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

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

July 15, 2015

Exemption No. 12055
Regulatory Docket No. FAA–2015–1553

Mr. Michael Racz
425 Union Avenue
Pittsburgh, PA 15205

Dear Mr. Racz:

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 April 25, 2015, you petitioned the Federal Aviation Administration (FAA) for an exemption. You requested to operate an unmanned aircraft system (UAS) to conduct aerial video filming, photography, mapping, and photogrammetry.

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 Vision Plus and DJI Phantom 3.

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, Mr. Michael Racz 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, Mr. Michael Racz is hereafter referred to as the operator.

[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.

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 Plus and DJI Phantom 3 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 July 31, 2017, unless sooner superseded or rescinded.

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

Enclosures

April 25, 2015

US Department of Transportation
Docket Management System
1200 New Jersey Ave. SE
Washington DC 20590
Re: Exemption Request

RE: Petition for Exemption – Section 333 of the Federal Aviation Administration Reform Act and Part 11 of the Federal Aviation Regulations from 14 C.F.R. 45.23(b); 14 CFR Part 21; 14 CFR 61.113(a) & (b); 91.7(a); 91.9(b)(2); 91.103(b); 91.119; 91.121; 91.151(a); 91.203(a) & (b); 91.405(a) & (b); 91.407(a)(1); 91.409(a)(1) & (a)(2); 91.417(a) & (b).

Dear Sirs,

I, Michael Racz, owner and operator of the small unmanned aircraft listed within request to be exempted from the Federal Aviation Regulations listed below so that I may operate a small ultra-light weight unmanned aircraft system (sUAS) commercially in the National AirSpace System (NAS) regulated by the Federal Aviation Administration in accordance with FAA UAS Regulations and Policies.

I) Contact Information:

Michael Racz
425 Union Ave.
Pittsburgh PA 15205
mracz@digitalactuality.com

II) Proposed Operations:

a) sUAS equipped with cameras and sensors will be used for video filming and photography by air for private purposes such as cinematography, advertising, and/or promotions. Filming and photography will only be conducted with the written permission and under contract with the owners and only when it is safe to do so.
b) sUAS equipped with cameras and sensors will be used for aerial mapping and photogrammetry to collect data for engineering, land survey and development. Flights will only be conducted with written permission and under contract with the owners and only when it is safe to do so.

III) Description of Unmanned Aircraft System:

a) DJI Phantom 2 Vision Plus
Weight: 2.83lbs

Diagonal Size: 350mm or 1.14ft
Power Supply: 5200 mAh Lipo battery
Max Flight Speed: 15m/s or 29.15 knots
Integrated GPS Flight Control System: Vertical Hover Accuracy 0.8m
Horizontal Hover Accuracy 2.5m
Transmitter: Operating Frequency 5.278 GHz – 5.850 GHz
Communication Distance: FCC Compliance 800m
Transmitter Power: FCC Compliance 100mW

b) DJI Phantom 3 Advanced
Weight: 1280g or 2.82lbs
Diagonal Size (Including propellers): 590mm or 1.93ft
Power Supply: 4480 mAh battery
Max Flight Speed: 16m/s or 31.10 knots
Integrated GPS/Glonass Flight Control System: Vertical Hover Accuracy +/- 10cm
Horizontal Hover Accuracy +/- 1m
Transmitter: Operating Frequency 2.400 GHz – 2.483 GHz
Transmitter Power (EIRP): FCC Compliance 20dBm

IV) Flight Safety:

a) On board flight control system with GPS navigation and location ability that receives signals from a ground station, the flight control system will automatically control the aircraft to fly back to the launch point and land if communication with ground station is lost.
b) On board telemetry system that receives flight data including altitude (ALG), horizontal and vertical speed, compass direction of flight, and distance from launch point and transmits that data to the ground station.
c) On board camera that transmits live video to the ground station.
d) Ground station that receives all flight data from the on board systems and can be viewed on screen by the Pilot in Charge (PIC) during the entire flight.
e) The sUAS will not be operated in any adverse conditions.
f) The sUAS will only be operated during daylight hours.
g) The sUAS will not be operated in wind speeds in excess of 17mph.
h) The sUAS will go through a preflight inspection before use including inspection of body, propellers, compass calibration, GPS reception, and connection to the ground station.
i) The sUAS will be in control of the Pilot in Charge (PIC) at all times.
j) A Visual Observer (VO) will be present during entire flights to provide a second pair of eyes to visually track the sUAS during flight.
k) Launch/landing point will be clearly marked and coned off if needed.
l) The sUAS maximum altitude (ALG) will not exceed 300’.
m) The sUAS flight speed shall not exceed 30mph.
n) The sUAS will not fly within 5 miles of any airport.
o) The Pilot in Charge will keep the sUAS in his Visual Line of Sight (VLOS) and not exceed a horizontal distance of 1000’ from himself.
p) Should the PIC or VO detect a manned aircraft in close proximity, the PIC will cease the sUAS flight and land.
q) All FAA documents and sUAS manuals will be kept at launch point during all flights.

r) A flight log detailing weather conditions, flight data, and any maintenance will be kept for all flights.

V) Exemptions Requested and Reasons for These Exemptions:

a) 14 C.F.R. Part 21, Subpart H: Airworthiness Certificates 14 C.F.R. §91.203 (a) (1) **Subpart H**, entitled Airworthiness Certificates, establishes the procedural requirements for the issuance of airworthiness certificates as required by FAR§ 91.203 (a) (1). Given the size and limited operating area associated with the aircraft to be utilized by the Applicant, an exemption from Part 21 Subpart H meets the requirements of an equivalent level of safety under Part 11 and Section 333 of the Reform Act. Section 44701 (t) of the Act and Section 333 of the Reform Act both authorize the FAA to exempt aircraft from the requirement for an airworthiness certificate upon consideration of the size, weight, speed, operational capability, and proximity to airports and populated areas of the particular sUAS. In all cases, an analysis of these criteria demonstrates that the sUAS operated without an airworthiness certificate, in the restricted environment and under the conditions proposed herein will be at least as safe, or safer, than a conventional aircraft (fixed wing or rotorcraft) operating with an airworthiness certificate without the restrictions and conditions proposed.

The sUAS to be operated are less than 55 lbs. fully loaded, flight speed will not exceed 30mph, it carries neither a pilot nor passenger, carries no explosive materials or flammable liquid fuels, and operates exclusively within a secured area.

b) 14 C.F.R. § 45.23 (b). Marking of the Aircraft requires that the operator must display on that aircraft near each entrance to the cabin, cockpit, or pilot station, in letters not less than 2 inches nor more than 6 inches high, the words "limited," "restricted," "light-sport," "experimental," or "provisional," as applicable."

The sUAS will not have a cabin, cockpit, or pilot station on which to mark these words and furthermore two inch lettering is difficult to place on the sUAS with dimensions smaller than the minimal lettering requirements.

c) 14 C.F.R. § 61.113 (a) & (b): Private Pilot Privileges and Limitations: Pilot in Command, limit private pilots to non-commercial operations.

The sUAS will not carry a pilot or passengers, the proposed operations can achieve the equivalent level of safety of current operations. The sUAS are 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 Safety Checklist. The level of safety provided by the requirements included in the Safety Checklist exceeds that provided by a single individual holding a commercial pilot's certificate operating a conventional aircraft.

d) 14 C.F.R. §91.7(a): Civil aircraft airworthiness requires that no person may operate a civil aircraft unless it is in airworthy condition.

No FAA regulatory standard currently exists for determining airworthiness of the sUAS.

Given the size of the aircraft and the requirements of the Safety Checklist prior to each flight, an equivalent level of safety will be provided.

e) 14 C.F.R. § 91.9 (b) (2): Civil Aircraft Flight Manual in the Aircraft 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. The equivalent level of safety will be maintained by keeping the flight manual at the ground station to which the sUAS pilots flying the sUAS will have immediate access.

f) 14 C.F.R. § 91.103(b): Preflight action requires each pilot in command to take certain actions before flight to insure the safety of flight.

No FAA-approved flight manuals currently exist for the sUAS. An equivalent level of safety will be provided as set forth in the Safety Checklist. The PIC will take all actions including reviewing weather, flight battery requirements, landing and takeoff distances and aircraft performance data before initiation of flight.

g) 14 C.F.R. § 91.119: Minimum safe altitudes establishes safe altitudes for operation of civil aircraft. Section 91.119(d) allows helicopters, powered parachutes and weight-shift-control aircraft to be operated at less than the minimums prescribed because their low speed and responsive controls allow operations to be conducted, "without hazard to persons or property on the surface ... "

The sUAS will never operate at higher than 300 AGL. It will be operated in a restricted area, where buildings and people will not be exposed to operations without their pre-obtained consent.

h) 14 C.F.R. § 91.121 Altimeter Settings 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."

No method currently exists to adjust the barometric altimeter on the sUAS. An equivalent level of safety will be achieved by the PIC, pursuant to the Safety Checklist, confirming the altitude of the launch site shown on the GPS altitude indicator before flight.

i) 14 C.F.R. § 91.151 (a): Fuel Requirements for Flight in VFR Conditions 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 sUAS is powered by battery and not combustible fuel and is much more limited than that of combustion powered flight. The sUAS will be flown in a predetermined area and returned to the ground station when battery capacity has reached 20%. The sUAS will not be flown at night.

j) **14 C.F.R. § 91.203 (a) and (b): Carrying Civil Aircraft Certification and Registration** 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 are 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 station where the PIC flying the sUA will have immediate access to them.

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

These sections and Part 43 apply only to aircraft with an airworthiness certificate. An equivalent level of safety will be achieved because the sUAS is 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 300 feet AGL.
As provided for in the Safety Checklist, the applicant 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 applicant 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.

VI) Public Interest:

a) Aerial filming and photography will bring interest to certain events and regions promoting economic benefits for these events and regions by showing them in a new perspective unattainable by other means and offer a low cost alternative to current methods for cinematography, advertising and/or promotions.

b) Aerial mapping and photogrammetry for the professions of engineering, land survey and development will provide a low cost alternative to the current data collection methods. It will also shield workers in the field from unsafe site conditions such as hilly terrains and dangerous wild life such as ticks and rattlesnakes.

VII) Manuals:

a) DJI Phantom 2 Vision Plus
http://download.dji-innovations.com/downloads/phantom_2_vision_plus/en/Phantom_2_Vision_Plus_User_Manual_v1.8_en.pdf

b) DJI Phantom 3 Advanced
Currently not available online

Sincerely,

Michael Racz