for the safe operation of such aircraft in the national airspace system." Id. § 333 (c).
The Federal Aviation Act expressly grants the FAA the authority to issue exemptions. This statutory authority, by its terms, includes exempting civil aircraft, as the term is defined under § 40101 of the Act, from the requirement that all civil aircraft must have current airworthiness certificate and those regulations requiring commercial pilots to operate aircraft in commercial service:
The Administrator may grant an exemption from a requirement of a regulation prescribed under subsection (a) or (b) of this section or any of sections 4470244716 of this title if the Administrator finds the exemption is in the public interest.
The grant of the requested exemption is in the public interest based on the clear direction in Section 333 of the Reform Act; the additional authority in the Federal Aviation Act, as amended; the strong equivalent level of safety surrounding the proposed operations; and the significant public benefit, including enhanced safety and cost savings associated with use of UASs for aerial videography/photography, the reduction or elimination of unregulated operators, and the safe integration of UASs. Accordingly, the applicant respectfully requests that the FAA grant the requested exemption without delay.

CONCLUSION
As set forth herein, DronzView seeks an exemption pursuant to 14 C.F.R. § 11.61 and Section 333 of the FAA Modernization and Reform Act of 2012 from the requirements of 14 CFR § 21; 61.113 (a) & (b); 61.133 (a); 91.7 (a); 91.9 (b); 91.109 (a); 91.119 (c); 91.121; 91.151 (a); 91.203; 91.405 (a); 91.407 (a) (1); 91.409 (a) (2); 91.417 (a) & (b), which will permit safe operation of the sUASs commercially, without an airworthiness certificate, for the limited purpose of conducting aerial imagery over small, defined operational areas of the United States.
Approval of the exemption allowing commercial operations of DronzView sUASs will increase safety by permitting an operator to conduct a service safely by adhering to the prescribed guidelines. The exemption will also encourage the education of sUAS operators and the adoption of FAA guidelines and approval for commercial sUAS operations as pertains to DronzView employees and contractors. It will allow DronzView to provide a service that benefits the public and local businesses. It benefits the public through a higher level of safety of sUAS operations and through a smooth integration of sUASs into the NAS. Having a pilot owned business bridges the gap between the advancement of sUAS technology and the current practices and operations in the NAS and with the

FAA. This assists the FAA with its mission of promoting aviation while preserving safety of aviators, the
public, and property. The sUASs operated by DronzView satisfies the criteria set
forth in § 333 of the Reform Act–size, weight, speed, operating capabilities, operation within visual line of sight, and national security–and showing an equivalent level of safety to manned aircraft flights through appropriate pilot certification and safety focused standards of operation, providing more than adequate justification for the grant of the requested exemptions allowing commercial operations.

By granting this Petition, the FAA Administrator will be fulfilling the Congressional
mandate of the FAA Modernization and Reform Act of 2012, while also advancing the interests of the public, by allowing DronzView to safely, efficiently, and economically
operate the sUASs commercially within the NAS.

Kind Regards,
Joseph I Cullen
CEO