



U.S. Department  
of Transportation

**Federal Aviation  
Administration**

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

September 1, 2015

Exemption No. 12687  
Regulatory Docket No. FAA-2015-1251

Mr. Thomas R. Padgett III  
Padgett Builders LLC  
643 Kinsale Road  
Kinsale, VA 22488

Dear Mr. Padgett:

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 public docket on April 28 and July 2, 2015, you petitioned the Federal Aviation Administration (FAA) on behalf of Padgett Builders LLC (hereinafter petitioner or operator) for an exemption. The petitioner requested to operate an unmanned aircraft system (UAS) to conduct commercial aerial photography operations for real estate, search and rescue, and construction.

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 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<sup>1</sup>. The FAA has issued grants of exemption in circumstances similar in all material respects to those presented in your petition. In Grants of Exemption Nos. 11062 to Astraeus Aerial (*see* Docket No. FAA–2014–0352), 11109 to Clayco, Inc. (*see* Docket No. FAA–2014–0507), 11112 to VDOS Global, LLC (*see* Docket No. FAA–2014–0382), and 11213 to Aeryon Labs, Inc. (*see* Docket No. FAA–2014–0642), the FAA found that the enhanced safety achieved using an unmanned aircraft (UA) with the specifications described by the petitioner and carrying no passengers or crew, rather than a manned aircraft of significantly greater proportions, carrying crew in addition to flammable fuel, gives the FAA good cause to find that the UAS operation enabled by this exemption is in the public interest.

Having reviewed your reasons for requesting an exemption, I find that—

- They are similar in all material respects to relief previously requested in Grant of Exemption Nos. 11062, 11109, 11112, and 11213;
- The reasons stated by the FAA for granting Exemption Nos. 11062, 11109, 11112, and 11213 also apply to the situation you present; and
- A grant of exemption is in the public interest.

### **Our Decision**

In consideration of the foregoing, I find that a grant of exemption is in the public interest. Therefore, pursuant to the authority contained in 49 U.S.C. 106(f), 40113, and 44701, delegated to me by the Administrator, Padgett Builders 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.

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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.

## Conditions and Limitations

In this grant of exemption, Padgett Builders LLC is hereafter referred to as the operator.

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

1. Operations authorized by this grant of exemption are limited to the DJI 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 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





## Thomas R. Padgett, III - Petition for Exemption

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

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### Content

1. To receive exemption and permission from the FAA to operate a DJI Phantom 2 Vision Plus Quad Copter, also known as a flying camera by the company, or as a drone. This craft is limited to 400 feet of altitude and 2000 feet of flight range. However it would be operated less then 200 feet of altitude and within visual line of site of the operator at all times for business aerial photographic purposes for compensation under our current company of Padgett Builders LLC. This aircraft is also programmed not to enter or be able to fly into no fly zones by DJI. The cargo would be the installed camera. Aircraft can operate at approximately 33 mph but would be operated less then 15 mph during business use. Flight time is approximately 20 minutes per flight. Aircraft is GPS enabled and has a return to home safety feature if flown out of range. Air craft weight is approximately 2.7 pounds. Photos would be taken of Real Estate for sale houses as well as projects under construction.

2. Pre flight inspections will be conducted per DJI recommendations. Maintenance will occur after every flight to ensure a good flying aircraft and repairs will be wit DJI parts.

3. The air craft radio frequency is 5.728 GHz5.85 GHz. While the range extender operates in the 2412-2462MHz range.

4. The air craft will be operated by the owner at all times during business use. Owner has been flying R/C aircraft and quad copters for over 20 years with many hours of flight experience.

5. Aircraft owner is a Virginia Licensed Emergency Medical Technician as well as trained Firefighter level 1 and 2 and an Assistant Fire Chief. With the aircraft operated only in a light of sight field the owner will be present in the event of emergency.

6. Operations of the craft will be for aerial photography for compensation. Pictures and videos will be taken of real estate for sale as well as owners homes as requested. Neighbors will be contacted before flights to advise them of the occurrence of such flight. Safety will be implemented by the lower altitude and lower speed flight. Care will be taken not to fly around crowds or people as well as the avoidance of power lines. Air craft will not be flown if other aircraft are operating in or near the same area. Aircraft will not be flown over other peoples homes or properties without there consent. The second purpose of flight would be for search and rescue operations with the local fire, rescue and police agencies. This would not be for compensation. And would follow all safety procedures listed above.

7. Aircraft would operate at or below 15 mph. Altitude would be below 200 feet for business purposes. Visibility would be line of sight. Aircraft would not be flown in fog or inclement weather that would lower line of sight range.

8. Area of operation would be in Rural and low populated areas in the Northern Neck area of Virginia. Will not be operated in cities or over large gatherings of people.

9. Air craft will not be operated in proximity of any air ports and is programmed by DJI to have a no fly zone over Washington DC as well as major airports. Smaller airports will receive programming by DJI as a no fly zone as well.

10. Air craft will be operated in Visual line of Sight. Operator will walk with craft to keep it within sight at all times for business purposes.

11. A preflight survey of the flight areas will be conducted by foot prior to flight. If unsafe areas are found flight will not occur. This is for safety of those on the ground, air and aircraft.

12. Operations that have existing requirements such as movie or television will not be conducted.

13. A COA will be obtained once this is approved by the FAA.

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### Comments

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### Docket Information

*This document is contained in*  
[FAA-2015-1251](#)

**Related Dockets:**

None

**Related RINs:**

None

**Related Documents:**

None

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## Thomas R. Padgett, III - Response to Request for Additional Information

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

Comment Period Closed

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### Content

Pursuant to Section 333 of the FAA Modernization and Reform Act of 2012 (the Reform Act) and 14 C.F.R. Part 11, Thomas R. Padgett III hereby applies for an exemption from the listed Federal Aviation Regulations (FARs) to allow commercial operation of its Phantom 2, so long as such operations are conducted within and under the conditions outlined herein or as may be established by the FAA as required by Section 333.1

As described more fully below, the requested exemption would permit the operation of small, unmanned and relatively inexpensive Phantom 2 under controlled conditions in airspace that is 1) limited 2) predetermined 3) controlled as to access.

Approval of this exemption would thereby enhance safety and fulfill the Secretary of Transportation's (the FAA Administrator's) responsibilities to establish requirements for the safe operation of such aircraft systems in the national airspace system. Section 333(c) of the Reform Act.

Regulations from which the exemption is requested:

- 14 CFR Part 21
- 14 C.F.R. 45.23(b)
- 14 CFR 61.113(a) & (b)
- 14 C.F.R. 91.7 (a)
- 14 CFR 91.9 (b) (2)
- 14 C.F.R. 91.103
- 14 C.F.R. 91.109
- 14 C.F. R. 91.119
- 14 C.F.R. 91.121
- 14 CFR 91.151 (a)
- 14 CFR 91.203 (a) & (b)

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None

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14 CFR 91.405 (a)  
 14 CFR 407 (a) (1)  
 14 CFR 409 (a) (2)  
 14 CFR 417 (a) & (b)

This exemption application is expressly submitted to fulfill Congress goal in passing Section 333(a) through (c) of the Reform Act. This law directs the Secretary of Transportation to consider whether certain unmanned aircraft systems may operate safely in the national airspace system (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 or the public or pose a threat to national security in light of the following:  
 The UASs 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). Lastly, 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) (emphasis added)2.  
 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, which includes UAS, from the requirement that all civil aircraft must have a current airworthiness certificate.

The requested exemption would authorize commercial operations using the Phantom 2 for commercial photography in Virginia. These operations will be subject to strict operating requirements defined in the previous request and the user manual in order to ensure at least an equivalent level of safety to currently authorized operations using manned aircrafts.

By using the Phantom 2 for no cost in search and rescue operations the public will be greatly benefited and be in the public interest.

None

**Related Documents:**

- [U.S. DOT/FAA - Request for Additional Information](#)
- [Thomas R. Padgett, III - Petition for Exemption](#)

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