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12 August 2014

Hon. Michael Huerta
Administrator
Federal Aviation Administration
U. S. Department of Transportation
Docket Management System
1200 New Jersey Ave., SE
Washington, DC 20590

Re: Exemption Request under Section 333 of the FAA Reform Act and Part 11 of the Federal Aviation Regulations from certain parts of the FARs.

Dear Administrator Huerta:

Pursuant to Section 333 of the FAA Modernization and Reform Act of 2012 (the Reform Act) and 14 C.F.R. Part 11, Colin Hinkle, a professional photographer, hereby applies for an exemption from the listed Federal Aviation Regulations ("FARs") to allow him to operate a small Unmanned Aircraft System ("sUAS") under the conditions and limitations set forth in this Petition.

The requested exemption would permit the operation of small, unmanned and relatively inexpensive sUAS under controlled conditions in airspace that is (1) limited, (2) predetermined, and (3) would provide safety enhancements to the already safe news gathering operations presently using manned helicopters and airplanes in Chicagoland. Approval of this exemption would thereby enhance safety and fulfill the FAA Administrator's responsibilities to "...establish requirements for the safe operation of such aircraft systems in the national airspace system." Section 333(c) of the Reform Act.

The name and address of the applicant is:

Colin Hinkle
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Email: hperritt@gmail.com
Address: 1131 Carol Lane, Glencoe, IL 60022

Regulations from which the exemption is requested:

14 CFR Part 21

14 C.F.R. § 45.23(b)

14 CFR § 61.3

14 C.F.R. § 91.7 (a)

14 CFR § 91.9 (b) (2)

14 C.F.R. § 91.103

14 C.F.R. § 91.109

14 C.F. R. § 91.119

14 C.F.R. § 91.121

14 CFR § 91.151 (a)

14 CFR § 91.203 (a) & (b)

14 CFR § 91.205(b)

14 CFR § 91.215

14 CFR § 91.405 (a)

14 CFR § 407 (a) (1)

14 CFR § 409 (a) (2)

14 CFR § 417 (a) & (b)

The Appendix describes the FARs from which an exemption is requested and summarizes the justification for each requested exemption.

The Petition is submitted to fulfill Congress' goal under Section 333(a) through (c) of the Reform Act, which directs the Secretary of Transportation to consider whether certain unmanned aircraft systems may operate safely in the national airspace system (NAS) before completion of the rulemaking required under Section 332 of the Reform Act. In making this determination, the Administrator must determine which types of UASs do not create a hazard to users of the NAS or the public or pose a threat to national security in light of the following:

- The UAS's size, weight, speed, and operational capability;
- Operation of the UAS in close proximity to airports and populated areas; and
- Operation of the UAS within visual line of sight of the operator.

Reform Act § 333 (a).

If the Administrator determines that such vehicles "may operate safely in the national airspace system, the Secretary shall establish requirements for the safe operation of such aircraft in the national airspace system." Id. § 333(c) (emphasis added).

The Secretary has delegated his aviation authority to the Administrator of the FAA.

The Federal Aviation Act expressly grants the FAA the authority to grant exemptions from its regulatory requirements for civil aircraft, a term defined under §40101 of the Act, which includes sUASs. The Administrator may grant an exemption from a requirement of a regulation prescribed under subsection (a) or (b) of this section or any sections 44702-44716 of the Federal Aviation Act if Administrator finds the exemption in the public interest. 49 U.S.C. § 44701(f) See also 49 USC § 44711(a); 49 USC § 44704; 14 CFR §91.203 (a) (1).

The petitioner is a professional photojournalist, who earns his living as a contract photographer for several Chicago television stations. His regular assignments involve his going out with electronic news gathering ("ENG") vans to cover breaking news as assigned by the TV station newsdesk. He also works as a relief photojournalist for the helicopter contractor that serves Chicago TV stations. He has thus become familiar with both ground-based and aerial news photography over the course of several years.

The wide availability of small Unmanned Aircraft Systems, also known as “microdrones,” capable of carrying high-quality video cameras and priced at affordable levels intrigued the petitioner. His entire professional career has involved exploring new technologies and adapting them to capture good imagery to inform the public. In July 2014, he bought a DJI Phantom 2 Vision, installed a three axis gimbal and a GoPro camera and has flown it for total of 30 hours over remote areas of the Chicago metropolitan area, over remote locations in downstate Illinois, and in the Ozark Mountains in Missouri for recreational purposes, exploring the potential and the limitations of its video subsystem.

He is pleased with the quality of the imagery captured and has edited it into a number of photographic vignettes that meet his high standards for technical quality and artistic merit.

Now, a number of people, some professional colleagues and some strangers, have heard about Petitioner’s activities and have seen the results and are pressing Petitioner to undertake additional microdrone photography for compensation.

He has been advised by counsel that this is not now permissible unless he obtains special permission from the FAA. Many competitors of Petitioner are actively flying sUAS to conduct aerial photography for commercial purposes, notwithstanding the FAA’s stated prohibition. He also notes and has read the congressional mandate in sections 332 and 333 of the FAA Revitalization and Reform Act of 2012 that the FAA move quickly to accommodate the economic and societal benefits that can result from widespread deployment of sUAS technology. Accordingly, Petitioner applies for authorization under the Federal Aviation Act, and the FARs rules to undertake the following activities for commercial purposes. Unless the Petition is granted, Petitioner will be at a significant competitive advantage if he, as he prefers, complies with FAA policy.

Vehicle

The Petitioner will fly a DJI Phantom 2 Vision equipped with a three-axis gimbal and GoPro camera.

This vehicle has built in capability to limit the height it flies above the ground, to limit the radius of the distance it flies from the operator, and to exclude it from class B, C,

and D airspace. The vehicle also has the built-in capability to return to the launching point if the wireless control link is interrupted or if the operator attempts to exceed any of the height, radius, or airspace limitations programmed into it.

The vehicle weighs about five pounds empty and has a maximum gross weight of approximately twenty pounds. It has a top speed of about 30 knots. It has four fixed-pitch rotors, thrust from which is varied by changing RPM. It is powered by a lithium polymer battery.

Flight profiles

The petitioner will program the Phantom so that it will not fly above 400 feet above ground level, or more than 1500 feet away from him. He will carefully preflight the vehicle before each mission to assure that its compass and GPS system are properly calibrated and that the return-to-home feature, altitude, and radius limitations work.

He will operate it on aerial photography missions only in the early morning hours and other times when few people are out and about. He will operate it only over largely unpopulated areas where the potential of uncontrolled descent to cause injury or damage is low

He will not operate it in controlled airspace. In the unlikely event that a manned aircraft flies below 400 feet AGL where the petitioners operating his Phantom, he will keep both the vehicle and manned aircraft in sight and avoid the manned aircraft.

More particularly, the Petitioner will fly the Phantom only over the following types of areas in Metropolitan Chicago:

- Over Lake Michigan, outward of the shoreline
- Over open water in marinas, anchorages, and rivers appurtenant to Lake Michigan
- Over lines of railroad and rail classification yards
- Over expressways
- Over nonresidential and noncommercial large-scale industrial areas
- Over private property when he has been commissioned by the person in legal possession of the property to do so

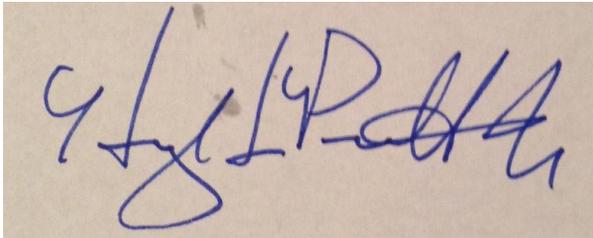
- Over breaking news events subject to the following special limitations:

He will retain a professional news helicopter pilot as a special consultant and undertake a period of ground training with that special consultant to understand the rules of thumb that ENG helicopter pilots follow to coexist safely with, and to provide occasional help to, law-enforcement and other public safety agencies.

He will undertake a period of at least six hours flight training with the ENG pilot-consultant to ensure that the Petitioner is proficient in anticipating and responding to situations over breaking news events that might interfere with the safe flight of police and other public safety helicopters, with ground operations, or with manned aircraft.

The Petitioner's proposed operations satisfy the criteria provided in Section 333 of the Reform Act relating to size, weight, speed, operating capabilities, proximity to airports and populated areas and operation within visual line of sight and national security. The Petition justifies grant of the requested exemptions allow the Petitioner to obtain aerial photography with his microdrone.

Respectfully submitted,

A handwritten signature in blue ink on a light-colored background. The signature is cursive and appears to read "H. H. Perritt, Jr.".

Henry H. Perritt, Jr.
Counsel for Petitioner

Appendix

FAR section	Subject	Justification
14 CFR § 45.23(b)	Requirement to display registration number on vehicle	Insufficient space on vehicle
14 CFR Part 21	Aircraft certification requirements and procedures	Designed for manned aircraft; not suitable for off-the-shelf sUAS
14 CFR § 61.3	Requirement for pilot certificate	Part 61 requirements designed for manned aircraft, not sUAS; petition describes training for sUAS operator
14 CFR § 91.7 (a)	Airworthiness requirement	Designed for manned aircraft; not suitable for off-the-shelf sUAS
14 CFR § 91.9 (b) (2)	Requirement for manual to be available in the cockpit	No one aboard to read manual
14 CFR § 91.103(b)	Requirement for crew members to be onboard	Unmanned vehicle
14 CFR § 91.109	Requirement for dual controls during flight instruction	No one aboard to operate controls
14 CFR § 91.119	Minimum altitudes for safe flight	Safety requires operation below these altitudes
14 CFR § 91.121	Altimeter settings	No one aboard to read altimeter
14 CFR § 91.151(a)	Fuel requirements	Vehicle does not use fuel
14 CFR § 91.203 (a) & (b)	Requirement for registration and airworthiness certificates to be onboard	No one aboard to read certificates
14 CFR § 91.205(b)	Cockpit instruments	No one aboard to read

	requirement	instruments
14 CFR § 91.215	Transponder requirement	Vehicle has insufficient useful load; will be operated below ATC radar coverage
14 CFR § 91.405 (a)	Inspection requirements	Designed for manned aircraft; not suitable for off-the-shelf sUAS
14 CFR § 91.407(a) (1)	Inspection approval requirements	Designed for manned aircraft; not suitable for off-the-shelf sUAS
14 CFR § 91.409 (a) (2)	Airworthiness inspection	Designed for manned aircraft; not suitable for off-the-shelf sUAS
14 CFR § 91.417 (a) & (b)	Maintenance records requirements	Designed for manned aircraft; not suitable for off-the-shelf sUAS