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

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

August 11, 2015

Exemption No. 12440
Regulatory Docket No. FAA–2015–1948

Mr. Jason Spiewak
dba Spiewak Photography
1900 North Bayshore Drive, 3004
Miami, FL 33132

Dear Mr. Spiewak:

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 13, 2015, you petitioned the Federal Aviation Administration (FAA) on behalf of Spiewak Photography (hereinafter petitioner or operator) for an exemption. The petitioner requested to operate an unmanned aircraft system (UAS) to conduct aerial cinematography and photography.

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.

The petitioner requested relief from 14 CFR part 21, *Certification procedures for products and parts, Subpart H—Airworthiness Certificates*. In accordance with the statutory criteria provided in Section 333 of Public Law 112−95 in reference to 49 U.S.C. § 44704, and in consideration of the size, weight, speed, and limited operating area associated with the

aircraft and its operation, the Secretary of Transportation has determined that this aircraft meets the conditions of Section 333. Therefore, the FAA finds that the requested relief from 14 CFR part 21, *Certification procedures for products and parts, Subpart H—Airworthiness Certificates*, and any associated noise certification and testing requirements of part 36, is not necessary.

The Basis for Our Decision

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

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

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

Our Decision

In consideration of the foregoing, I find that a grant of exemption is in the public interest. Therefore, pursuant to the authority contained in 49 U.S.C. 106(f), 40113, and 44701, delegated to me by the Administrator, Spiewak Photography 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, Spiewak Photography 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 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 August 31, 2017, unless sooner superseded or rescinded.

Sincerely,

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

Enclosures

May 13, 2015

United States Department of Transportation
Docket Management System
1200 New Jersey Ave., SE
West Building Ground Floor Room W12-140
Washington, DC 20590

Re: Exemption Request Pursuant to Section 333 of the FAA Reform Act of 2012

Dear Sir or Madam:

I am writing pursuant to the FAA Modernization and Reform Act of 2012 (the "Reform Act") and the procedures contained in 14 C.F.R. 11, to request that Jason Spiewak d/b/a Spiewak Photography, an owner and operator of small unmanned aircraft, be exempted from the Federal Aviation Regulations ("FARs") listed below so that Jason Spiewak d/b/a Spiewak Photography may operate its small unmanned aircraft / lightweight unmanned aircraft systems ("UAS") commercially in airspace regulated by the Federal Aviation Administration ("FAA"); as long as such operations are conducted within and under the conditions outlined herein or as may be established by the FAA as required by Section 333. The conditions identified and proposed by the applicant are drawn from Order 8900.1 CHG 0, Volume 3, Chapter 8 – Issue a Certificate of Waiver for Motion Picture and Television Filming.

As identified and described herein, Jason Spiewak, and his company Spiewak Photography, is experienced and recognized in the marketing media industry. Mr. Spiewak and his previous companies have been providing marketing media for the real estate and luxury lifestyle industry for the past two (2) years. Mr. Spiewak has also been an avid R/C model flyer and operator for over twelve (12) years. Mr. Spiewak has been approached by many new and existing clients seeking to engage his marketing media services including large real estate firms such as Sotheby's.

Jason Spiewak has been actively involved in the technical development of UAS/UAV service applications to provide high definition pictures and film by aerial cinematography and photography with small, unmanned aircraft and lightweight UASs. It is currently one of the very few individuals that is developing advanced technical applications and abilities for future commercial service applications. Spiewak Photography has fully equipped each of its small unmanned aircraft for aerial photography and cinematography, primarily for use in marketing materials and television broadcast, though given their stability and maneuverability, they may be used for other cinematography and photography, by law enforcement personnel, search and rescue and by other first responders.

To date, Spiewak Photography has rejected all offers to work with commercial television production companies, real estate firms, and yacht brokerages on locations within the United States, to ensure it is in compliance with

any applicable FARs. It, like other applicants, has done so despite Judge Patrick G. Geraghty's decision in the Raphael Priker matter and his reasoning that no FARs prohibit the use of small unmanned aircraft or lightweight UASs like those flown by other peer companies.

Spiewak Photography's exemption request would permit its operation of lightweight, unmanned (remotely controlled in line of sight) UASs in tightly controlled and limited airspace. Predetermined, specifically marked areas of operation, cordoned off locations and corresponding enhancements to current safety controls will allow Spiewak Photography to operate within current safety parameters and new ones being implemented. As identified, similar lightweight, remote controlled UASs are legally operated by amateurs with no flight experience, safety plan or controls in place to prevent catastrophe. Spiewak Photography will monitor, evaluate, and implement all aerial photography and cinematography activities with a pre-flight safety and flight plan system. This will act to further safety protocols exclusive to lightweight UAS's specific to real estate video and photography usage as Spiewak Photography records flight data and other information gained through permitted flight operations to share with the FAA through any required FAA reports to assist with future protocol and safety regulation.

Granting Spiewak Photography's request comports with the Secretary of Transportation's (FAA Administrator) responsibilities to not only integrate UASs into the nation airspace system, but to ". . . establish requirements for the safe operation of such aircraft systems [UASs] in the national airspace system" under Section 333(c) of the Reform Act. Further, Spiewak Photography will conduct its operations in compliance with the protocols described herein or as otherwise established by the FAA.

Spiewak Photography respectfully requests the grant of an exemption allowing it to operate lightweight, remote controlled UAS's.

Name and Address of the Petitioner:

Jason Spiewak d/b/a Spiewak Photography
1900 N Bayshore Drive, 3004
Miami, Florida 33132
(305) 812-1211
jasonspiewak@gmail.com

The Specific Sections of Title 14 of the Code of Federal Regulations, Spiewak Photography 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)

Exemption Request Section 333 of the FAA Reform Act and Part 11 of the Federal Aviation Regulations from 14 C.F.R. 45.23(b); 14 CFR Part 21; 14 CFR 61.113(a) & (b); 91.7(a); 91.9(b)(2); 91.103(b); 91.109; 91.119; 91.121; 91.151(a); 91.203(a) & (b); 91.405(a); 91.407(a)(1); 91.409(a)(2); 91.417(a) & (b).

The Extent of Relief Spiewak Photography Seeks and the Reason it Seeks Such Relief:

Jason Spiewak 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 Spiewak Photography from pursuing contemplated commercial cinematic, academic, research 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. The DJI Phantom 2, operated by Spiewak Photography, is an ultra light weight UAS and meets the definition of "small unmanned aircraft" as defined in Section 331; therefore, the integration of Spiewak Photography's ultra lightweight UAS is expressly contemplated by the Reform Act. Spiewak Photography would like to operate it's 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 and marketing 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: weight, size, speed, and overall capability 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 Jason Spiewak d/b/a Spiewak Photography.

Spiewak Photography's UAS utilizes four (4) counter-rotating propellers for extreme balance, control, and stability. The UAS is equipped with GPS and auto return safety technology. Weighing less than ten (10) pounds (well below the maximum 55 pound limit); including camera with gimbal.

Spiewak Photography considers safety as foremost with each flight. The small unmanned aircraft is designed to hover in place via GPS and operated in less than 24 knot wind. For safety, stability, and fear of financial loss Spiewak Photography will not fly in winds exceeding 16 knots or 10 miles per hour. Built in safety systems include a GPS mode that allows the UAS to hover in place when radio control inputs are released. With three modes to choose from, Spiewak Photography utilizes the Smart Mode[1] for aerial videography/photography. This is the safest, most reliable

and stable mode to prevent accident and hazard. When pilot communication is lost the UAS is designed to slowly descend to the point of take off. In addition to the remote control pilot, Spiewak Photography uses a spotter, such that, at a minimum, two (2) personnel govern the safe flight of the Spiewak Photography UAS.

Spiewak Photography does not operate it's UAS near airports, hospitals, police heliports, or any areas where the general public is within fifty to one hundred (50-100) yards depending on location, conditions, and weather. The UAS operating software and GPS navigation systems do not allow Spiewak Photography's UAS to operate near airports or restricted fly zones. The failsafe software will disable the UAS from taking off and also limit the UAS systems from operating within specific GPS preset no-fly zones. Jason Spiewak is 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 the location or Jason Spiewak believes manned aircraft may approach near the location. The UAS is capable of vertical and horizontal operations, and are flown only within line of sight, as the remote control pilot. Utilizing batter power rather than combustible fuels, flights generally last between eighteen (18) and twenty (20) minutes, with an altitude under one hundred and fifty (150) feet.

Jason Spiewak d/b/a Spiewak Photography, 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 (20) minutes as tested. Spiewak Photography will not operate the UAS at or below manufacturer recommended 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. Spiewak Photography is risk averse and does not believe in taking risks that may cause a crash that could create hazard to the public/property/manned aircraft. Spiewak Photography has clocked over 200+ hours of hobby level flights for future commercial use to gain familiarization with the characteristics of this specific UAS's performance under different temperature and weather conditions. Jason Spiewak also practices using computerized simulated flights to maintain adequate skills and response reflex time. Spiewak Photography is extremely cautious when operating its 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 the 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. The UAS, used in hobby flight, has a demonstrable safety record and does not pose any threat to the general public or national security.

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[1] Smart Mode includes GPS Geofence radius for operation, position hold, self-leveling, altitude command, return home feature or land in the event of communication interruption between RC transmitter and UAS. *See* Appendix A.

How Spiewak Photography's Request Will Benefit the General Public

Granting Spiewak Photography's exemption request furthers the public interest. Aerial photography and videography for real estate and personal property marketing has been around for a long time through manned fixed wing aircraft and helicopters. However, for small budget real estate companies, average homeowners, and small videography companies the expense of such aerial videography is cost prohibitive. Only large companies and high end realtors or luxury homeowners can afford to absorb such expenses. Accordingly, the majority of homeowners and realtors are deprived from a valuable marketing tool. Manned aircraft pose a threat to the public through potential catastrophic crashes that the community has experienced in the past with military, medical and news/tourism helicopter crashes within the city of Miami, resulting in loss of life, and with combustible fuel that exploded and burned on impact. The UAS operated by Spiewak Photography poses no such threat because the 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 the exemption request of Jason Spiewak d/b/a Spiewak Photography furthers the public interest through visual awareness of the geographical benefits in and around the South Florida area and promotes small business growth and competitiveness in the area. It will provide additional jobs related to photography, videography, and cinematography editing and shooting. The ultra lightweight UAS is battery powered and creates no emissions that can harm the environment. The consequence of the ultra lightweight 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 threats by permitting aerial video/photo capture through a battery operated ultra lightweight UAS. Permitting Jason Spiewak d/b/a Spiewak Photography to immediately fly within national air space furthers economic growth. Granting my exemption request substantially furthers the economic impact for the South Florida community for companies looking to relocate or build in the South Florida area as well as individuals looking to relocate for career advancement. Granting the exemption serves as a stimulus to the community.

Reasons Why Jason Spiewak d/b/a Spiewak Photography's Exemption Will Not Adversely Effect Safety and How the Exemption Will Provide a Level of Safety at Least Equal to the Existing Rule:

The exemption for Jason Spiewak d/b/a Spiewak Photography will not adversely affect safety. Quite the contrary, for the reasons stated Jason Spiewak will be allowed to log more flight time in FAA controlled airspace, with communication with the FAA, allowing Jason Spiewak to contribute to the innovation and

implementation of new and novel, as of yet undiscovered safety protocols for UAS pilots that can be embraced for development in cooperating with the FAA. In addition, Jason Spiewak submits the following representations of enhancements to current aerial videography and photography:

- Spiewak Photography's UAS weighs less than 10 pounds complete with a small ultra light weight high definition camera;
- Spiewak Photography's UAS is operated below 300 feet (well within the 400 ft. permissible ceiling set by the FAA Modernization and Reform Act of 2012);
- Spiewak Photography's UAS is only operated for 18-20 minutes per flight;
- Spiewak Photography's UAS is landed prior to manufacturer recommended minimum level of battery power;
- Spiewak Photography's UAS is piloted through remote control by line of sight;
- Spiewak Photography's remote control pilots have video backup should they somehow lose sight of the UAS;
- Spiewak Photography's UAS has a GPS and flight safety feature whereby it hovers and then slowly lands if communication with the remote control pilot is lost;
- Spiewak Photography's flight data is actively analyzed to constantly update and enhance safety protocols;
- Spiewak Photography's UAS is operated only in a reasonably safe environment that is strictly controlled and away from power lines, elevated lights, airports, and actively populated areas;
- Spiewak Photography performs extensive pre-flight inspections and protocols are conducted;
- Spiewak Photography obtains permission prior to operating
- Spiewak Photography has procedures in place to abort flights in the event of safety breaches or potential danger

The safety protocols implemented by Jason Spiewak d/b/a Spiewak Photography 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 community awareness and marketing of real estate and personal property. While the safety record of such helicopters is remarkably astounding, there has been local incident involving loss of life as well as extensive property damage; 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 only operate 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 the UAS allows the pilot to remotely avoid hazards quickly and safely. Finally, given its small size and weight, even when close enough to capture amazing images, the 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, Jason Spiewak has operated the UAS experimentally for familiarization/competency and will continue to operate at and above current safety levels.

A Summary the FAA May Publish in the Federal Register:

A. 14 C.F.R. 21 & 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 Spiewak Photography's UAS permits exemption from Part 21 because the 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. Spiewak Photography's current and projected UASs' meet and 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, 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.[2] 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 inapplicable insofar as the UAS utilizes electronic global positions systems with 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 Spiewak Photography.

B. 14 C.F.R. § 45.23: Marking the Aircraft

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[2] Appendix ___ - Safety/Flight Manual

Applicable codes of federal regulation require aircraft to be marked according to certain specifications. The UAS operated by Spiewak Photography is, by definition, unmanned. The UAS does not have a cabin, cockpit or pilot station on which to mark certain words or phrases. Further, two-inch letters is difficult to place on such small aircraft with dimensions smaller than the minimal lettering requirement. Regardless, Spiewak Photography will mark its UASs 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 the pilot, or anyone assisting the pilot as a spotter with the UAV will see the markings. The FAA previously issued exemptions to this regulation through Exemptions Nos. 8738, 10167, 10167A, and 10700.

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. Jason Spiewak d/b/a Spiewak Photography 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 related to the operation of the UAS is far less than the risk levels inherent in the commercial activities outlined in 14 C.F.R. § 61, et seq. Thus, allowing Spiewak Photography 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. The UAS will never operate at an altitude greater than 300 AGL; safely below the standard of 400 AGL. Spiewak Photography 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 aircraft inspected as prescribed in subpart E of this part and shall between required inspection, 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. Therefore, they will not apply to Spiewak Photography's UAS. However, as a safety precaution Spiewak Photography inspects its UAS before and after each flight.

A summary the FAA May Publish in the Federal Register: 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 requirement for procurement of necessary airworthiness certificates in relation to FAR § 91.203(a)(1). The size, weight, and enclosed operations of its UAS permits exemption from Part 21, because Spiewak Photography'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 weight, size, speed, maneuverability and proximity to areas such as airports and dense populations. Spiewak Photography's UAS meets or exceeds each of these elements. 14 C.F.R. § 91.7(a) prohibits the operation of 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, 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, Jason Spiewak d/b/a Spiewak Photography 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) & (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. 91.417(a) & (b) to commercially operate its small unmanned vehicle/lightweight unmanned aircraft vehicle to promote community awareness and develop economic platforms and marketing media for real estate and personal property owners and sales agents. It will enhance the South Florida economy and the experience of those seeking to relocate to South Florida. Currently, aerial videography/photography relies primarily on the use of larger aircraft running on combustible fuel which poses potential risk to the public. Granting Spiewak Photography's request for exemption will reduce current risk levels and thereby enhance safety. Spiewak Photography's UAS does not contain or use potentially explosive fuel, is smaller, lighter, and more maneuverable than conventional video and photographic aircraft with much less flight time. Further, Spiewak Photography operates at lower altitudes and in controlled airspace eliminating potential public risk flying to and from established air fields. Spiewak Photography has been informally analyzing flight information and has compiled safety protocols and implemented a flight operations manual for UAS usage that exceeds currently accepted means and methods for safe flight. 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 the UAS diminishing the

likelihood of death or serious bodily injury. Operation of the UAS, weighing less than 10 pounds and travelling at lower speeds within limited areas will provide an equivalent level of safety as that achieved under current FARs. Accordingly, Jason Spiewak d/b/a Spiewak Photography, respectfully requests that the FAA grant its exemption request and agrees to cooperate in sharing information to benefit the FAA, safety of manned aircraft, and the general public at large.

Respectfully submitted,

5/13/15

Jason Spiewak d/b/a
Spiewak Photography