



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

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

August 31, 2015

Exemption No. 12671  
Regulatory Docket No. FAA-2015-2133

Mr. John Massey  
dba MasseyGreenAVP  
5080 Batavia Road  
Cincinnati, OH 45244

Dear Mr. Massey:

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 letters posted to the public docket on June 5, June 26, and July 24, 2015, you petitioned the Federal Aviation Administration (FAA) on behalf of Mr. John Massey dba MasseyGreenAVP (hereinafter petitioner or operator) for an exemption. The petitioner requested to operate an unmanned aircraft system (UAS) to conduct aerial photography of golf courses, parks, commercial warehouses, properties for sale, places of interest, and for journalistic use.

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

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

#### **Airworthiness Certification**

The UAS proposed by the petitioner are the DJI Phantom 2, DJI Phantom 3, and DJI Inspire 1.

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<sup>1</sup> and closed set motion picture and filming. 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, MasseyGreenAVP 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

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<sup>1</sup> Aerial data collection includes any remote sensing and measuring by an instrument(s) aboard the UA. Examples include imagery (photography, video, infrared, etc.), electronic measurement (precision surveying, RF analysis, etc.), chemical measurement (particulate measurement, etc.), or any other gathering of data by instruments aboard the UA.

and closed set motion picture and filming. This exemption is subject to the conditions and limitations listed below.

### **Conditions and Limitations**

In this grant of exemption, MasseyGreenAVP 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, DJI Phantom Vision 3, and DJI Inspire 1 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 permitted.
3. The UA may not be operated at a speed exceeding 87 knots (100 miles per hour). The exemption holder may use either groundspeed or calibrated airspeed to determine compliance with the 87 knot speed restriction. In no case will the UA be operated at airspeeds greater than the maximum UA operating airspeed recommended by the aircraft manufacturer.
4. The UA must be operated at an altitude of no more than 400 feet above ground level (AGL). Altitude must be reported in feet AGL.
5. The UA must be operated within visual line of sight (VLOS) of the PIC at all times. This requires the PIC to be able to use human vision unaided by any device other than corrective lenses, as specified on the PIC's FAA-issued airman medical certificate or U.S. driver's license.
6. All operations must utilize a visual observer (VO). The UA must be operated within the visual line of sight (VLOS) of the PIC and VO at all times. The VO may be used to satisfy the VLOS requirement as long as the PIC always maintains VLOS capability. The VO and PIC must be able to communicate verbally at all times; electronic messaging or texting is not permitted during flight operations. The PIC must be designated before the flight and cannot transfer his or her designation for the duration of the flight. The PIC must ensure that the VO can perform the duties required of the VO.
7. This exemption and all documents needed to operate the UAS and conduct its operations in accordance with the conditions and limitations stated in this grant of exemption, are hereinafter referred to as the operating documents. The operating

documents must be accessible during UAS operations and made available to the Administrator upon request. If a discrepancy exists between the conditions and limitations in this exemption and the procedures outlined in the operating documents, the conditions and limitations herein take precedence and must be followed.

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

8. Any UAS that has undergone maintenance or alterations that affect the UAS operation or flight characteristics, e.g., replacement of a flight critical component, must undergo a functional test flight prior to conducting further operations under this exemption. Functional test flights may only be conducted by a PIC with a VO and must remain at least 500 feet from other people. The functional test flight must be conducted in such a manner so as to not pose an undue hazard to persons and property.
9. The operator is responsible for maintaining and inspecting the UAS to ensure that it is in a condition for safe operation.
10. Prior to each flight, the PIC must conduct a pre-flight inspection and determine the UAS is in a condition for safe flight. The pre-flight inspection must account for all potential discrepancies, e.g., inoperable components, items, or equipment. If the inspection reveals a condition that affects the safe operation of the UAS, the aircraft is prohibited from operating until the necessary maintenance has been performed and the UAS is found to be in a condition for safe flight.
11. The operator must follow the UAS manufacturer's maintenance, overhaul, replacement, inspection, and life limit requirements for the aircraft and aircraft components.
12. Each UAS operated under this exemption must comply with all manufacturer safety bulletins.
13. Under this grant of exemption, a PIC must hold either an airline transport, commercial, private, recreational, or sport pilot certificate. The PIC must also hold a current FAA airman medical certificate or a valid U.S. driver's license issued by a state, the District of Columbia, Puerto Rico, a territory, a possession, or the Federal

government. The PIC must also meet the flight review requirements specified in 14 CFR § 61.56 in an aircraft in which the PIC is rated on his or her pilot certificate.

14. The operator may not permit any PIC to operate unless the PIC demonstrates the ability to safely operate the UAS in a manner consistent with how the UAS will be operated under this exemption, including evasive and emergency maneuvers and maintaining appropriate distances from persons, vessels, vehicles and structures. PIC qualification flight hours and currency must be logged in a manner consistent with 14 CFR § 61.51(b). Flights for the purposes of training the operator's PICs and VOs (training, proficiency, and experience-building) and determining the PIC's ability to safely operate the UAS in a manner consistent with how the UAS will be operated under this exemption are permitted under the terms of this exemption. However, training operations may only be conducted during dedicated training sessions. During training, proficiency, and experience-building flights, all persons not essential for flight operations are considered nonparticipants, and the PIC must operate the UA with appropriate distance from nonparticipants in accordance with 14 CFR § 91.119.
15. UAS operations may not be conducted during night, as defined in 14 CFR § 1.1. All operations must be conducted under visual meteorological conditions (VMC). Flights under special visual flight rules (SVFR) are not authorized.
16. The UA may not operate within 5 nautical miles of an airport reference point (ARP) as denoted in the current FAA Airport/Facility Directory (AFD) or for airports not denoted with an ARP, the center of the airport symbol as denoted on the current FAA-published aeronautical chart, unless a letter of agreement with that airport's management is obtained or otherwise permitted by a COA issued to the exemption holder. The letter of agreement with the airport management must be made available to the Administrator or any law enforcement official upon request.
17. The UA may not be operated less than 500 feet below or less than 2,000 feet horizontally from a cloud or when visibility is less than 3 statute miles from the PIC.
18. If the UAS loses communications or loses its GPS signal, the UA must return to a pre-determined location within the private or controlled-access property.
19. The PIC must abort the flight in the event of unpredicted obstacles or emergencies.
20. The PIC is prohibited from beginning a flight unless (considering wind and forecast weather conditions) there is enough available power for the UA to conduct the intended operation and to operate after that for at least five minutes or with the reserve power recommended by the manufacturer if greater.
21. Air Traffic Organization (ATO) Certificate of Waiver or Authorization (COA). All operations shall be conducted in accordance with an ATO-issued COA. The

exemption holder may apply for a new or amended COA if it intends to conduct operations that cannot be conducted under the terms of the attached COA.

22. All aircraft operated in accordance with this exemption must be identified by serial number, registered in accordance with 14 CFR part 47, and have identification (N-Number) markings in accordance with 14 CFR part 45, Subpart C. Markings must be as large as practicable.
23. Documents used by the operator to ensure the safe operation and flight of the UAS and any documents required under 14 CFR §§ 91.9 and 91.203 must be available to the PIC at the Ground Control Station of the UAS any time the aircraft is operating. These documents must be made available to the Administrator or any law enforcement official upon request.
24. The UA must remain clear and give way to all manned aviation operations and activities at all times.
25. The UAS may not be operated by the PIC from any moving device or vehicle.
26. All Flight operations must be conducted at least 500 feet from all nonparticipating persons, vessels, vehicles, and structures unless:
  - a. Barriers or structures are present that sufficiently protect nonparticipating persons from the UA and/or debris in the event of an accident. The operator must ensure that nonparticipating persons remain under such protection. If a situation arises where nonparticipating persons leave such protection and are within 500 feet of the UA, flight operations must cease immediately in a manner ensuring the safety of nonparticipating persons; and
  - b. The owner/controller of any vessels, vehicles or structures has granted permission for operating closer to those objects and the PIC has made a safety assessment of the risk of operating closer to those objects and determined that it does not present an undue hazard.

The PIC, VO, operator trainees or essential persons are not considered nonparticipating persons under this exemption.

27. All operations shall be conducted over private or controlled-access property with permission from the property owner/controller or authorized representative. Permission from property owner/controller or authorized representative will be obtained for each flight to be conducted.
28. Any incident, accident, or flight operation that transgresses the lateral or vertical boundaries of the operational area as defined by the applicable COA must be reported to the FAA's UAS Integration Office (AFS-80) within 24 hours. Accidents must be

reported to the National Transportation Safety Board (NTSB) per instructions contained on the NTSB Web site: [www.nts.gov](http://www.nts.gov).

If this exemption permits operations for the purpose of closed-set motion picture and television filming and production, the following additional conditions and limitations apply.

29. The operator must have a motion picture and television operations manual (MPTOM) as documented in this grant of exemption.
30. At least 3 days before aerial filming, the operator of the UAS affected by this exemption must submit a written Plan of Activities to the local Flight Standards District Office (FSDO) with jurisdiction over the area of proposed filming. The 3-day notification may be waived with the concurrence of the FSDO. The plan of activities must include at least the following:
  - a. Dates and times for all flights;
  - b. Name and phone number of the operator for the UAS aerial filming conducted under this grant of exemption;
  - c. Name and phone number of the person responsible for the on-scene operation of the UAS;
  - d. Make, model, and serial or N-Number of UAS to be used;
  - e. Name and certificate number of UAS PICs involved in the aerial filming;
  - f. A statement that the operator has obtained permission from property owners and/or local officials to conduct the filming production event; the list of those who gave permission must be made available to the inspector upon request;
  - g. Signature of exemption holder or representative; and
  - h. A description of the flight activity, including maps or diagrams of any area, city, town, county, and/or state over which filming will be conducted and the altitudes essential to accomplish the operation.
31. Flight operations may be conducted closer than 500 feet from participating persons consenting to be involved and necessary for the filming production, as specified in the exemption holder's MPTOM.

Unless otherwise specified in this grant of exemption, the UAS, the UAS PIC, and the UAS operations must comply with all applicable parts of 14 CFR including, but not limited to, parts 45, 47, 61, and 91.

This exemption terminates on September 30, 2017, unless sooner superseded or rescinded.

Sincerely,

/s/

John S. Duncan

Director, Flight Standards Service

Enclosures



## John Massey - Exemption/Rulemaking

This Other document was issued by the **Federal Aviation Administration (FAA)**

For related information, [Open Docket Folder](#) 

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ID: FAA-2015-2133-0001

### Content

#1:

John Massey (dba MasseyGreenAVP)  
5080 Batavia Road.  
Cincinnati  
Ohio  
45244  
USA

cinciphotog@yahoo.com

#2

Petitioning for Exemption under Section 333 to use a UAS for non hobby use. I am also petitioning for Exemption under Section 333 for journalistic use.

I plan to fly over golf courses, parks, commercial warehouses, properties for sale, places of interest. All these properties will have full permission off the owners and everyone will be fully aware of my presence.

Full permission from the venues will be in writing before flying except for journalism and legal public areas. Staff and people in the area will be made aware of flying verbally and/or in writing depending on the legal requirements. Flights will not be over people or close to be of danger.

Rotor blades,. New blades, batteries, UAS will be fully inspected prior to each days flight to make sure it is fully air worthiness, not only for safety but to avoid wrecking the UAS. Regular software and firmware updates and annual equipment maintain by certified hobby dealer to ensure craft is in great operational functionality.

A spotter always on hand to look out for people on ground, obstacles in sky and double the number of eyes on the UAS. The spotter can also direct questions from public to allow full focus of myself whilst flying.

### Document Information

**Date Posted:**

Jun 5, 2015

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### Submitter Information

**Submitter Name:**

John Massey

### Comments

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Comments Received\*

### Docket Information

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[FAA-2015-2133](#)

**Related Dockets:**

None

**Related RINs:**

None

**Related Documents:**

None

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I will log any flights from the UAS and make available to FAA when needed.

The UAS will be operated below 400 feet and remain clear of surrounding obstacles

Will not fly at high speeds and in a dangerous manner

The aircraft will be within visual line of sight at all times

Will fly well clear of and will not interfere with manned aircraft operations

Wont fly within 5 miles of an airport, flying in class b airspace we will contact control towers for permission to fly

Wont fly near people or stadiums

Wont fly an aircraft that weighs more than 55 lbs

Wont be careless or reckless with my unmanned aircraft

Radio frequency to comply with FCC regulations and on 2.4ghz and 5.8ghz

I have over 200 Hours of safe UAS Flying under my belt and zero incidents. I follow all fly guidelines at all times and my business partner Matt Green has been in contact with FAA Inspectors to discuss my flying and safety.

Will always have spotter to add an extra set of eyes on the UAS.

Always have full permission to video or photography a building, person or property.

I am a United States Marine Corps veteran and also have operated gyro cameras on hundreds of flights as a passenger aboard a Bell news helicopter while working for a television station. In addition, as a photojournalist with over 17 years experience shooting video at accident scenes, crime scenes, natural disasters, etc, I've learned how to communicate with first responders and the public while not impeding them at doing their jobs. Our main goal is to provide aerial video and still images in a safe and legal manner.

Thanks for your consideration,  
John Massey

portions thereof) such as those containing private or proprietary information, inappropriate language, or duplicate/near duplicate examples of a mass-mail campaign. This can result in discrepancies between this count and those displayed when conducting searches on the Public Submission document type. For specific information about an agency's public submission policy, refer to its website or the Federal Register document.

## John Massey - Additional Information

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**ID:** FAA-2015-2133-0002

### Document Information

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Jun 26, 2015

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### Submitter Information

**Submitter Name:**

John Massey

### Comments

0

Comments Received \*

### Docket Information

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**Related Dockets:**

None

**Related RINs:**

None

**Related Documents:**

- [John Massey - Exemption/Rulemaking](#)

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### Content

I would like to add additional comments to be considered as part of

my application for a 333 exemption:

I plan to fly the DJI Phantom 2 Phantom Vision 3 Quadcopter for all

my Aerial photography projects with the option of the Inspire 1 quad

copter if also granted.

1. The DJI Phantom 2 & 3 has a maximum takeoff weight of less than 3

pounds and thus offers a lightweight, small and compact video

platform compared to manned aircraft. The DJI Phantom 3 has a

maximum takeoff weight of 1300 grams or approximately 2.9 pounds. It

has a diagonal length of 350 mm and a maximum speed of 15 meters per

second.

2. The Phantom 2 & 3 offers significant safety, noise, emission,

security and environmental benefits not available to larger manned

aircraft.

3. The Phantom 2 & 3 has 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. Geo location locks so that flights in class A airspace and in restricted areas are not allowed by the App.

4. Operations utilizing the Phantom 2 & 3 will provide a benefit to the general public and serve the public interest by providing the service of aerial photographic images and video 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 video and images will help with online engagement in a safe way.

5. By offering professional services at a very safe level this should stop Uncertified people carrying out similar jobs unsafely and without the proper experience and knowledge that I offer from 18 months of Phantom 2 and 3 flying.

6. I, John Massey hereby ask the Federal Aviation Administration

(FAA) for an exemption from part 21 subpart H ( 21.171 21.199) and 45.23(b), 91.7(a), 91.9(b), 91.103, 91.109, 91.119, 91.121, 91.151(a), 91.203(a) and (b), and Subpart E (91.401-91.417) of Title

14, Code of Federal Regulations (14 CFR).

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

portions thereof) such as those containing private or proprietary information, inappropriate language, or duplicate/near duplicate examples of a mass-mail campaign. This can result in discrepancies between this count and those displayed when conducting searches on the Public Submission document type. For specific information about an agency's public submission policy, refer to its website or the Federal Register document.

data collection

7. How this exemption would affect the public as a whole: Low

altitude aerial photography and video can provide a more detailed

visual perspective of a real estate property allowing houses hidden

by trees, behind walls to be show in its full light and able to sell

much quicker, helping the economy.

Standard aircraft cannot safely operate below 500 feet and Google

Earth satellite images may not show recent changes. The proposed

service will provide the public with an economical alternative to

the noise and safety issues related to low flying aircraft or

helicopters while providing a better perspective of the subject

property than can be brought by cameras on a rig or low flying

aircraft.

Areas of public interest can be captured from vantage points

previous unable to be obtained, with online engagement 95% visual in

modern society this allows people to view and be attracted to new

areas and attractions that otherwise they may not have noticed and

experienced.

Businesses will benefit economically as every angle can now be

covered in a video to showcase there operations and help increase

revenue, jobs and interest in the goods and services on offer.

Taking stunning pictures that can be framed and preserved for ever,

a moment lost in history captured forever in an aerial photo, taken

low enough and safe enough to give a wow factor.

Using UAV's to assist in agricultural planning will help not only help farmers but the general public will reap the rewards of less costly food from more efficiently-grown crop.

8. As previously mentioned safety is the first and foremost of our business. Reasons why would not adversely affect safety or how would

provide a level of safety equal to existing rule: Applicant has maintained a flight and maintenance log for all aircraft from start of ownership, with the new hantom 3 all flight data is captured and stored in the main computer, all records available to FAA when needed.

i have always had a passion for flight. I currently own a photography and video production company and over the past 18 months as a hobby been flying my Phantom 2 and now 3 safely and with out incident for over 100 hours of actual flight time.

I am prepared to attend any training courses required that may assists in the acquirement of an exception to carry out aerial video and photography in a safe and controlled manner.



## John Massey - Response to Request for Additional Information

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### Content

Additional information on safety and additional exception for closed set.

Applying for addition Closed Set wavier. Waiver 91.515(a) Waiver 91.119(b) and (c) Motion Picture and Television Flight Operation Manual.

In addition to waivers aforementioned in earlier petition. TITLE 14 OF THE CODE OF FEDERAL REGULATIONS SECTIONS 61.113(a) & (b), 91.7(a), 91.121, 91.151(b), 91.405(a), 91.407(a)(1), 91.409(a)(1) & (a)(2), AND 91.417(a) & (b) CONCERNING COMMERCIAL OPERATION OF DJI PHANTOM 3 AND DJI INSPIRE 1 UNMANNED AIRCRAFT SYSTEMS PURSUANT TO SECTION 333 OF THE FAA MODERNIZATION AND REFORM ACT OF 2012 (PUBLIC LAW 112-95)

The DJI Phantom 2 that will be operated by MasseyGreenAVP will be registered in accordance with 49 U.S.C. 44103, Registration of Aircraft, as well as 14 C.F.R Part 47, Aircraft Registration, and marked in accordance with 14 C.F.R. Part 45, Identification and Registration Marking.

I. The Public Will Benefit From Decreased Congestion Of The NAS. The DJI Phantom 2 UAs 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 DJI Phantom 2 UAS 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. Furthermore, by reducing the number of manned aircraft operating in the NAS, congestion around airports caused by arriving and departing aircraft will be reduced. The DJI Phantom 2 UAs do not require an airport to takeoff or land. Likewise, a reduction of manned

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### Submitter Information

**Submitter Name:**

John Massey

### Comments

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### Docket Information

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**Related Dockets:**

None

**Related RINs:**

None

**Related Documents:**

- [U.S. DOT/FAA - Request for Additional Information](#)
- [John Massey - Additional Information](#)
- [John Massey - Exemption/Rulemaking](#)

\* This count refers to the total

aircraft conducting aerial video and photography missions would result in fewer aircraft that must be handled by air traffic control during the ground, takeoff, departure, arrival, and landing phases of flight operations.

2. The Public Will Benefit From The Safety And Efficiency Of The DJI Phantom 2 UAS. Conducting aerial acquisitions with the Phantom 2 UAS, instead of manned aircraft, will greatly benefit the public by drastically reducing the levels of air and noise pollution generated during traditional aerial video and still photography flight operations. By using battery power and electric motors, the DJI Phantom 2 UAS produces no air pollution, and is the most viable environmentally conscious alternative to the cabin class, six cylinder internal combustion engine aircraft that are typically utilized for aerial video and photography, while burning approximately 20-30 gallons per hour of leaded aviation fuel. The DJI Phantom 2 UA, while reducing the carbon footprint of aerial acquisitions, also eliminates noise pollution, as the UAs are propelled by battery powered electric motors, rather than an internal combustion engine. By using the DJI Phantom 2 UAS to perform aerial acquisitions, the substantial risk to life and property in the air and on the ground, which is usually associated with traditional manned aircraft flight operations, will be substantially reduced or completely eliminated. 14 Aside from the lack of flight crew members located on board the aircraft, the Phantom 2 UA (weighing approximately 6 pounds 7.5 ounces respectively, at its maximum gross weight with a length of 17.3 inches and width of 17.7 inches, and with no fuel on board), has less physical potential for collateral damage to life and property on the ground, and in the air, compared to the manned aircraft that typically conduct similar operations (weighing approximately 6,000 pounds with a wingspan of approximately 42 feet, a length of 34 feet, and a fuel capacity of 180 gallons).

comment/submissions received on this *document*, as of 11:59 PM yesterday. Note: Agencies review all submissions, however some agencies may choose to redact, or withhold, certain submissions (or portions thereof) such as those containing private or proprietary information, inappropriate language, or duplicate/near duplicate examples of a mass-mail campaign. This can result in discrepancies between this count and those displayed when conducting searches on the Public Submission document type. For specific information about an agency's public submission policy, refer to its website or the Federal Register document.

## Attachments (1)

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John Massey - Massey Green Motion  
Picture and Television Flight Operation  
Manual 2015

View Attachment:

