

DEPARTMENT OF
TRANSPORTATION
DOCKET OPERATIONS

United States Department of Transportation

Docket Operations

OCT 27 P 2 41

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 Drone Zone LLC, an owner and operator of small unmanned aircraft, be exempted from the Federal Aviation Regulations (FAR's) listed below so that Drone Zone, 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.

As identified and described herein, Scott Zimmerman, and his company Drone Zone LLC, is an experienced, licensed, and insured R/C model pilot (25yrs) and comes from a family of pilots. His Father, a pilot with the Minnesota DOT, and Uncle a retired commercial pilot with United Airlines. With this background, Scott Zimmerman has a full and unique understanding of the safety precautions, and laws that must be observed and adhered to.

Drone Zone LLC has been actively involved in the technical development of UAS/UAV service applications to provide high definition film quality by aerial cinematography with small, unmanned aircraft and lightweight UASs. It is currently one of the very few companies that is developing advanced technical applications and abilities for future commercial service applications. Drone Zone LLC has fully equipped each of its small unmanned aircraft for aerial photography and cinematography. Through given their stability and maneuverability, they may be used for other cinematography, by law enforcement personnel, search and rescue and by other first responders.

To Date, Drone Zone LLC has rejected all offers to work with film, television, commercial television production companies and directors 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 Rapheal Pirker matter and his reasoning that no FARs prohibits the use of small unmanned aircraft or lightweight UASs like those flown by other peer companies.

Drone Zone LLC 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 Drone Zone LLC 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. Drone Zone LLC is developing a state-of-the art client website application to monitor, evaluate and implement all aerial cinematography activities with a pre-flight safety and flight plan system.

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

Drone Zone LLC respectfully requests the grant of an exemption allowing it to operate lightweight, remote controlled UAS's.

The Specific Sections of Title 14 of Federal Regulations, Drone Zone LLC requests exemption are:

14 CFR 21; 14 C.F.R. 45.23(b); 14 CFR 61.113(a) & (b); 14 C.F.R. 91, et seq; 14 CFR 407 (a) (I); 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 Drone Zone Services Seeks and the Reason it seeks Such Relief:

Drone Zone LLC submits this application in accordance with the Reform Act, 112 P.L. 95 ss 331-334, seeking relief from any currently applicable FARs operating to prevent Drone Zone LLC contemplated commercial cinematic, research and other flight operations within the national airspace system. There Reform Act in Section 332 provides for such integration of civil unmanned aircraft systems into our national airspace systems into our national airspace system as it is in the public's interest to do so. Drone Zone LLC lightweight UASs meet the definition of "small unmanned aircraft" as defined in Section 331 and therefore the integration of Network Media Services lightweight UASs are expressly contemplated by the Reform Act, Network Media Services would like to operate its lightweight UASs prior to the time period by which the Reform Act requires the FAA to promulgate rules governing such craft.

The Reform Act guides the Secretary in determining the types of UASs that may operate safely in our national airspace system. Considerations include:

The weight, size, speed and overall capabilities of the UAS; Whether the UAS will be operated near airports or populated areas; and, Whether the UAS will be operated by line of sight.

112 P.L. 95 s 333 (a). Each of these items militates in favor of an exemption for Network Media Services.

Drone Zone LLC UASs utilizes three to four counter-rotating propellers for extreme balance, control and stability. They each weigh less than 55 pounds, including cinematic or other equipment. Each of Drone Zone LLC small unmanned aircraft are designed to primarily hover in place and operate at less than a 50 knot maximum speed. They are capable of vertical and horizontal operations but operate only within the line of sight of the remote control pilot. In addition to the remote control pilot, Drone Zone LLC uses a spotter and a technician, such that, at minimum, three Drone Zone LLCs personnel govern the safe flight of a Drone Zone LLC aircraft at all times.

Utilizing battery power and not combustible fuels, flights generally last between five and twenty minutes. Drone Zone LLC does not operate its UASs with less than twenty five percent battery capacity. Safety systems in place include a GPS mode that allows Drone Zone LLC UASs to hover in place if communication with the radio control pilot is lost and then slowly descend the UAS at twenty five percent battery capacity. Further, Drone Zone LLC fleet is programmed, in some instances, to slowly follow a predetermined set of waypoints to return to a safety point if communications are lost.

Drone Zone LLC does not operate its UASs near airports and generally does not operate them near populated areas. The UAS operating software and GPS navigation systems do not allow any of the Drone Zone LLC UAS vehicles to operate near airports or restricted fly zones. The failsafe software will disable the UAS vehicles from taking off and also limit the fly zones. The failsafe software will disable the UAS vehicles from taking off and also limit the UAS systems from operating within specific GPS present no-fly zones. To date, Drone Zone LLC has only operated its fleet on private property cordoned off areas under the control of Drone Zone LLC clients. Drone Zone LLC only operates its UASs in predetermined areas and only in compliance with well-regarded safety protocols.

Drone Zone LLC operation of its fleet of small unmanned aircraft will not "create a hazard to users of the national airspace system or the public." 112 P.L. 95 s 333 (b). Given the small size and weight of Drone Zone LLC UASs, combined with their operation in cordoned off and well-controlled areas, Drone Zone LLC fleet falls within Congress's contemplated safety zone when it promulgated the Reform Act and the corresponding directive to integrate UASs into the national airspace system. Indeed, Drone Zone LLC UASs have a demonstrable safety record and do not pose any threat to the general public or national security.

The FAA has the authority to issue the exemption to Drone Zone LLC pursuant to the Federal Aviation Act, 49 U.S.C. 106 (1958), as amended (the "Act"). Commercial and Public Benefits.

Granting Drone Zone LLC exemption request furthers the public interest. First, Congress has already pronounced that it is in the public's interest to integrate commercially flown UASs into the national airspace system, hence the passing of the Reform Act. Second, Drone Zone LLC conducts research into safe UAS operations every time it flies one of its UASs. Flight data, visual inspections, recorded observations and flight analyses are compiled to further enhance current safety protocols. Allowing Drone Zone LLC to log more flight time directly relates to its research and its ability to further enhance current safety measures. Third, the public has an interest in reducing the danger and emission associated with current aerial capture methods, namely, full size helicopters. Drone Zone LLC UASs are battery powered and create no emissions. If a Drone Zone LLC lightweight UASs is far less than a full size helicopter, notwithstanding the statistically noteworthy safety record of full size helicopters. Drone Zone LLC UASs are battery powered and create no emissions. If a Drone Zone LLC crashes there is no fuel to ignite and explode. The impact of Drone Zone LLC lightweight UASs is far less than a full size helicopter, notwithstanding the statistically noteworthy safety record of full size helicopters used in aerial photography. The public's interest is furthered by minimizing ecological and crash impacts by permitting aerial photography through Drone Zone LLC lightweight UASs.

Progression of the arts and sciences has been fundamental to our society since its inclusion in the United States Constitution. Indeed, Congress mandates the integration of UASs into our national airspace system, in part, to achieve progression in the noteworthy, and inevitable, field. Permitting Drone Zone LLC to immediately fly within the United States furthers these goals. Whether it is the amalgam of scientific discoveries applicable to feature film making (including those drawing upon architecture, physics, engineering and cultural inclusiveness) to advancements in publicly usable technologies or advancements in equipment available to law enforcement personnel/first responders that does not cost millions of dollars, granting Drone Zone LLC exemption request substantially furthers the public's interest in ways known and currently unknown.

Reasons Why Drone Zone LLC Exemption Will Not Adversely Affect Safety or How the Exemption Will Provide a Level of Safety at Least Equal to Existing Rule:

Drone Zone LLC exemption will not adversely affect safety. Quite the contrary, for the reasons stated, supra, permitting Drone Zone LLC to log more flight time in FAA controlled airspace will allow Drone Zone LLC to innovate and implement new and as of yet undiscovered safety protocols. In addition, Drone Zone LLC submits the following representations of enhancements to current aerial picture capture techniques:

- Drone Zone LLC UASs weigh less than 55 pounds complete with digital cameras
- Drone Zone LLC only operates its UASs below 400 feet;
- Drone Zone LLC UASs only operate for 5-25 minutes per flight;
- Drone Zone LLC lands its UASs when they reach 25% battery power;
- Drone Zone LLC remote control pilots operate Drone Zone LLC UASs by line of sight;
- Drone Zone LLC remote control pilots have video backup should they somehow lose sight of the UAS;
- Drone Zone LLC staffs each flight with a remote control pilot technician and spotter with communication systems enabling real time communication between them;
- Drone Zone LLC UASs have GPS flight modes whereby they hover and then slowly land if communication with the remote control pilot is lost or battery power is below 25%
- Drone Zone LLC actively analyses electronic flight data and other sources of information to constantly update and enhance safety protocols;
- Drone Zone LLC only operates in secured areas that are strictly controlled, are away from airports and populated areas;
- Drone Zone LLC conducts extensive briefings prior to flight, during which safety carries primary importance;
- Drone Zone LLC always obtains all necessary permission and permits prior to operation; and, Drone Zone has procedures in place to abort flights in the event of safety breaches or potential danger.

Drone Zone LLC provides a level of safety at least equal to existing rules, and in nearly every instance, greater than existing rules. It is important to note that absent the integration of commercial UASs into our national airspace system, helicopters are the primary means of aerial photography. While the safety record of such helicopters is remarkably astounding, it is far safer to operate a battery powered lightweight UAS. First, the potential loss of life is diminished because UASs carry no people of board and Drone Zone LLC only operates them in specific areas away from mass populations. Second, there is no fuel on board a UAS and thus the potential for fire explosions is greatly diminished. Third, the small size and extreme maneuverability of Drone Zone LLC UASs allow our remote control pilots to avoid hazards. Lastly, given their small size and weight, even when close enough to capture amazing images, Drone Zone LLC UASs need not be so close to the objects they are focused on. Accordingly, Drone Zone LLC UASs have operated and will continue to operate at an above current safety levels.

A summary The FAA May Publish in the Federal Register:

A. 14 C.F.R. 21 and 14 C.F.R. 91; Airworthiness Certificates, Manuals and The like.

14 C.F.R. 21, Subpart H, entitled Airworthiness Certificates, sets forth requirements for procurement of necessary airworthiness certificates in relation to FAR s 91.203(a)(1). The size, weight and enclosed operational area of Drone Zone LLC UASs permits exemption from Part 21 because Drone Zone LLC UASs meet 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. s 44701 (f)) and Section 333 of the Reform Act. Both pieces of legislation permit the FAA to exempt UASs from the airworthiness certificate requirement in consideration of the right, size, speed, maneuverability and proximity to areas such as airports and dense populations. Drone Zone LLC UASs meet to 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. s 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 UASs this Regulation is inapplicable, An equivalent level of safety will be achieved by maintaining a manual at the flight operations center. The FAA has previously issues exemptions to the regulation in Exemption Nos. 8607, 8737, 8738, 9299, 9299A, 9565, 9565B, 10167, 10167A, 10602, 10700, 32827.

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

Applicable codes of Federal Regulation require aircraft to be marked according to certain specifications. Drone Zone LLC UASs are, by definition, unmanned. They therefore do not have a cabin, cockpit or pilot station on which to mark certain words or phrases. Further, two-inch lettering is difficult to place on such small aircraft. Regardless, Drone Zone LLC will mark its UASs in the largest possible lettering by placing the word "EXPERIMENTAL" on its fuselage as required by 14 C.F.R. s 45.29(f) so that the pilot, technician, spotter and others working with the UAV will see the markings. The FAA has previously issues exemptions to this regulation through Exemptions Nos. 8738, 10167, 10167A and 10700.

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

Pursuant to 14 C.F.R. ss 61.113(a) & (b), private pilots are limited to non-commercial operations. Drone Zone LLC can achieve an equivalent level of safety as achieved by current Regulations because Drone Zone LLC UASs do not carry any pilots or passengers. Further, while helpful, a pilot license will not ensure remote control piloting skills, though Drone Zone LLC pilot vetting and training programs will. Further, private pilot licensees will operate Drone Zone LLC UASs with the same skill. Further, the risks attendant to the operation of Drone Zone LLC UASs is far less than the risk levels inherent in the commercial activities outlines in 14 C.F.R. s 61, et seq. Thus, allowing Drone Zone LLC to operate its UASs with a private pilot as the pilot in control will exceed current safety levels in relation to 14 C.F.R. s 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. Drone Zone LLC UASs will never operate at an altitude greater than 400 AGL. Drone Zone LLC will, however, operate its UASs in cordoned off areas with security providing a level of safety at least equivalent to those in relation to minimum safe altitudes. Given the size, weight, maneuverability and speed of Drone Zone LLC UASs, an equivalent level of safety will be achieved.

E. 14 C.F.R 91.405 (a); 407 (a) (1);409 (a) (2);417 (a)&9b): Maintenance Inspections.

The above-cited regulations require, amongst other things, aircraft owner 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 par t43 of this chapter.

These regulations only apply to aircraft with an airworthiness certificate. They will not, therefore, apply to Drone Zone llc should its requested exemption be granted. Drone Zone conduct an extensive maintenance program that involves regular software updates and constant inspection for assessment of any damaged hardware. Therefore, an equivalent level of safety will be achieved. Drone Zone has researched and developed it's own designs.

F. Summary

Drone Zone llc. seeks an exemption from the following regulations: 14 C.F.R. 21, subpart H; 14 C.F.R.45.23(b); 14 C.F.R. §§ 61.113 (a) & (b); 14 C.F.R. § 91.7 (a); 14 C.F.R. § 91.9 (b)(2); 14 C.F.R. § 91.103(b) ; 14 C.F.R. § 91.109; 14 C.F.R. § 91.119; 14 C.F.R. § 91.121; 14 C.F.R. § 91.151(a) 14 C.F.R §§ .91.203 (a) & (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. § and, 14 C.F.R. §§ 91.4179(a) & (b) to commercially operate its fleet of small, light, unmanned aircraft for the purposes of aerial photography/video, and to conduct its own research, and develop platforms for first responders,search and rescue.

Granting Drone Zone llc. request for exemption will reduce current risk levels and thereby enhance public safety. Currently the aerial photography industry relies primarily on the use on full scale, large aircraft running on combustible fuel. Drone Zone llc. craft do not contain potentially explosive fuel, are smaller, lighter, and more maneuverable than conventional aerial camera platforms. Further, Drone Zone llc. operated at lower altitudes and in controlled airspace. Drone Zone llc. has been analyzing

flight data and other information in compiling novel safety protocols and the implementation of a flight operations manual that exceeds currently accepted means and methods of safe flight.

There are no people on board Drone Zone llc. UAV's and therefore the likelihood of death or serious bodily injury is significantly limited. Drone Zone llc. UAV's weigh less than 55 lbs. and travel at speeds less than 50 knots in cordoned off areas will provide at least an equivalent level of safety as that achieved under current FARs.

Drone Zone llc. Respectfully requests that the FAA grant its exemption request without delay. The FAA has the authority to issue the exemption sought by Drone Zone llc pursuant to the Federal Aviation Act, 85 P.L. 726 (1958), as amended (the "act")

Sincerely,

A handwritten signature in black ink, appearing to read 'Scott Zimmerman', with a stylized flourish at the end.

Scott Zimmerman

Drone Zone llc.

1980 Hoyt Ave. E.

St. Paul, MN. 55119