



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

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

July 28, 2015

Exemption No. 12179
Regulatory Docket No. FAA-2015-1718

Mr. Jeremy Shick
Owner
Shick Web Design, LLC
230 East Park Avenue, Suite 31
Lake Wales, FL 33853

Dear Mr. Shick:

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 May 7, 2015, you petitioned the Federal Aviation Administration (FAA) on behalf of Shick Web Design, LLC (hereinafter petitioner or operator) for an exemption. The petitioner requested to operate an unmanned aircraft system (UAS) to conduct aerial photography, 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 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 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, Shick Web Design, LLC is granted an exemption from 14 CFR §§ 61.23(a) and (c), 61.101(e)(4) and (5), 61.113(a), 61.315(a), 91.7(a), 91.119(c), 91.121, 91.151(a)(1), 91.405(a), 91.407(a)(1), 91.409(a)(1) and (2), and 91.417(a) and (b), to the extent necessary to allow the petitioner to operate a UAS to perform aerial data collection. This exemption is subject to the conditions and limitations listed below.

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, Shick Web Design, LLC is hereafter referred to as the operator.

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

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

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

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

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

This exemption terminates on July 31, 2017, unless sooner superseded or rescinded.

Sincerely,

/s/

John S. Duncan

Director, Flight Standards Service

Enclosures

Shick Web Design, LLC - Lake Wales, FL - Section 333 Exemption Petition

May 7, 2015

U. S. Department of Transportation, Docket Operations
West Building Ground Floor, Room w12-140
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; 14 C.F.R. 61.113(a)&(b); 91.7(a); 91.9(b) (2); 91.103(b); 91.109; 91.119.121; 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, Jeremy Shick, owner of Shick Web Design, LLC, 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, Shick Web Design, LLC, a Florida Limited Liability Company and owner and operator of small unmanned aircraft, be exempted from the Federal Aviation Regulations ("FARs") listed below so that Shick Web Design, LLC, may operate small ultra light weight unmanned aircraft system ("UAS") commercially in airspace regulated by the Federal Aviation Administration ("FAA").

As described herein Shick Web Design, LLC, is a limited liability company in the State of Florida; experienced in flying hobby helicopters for recreational purposes. Shick Web Design, LLC has added a hobby grade quad-copter¹ UAS to it's inventory equipped with an HD camera with intent for aerial photography/videography/cinematography to enhance real estate listings, website design and marketing for those individuals and companies seeking these services within the geographical State of Florida, in order to augment real estate listings, and website design; following exemption and approval by the FAA. Thereby enhancing their website aesthetics and real estate listings.

¹ Appendix A - DJI Phantom 3

Committed to safety with each flight, Shick Web Design, LLC's, exemption request would permit operation of ultra light weight, unmanned (piloted by remote control) and comparatively inexpensive UAS(s) in tightly controlled and limited airspace. Predetermined in areas away from general public, airports, heliports and vehicular traffic for residential and commercial real estate photography, and within property boundaries 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 catastrophe. Shick Web Design, LLC, has personally instilled safety protocols and controls² to avoid and prevent public hazard, as well as manned aircraft hazards/catastrophe.

Granting Shick Web Design, LLC'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, Shick Web Design, LLC, will conduct its operations in compliance with the protocols described herein or as otherwise established by the FAA. For the reasons stated below, Shick Web Design, LLC, respectfully request the grant of an exemption allowing it to operate light weight, remote controlled UAS's for aerial photography/videography of residential and commercial real estate in order to enhance real estate listings and websites for property owners, realtors and website owners 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 with public safety in mind by keeping heavier manned aircraft containing combustible fuel that that poses potential public hazard.

² Appendix B - Protocols and Controls

I. Contact Information:

Shick Web Design, LLC
Attn: Jeremy Shick
230 E. Park Ave, Suite 31
Lake Wales, FL 33853
Office: (863) 614-0040
Mobile: (863) 221-2665
Email: jeremy@ShickWebDesign.com

II. The Specific Sections of Title 14 of the Code of Federal Regulations From Which Shick Web Design, LLC Requests Exemption are:

14 CFR 21;
14 C.F.R. 45.23(b);
14 CFR 61.113 (a) & (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 Shick Web Design, LLC seeks and the Reason He Seeks Such Relief:

Shick Web Design, LLC, submits this application in accordance with the Reform Act, 112 P.L. 95 §§ 331-334, seeking relief from any currently applicable FARs operating to prevent, Shick Web Design, LLC, contemplated commercial 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. Shick Web Design, LLC's, light weight UAS meets the definition of "small unmanned aircraft" as defined in Section 331 and therefore the integration of it's light weight UAS is expressly contemplated by the Reform Act. It would like to operate it's light weight 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 Shick Web Design, LLC. It's UAS utilizes four (4) counter-rotating propellers for balance, control and stability. It's UAS is equipped with GPS and auto return safety technology. Weighing less than five (5) pounds (far below the maximum 55 pound limit); including camera with gimbal.

Shick Web Design, LLC, considers safety as foremost with each flight. It's small unmanned aircraft is designed to hover in place via GPS and operate in less than a 24 knot (15 mph) wind. For safety, stability and fear of financial loss it will not fly in winds exceeding 16 kph (10 mph). Built in safety systems include a GPS mode that allows it's UAS to hover in place and return to launch location when radio controls are released. When pilot communication is lost UAS is designed slowly descend to point of take off. Shick Web Design, LLC does not operate it's UAS near airports, Hospitals nor Police heliports, and does not operate near areas where general public is within fifty to one hundred (50-100) yards depending on location, conditions and weather. PIC and Spotter are constantly on alert for any manned aircraft (Police/Medical helicopters, etc.) and prepared to land/abort immediately to the nearest and safest ground point should a manned aircraft approach it's location or it suspects manned aircraft may approach near it's location. UAS is capable of vertical and horizontal operations, and are flown only within the line of sight of the PIC. Utilizing battery power rather than combustible fuels, flights generally last between eight (8) to ten (10) minutes, with an altitude under one hundred fifty (150) feet. Shick Web Design, LLC, utilizes a fresh fully charged battery with each flight as a safety precaution; full flight time limit for each battery is eighteen (18) to twenty three (23) minutes as tested. It does not operate it's UAS at or below manufacture 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. Reserve batteries are at hand with each exercise to insure replacement for sufficient safe level of operation. Shick Web Design, LLC does not believe in taking risk that may cause a crash, that could create hazard to the public/property/manned aircraft, and have no desire to lose an investment. Shick Web Design, LLC's is extremely cautious when operating UAS/ultra light weight 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 our 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. Shick Web Design, LLC'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 Shick Web Design, LLC's Request Will Benefit the Public As A Whole:

Aerial photography/videography for real estate marketing and web design enhancement has been around for a long time through manned fixed wing aircraft and helicopters. For small budget real estate companies, small business owners and average homeowners, the expense of such aerial photography/videography is cost prohibitive. Only large companies and high end Realtors or luxury homeowners can afford to absorb such expense. Depriving non-luxury homeowners, lower budget Realtors and small businesses from a valuable marketing tool. Shick Web Design, LLC's UAS pose no threat since size and lack of combustible fuel alleviates any potential threat 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 Shick Web Design, LLC's, exemption request furthers the public interest by enhancing real estate listings and website design. Our ultra light weight UAS is battery powered and creates no emissions that can harm the environment. The consequence of it's 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 the battery operated ultra light weight UAS's. Permitting Shick Web Design, LLC, to immediately fly within national air space furthers economic growth. Granting this exemption request substantially furthers the economic impact for real estate companies and small businesses looking to enhance real estate listings, website design and marketing which will help stimulate the economy.

V. Reasons Why Shick Web Design, LLC's Exemption Will Not Adversely Affect Safety Or How The Exemption Will Provide a Level of Safety At Least Equal To Existing Rule:

Shick Web Design, LLC's, exemption will not adversely affect safety. Quite the contrary, for the reasons stated, permitting Shick Web Design, LLC to log more flight time in FAA controlled airspace, will allow it to contribute to the innovation and implementation of new and novel, as of yet undiscovered safety protocols that can be embraced by the NAR6, AAR7, and TAR8 for development in cooperation with the FAA. In addition, Shick Web Design, LLC submits the following representations of enhancements to current aerial videography and photography for real estate, website design and marketing:

- Its UAS weighs less than 5 pounds complete with a small ultra light weight high quality integrated camera
- It only operates its UAS below 200 feet (well within the 400 foot permissible ceiling set by the FAA Modernization and Reform Act of 2012)
- Its UAS only operates for 8-12 minutes per flight;
- It lands its UAS prior to manufacturer recommended minimum level of battery power;
- It pilots its UAS through remote control only by line of sight of PIC and with a Spotter;

- Its UAS has GPS, a flight safety feature whereby it hovers and then slowly lands if communication with the remote control pilot is lost
- It actively analyzes flight data and other sources of information to constantly update and enhance safety protocols;
- It only operates in reasonably safe environment that are strictly controlled, are away from power lines, elevated lights, airports and actively populated areas;
- It conduct extensive pre-flight inspections and protocol, during which safety carries primary importance;
- It always obtain all necessary permissions prior to operation; and,
- It has procedures in place to abort flights in the event of safety breaches or potential danger.

Shick Web Design, LLC'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 are the primary means of aerial video and photography for real estate listings, website design and marketing. While the safety record of such helicopters is remarkably astounding, there have been incidents involving loss of life as well as extensive property damage; it is far safer to operate a battery powered ultra light weight UAS.

- First, the potential loss of life is diminished because UAS's carry no people on board and it only operates it's 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 its UAS allow it 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, its 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, its 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 Shick Web Design, LLC's, UAS permits exemption from Part 21 because its 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. Shick Web Design, LLC'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 defined³. 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 its 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 Shick Web Design, LLC.

B. 14 C.F.R. § 45.23: Marking of The Aircraft.

Section 45.23(b) requires that on limited, restricted, or light-sport category aircraft, markings indicating the aircraft category must be displayed “near each entrance to the cabin, cockpit, or pilot station.” Exemption from § 45.23(b) is warranted because Shick Web Design, LLC’s UAS has no entrance to the cabin, cockpit, or pilot station on which the required marking can be displayed. Shick Web Design, LLC proposes instead to display markings to the fullest extent possible in compliance with the location requirements of § 45.27(a) and the size requirements of § 45.29(f). Thus, Shick Web Design, LLC requests an exemption to § 45.23(b)’s marking requirements.

C. 14 C.F.R. § 61.113: Private Pilot Privileges and Limitations: PIC.

Pursuant to 14 C.F.R. §§ 61.113 (a) & (b), private pilots are limited to non-commercial operations. Shick Web Design, LLC, can achieve an equivalent level of safety as achieved by current Regulations because its UAS does not carry any pilots or passengers. Further, while helpful, a pilot license will not ensure remote control piloting skills. The risks attendant to the operation of my UAS is far less than the risk levels inherent in the commercial activities outlined in 14 C.F.R. § 61, et seq. Thus, allowing

¹ Appendix C - Safety/Flight Manual

Shick Web Design, LLC to operate its UAS to meet and exceed current safety levels in relation to 14 C.F.R. §61.113 (a) & (b).

D. 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. Its UAS will never operate at an altitude greater than 200 AGL; safely below the standard of 400 AGL.

Shick Web Design, LLC, will however operate its 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 its 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, therefore, apply to Shick Web Design, LLC's, UAS. However, as a safety precaution it will inspect its UAS before and after each flight.

F. 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, Shick Web Design, LLC'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.

A Summary The FAA May Publish in the Federal Register:

In summary, Shick Web Design, LLC 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. §§ 61.113 (a) & (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 Shick Web Design, LLC's small unmanned vehicle/ lightweight unmanned aircraft vehicle for aerial photography for use in real estate, website design and marketing operations, and to develop real estate listings and websites to enhance the experience of those searching for real estate and browsing commercial websites. 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 Shick Web Design, LLC's, request for exemption will reduce current risk levels and thereby enhance

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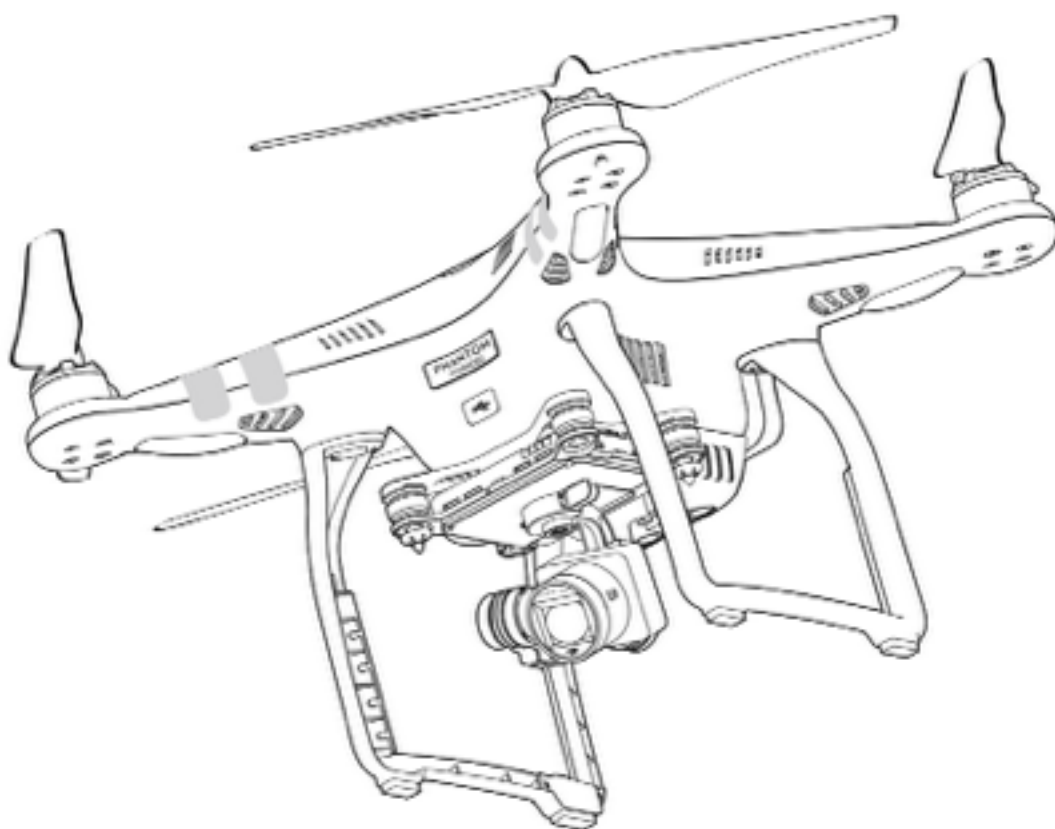
safety. Its UAS does not contain potentially explosive fuel, is smaller, lighter and more maneuverable than conventional real estate video and photographic aircraft with much less flight time. Further, it is operated at lower altitudes and in controlled airspace eliminating potential public risk flying to and from established air fields. There is no personnel on board Shick Web Design, LLC's UAS and therefore the likelihood of death or serious bodily injury is significantly diminished. Shick Web Design, LLC's operation of its UAS, weighing less than 5 pounds and traveling at lower speeds within limited areas will provide an equivalent level of safety as that achieved under current FARs. Accordingly, Shick Web Design, LLC respectfully request that the FAA grant it's exemption requested and it is willing to cooperate in sharing information to benefit the FAA, safety of manned aircraft, and the general public at large.

Respectfully submitted,

Jeremy Shick, Owner
Shick Web Design, LLC
230 E. Park Ave, Suite 31
Lake Wales, FL 33853

Appendix A

DJI Phantom 3
Product Image



Appendix B

Shick Web Design, LLC
UAV Protocols and Controls

Protocols and Controls

Aerial Photography and Videos

Safety for public on the ground as well as manned aircraft above is an essential and utmost consideration for aerial videos and photography. As such, safety protocols and controls must be implemented through pre-flight preparation and during flight.

Pre-Flight Protocol:

- Check batteries with voltage meter to insure fully charged and ready for use.
- Inspect batteries for damage or leakage that may affect proper operation.
- Inspect propellers for cracks, chips or damage that may cause sudden loss of propulsion or unmanageable/uncontrolled flight.
- Check weather forecasts for wind advisory or other conditions that may impact flight.
- Consult five (5) mile radius map for airport vicinity.
 - Contact respective airport to advise of estimated flight time, estimated flight duration, estimated elevation of flight, and any other pertinent information.
- Inspect flight area for
 - vicinity of public safety helipads/heliports
 - vicinity of medical helipads/heliports
 - vicinity of light poles
 - vicinity of 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
- Takeoff and landing
 - inspect area for best and safest point of takeoff and landing
 - if in a subdivision or area that is within 150 feet of a residential street, post warning sign(s)/stand(s) "Attention Aerial Photography In Progress - Remain Back 150 Feet"

Flight Protocol:

- takeoff and land from same location
- remain alert to birds, sound of aircraft, curious public, and approaching vehicles
- do not allow anyone to engage in conversation or distract the remote control pilot
- restrict flight to minimal elevation sufficient to acquire desired results
- remain prepared for emergency landing at all times
- pay attention to flight time
 - if possible set a timer as a safety alert
- land UAS and shut down propulsion immediately following landing

Post Flight:

- a. disconnect battery to prevent accidental activation of propulsion system

- b. secure UAS in a safe location
- c. remove all warning signs from public access areas

Emergency or Suspected Hazard:

- Immediate land UAS at safest and closest ground location in the event
 - manned aircraft is heard or seen in vicinity of flight
 - there is a public gathering within established safety boundary wanting to observe flight
 - pilot is being distracted from focusing on flight and safety
 - sudden change in weather (wind bursts)
 - sudden increase in vehicular traffic in vicinity of flight
 - birds enter into proximity of flight
 - any sudden unsafe event that can cause collision, distraction or interruption of control

Appendix C

Shick Web Design, LLC
Safety/Flight Manual

Safety Flight Manual

Aerial Photography and Video

Safety for public on the ground as well as manned aircraft above is an essential and utmost consideration for aerial videos and photography. Maintaining a record of safe flight for FAA request and for determining future UAS safety protocols is imperative.

Date: _____ Location: _____

Pre-flight Inspection: ___ Yes ___ No Comment: _____

Elements	(circle)	(circle)	Comment
Weather	Good	Fair	
Visibility	Good	Fair	
Wind Speed	Low	Medium	

Proximity to airport: _____ (see attached map pin pointing approximate location of flight)

Airport notified: ___ Yes ___ No Date: _____ Time: _____

Phone Number: _____ Contact Name: _____

Nearest major intersection: _____

Proximity to medium traffic road: _____

Proximity to heavily traveled roadway road: _____

Proximity to congested population: _____

Approx. Takeoff Time	
Approx. Landing Time	
Estimated Elevation	

Safety Concerns:

Additional Comments:

Unedited flight video/photos available for FAA upon written request within 180 days of flight: ___ Yes ___ No