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

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

May 28, 2015

Exemption No. 11704
Regulatory Docket No. FAA–2015–0770

Mr. Andrew J. Pond
Owner
Dock House Digital, LLC
1548 Maple Grove Drive
Johns Island, SC 29455

Dear Mr. Pond:

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 posted to the public docket on March 26, 2015, you petitioned the Federal Aviation Administration (FAA) on behalf of Dock House Digital, LLC (hereinafter petitioner or operator) for an exemption. The petitioner requested to operate an unmanned aircraft system (UAS) to conduct aerial photography and videography.

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

The FAA has determined that good cause exists for not publishing a summary of the petition in the Federal Register because the requested exemption would not set a precedent, and any delay in acting on this petition would be detrimental to the petitioner. However, a comment opposing the petition was submitted to the public docket. In granting this exemption, the FAA has determined that the proposed operations can safely be conducted under the conditions and limitations of this exemption. As with exemptions issued to Aeryon Labs, Astraeus Aerial, Clayco, Inc., and VDOS Global, LLC, failure to comply with the document's

conditions and limitations is grounds for immediate suspension or rescission of the exemption.

Airworthiness Certification

The UAS proposed by the petitioner is a DJI T600.

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 and any associated noise certification and testing requirements of part 36, is not necessary.

The Basis for Our Decision

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

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

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

Our Decision

In consideration of the foregoing, I find that a grant of exemption is in the public interest. Therefore, pursuant to the authority contained in 49 U.S.C. 106(f), 40113, and 44701, delegated to me by the Administrator, Dock House Digital, LLC is granted an exemption from 14 CFR §§ 61.23(a) and (c), 61.101(e)(4) and (5), 61.113(a), 61.315(a), 91.7(a),

91.119(c), 91.121, 91.151(a)(1), 91.405(a), 91.407(a)(1), 91.409(a)(1) and (2), and 91.417(a) and (b), to the extent necessary to allow the petitioner to operate a UAS to perform aerial data collection. This exemption is subject to the conditions and limitations listed below.

Conditions and Limitations

In this grant of exemption, Dock House Digital, 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 T600 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 May 31, 2017, unless sooner superseded or rescinded.

Sincerely,

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

Andrew J. Pond
Dock House Digital, LLC
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Johns Island, SC 29455
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E-mail: drew@dockhousedigital.com

Dear Sir or Madam:

Pursuant to Section 333 of the FAA Modernization and Reform Act of 2012 (the "Reform Act") and 14 C.F.R. Part 11, Dock House Digital, LLC ("DHD") seeks an exemption from Federal Aviation Regulations ("FARs") detailed below for the following described Unmanned Aerial System called in this application the DHD System, which includes an Unmanned Aircraft (UA) and ground station-based equipment and crew:

THE UNMANNED AIRCRAFT (UA):

- € A lightweight (6.4 lb gross weight with all on-board equipment and no payload), battery operated fixed-wing UA in the form of a quadcopter that takes off and lands vertically, manufactured by DJI, Model T600, with a maximum speed of 50mph and dimensions of 17in. x 17in x 12in. modified by the applicant to carry the following equipment in flight;

- € An on-board flight computer with GPS navigation and location ability that receives signals for flight controls from a ground-based transmitter/controller;

- € An on-board camera capable of capturing imagery in the form of full color, high definition still photos and video;

- € An on-board telemetry system that delivers flight data from the on-board flight computer to the on-board radio transmitter including altitude AGL, horizontal and vertical speed, compass direction of flight and direction back to its launch site;

- € A 600mW, 5.8GHz on-board radio transmitter that transmits live video from the on-board camera plus all the flight data from the telemetry system described above; THE GROUND STATION-BASED PART OF THE SYSTEM:

- € A Pilot in Command (PIC) in operational control of a flight operation from beginning to end and who controls the UA while in the air;

- € A 100mW, 2.4GHz radio transmitter/controller operated by the PIC to control the UA while in flight;

- € A radio receiver receiving live video and flight data from the on-board camera and computer projects it all together onto a screen for the PIC to view during

flight;

• € A Visual Observer (VO) is a person who provides a second pair of eyes to visually track the UA while in flight. The requested exemption would support an application for a commercial Certificate of Authorization to use the above described DHD System to support aerial photography and video primarily of real property, specifically individual properties of no more than two acres in size. We are a video production company who uses these aerial images solely to enhance our end product, giving our clients a view of their property, which cannot be established from any ground-based equipment. We do not seek any type of additional compensation from our clients to use this technology. This technology is used solely for professional-quality video production purposes. Our use of the UA is very minimal as we simply elevate the UA (to no more than 100 ft.), get a 360 degree shot of the property, and then land the UA; a process of no more than 8 minutes. The UA, for our purposes, is only used vertically, and never travels horizontally, minimizing any danger or threat to an individual.

The UA, powered by batteries, is smaller, lighter and more maneuverable than larger aircraft running on combustible fuel, it operates at lower altitudes with no people on board and will thereby reduce current risk levels and thereby enhance safety and diminish the likelihood of death or serious bodily injury. With a small payload and maximum flight time of only 18 minutes, this offers little to no risk to national security as the maximum altitude intended for our use is less than 100 ft. Our use of the UA will never be closer than 30 miles to the nearest airport.

Low-level oblique photos and video from several angles are far more effective than ground- based imagery for displaying the characteristics of large, complex properties with several buildings and large trees. The applicant in the past has chartered 2-seat full-sized helicopters for this purpose, which has proven more costly than our business has been able to afford. The benefits of reduced cost and improved quality of presentation from the UA will be valuable to our business as a whole.

Additionally, we request that we be allowed to use our system to benefit first responders nearby who might require assistance, including fire fighters, the police, the sheriff, et al., while remaining subject to all limitations cited in this application as we do so.

The DHD System will be operated in the field with both a PIC and a VO in accordance with FAA Policy N 8900.227 Section 14 "Operational Requirements for UAS" and with the following Restrictions:

. (a) No flight will be made with a UA Gross weight exceeding 55 pounds;

. (b) All operations must occur in FAA Class G airspace at no more than 400 ft AGL, at an airspeed of no more than 25 knots and no further than 3/4 NM from the PIC;

. (c) All operations must utilize a visual observer (VO). The VO and PIC must be able to communicate by voice at all times during a flight operation;

. (d) Operations will be restricted to flights over private property with the permission of the property owner;

. (e) The PIC must have accumulated and logged, in a manner consistent with 14 CFR § 61.51 (b), a minimum of 100 flight cycles and 25 hours of total time as a UA rotorcraft pilot and at least ten hours logged as a UA pilot with a similar UA type;

. (f) All required permits will be obtained from state and local government prior to operation;

. (g) The DHD System will not be operated over densely populated areas;

. (h) The DHD System will not be operated at air shows;

. (i) The DHD System will not be operated over any open-air assembly of people;

. (j) The DHD System will not be operated over heavily trafficked roads;

. (k) The DHD System will not be operated within 5 NM of an airport or heliport;

. (l) The DHD System will not be operated over properties smaller than two acres in size;

. (m) Operations will be restricted to day only and weather conditions equivalent to VFR;

. (n) The PIC will brief the VO and property owner about the operation and risk before the first flight at each new location;

. (o) No flight may be made without a Pre-Flight Inspection by the PIC before each operation to ascertain that the UA is in a condition safe for flight (see Appendix A).

The PIC and VO will meet the requirements outlined in FAA Policy N 8900.227 Section 16 personnel Qualifications. Additionally, the PIC and VO will perform maintenance on the system and will complete a course of maintenance instruction as part of their initial training.

We submit that the combination of the UA's light weight, flight performance and ability, fully qualified flight crew and strict operation under the guidelines established in 8900.227, and under all of the Restrictions (a) through (o) listed above, the FAA can have full confidence that the operation will have an equivalent or greater level of safety than manned aircraft performing the same mission.

The name and contact information of the applicant are:

Dock House Digital, LLC Attn: Andrew J. Pond Ph: 843-743-3555

The regulations from which the exemption is requested are listed below. Beside each regulation number is the page of the attached Addendum upon which each may be found together with our proposed equivalent level of safety for each regulation:

- 14 CFR Part 21.....Addendum Page 1 - 14 CFR 91.203.....Addendum Page 1 - 14 CFR 45.23, 45.29.....Addendum Page 2 - 14 CFR 91.9.....Addendum Page 2 - 14 CFR 61.113, 61.133.....Addendum Page 2 - 14 CFR 91.109, 91.119, 91.121.....Addendum Page 3 - 14 CFR 91.151.....Addendum Page 4 - 14 CFR Subpart E (91.401 - 91.417) .....Addendum Page 4 - FAA Policy 8900.227 Paragraph 16(c)(4) and Paragraph 16(e)(1) ...Addendum Page 4

We are prepared to modify or amend any part of this request to satisfy the need for an equivalent level of safety. Please contact us at any time if you require additional information or clarification. We look forward to working with your office.

Sincerely,

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Andrew J. Pond, Owner – Dock House Digital, LLC