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

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

September 2, 2015

Exemption No. 12718
Regulatory Docket No. FAA–2015–2069

Mr. Russell E. Medley
General Manager
Iris Magic Photo Studios LLC and Iris Magic Media LLC
1042 Suncrest Town Centre
Morgantown, WV 26505

Dear Mr. Medley:

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 20, 2015, you petitioned the Federal Aviation Administration (FAA) on behalf of Iris Magic Photo Studios LLC and Iris Magic Media LLC for an exemption. The petitioner requested to operate an unmanned aircraft system (UAS) to conduct aerial photography, videography, cinematography, and motion picture productions.

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

The FAA has determined that good cause exists for not publishing a summary of the petition in the Federal Register because the requested exemption would not set a precedent, and any delay in acting on this petition would be detrimental to the petitioner.

Airworthiness Certification

The UAS proposed by the petitioner are the DJI Inspire 1 and DJI Spreading Wings S1000+.

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] and closed set motion picture and filming. 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, Iris Magic Photo Studios LLC and Iris Magic Media LLC are 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

[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.

operate a UAS to perform aerial data collection and closed set motion picture and filming. This exemption is subject to the conditions and limitations listed below.

Conditions and Limitations

In this grant of exemption, Iris Magic Photo Studios LLC and Iris Magic Media LLC are 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 Inspire 1 and DJI Spreading Wings S1000+ 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 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 September 30, 2017, unless sooner superseded or rescinded.

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

Enclosures

U.S. Department Of Transportation
Docket Management System
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From:
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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); 91.105; 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)

Dear Sir or Ma'am,

I, Russell E. Medley on behalf of Iris Magic Media LLC, herewith known as the petitioner, 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, an owner and operator of small unmanned aircraft, be exempted from the Federal Aviation Regulations ("FARs") listed below so that I may operate my small ultra light weight unmanned aircraft system ("sUAS") commercially in airspace regulated by the Federal Aviation Administration ("FAA").
The petitioner has over 7 years operating UA as a hobby, enthusiast, and for IrisMagic Media LLC. While at Norfolk State University, I received 6 credit hours in Airway Science. While in the U.S. Army, I received Certification as an Aerial Delivery and Materials Officer at Fort Lee, VA, and obtained The Parachute Rigger Badge also at Fort Lee,Va. I have experience flying RC aircraft and in particular have been flying RC quadcopter for over three and a half years and other RC aircraft prior to that. I have over 300 hours experience flying RC quadcopters of the type referenced in this document.

The petitioner has in his possession two semi professional grade quadcopters sUAS with an integrated 4k still/video camera system with intent for aerial videography/ cinematography to enhance academic community awareness, produce wedding films and videos, sports photography, music and motion picture productions and other flight operations, following exemption and approval by the FAA. The petitioner has instilled safety protocols and controls to avoid and prevent public hazard. The petitioner believes that his background in airway science and years of producing wedding and sports films, professional videography can assist the FAA in developing operational and safety

protocols for lightweight UAS's as their integration into the national airspace system is explored and developed.

I and on behalf of Iris Magic Media LLC, I am interested in operating small unmanned aircraft systems (sUAS) commercially in airspace regulated by the Federal Aviation Administration (FAA) for the purposes of aerial photography, videography/ cinematography and other responsible flight operations that could be performed safely and more cost effectively with the use of a small sUAS at low altitude within the U.S. national airspace system as compared to a manned aircraft. Commercial operations will be performed only at the request of and with the authorization and permission of clients, communities or their authorized agents in order to facilitate commerce and raise awareness of the responsible and beneficial uses of small unmanned air systems. So 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.

Granting my 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 and other community related purposes. Further I will conduct my operations in compliance with the protocols described herein or as otherwise established by the FAA.

For the reasons stated below the petitioner respectfully requests the grant of an exemption allowing me on behalf of Iris Magic Media LLC to operate ultra light weight, remote controlled UAS's for the purpose of enhancing academic community awareness, producing wedding films and videos, sports photography, music and motion picture productions and other flight operations,

I. Contact Information:

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

14 C.F.R. 45.23(b);	
14 C.F.R. 21; Subpart H	
14 C.F.R. 61.113(a)&(b);	
91.7(a);	Aircraft markings
91.9(b) (2);	Certification procedures; Airworthiness
91.103(b)(2);	Certificates Pilots, Flight Instructors and
91.105;	Ground Instructors Airworthiness
91.109;	certificate
91.119;	Aircraft flight manual
91.121;	Preflight action
91.151(a);	Flight crew members at stations
91.203(a)&(b);	Flight instruction
91.405(a);	Minimum safe altitudes
91.407(a) (1);	Altimeter settings
91.409(a) (1) &(2);	Fuel requirements for flights in VFR
91.417(a)&(b)	conditions Aircraft certifications and registrations Maintenance required Operation after maintenance Inspections Maintenance records

III. The Extent Of Relief The Petitioner Seeks And The Reason He Seeks Such Relief:

These are in accordance with FAA Publication: Public Guidance for Petitions for Exemption Filed under Section 333 (Rev. 9/25/14). The petitioner 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 the petitioner from contemplated commercial videographic, academic and other flight operations within the national airspace system (NAS). 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 petitioner's ultra light weight sUAS meets the definition of "small unmanned aircraft" as defined in Section 331 and therefore the integration of my ultra lightweight sUAS is expressly contemplated by the Reform Act. I would like to operate my ultra lightweight sUAS's prior to the time period by which the Reform Act requires the FAA to promulgate rules governing such craft. My airway science background and commercial videography background applied to UAS's can provide direct experience and valuable information to develop requirements and protocols for formal regulation that can be administered regarding various applications related to 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 the petitioner.
Similar exemptions to Gary, J Huett (No. 11595), Astraeus Aerial (No. 11062) and Douglas Trudeau (No. 11138), as well as others have been recently granted that cover the same relief from regulations as requested in this petition for exemption. The above two, amongst other, petitions have been reviewed with the petitioner's exemption being substantially similar to that of Douglas Trudeau in use of the UAS for local community related matters rather than professional movie making.

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 the petitioners 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. The petitioners 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. Proper maintenance will be regularly applied to keep the UAS airworthy.

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 as presented in this document 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 has no altimeter settings. It, however, utilizes electronic global positioning systems with a barometric sensor providing instantaneous telemetry to the PIC as to the altitude (AGL) of the UAS above the takeoff location.

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 the petitioner.

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 is, by definition, unmanned. It, therefore, does 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 the UAS in the largest possible lettering by placing an N number registered with the FAA on its fuselage so that I the pilot, or anyone assisting me as a spotter 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. § 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. The petitioner can achieve an equivalent level of safety as achieved by

current regulations because my UAS does not carry any pilots or passengers. Further, while helpful, a commercial pilot license will not ensure remote control piloting skills. The PIC also possesses over 300 hours experience flying the UAS in a variety of locations and conditions. The risks attendant to the operation of my UAS are far less than the risk levels inherent in the commercial activities outlined in 14 C.F.R. § 61, et seq. Thus, allowing the petitioner, a licensed Private Pilot with a current Third Class Medical Certificate to operate my UAS commercially meeting and exceeding current safety levels in relation to 14 C.F.R. §61.113 (a) & (b).

D. 14 C.F.R. 91.105: Flight Crew Members at Stations

Since there is no flight crew onboard the UAS, the above-cited regulation is inapplicable. However, in keeping with the direction of the regulation, the PIC of the UAS and VO will be at their respective crew member stations on the ground during takeoff and landing as well as the complete duration of the flight.

E. 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 400 feet AGL unless other altitude limits are forthcoming by the FAA. The petitioner will operate the UAS in a manner protecting the public and any consenting participants, 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.

F. 14 C.F.R. 91.405 (a); 407 (a) (1); 409 (a)(1)&(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 the petitioners UAS. However, as a safety precaution I inspect my UAS regularly as well as before and after each flight and have a maintenance program that involves regular software updates and curative measures for any damaged hardware. Therefore, an equivalent level of safety will be achieved.

IV. How The Petitioners Request Will Benefit the Public As A Whole:

Aerial videography for weddings, community awareness, marketing, music videos, academic training, sports films, and other flight operations has been around for many years through manned fixed wing aircraft and helicopters. For small budget operations, local community awareness and the average business/homeowners, the expense and

operation of such aerial videography can be both cost and logistically prohibitive. Only large companies, In addition, attempting to get still photos, much less high quality, stabilized video of a community, home, farm, or business is often logistically difficult or impossible using a full size aircraft or helicopter due to flight restrictions, ground proximity, trees and other hindrances, not to mention highly intrusive noise levels and other drawbacks to the neighboring community. Also, the physical logistics of maneuvering a full sized fixed wing aircraft or helicopter adds an element of risk and danger due to the possibility of crashing and ensuing fire. The proper use of an ultra lightweight, battery powered, GPS stabilized, UAS removes that element of danger, while at the same time making available the opportunity to acquire high quality images and video to the community at an economical cost. New perspectives and creative presentations of features of the community are made available that were not previously possible. This opens up a whole new economic avenue for community awareness, development and enhancement in many areas, some yet to be explored and discovered, similar to the advent of aviation. The lower cost and greater utility facilitates a whole new dimension to community related presentation options that were previously not available.

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 petitioners exemption request furthers the public interest through academic/visual awareness, decreased risk to the public and newly accessible scales of economy. Our ultra lightweight UASs are battery powered and creates no emissions that can harm the environment. The consequence of our ultra lightweight UASs 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. Due to their size, limited maneuverability, and flight limitations manned aircraft also cannot provide the community with the versatile, high quality, stabilized video/ cinematography that can be gained through the responsible operation of a small UAS.

Some specific areas where the petitioner's use of a UAS may benefit the public as a whole are:

- Aerial videography/cinematography to enhance academic community awareness - community events, outdoor functions, business promotions, video productions
- Other flight operations – other areas that may develop

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. Permitting the petitioner to immediately fly within national air space stimulates economic growth in the community. In addition, due to my UAS and Airway experience, the petitioner can knowledgeably relate back to the FAA valuable input to establish requirements and protocols for the proper integration of UAS's into the national airspace system.

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

The following information is provided for the FAA to effectively analyze the petitioner's sUAS operation with regard to safety:

Our, Iris Magic Media LLC / Iris Magic Photo Studios LLC, exemption will not adversely affect safety. Quite the contrary, for the reasons stated permitting us, Iris Magic to log more flight time in FAA controlled airspace, with communication with the FAA, will allow us to contribute to the innovation and implementation of new and novel, as of yet undiscovered safety protocols for Wedding Photographers and Videographers. In addition We, Iris Magic, submit the following representations of enhancements to current aerial videography and photography:

- Our UAS weighs less than 15 pounds complete with gimbal and high resolution Panasonc GH4 Cameras and well factory mounted cameras;
- We only operate our UAS below 300 feet (well within the 400 foot permissible ceiling set by the FAA Modernization and Reform Act of 2012);
- Our UAS only operate for 10-15 minutes per flight;
- We land our UAS prior to manufacturer recommended minimum level of battery power;
- We pilot our UAS through remote control only by line of sight;
- Our UAS has GPS a flight safety feature whereby it hovers and then slowly lands
- if communication with the remote control pilot is lost;
- We actively analyze flight data and other sources of information to constantly update and enhance safety protocols;
- We only operate in reasonably safe environment that are strictly controlled, are away from power lines, elevated lights, airports and actively populated areas;
- We conduct extensive pre-flight inspections and protocol, during which safety carries primary importance;
- We always obtain all necessary permissions prior to operation; and,
- We have procedures in place to abort flights in the event of safety breaches or potential danger.

The two UAS systems we use are manufactured by DJI (www.dji.com):

-INSPIRE 1 & Spreading Wings S1000+ (equipped with panasonic gh4)
http://www.dji.com/product/inspire-1
http://www.dji.com/product/spreading-wings-s1000-plus

VI. 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 requirements for procurement of necessary airworthiness certificates in relation to FAR § 91.203(a)(1). The size, weight and limited operational area of my UAS permits exemption from Part

21 because the petitioner'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, 10167A, 10602, 10700 and 32827. 14 C.F.R. § 91.121 requires altimeter settings in the aircraft. Since there are no such settings possible and the UAS provides real- time GPS and barometric telemetry to the PIC, this regulation is inapplicable. 14 C.F.R. § 91.203 (a) and (b) provides for the carrying of civil aircraft certifications and registrations. This regulation is inapplicable as to the small size of the UAS, however, the petitioner will maintain any required certifications and registrations. 14 C.F.R. § 45.23: Marking of The Aircraft. Due to the small size of the UAS, two inch lettering is inapplicable. However, an N- number as large as possible, registered with the FAA will be put on the fuselage. 14 C.F.R. § 61.113: Private Pilot Privileges and Limitations: PIC. The risks attendant to the operation of my UAS are far less than the risk levels inherent in the commercial activities outlined in 14 C.F.R. § 61, et seq. Thus, allowing the petitioner, a licensed Private Pilot with a current Third Class Medical Certificate to operate my UAS commercially meeting and exceeding current safety levels. 14 C.F.R. 91.105: Flight Crew Members at Stations. The PIC of the UAS and the VO will remain at their respective stations during takeoff and landing as well as the duration of the flight. 14 C.F.R. 91.119: Minimum Safe Altitudes. My UAS will not operate at an altitude greater than 400 feet AGL unless other altitude limits are forthcoming by the FAA. The petitioner will operate the UAS in a manner protecting the public and any consenting participants, providing a level of safety at least equivalent to or below those in relation to minimum safe altitudes. 14 C.F.R. 91.405 (a); 407 (a) (1); 409 (a)(1)&(2); 417(a)
& (b): Maintenance Inspections. These Regulations only apply to aircraft with an airworthiness certificate. They will not, therefore, apply to the petitioner's UAS. However, as a.
safety precaution I inspect my UAS regularly as well as before and after each flight and have a
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, the petitioner 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. § 91.105; 14 C.F.R. § 91.109; 14
C.F.R. § 91.119; 14 C.F.R. § 91.121; 14 C.F.R. § 91.15l(a); 14 C.F.R. §§ 91.203(a) and (b);
14 C.F.R. § 91.405 (a); 14 C.F.R. § 91.407 (a)(l); 14 C.F.R. § 91.409 (a)(1)&(2); 14 C.F.R. §
91.409 (a) (2); and, 14 C.F.R. §§ 91.417 (a) & (b) to commercially operate the petitioners
small unmanned vehicle/lightweight unmanned aircraft vehicle for aerial videography/ cinematography/photography, to enhance academic community awareness, produce wedding films and videos, sports photography, music and motion picture productions and other flight operations.

Sincerely,

Russell E. Medley III, PIC, General Manager
Iris Magic Media LLC / Iris Magic Photo Studios