



Federal Aviation Administration

June 16, 2015

Exemption No. 11839 Regulatory Docket No. FAA–2015–1151

Mr. Nathan J. Meyer Associate Broker Internet Realty/Florida Keys Inc. 24752 Overseas Highway Summerland Key, FL 33042

Dear Mr. Meyer:

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 9, 2015, you petitioned the Federal Aviation Administration (FAA) for an exemption. You requested to operate an unmanned aircraft system (UAS) to conduct aerial videography and cinematography.

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 Plus.

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 collection¹. 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. Nathan J. Meyer is granted an exemption from 14 CFR §§ 61.23(a) and (c), 61.101(e)(4) and (5), 61.113(a), 61.315(a), 91.7(a), 91.119(c), 91.121, 91.151(a)(1), 91.405(a), 91.407(a)(1), 91.409(a)(1) and (2), and 91.417(a) and (b), to the extent necessary to allow the petitioner to operate a UAS to perform aerial data collection. This exemption is subject to the conditions and limitations listed below.

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

Conditions and Limitations

In this grant of exemption, Mr. Nathan J. Meyer 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 Plus 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 June 30, 2017, unless sooner superseded or rescinded.

Sincerely,

/s/

John S. Duncan Director, Flight Standards Service

Enclosures

Nathan J. Meyer, Realtor, Summerland Key, FL - Section 333 Exemption Petition

April 9, 2015

U. S. Department of Transportation Docket Management System 1200 New Jersey Ave, SE Washington, DC 20590

Re: Exemption Request Section 333 of the FAA Reform Act of the Federal Aviation Regulations from 14 C.F.R. 45.23(b); 14 C.F.R. Part 21; 91.7(a); 91.9(b) (2); 91.103(b); 91.109; 119.121; 91.151(a); 91.203(a)&(b); 91.405(a); 91.407(a) (1); 91.409(a) (2); 91.417(a)&(b)

Dear Sir or Madam,

I, Nathan J. Meyer, am writing pursuant to the FAA Modernization and Reform Act of 2012 and the procedures contained within 14 C.F.R. 11, to request that I, Nathan J. Meyer, an owner and operator of small unmanned aircraft, be exempted from the Federal Aviation Regulations ("FARs") listed below so that I, Nathan J. Meyer, may operate my small ultra lightweight unmanned aircraft system ("UAS") commercially in airspace regulated by the Federal Aviation Administration ("FAA").

As described herein I, Nathan J. Meyer, am an FAA licensed commercial pilot with instrument, CFI and CFII designations and I hold a current second class medical, with over 1000 hours logged¹. I am also a licensed Realtor within the State of Florida. I am experienced in flying hobby helicopters for recreational purposes. I currently fly a DJI Phantom 2 Vision Plus, hobby grade quad-copter UAS equipped with wide angle camera. I am seeking exemption to use this aircraft in aerial videography/cinematography to enhance academic community awareness for those individuals and companies unfamiliar with the geographical layout of The Florida Keys, and to augment real estate listing videos and photos.

I have flown small RC electric quadcopters for over four (4) years without incident or accident, and have logged 32 hours with my current UAS¹. Committed to safety with each flight, my, Nathan J. Meyer's, exemption request would permit operation of ultra lightweight, unmanned (piloted by remote control) and comparatively inexpensive UAS(s) in class G airspace in The Florida Keys² All operations would be conducted in predetermined areas away from the general public, airports, heliports and vehicular traffic, and within property boundaries and/or adjacent, unpopulated waterways and vacant land for individual homeowner real estate listing videos/photos. Currently, similar lightweight, remote controlled UAS's are legally operated by unmonitored amateur hobbyists with no safety plan or controls in place to prevent incident or accident. I, Nathan J. Meyer, have personally established safety protocols and controls³ to avoid and prevent public hazard. This will act to further safety protocols exclusive to lightweight UAS's specific to real estate video and photography usage as I, Nathan J. Meyer, log flight data and other information gained through permitted flight operations to share with the FAA through any required or requested FAA reports to assist with future protocol and safety

- 1. Appendix A
- 2. Appendix B
- 3. Appendix C

regulation. I believe my experience as a commercial pilot and CFI, combined with my experience as a UAS pilot will bring a unique and valuable perspective to this emerging technology, and any and all data and observations will be openly shared with the FAA.

Granting my, Nathan J. Meyer's, request comports with the Secretary of Transportation's (FAA Administrator's) responsibilities and authority to not only integrate UAS's into the national airspace system, but to "...establish requirements for the safe operation of such aircraft systems [UAS's] in the national airspace system" under Section 333(c) of the Reform Act specific to the use of UAS's for real estate/Realtor purposes. Further I, Nathan J. Meyer, will conduct my operations in compliance with the protocols described herein or as otherwise established by the FAA. For the reasons stated below I, Nathan J. Meyer, respectfully request the grant of an exemption allowing me to operate ultra lightweight, remote controlled UAS's for academic community awareness to benefit/stimulate attraction to the Florida Keys Area, and to enhance real estate listing videos and photos for homeowners who cannot afford expensive manned aircraft for the same purpose. Both of which will promote local economic growth through increased employment and increased tax base. Both will improve public safety by replacing heavier, manned aircraft containing combustible fuel that that poses potential public hazard with extremely lightweight, maneuverable, unmanned aircraft that poses extremely minimal Furthermore, the reduced noise and fuel emissions of using a lightweight UAS as compared with manned aircraft photographic/videographic shoots will greatly benefit the public and environment.

I. Contact Information:

Nathan J. Meyer, Associate Broker Internet Realty/Florida Keys Inc. 24752 Overseas Highway Summerland Key, FL 33042 Office: 305-745-9088

Mobile: 305-587-0268

Email: nate@lowerkeysre.com

II. The Specific Sections of Title 14 of the Code of Federal Regulations From Which Nathan J. Meyer Requests Exemption are:

14 CFR 21; 14 C.F.R. 45.23(b); 14 C.F.R. 91, et seq.; 14 CFR 407 (a) (1); 14 CFR 409 (a) (2); and, 14 CFR 417 (a) & (b).

III. The Extent of relief Nathan J. Meyer seeks and the Reason He Seeks Such Relief:

I, Nathan J. Meyer, submit this application in accordance with the Reform Act, 112 P.L. 95 §§ 331-334, seeking relief from any currently applicable FARs operating to prevent me, Nathan J. Meyer, contemplated commercial photographic, cinematic, academic and other flight

operations within the national airspace system. The Reform Act in Section 332 provides for such integration of civil unmanned aircraft systems into our national airspace system as it is in the public's interest to do so.

My, Nathan J. Meyer's, ultra lightweight UAS meets the definition of "small unmanned aircraft" as defined in Section 331 and therefore the integration of my ultra light weight UAS is expressly contemplated by the Reform Act. I would like to operate my ultra lightweight UAS prior to the time period by which the Reform Act requires the FAA to promulgate rules governing such craft. Thereby, providing direct experience and valuable information for formal regulation that can be administered uniformly to all real estate related UAS aerial video and photography. The Reform Act guides the Secretary in determining the types of UAS's that may operate safely in our national airspace system. Considerations include: The weight, size, speed and overall capabilities of the UAS's; Whether the UAS will be operated near airports or heavily populated areas; and, Whether the UAS will be operated by line of sight. 112 P.L. 95 § 333 (a). Each of these items reflect in favor of an exemption for me, Nathan J. Meyer. My UAS utilizes four (4) counter-rotating propellers for balance, control and stability. My UAS is equipped with GPS and auto return safety technology, geo-fencing technology, and battery monitoring technology with a fail-safe to automatically return to landing point if battery is running under 10%. Weighing less than five (5) pounds (far below the maximum 55 pound limit); including camera with gimbal, this aircraft is extremely lightweight.

I, Nathan J. Meyer, consider safety foremost with each flight. My small unmanned aircraft is designed to hover in place via GPS and operate in less than a 24 knot (15 mph) wind. I also use geo-fencing, to limit the altitude and perimeter of flight. For safety, stability and fear of financial loss I will not fly in winds exceeding 16 kph (10 mph). Built in safety systems include a GPS mode that allows my UAS to hover in place when radio controls are released. When pilot communication is lost this UAS is designed slowly descend to point of take off. I do not operate my UAS near airports, Hospitals nor Police heliports, and do not operate near areas where general public is within fifty to one hundred (50-100) yards depending on location, conditions and weather. I operate only in class G airspace. I use a visual observer to aid in ensuring the area is clear of people and vehicles. I am constantly on alert for any manned aircraft (Police/Medical helicopters, etc.) and I am prepared to land/abort immediately to the nearest and safest ground point should a manned aircraft approach my location or I suspect manned aircraft may approach near my location. I monitor local ATC frequencies on a handheld aviation radio. My UAS is capable of vertical and horizontal operations, and is flown only within my line of sight of me, as the remote control pilot. Utilizing battery power rather than combustible fuels, flights generally last between seven (8) to ten (10) minutes, with an altitude under one hundred fifty (150) feet. I, Nathan J. Meyer, utilize a fresh fully charged battery with each flight as a safety precaution; full flight time limit for each battery is twenty (20) to twenty five (25) minutes as tested. My controller and link with my UAS provides battery level information, and also has an automatic return to home feature at 20% battery power in the event the PIC fails to monitor reserves, along with visual and auditory alerts at 20%. I do not operate my UAS at or below manufacturer recommend minimum charge levels for operation; preferring to remain well within a safe operating range to insure adequate communication between radio control and UAS to eliminate potential for crash, loss of control or hazard. My personal protocol is to

land with 50% reserves. Additional batteries are at hand with each exercise to insure replacement for sufficient safe level of operation. I have roughly 3 years of experience operating UAS aircraft, and I have logged 32 hours, as a UAS multi-rotor rotorcraft pilot including 32 Hours of logged flight time with the DJI Phantom Vision 2 Plus⁵. I also have over 100 hours of unlogged time as a hobbyist simulating flights for future commercial use to gain familiarization with the characteristics of this specific UAS's performance under different temperature and weather conditions. I am a licensed pilot with commercial instrument, CFI and CFII ratings. I have logged over 1300 hours as PIC in a variety of single engine, fixed wing, manned aircraft⁵, both commercially and privately without accident or incident. My pilot training and experience have been instrumental in allowing me to operate my UAS safely, and in helping me protect the safety of other pilots and civilians.

My, Nate Meyer's, exemption request would allow operation in predetermined areas designated as class G airspace, clear of persons, airports, heliports and vehicular traffic for community videos and photos. Real estate photography/videography would be within property boundaries of individual homeowner, and/or over adjacent waterways or vacant land, when deemed clear of any and all persons, vehicles or marine traffic. A visual observer would be present for all flights to ensure the area remains clear, or to alert me, the PIC, to abort the flight of a potential breach of the flight area. A 2 way aviation radio would be monitored at all times. A NOTAM would be issued prior to any operations. A thorough review of weather conditions, aircraft airworthiness, emergency procedures and potential hazards would be reviewed prior to any flight operation. Geofencing would be used to ensure all flights are conducted within the established, cleared perimeter.

I, Nathan J. Meyer, am extremely cautious when operating of my UAS/ultra lightweight unmanned aircraft and will not "create a hazard to users of the national airspace system or the public." 112 P.L. 95 § 333 (b). Given the small size and weight of my UAS it falls well within Congress's contemplated safety zone when it promulgated the Reform Act and the corresponding directive to integrate UAS's into the national airspace system. Nathan J. Meyer's UAS, used in hobby flight, has a demonstrable safety record and does not pose any threat to the general public or national security.

IV. How Nathan J. Meyer's Request Will Benefit the Public As A Whole:

I have acted as PIC of small planes for the purpose of shooting aerial photos and videos, and feel UAS flight provides a much safer alternative for both the pilot and the public. Further, for small, budget real estate companies and average homeowners the expense of manned aerial videography is cost prohibitive. Only large companies and high end Realtors or luxury homeowners can afford to absorb such expense, depriving non-luxury homeowners and lower

budget Realtors from a valuable marketing tool. My, Nathan J. Meyer's, UAS poses minimal threat, since size and lack of combustible fuel mitigates potential risk to the public. Congress has already proclaimed that it is in the public's interest to integrate commercially flown UAS's into the national airspace system, hence the passing of the Reform Act. Granting my, Nathan J. Meyer's, exemption request furthers the public interest through academic/visual awareness of the geographical benefits in and around the Florida Keys Area. My ultra lightweight UAS is battery powered and creates no emissions that can harm the environment. The consequence of my ultra light weight UAS crashing is far less than a full size helicopter or fixed wing aircraft; which are heavy, contain combustible fuel and can cause catastrophic devastation to the public.

The public's interest is furthered by minimizing ecological and crash threat by permitting aerial video/photo capture through my battery operated ultra lightweight UAS's. Permitting me, Nathan J. Meyer, to immediately fly within national air space furthers economic growth. Granting my exemption request substantially furthers the economic impact for the Florida Keys community for companies and individuals looking to relocate or build in the Florida Keys area as well as individuals looking to relocate for career advancement through academic and geographical awareness. Both of which serve as a stimulus to the community.

Finally, replacing manned aircraft photographic and video shoots with UAS shoots will dramatically reduce emissions and aircraft noise, reducing/eliminating impact on the environment and reducing annoyance to the public.

V. Reasons Why Exemption Will Not Adversely Affect Safety Or How The Exemption Will Provide a Level of Safety At Least Equal To Existing Rule:

My, Nathan J. Meyer's, exemption will not adversely affect safety. Quite the contrary, for the reasons stated permitting me, Nathan J. Meyer, to log more flight time, with communication with the FAA, will allow me to contribute to further safety protocols for Realtors that can be embraced by the NAR (National Association of Realtors) for development in cooperation with the FAA. In addition I, Nathan J. Meyer, submit the following representations of enhancements to current aerial videography and photography for real estate:

- My UAS weighs less than 5 pounds complete with camera; I only operate my UAS below 150 feet AGL (well within the 400 foot permissible ceiling set by the FAA Modernization and Reform Act of 2012).
- I set a geofence that prevents my UAS from going outside of my established clear area should there be a lost connection with the controller.
- I only operate my UAS for 7-10 minutes per flight; I land my UAS prior to manufacturer recommended minimum level of battery power, with at least 50% reserves.
- My experience as a pilot and flight instructor carry over into my UAV flying and lead to a high level of safety consciousness, preparation and preflight prudence, and experienced aeronautical decision making. I also have a thorough understanding of the FAR's, and the airspace system.
- I carry a two way Icom Aviation Radio and monitor local ATC frequencies when conducting UAV flights.

- I pilot my UAS through remote control only by line of sight;
- My UAS has GPS and a flight safety feature whereby it hovers and then slowly lands if communication with the remote control pilot is lost;
- I actively analyze flight data and other sources of information to constantly update and enhance safety protocols;
- I only operate in reasonably safe environments that are strictly controlled, are away from power lines, elevated lights, airports and actively populated areas;
- I conduct extensive preflight inspections and protocol, during which safety carries primary importance;
- I always obtains all necessary permissions prior to operation; and,
- I have procedures in place to abort flights in the event of safety breaches or potential danger.
- I use a visual observer to insure established flight area remains clear.
- I use geofencing to insure flight stays within an established altitude and perimeter.
- I will operate only in vfr conditions, adhering to FAA prescribed cloud clearance rules.
- The UAS will not be flown at a speed exceeding 15 knots.
- The UAS will be flown only during daytime hours, as defined by the FAA.
- See Appendix E for complete operating procedures.

My, Nathan J. Meyer's, safety protocols provide a level of safety equal to or exceeding existing rules. It is important to note that absent the integration of commercial UAS into our national airspace system, helicopters and fixed wing manned aircraft are the primary means of aerial video and photography for community awareness and real estate. While the safety record of such manned aircraft is questionable, often requiring low level maneuvering; it is far safer to operate a battery powered ultra lightweight UAS.

First, the potential loss of life is diminished because UAS's carry no people on board and I only operates my UAS in specific areas away from mass populations. Second, there is no fuel on board a UAS and thus the potential for fire or explosions is greatly diminished. Third, the small size and extreme maneuverability of my UAS allow me to remotely pilot away from and avoid hazards quickly and safely. Lastly, given its small size and weight, even when close enough to capture amazing images, my UAS need not be so close to the objects they are focused on through the technology and use of post editing software allowing pan and zoom.

Accordingly, my UAS has been experimentally operated for familiarization/competency and will continue to operate at and above current safety levels.

VI. A Summary The FAA May Publish in the Federal Register:

A. 14 C.F.R. 21 and 14 C.F.R. 91: Airworthiness Certificates, Manuals and The Like. 14 C.F.R. 21, Subpart H, entitled Airworthiness Certificates, sets forth requirements for procurement of necessary airworthiness certificates in relation to FAR § 91.203(a)(1). The size, weight and enclosed operational area of my, Nathan J. Meyer's, UAS permits exemption from Part 21

because my UAS meets (and exceeds) an equivalent level of safety pursuant to Section 333 of the Reform Act. The FAA is authorized to exempt aircraft from the airworthiness certificate requirement under both the Act (49 U.S.C. § 44701 (f)) and Section 333 of the Reform Act. Both pieces of legislation permit the FAA to exempt UAS's from the airworthiness certificate requirement in consideration of the weight, size, speed, maneuverability and proximity to areas such as airports and dense populations. My, Nathan J. Meyer's, current and projected UAS's meet or exceed each of the elements.

14 C.F.R. 91.7(a) prohibits the operation of an aircraft without an airworthiness certificate. As no such certificate will be applicable in the form contemplated by the FARs, this Regulation is inapplicable. 14 C.F.R. § 91.9 (b) (2) requires an aircraft flight manual in the aircraft. As there are no on board pilots or passengers, and given the size of the UAS's, this Regulation is inapplicable. An equivalent level of safety will be achieved by maintaining a safety/flight manual delineating areas of where safety can be defined. The FAA has previously issued exemptions to this regulation in Exemption Nos. 8607, 8737, 8738, 9299, 9299A, 9565, 9565B, 10167, 10167A, 10602, 10700 and 32827. 14 C.F.R. § 91.121 regarding altimeter settings is inapplicable insofar as my UAS utilizes electronic global positioning systems with a barometric sensor.

14 C.F.R. § 91.203 (a) and (b) provides for the carrying of civil aircraft certifications and registrations. They are inapplicable for the same reasons described above. The equivalent level of safety will be achieved by maintaining any such required certifications and registrations by me, Nathan J. Meyer.

B. 14 C.F.R. § 45.23: Marking of The Aircraft. Applicable Codes of Federal Regulation require aircraft to be marked according to certain specifications. My UAS are, by definition, unmanned. They therefore do not have a cabin, cockpit or pilot station on which to mark certain words or phrases. Further, two-inch lettering is difficult to place on such small aircraft with dimensions smaller that minimal lettering requirement. Regardless, I will mark my UAS in the largest possible lettering by placing the word "EXPERIMENTAL" on its fuselage as required by 14 C.F.R. §45.29 (f) so that I the pilot, or anyone assisting me as a visual observer with the UAV will see the markings. The FAA has previously issued exemptions to this regulation through Exemptions Nos. 8738, 10167, 10167A and 10700.

C. 14 C.F.R. 91.119: Minimum Safe Altitudes. 14 C.F.R. § 91.119 prescribes safe altitudes for the operation of civil aircraft. It allows helicopters to be operated at lower altitudes in certain conditions. My UAS will never operate at an altitude greater than 200 AGL; safely below the standard of 400 AGL. I, Nathan J. Meyer, will however operate my UAS in safe areas away from public and traffic, providing a level of safety at least equivalent to or below those in relation to minimum safe altitudes. Given the size, weight, maneuverability and speed of my UAS, an equivalent or higher level of safety will be achieved.

E. 14 C.F.R. 91.405 (a); 407 (a) (1); 409 (a) (2); 417(a) & (b): Maintenance Inspections. The above-cited Regulations require, amongst other things, aircraft owners and operators to "have [the] 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. . . ." These Regulations only apply to aircraft with an airworthiness certificate. They will not,

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¹ Appendix E - Safety/Flight Manual

therefore, apply to my, Nathan J. Meyer's, UAS. However, as a safety precaution I inspect my UAS before and after each flight.

A Summary The FAA May Publish in the Federal Register: A. 14 C.F.R. 21 and 14 C.F.R. 91: Airworthiness Certificates, Manuals and The Like. 14 C.F.R. 21, Subpart H, entitled Airworthiness Certificates, sets forth requirements for procurement of necessary airworthiness certificates in relation to FAR § 91.203(a)(1). The size, weight and enclosed operational area of my UAS permits exemption from Part 21 because my, Nathan J. Meyer's, UAS meets an equivalent level of safety pursuant to Section 333 of the Reform Act. The FAA is authorized to exempt aircraft from the airworthiness certificate requirement under both the Act (49 U.S.C. § 44701 (f)) and Section 333 of the Reform Act. Both pieces of legislation permit the FAA to exempt UAS's from the airworthiness certificate requirement in consideration of the weight, size, speed, maneuverability and proximity to areas such as airports and dense populations. My UAS meets or exceeds each of the elements. 14 C.F.R. 91.7(a) prohibits the operation of an aircraft without an airworthiness certificate. As no such certificate will be applicable in the form contemplated by the FARs, this Regulation is inapplicable. 14 C.F.R. § 91.9 (b) (2) requires an aircraft flight manual in the aircraft. As there are no pilots or passengers, and given the size of the UAS's, this Regulation is inapplicable. An equivalent level of safety will be achieved by maintaining a manual. The FAA has previously issued exemptions to this regulation in Exemption Nos. 8607, 8737, 8738, 9299, 9299A, 9565, 9565B, 10167, maintenance program that involves regular software updates and curative measures for any damaged hardware. Therefore, an equivalent level of safety will be achieved.

In summary, Nathan J. Meyer seeks an exemption from the following Regulations:

14 C.F.R. 21, subpart H; 14 C.F.R. 45.23(b); 14 C.F.R. § 91.7 (a); 14 C.F.R. § 91.9 (b)(2); 14 C.F.R. § 91.103(b); 14 C.F.R. § 91.109; 14 C.F.R. § 91.119; 14 C.F.R. § 91.121; 14 C.F.R. § 91.151(a); 14 C.F.R. §§ 91.203(a) and (b); 14 C.F.R. § 91.405 (a); 14 C.F.R. § 91.407 (a)(1); 14 C.F.R. § 91.409 (a)(2); 14 C.F.R. § 91.409 (a) (2); and, 14 C.F.R. §§ 91.417 (a) & (b) to commercially operate my, Nathan J. Meyer's, small unmanned vehicle/lightweight unmanned aircraft vehicle in community awareness and real estate operations, and to develop economic platforms for real estate to enhance the experience of those seeking to relocate to the Florida Keys area. Currently, area awareness and real estate aerial videography/photography relies primarily on the use of larger aircraft running on combustible fuel. Posing potential risk to the public. Granting my, Nathan J. Meyer's, request for exemption will reduce current risk levels and thereby enhance safety. My UAS craft do not contain potentially explosive fuel, is smaller, lighter and more maneuverable than conventional real estate video and photographic aircraft with much less flight time. Further, I operate at lower altitudes and in Class G airspace eliminating potential public risk flying to and from established airfields. I, Nathan J. Meyer, have been informally analyzing flight information and will compile safety protocols and the implementation of a flight operations manual for real estate usage that exceeds currently accepted means and methods for safe flight. My experience as both a Commercially licensed Flight Instructor and long-time UAS pilot will provide Formal collection of information shared with the FAA will enhance the FAA's internal efforts to establish protocols for complying with

the FAA Modernization and Reform Act of 2012. There are no personnel on board my, Nathan J. Meyer's, UAS and therefore the likelihood of death or serious bodily injury is significantly diminished. My, Nathan J. Meyer's, operation of my UAS, weighing less than 5 pounds and travelling at lower speeds within limited areas will provide an equivalent level of safety as that achieved under current FARs. Accordingly I, Nathan J. Meyer, respectfully request that the FAA grant my exemption request and am willing to cooperate in sharing information to benefit the FAA for the safety of manned aircraft, and the general public at large.

Respectfully submitted,

Nathan J. Meyer, Associate Broker Internet Realty/Florida Keys Inc. 24752 Overseas Highway Summerland Key, FL 33042

APPENDIX A

UNITED STATES OF AMERICA Department of Transportation Federal Aviation Administration MEDICAL CERTIFICATE SECOND CLASS This certifies that (Full name and address): NATHAN J MEYER 19158 Pelico Road Sugarloaf Key FL 33042 USA Date of Birth Height Weight Hair Eyes Sex 180 BROWN BLUE M has met the medical standards prescribed in part 67, Federal Aviation Regulations, for this class of Medical Certificate. None Limitations Date of Examination Examiner's Designation No. 11/19/2014 21476 Signature Examiner Typed Name

Control No.: 200006691550

CONDITIONS OF ISSUE

The holder of this certificate must:

Foldfilere

- Have it in his or her personal possession at all times while exercising privileges of an airman certificate. (14CFR § 61.3)
- Understand that the issuance of a medical certificate by an Aviation Medical Examiner may be reversed by the FAA within 60 days. (14CFR § 67.407)
- Comply with validity standards specified for first-, second-, and third-class medical certificates. (14CFR § 61.23)
- Comply with any statement of functional, operational, and/or time limitation issued as a condition of certification (14CFR § 67.401)

(Note: A letter of authorization (or SODA) describing any such limitations must be kept with this certificate at all times while exercising the privileges of an airman certificate.)

 Comply with the standards relating to prohibitions on operation during medical deficiency. (14CFR §§ 61.53, 63.19, and 65.49)

For International Operations Only: Some holders may be affected by certain international medical standards. Consult the U.S. Aeronautical Information Publication for U.S. differences with ICAO Annex 1 medical standards.



(9-08) Supersedes Previous Edition

JULIE ANN FLOYD, MD

199917383

AIRMAN'S SIGNATURE

FAA Form 8500-9



Drone logbook report - 16 April 2015

Period: 2014-04-01 to 2015-04-16

Totals in the system:

FLYING TIME 32 h 47 min FLIGHTS 115 DRONES 1 HOTSPOTS 1

EQUIPMENTS 1 MAINTENANCES 0

FLIGHTS (115 in the period)

Flying time in this period: 32 h 47 min

Date	Flight name	Drone	Туре	Minutes	Hotspot
2015-04-14	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	10	Home/School
Project/Job R	eference:practice flight				
Pilot info: Equipments Nb landing: Conditions Notes:	: 1				
2015-04-14	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	8	Home/School
Project/Job R	eference:practice flight				
Pilot info: Equipments Nb landing: Conditions Notes:	: 1				
2015-04-10	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	10	Home/School
Project/Job R	eference:practice flight				
Pilot info: Equipment: Nb landing: Conditions Notes:	: 1				
2015-04-10	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	9	Home/School
Project/Job R	eference:practice flight				
Pilot info: Equipments Nb landing: Conditions Notes:	: 1				
2015-04-07	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	10	Home/School
Project/Job R	eference:practice flight				
Pilot info:					

1					
Equipments Nb landing: Conditions: Notes:	1				
2015-04-07	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	8	Home/School
Project/Job Ro	eference:practice flight				
Pilot info: Equipments Nb landing: Conditions: Notes:	1				
2015-04-05	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	10	Home/School
Project/Job Ro	eference:practice flight				
Pilot info: Equipments Nb landing: Conditions: Notes:	1				
2015-04-05	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	9	Home/School
Project/Job Ro	eference:practice flight				
Pilot info: Equipments Nb landing: Conditions: Notes:	1				
2015-04-02	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	10	Home/School
Project/Job Ro	eference:practice flight				
Pilot info: Equipments Nb landing: Conditions: Notes:	1				
2015-04-02	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	11	Home/School
Project/Job Ro	eference:practice flight				
Pilot info: Equipments Nb landing: Conditions: Notes:	1				
2015-03-29	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	9	Home/School
Project/Job R	eference:practice flight				
Pilot info: Equipments Nb landing: Conditions: Notes:	1				
2015-03-29	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	10	Home/School

Pilot info: Equipments Nb landing: Conditions: Notes:	: 1				
2015-03-27	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	10	Home/School
Project/Job R	eference:practice flight			I	
Pilot info: Equipments Nb landing: Conditions: Notes:	: 1				
2015-03-27	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	8	Home/School
Project/Job R	eference:practice flight				
Pilot info: Equipments Nb landing: Conditions: Notes:	: 1				
2015-03-22	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	12	Home/School
Project/Job R	eference:practice flight			·	
Pilot info: Equipments Nb landing: Conditions: Notes:	: 1				
2015-03-19	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	10	Home/School
Project/Job R	eference:practice flight			<u>'</u>	
Pilot info: Equipments Nb landing: Conditions: Notes:	1				
2015-03-19	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	12	Home/School
Project/Job R	eference:practice flight				
Pilot info: Equipments Nb landing: Conditions: Notes:	: 1				
2015-03-18	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	15	Home/School
Project/Job R	eference:practice flight				
Pilot info: Equipments Nb landing: Conditions: Notes:	: 1				

				1	
2015-03-18	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	17	Home/School
Project/Job R	eference:practice flight				
Pilot info: Equipment: Nb landing Conditions Notes:	: 1				
2015-03-15	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	14	Home/School
Project/Job R	eference:practice flight				
Pilot info: Equipment: Nb landing Conditions Notes:	: 1				
2015-03-15	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	15	Home/School
Project/Job R	eference:practice flight				
Pilot info: Equipment: Nb landing: Conditions Notes:	: 1				
2015-03-10	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	17	Home/School
Project/Job R	eference:practice flight			<u>'</u>	
Pilot info: Equipment: Nb landing: Conditions Notes:	: 1				
2015-03-10	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	15	Home/School
Project/Job R	eference:practice flight				
Pilot info: Equipment: Nb landing: Conditions Notes:	: 1				
2015-03-09	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	18	Home/School
Project/Job R	eference:practice flight				
Pilot info: Equipment: Nb landing Conditions Notes:	: 1				
2015-03-09	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	16	Home/School
Project/Job R	eference:practice flight				
Pilot info: Equipment: Nb landing Conditions	: 1				

Notes:					
2015-03-07	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	15	Home/School
Project/Job Re	eference:practice flight				
Pilot info: Equipments Nb landing: Conditions: Notes:	1				
2015-03-07	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	18	Home/School
Project/Job Ro	eference:practice flight				
Pilot info: Equipments Nb landing: Conditions: Notes:	1				
2015-03-04	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	16	Home/School
Project/Job Ro	eference:practice flight				
Pilot info: Equipments Nb landing: Conditions: Notes:	1				
2015-03-04	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	18	Home/School
Project/Job Ro	eference:practice flight				
Pilot info: Equipments Nb landing: Conditions: Notes:	1				
2015-03-02	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	17	Home/School
Project/Job Re	eference:practice flight				
Pilot info: Equipments Nb landing: Conditions: Notes:	1				
2015-03-02	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	18	Home/School
Project/Job Ro	eference:practice flight				
Pilot info: Equipments Nb landing: Conditions: Notes:	1				
2015-02-26	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	18	Home/School
Project/Job Ro	eference:practice flight				
Pilot info: Equipments					

Nb landing:					
Notes:					
2015-02-26	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	20	Home/School
Project/Job R	eference:practice flight			1	
Pilot info: Equipments Nb landing: Conditions: Notes:	1				
2015-02-25	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	18	Home/School
Project/Job R	eference:practice flight			•	
Pilot info: Equipments Nb landing: Conditions: Notes:	1				
2015-02-25	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	20	Home/School
Project/Job R	eference:practice flight				
Pilot info: Equipments Nb landing: Conditions: Notes:	1				
2015-02-22	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	20	Home/School
Project/Job R	eference:practice flight				
Pilot info: Equipments Nb landing: Conditions: Notes:	1				
2015-02-22	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	18	Home/School
Project/Job R	eference:practice flight				
Pilot info: Equipments Nb landing: Conditions: Notes:	1				
2015-02-20	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	18	Home/School
Project/Job R	eference:practice flight				
Pilot info: Equipments Nb landing: Conditions: Notes:	1				
2015-02-16	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	18	Home/School
Project/Job R	eference:practice flight				

Pilot info: Equipments onboard: Nb landing: 1 Conditions: Notes:								
2015-02-15	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	20	Home/School			
Project/Job Reference:practice flight Pilot info: Equipments onboard: Nb landing: 1 Conditions: Notes:								
2015-02-15	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	20	Home/School			
Project/Job Ro Pilot info: Equipments Nb landing: Conditions: Notes:	1							
2015-02-09	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	17	Home/School			
Pilot info: Equipments Nb landing: Conditions: Notes:	1							
2015-02-09	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	20	Home/School			
Project/Job Ro Pilot info: Equipments Nb landing: Conditions: Notes:	1							
2015-02-07	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	18	Home/School			
Pilot info: Equipments Nb landing:	Project/Job Reference:practice flight Pilot info: Equipments onboard: Nb landing: 1 Conditions:							
2015-02-07	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	20	Home/School			
Project/Job R	eference:practice flight							
Pilot info: Equipments Nb landing: Conditions: Notes:	1							
2015-02-04	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	20	Home/School			

Project/Job Reference:practice flight						
Pilot info: Equipments Nb landing: Conditions: Notes:	1					
2015-01-28	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	15	Home/School	
Project/Job Re	eference:practice flight					
Pilot info: Equipments Nb landing: Conditions: Notes:	1					
2015-01-27	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	18	Home/School	
Project/Job Re	eference:practice flight					
Pilot info: Equipments Nb landing: Conditions: Notes:	1					
2015-01-20	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	20	Home/School	
Project/Job Re	eference:practice flight					
Pilot info: Equipments Nb landing: Conditions: Notes:	1					
2015-01-15	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	20	Home/School	
Project/Job Re	eference:practice flight					
Pilot info: Equipments Nb landing: Conditions: Notes:	1					
2015-01-15	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	19	Home/School	
Project/Job Re	eference:practice flight					
Pilot info: Equipments Nb landing: Conditions: Notes:	1					
2015-01-08	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	15	Home/School	
Project/Job Re	eference:practice flight					
Pilot info: Equipments Nb landing: Conditions: Notes:	1					

					1
2015-01-08	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	20	Home/School
Project/Job R	eference:practice flight				
Pilot info: Equipment: Nb landing: Conditions Notes:	: 1				
2015-01-06	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	20	Home/School
Project/Job R	eference:practice flight			•	
Pilot info: Equipment: Nb landing: Conditions Notes:	: 1				
2015-01-06	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	18	Home/School
Project/Job R	eference:practice flight				
Pilot info: Equipment: Nb landing: Conditions Notes:	: 1				
2014-12-29	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	20	Home/School
Project/Job R	eference:practice flight				
Pilot info: Equipment: Nb landing: Conditions Notes:	: 1				
2014-12-29	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	18	Home/School
Project/Job R	eference:practice flight				
Pilot info: Equipments Nb landing: Conditions Notes:	: 1				
2014-12-28	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	17	Home/School
Project/Job R	eference:practice flight				
Pilot info: Equipments Nb landing: Conditions Notes:	: 1				
2014-12-22	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	20	Home/School
Project/Job R	eference:practice flight				
Pilot info: Equipment: Nb landing: Conditions	: 1				

	nathan meyer	DJI Phantom 2 Plus	Hobby	18	Home/School
		DJI/Phantom 2 Vision Plus			
-	Reference:practice flight				
Pilot info: Equipment Nb landing Conditions Notes:					
2014-12-20	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	18	Home/School
Project/Job F	Reference:practice flight				
Pilot info: Equipment Nb landing Conditions Notes:					
2014-12-15	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	20	Home/School
Project/Job F	Reference:practice flight				
Equipment Nb landing Conditions Notes:					
2014-12-15	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	20	Home/School
-	nathan meyer		Hobby	20	Home/School
Project/Job F	Reference:practice flight as onboard:		Hobby	20	Home/School
Project/Job F Pilot info: Equipment Nb landing Conditions	Reference:practice flight as onboard:		Hobby	20	Home/School
Project/Job F Pilot info: Equipment Nb landing Conditions Notes:	Reference:practice flight es onboard: :: 1	DJI/Phantom 2 Vision Plus DJI Phantom 2 Plus			
Project/Job F Pilot info: Equipment Nb landing Conditions Notes: 2014-12-11 Project/Job F	Reference:practice flight as onboard: p: 1 a: nathan meyer Reference:practice flight as onboard: p: 1	DJI/Phantom 2 Vision Plus DJI Phantom 2 Plus			
Project/Job F Pilot info: Equipment Nb landing Conditions Notes: 2014-12-11 Project/Job F Pilot info: Equipment Nb landing Conditions Notes:	Reference:practice flight as onboard: p: 1 a: nathan meyer Reference:practice flight as onboard: p: 1	DJI/Phantom 2 Vision Plus DJI Phantom 2 Plus			
Project/Job F Pilot info: Equipment Nb landing Conditions Notes: 2014-12-11 Project/Job F Pilot info: Equipment Nb landing Conditions Notes:	Reference:practice flight as onboard: i: 1 i: nathan meyer Reference:practice flight as onboard: i: 1 i: 1 i: 1 ii: 1 ii: 1 ii: 1	DJI/Phantom 2 Vision Plus DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus DJI Phantom 2 Plus	Hobby	18	Home/School
Project/Job F Pilot info: Equipment Nb landing Conditions Notes: 2014-12-11 Project/Job F Pilot info: Equipment Nb landing Conditions Notes: 2014-12-11 Project/Job F Pilot info:	Reference:practice flight as onboard: p: 1 a: nathan meyer Reference:practice flight as onboard: p: 1 a: nathan meyer Reference:practice flight as onboard: p: 1 as:	DJI/Phantom 2 Vision Plus DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus DJI Phantom 2 Plus	Hobby	18	Home/School
Project/Job F Pilot info: Equipment Nb landing Conditions Notes: 2014-12-11 Project/Job F Pilot info: Equipment Nb landing Conditions Notes: 2014-12-11 Project/Job F Pilot info: Equipment Nb landing Conditions Notes:	Reference:practice flight as onboard: p: 1 a: nathan meyer Reference:practice flight as onboard: p: 1 a: nathan meyer Reference:practice flight as onboard: p: 1 as:	DJI/Phantom 2 Vision Plus DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus DJI Phantom 2 Plus	Hobby	18	Home/School

Nb landing: Conditions: Notes:					
2014-12-10	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	20	Home/School
Project/Job Re	eference:practice flight				
Pilot info: Equipments Nb landing: Conditions: Notes:	1				
2014-12-07	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	20	Home/School
Project/Job Re	eference:practice flight				
Pilot info: Equipments Nb landing: Conditions: Notes:	1				
2014-12-04	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	19	Home/School
Project/Job Re	eference:practice flight				
Pilot info: Equipments Nb landing: Conditions: Notes:	1				
2014-11-24	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	15	Home/School
Project/Job Re	eference:practice flight				
Pilot info: Equipments Nb landing: Conditions: Notes:	1				
2014-11-24	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	20	Home/School
Project/Job Ro	eference:practice flight				
Pilot info: Equipments Nb landing: Conditions: Notes:	1				
2014-11-21	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	17	Home/School
Project/Job Ro	eference:practice flight				
Pilot info: Equipments Nb landing: Conditions: Notes:	1				
2014-11-21	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	18	Home/School
Project/Job Ro	eference:practice flight				

Pilot info: Equipments Nb landing: Conditions: Notes:	1							
2014-11-18	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	20	Home/School			
Project/Job Ro Pilot info: Equipments Nb landing: Conditions: Notes:	1							
2014-11-10	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	20	Home/School			
Project/Job Ro Pilot info: Equipments Nb landing: Conditions: Notes:	1							
2014-11-09	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	20	Home/School			
Pilot info: Equipments Nb landing: Conditions: Notes:	1							
2014-11-09	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	17	Home/School			
Project/Job Ro Pilot info: Equipments Nb landing: Conditions: Notes:	1							
2014-11-07	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	20	Home/School			
Pilot info: Equipments Nb landing:	Project/Job Reference:practice flight Pilot info: Equipments onboard: Nb landing: 1 Conditions:							
2014-11-07	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	18	Home/School			
Project/Job R	eference:practice flight							
Pilot info: Equipments Nb landing: Conditions: Notes:	1							
2014-11-03	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	20	Home/School			

Project/Job Re	eference:practice flight				
Pilot info: Equipments Nb landing: Conditions: Notes:	1				
2014-11-02	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	15	Home/School
Project/Job Re	eference:practice flight				
Pilot info: Equipments Nb landing: Conditions: Notes:	1				
2014-11-02	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	20	Home/School
Project/Job Re	eference:practice flight				
Pilot info: Equipments Nb landing: Conditions: Notes:	1				
2014-10-20	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	18	Home/School
Project/Job Re	eference:practice flight				
Pilot info: Equipments Nb landing: Conditions: Notes:	1				
2014-10-20	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	18	Home/School
Project/Job Re	eference:practice flight				
Pilot info: Equipments Nb landing: Conditions: Notes:	1				
2014-10-16	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	20	Home/School
Project/Job Re	eference:practice flight				
Pilot info: Equipments Nb landing: Conditions: Notes:	1				
2014-10-16	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	20	Home/School
Project/Job Re	eference:practice flight				
Pilot info: Equipments Nb landing: Conditions: Notes:	1				

2014-10-10	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	19	Home/School
Project/Job R	Reference:practice flight			l	
Pilot info: Equipment Nb landing Conditions Notes:					
2014-10-10	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	16	Home/School
Project/Job R	Reference:practice flight				
Pilot info: Equipment Nb landing Conditions Notes:					
2014-10-04	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	18	Home/School
Project/Job R	Reference:practice flight				
Pilot info: Equipment Nb landing Conditions Notes:					
2014-10-04	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	20	Home/School
Project/Job R	Reference:practice flight				
Pilot info: Equipment Nb landing Conditions Notes:					
2014-10-02	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	19	Home/School
Project/Job R	Reference:practice flight	·		·	
Pilot info: Equipment Nb landing Conditions Notes:					
2014-09-14	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	20	Home/School
Project/Job R	Reference:practice flight	·	·	·	
Pilot info: Equipment Nb landing Conditions Notes:					
2014-09-14	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	21	Home/School
Project/Job R	Reference:practice flight				
Pilot info: Equipment Nb landing Conditions					

2014-09-08	nathan meyer	DJI Phantom 2 Plus	Hobby	19	Home/School
		DJI/Phantom 2 Vision Plus			
-	Reference:practice flight				
Pilot info: Equipment Nb landing Conditions Notes:	: 1				
2014-09-07	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	20	Home/School
roject/Job R	Reference:practice flight				
Pilot info: Equipment Nb landing Conditions Notes:	: 1				
2014-09-07	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	18	Home/School
roject/Job R	Reference:practice flight				
Equipment Nb landing Conditions Notes:	: 1				
	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	20	Home/School
2014-09-03 Project/Job R	nathan meyer Reference:practice flight		Hobby	20	Home/School
2014-09-03	Reference:practice flight s onboard: : 1		Hobby	20	Home/School
Project/Job R Pilot info: Equipment Nb landing Conditions Notes:	Reference:practice flight s onboard: : 1		Hobby	20	Home/School
Project/Job R Pilot info: Equipment Nb landing Conditions Notes: 2014-09-03	s onboard: 1 1:	DJI/Phantom 2 Vision Plus DJI Phantom 2 Plus			
Project/Job R Pilot info: Equipment Nb landing Conditions Notes:	Reference:practice flight s onboard: : 1 : nathan meyer Reference:practice flight s onboard: : 1	DJI/Phantom 2 Vision Plus DJI Phantom 2 Plus			
Project/Job R Pilot info: Equipment Nb landing Conditions Notes: Project/Job R Pilot info: Equipment Nb landing Conditions Notes:	Reference:practice flight s onboard: : 1 : nathan meyer Reference:practice flight s onboard: : 1	DJI/Phantom 2 Vision Plus DJI Phantom 2 Plus			
Project/Job R Pilot info: Equipment Nb landing Conditions Notes: 2014-09-03 Project/Job R Pilot info: Equipment Nb landing Conditions Notes:	s onboard: : 1 : nathan meyer eference:practice flight s onboard: : 1 : 1 : 1	DJI/Phantom 2 Vision Plus DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus DJI Phantom 2 Plus	Hobby	21	Home/School
Project/Job R Pilot info: Equipment Nb landing Conditions Notes: 2014-09-03 Project/Job R Pilot info: Equipment Nb landing Conditions Notes:	reference:practice flight s onboard: : 1 : nathan meyer reference:practice flight s onboard: : 1 : nathan meyer reference:practice flight s onboard: : 1 :	DJI/Phantom 2 Vision Plus DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus DJI Phantom 2 Plus	Hobby	21	Home/School
Project/Job R Pilot info: Equipment Nb landing Conditions Notes: 2014-09-03 Project/Job R Pilot info: Equipment Nb landing Conditions Notes: 2014-06-03 Project/Job R Pilot info: Equipment Nb landing Conditions Notes:	reference:practice flight s onboard: : 1 : nathan meyer reference:practice flight s onboard: : 1 : nathan meyer reference:practice flight s onboard: : 1 :	DJI/Phantom 2 Vision Plus DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus DJI Phantom 2 Plus	Hobby	21	Home/School

Nb landing:	1				
Conditions:					
2014-05-28	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	20	Home/School
Project/Job R	eference:practice flight		·	·	
Pilot info: Equipments Nb landing: Conditions: Notes:	1				
2014-05-28	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	17	Home/School
Project/Job R	eference:practice flight				
Pilot info: Equipments Nb landing: Conditions: Notes:	1				
2014-05-25	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	20	Home/School
Project/Job R	eference:practice flight			_	
Pilot info: Equipments Nb landing: Conditions: Notes:	1				
2014-05-22	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	16	Home/School
Project/Job R	eference:practice flight				
Pilot info: Equipments Nb landing: Conditions: Notes:	1				
2014-05-21	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	19	Home/School
Project/Job R	eference:practice flight				
Pilot info: Equipments Nb landing: Conditions: Notes:	1				
2014-05-21	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	18	Home/School
Project/Job R	eference:practice flight				
Pilot info: Equipments Nb landing: Conditions: Notes:	1				
2014-05-20	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	19	Home/School
Project/Job R	eference:practice flight				

Pilot info: **Equipments onboard:** Nb landing: 1 **Conditions:** Notes: 2014-05-20 nathan meyer DJI Phantom 2 Plus Hobby 22 Home/School DJI/Phantom 2 Vision Plus Project/Job Reference:practice flight Pilot info: Equipments onboard: Nb landing: 1 Conditions: Notes: 2014-05-19 **Nate Meyer** DJI Phantom 2 Plus Test 17 Home/School DJI/Phantom 2 Vision Plus Project/Job Reference:practice flight Pilot info: Approximately 150 hours with Parrot Drones - unlogged. Commercial instrument rated pilot manned aircraft with approx. 1000hours Equipments onboard: DJI Phantom 2 Plus Nb landing: 5 Conditions: Notes: 2014-05-19 **Nate Meyer** DJI Phantom 2 Plus Test 22 Home/School DJI/Phantom 2 Vision Plus Project/Job Reference:practice flight Pilot info: Approximately 150 hours with Parrot Drones - unlogged. Commercial instrument rated pilot manned aircraft with approx. 1000hours. Equipments onboard: Nb landing: 5 Conditions: Notes: DJI Phantom 2 Plus 2014-05-19 Test 15 Home/School **Nate Meyer** DJI/Phantom 2 Vision Plus Project/Job Reference:practice flight Pilot info: Approximately 150 hours with Parrot Drones - unlogged. Commercial instrument rated pilot manned aircraft with approx. 1000hours **Equipments onboard:** Nb landing: 5 **Conditions:** Notes: 2014-05-19 Test Home/School DJI Phantom 2 Plus 18 **Nate Meyer** DJI/Phantom 2 Vision Plus Project/Job Reference:practice flight Pilot info: Approximately 150 hours with Parrot Drones - unlogged. Commercial instrument rated pilot manned aircraft with approx. 1000hours. Equipments onboard: Nb landing: 5 **Conditions:** Notes: Windy - 15 mph

2014-05-17		DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	19	Home/School
Project/Job Re	eference:practice flight				

Pilot info:

Equipments onboard: Nb landing: 1 Conditions:

Notes:					
2014-05-17	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	Hobby	20	Home/School
Project/Job R	eference:practice flight				
Pilot info: Equipments Nb landing: Conditions Notes:	: 1				
2014-05-17	nathan meyer	DJI Phantom 2 Plus DJI/Phantom 2 Vision Plus	practice	15	Home/School
Project/Job R	eference:first flight				
Pilot info: Equipments Nb landing: Conditions Notes:	: 1				

DRONE (1)

Name	Brand	Model	Purchase date	Serial Nb	Туре
DJI Phantom 2 Plus	DJI	Phantom 2 Vision Plus	2014-05-09	PH645211616	Quadcopter
Notes:					

EQUIPMENT (1)

Name	Туре	For drone	Purchase date	Serial Nb
DJI Phantom 2 Plus		ALL	2014-05-09	PH645211616
Notes:				

MAINTENANCE (0)

Name	For	Date	Next date
Name	FUI	Date	Next date

HOTSPOTS (1)

Name	Latitude	Longitude	Altitude	Туре
Home/School	24.661666	-81.53448	51	Home/School
Notes: Public info:				

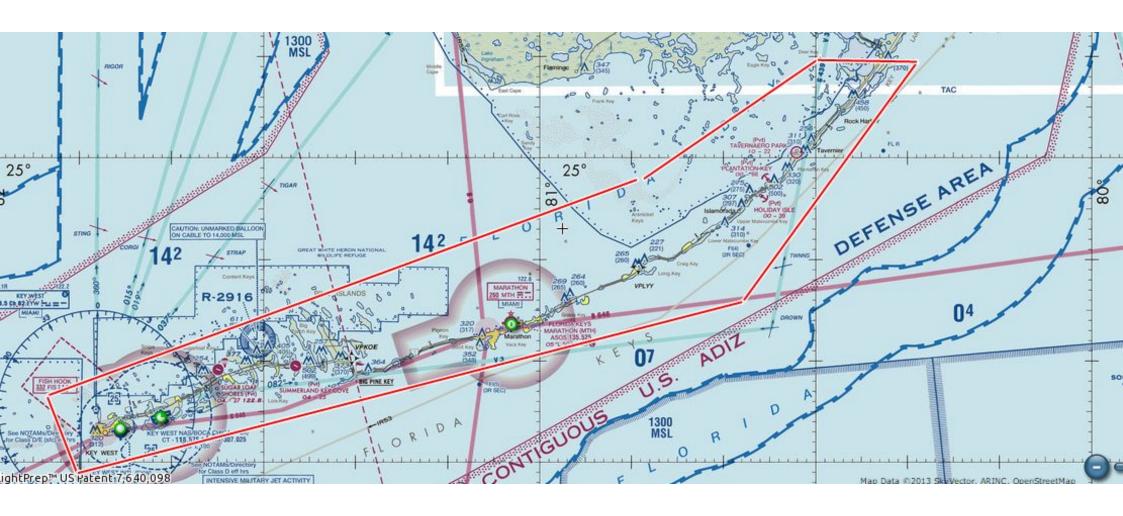
BATTERY LOG (0 charges in the period)

Date	Battery name	Serial number	Duration	Before charge	From charger	Pre-flight	Post-flight
			(h)				

REMARKS, PROCEDURES, MANEUVERS	NO. INSTR. NO.	AIRCRAFT CATEGORY			CONDITIONS	CONDITIONS OF FLIGHT		TYPEC	TYPE OF PILOTING TIME	TIME	TOTAL
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AIRCRAFT FROM SSJAG EYWWKAKIR B SSJAG EYWWKAKIR	
AIRCRAFT IDENT. 3529	URE
VEAR AIRCRAFT DATE MAKE & MODEL CITY C-173	PILOT'S SIGNATURE

APPENDIX B



APPENDIX C

Operating Procedures:

2 days before flight:

Visually inspect flight area for potential hazards that would preclude scheduling a shoot. Check weather to determine viability of flight.

- VFR predicted at least 4 hours before and after proposed flight time
- Winds 15 mph or less

Check for any TFR's, NOTAMS or other restrictions that would preclude flight File NOTAM with South Florida FSDO - (954) 641-6000 Notify neighbors of adjacent properties.

1 Day before flight:

Make sure all batteries are fully charged and tested, and fully inspect. Recheck weather, TFR's and local NOTAMS Check aviation radio batteries, and determine local frequencies to monitor

Day of flight

Verify NOTAM I filed is active
Verify appropriate geofence limits
Check weather
Check TFR's and NOTAMs
Contact Key West International and Boca Chica to make them aware of flight op.

Flight area inspection:

Vicinity of public safety helipads/heliports
Vicinity of medical helipads/heliports
Vicinity of light poles
Vicinity or utility wires
Vicinity of trees

Flocks of birds that may cause interference and potential flight impact Vicinity of any elevated obstructions that may pose potential flight hazard Vicinity of roadways with moderate to heavy traffic that can be distracted Public gatherings that may attract viewers

Optional point of control for best visual site of UAS while in flight Determine optimal takeoff and landing area

Determine emergency landing site(s) in the event of partial loss of control.

Flight area preparation:

Post warning sign(s)/stand(s) "Attention Aerial Photography In Progress - Remain Back 150 Feet ".

Establish visual observer position within PIC's line of site.

Aircraft preflight:

Test and inspect batteries
Check condition of propellers
Check condition of landing skids and body
Power up Icom radio and enter appropriate monitoring frequency

Controller preflight:

Check condition and attachment point of antennae Verify full charge of wifi extender Install fresh AA batteries and verify green light status

Before Takeoff:

Power up controller and verify green light on controller
Power up Wlfi extender and verify green indicator light
Power up aircraft
Calibrate compass and verify flashing green lights (calibration successful)
Verify strong wifi connection
Verify "ready for flight" GPS lock is established
Visual and audible check for air traffic, birds, ground traffic, etc.

RunUp:

Start aircraft

lift-off to a 5 foot hover and maintain position to ensure GPS lock.

While in hover, test all controls - verify free and correct operation.

Inflight:

Monitor appropriate aviation radio frequencies
Listen and scan for air and ground traffic
Monitor weather conditions
Monitor battery levels - return for landing when approaching 50% reserves
Monitor altitude
Monitor airspeed

Landing:

Return to takeoff point
Land vertically, directly over designated landing point
Upon skid contact with ground, immediately shut engine down
Power down aircraft
Power down controller
Power down wifi extender

PostFlight:

Remove warning signs Log flight Contact FSDO to remove NOTAM