

September 30, 2014

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 In Regards To Section 333 of the FAA Reform Act of 2012

To whom it may concern:

I am writing in regards 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 Delphi Automotive Systems LLC be exempted from the Federal Aviation Regulations ("FARs") listed below so that it may operate its small unmanned aircraft / lightweight unmanned aircraft systems ("UAS") commercially in airspace regulated by the Federal Aviation Administration 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.

Delphi Automotive Systems LLC'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 Delphi Automotive Systems LLC to operate within current safety parameters and new ones being implemented.

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

The Specific Sections of Title 14 of the Code of Federal Regulations, Delphi Automotive Systems LLC

Requests Exemption are:

14 CFR 21; 14 C.F.R. 45.23(b); 14 CFR 61.113 (a) & (b); 14 C.F.R. 91, et seq.; 14 CFR 407 (a) (1); 14 CFR 409 (a) (2); and, 14 CFR 417 (a) & (b).

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 Delphi Automotive Systems LLC Seeks and the Reason It Seeks Such Relief:

Delphi Automotive Systems LLC submits this application in accordance with the Reform Act, 112

P.L. 95 §§ 331-334, seeking relief from any currently applicable FARs operating to prevent

Delphi Automotive Systems LLC contemplated commercial cinematic, 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. Delphi Automotive Systems LLC's lightweight UASs meet the definition of "small unmanned aircraft" as defined in Section 331 and therefore the integration of Delphi Automotive Systems LLC's lightweight UASs are expressly contemplated by the Reform Act. Delphi Automotive Systems LLC 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 § 333 (a). Each of these items militates in favor of an exemption for Delphi Automotive Systems LLC.

Delphi Automotive Systems LLC's 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 § 333 (b). Given the small size and weight of Delphi Automotive Systems LLC's UASs, combined with their operation in cordoned off and well-controlled areas, Delphi Automotive Systems LLC's 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. The FAA has the authority to issue the exemption to Delphi Automotive Systems LLC pursuant to the Federal Aviation Act, 85 P.L. 726 (1958), as amended (the "Act").

Commercial and Public Benefits:

Granting Delphi Automotive Systems LLC's 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, Delphi Automotive Systems LLC will conduct research into safe UAS operations every time it flies one of its UASs. Flight data, visual inspections, recorded observations and flight analyses will be compiled to further enhance current safety protocols. Allowing Delphi Automotive Systems 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 cinematic capture methods, namely, full size helicopters.

Reasons Why Delphi Automotive Systems LLC's Exemption Will Not Adversely Affect Safety Or How

The Exemption Will Provide a Level of Safety At Least Equal To Existing Rule:

Permitting Delphi Automotive Systems LLC to log more flight time in FAA controlled airspace will allow Delphi Automotive Systems LLC to innovate and implement new and as of yet undiscovered safety protocols. In addition, Delphi Automotive Systems LLC's UASs comply with the following standards:

- Only operates below 400 feet;
- Only operates for 5-25 minutes per flight;

- Delphi Automotive Systems LLC lands its UASs when they reach 25% battery power;
- Operates by line of sight;
- Has operational redundancy via onboard first-person camera

A Summary The FAA May Publish in the Federal Register:

A. 14 C.F.R. 21 and 14 C.F.R. 91: Airworthiness Certificates, Manuals and The Like.
 14 C.F.R. 21, Subpart H, entitled Airworthiness Certificates, sets forth requirements for procurement of necessary airworthiness certificates in relation to FAR § 91.203(a)(1). The size, weight and enclosed operational area of Delphi Automotive Systems LLC's UASs permits exemption from Part 21 because Delphi Automotive Systems LLC's 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. § 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 weight, size, speed, maneuverability and proximity to areas such as airports and dense populations. Delphi Automotive Systems LLC's UASs meet or exceed each of the following 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 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 issued exemptions to this regulation in Exemption Nos. 8607, 8737, 8738, 9299, 9299A, 9565, 9565B, 10167, 10167A, 10602, 10700 and 32827.

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14 C.F.R. § 91.121 regarding altimeter settings is inapplicable insofar as Delphi Automotive Systems LLC's UASs utilize electronic global positioning systems and internal gyroscopes to provide spatial coordination.

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 such certifications and registrations at the Delphi Automotive Systems LLC flight operations center.

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. Delphi Automotive Systems LLC's 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, Delphi Automotive Systems 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. §45.29 (f) so that the pilot, technician, spotter and others working 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. Delphi Automotive Systems LLC can achieve an equivalent level of safety as achieved by current Regulations because Delphi Automotive Systems LLC's UASs do not carry any pilots or passengers. Further, while helpful, a pilot license will not ensure remote control piloting skills, though Delphi Automotive Systems LLC's pilot vetting and training programs will. Further, private pilot licensees will operate Delphi Automotive Systems LLC's UASs with the same skill. Further, the risks attendant to the operation of Delphi Automotive Systems LLC's UASs is far less than the risk levels inherent in the commercial activities outlined in 14 C.F.R. § 61, et seq. Thus, allowing Delphi Automotive Systems 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. §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. Delphi Automotive Systems LLC's UASs will never operate at an altitude greater than 400 AGL. Delphi Automotive Systems LLC will, however, operate its UASs in cordoned off areas with security perimeters, providing a level of safety at least equivalent to those in relation to minimum safe altitudes. Given the size, weight, maneuverability and speed of Delphi Automotive Systems LLC's 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) & (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 Delphi Automotive Systems LLC should its requested exemption be granted. Delphi Automotive Systems LLC conducts 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.

F. Summary

Delphi Automotive Systems LLC seeks an exemption from the following Regulations: 14 C.F.R. 21, subpart H; 14 C.P.R. 45.23(b); 14 C.F.R. §§ 61.113 (a) & (b); 14 C.F.R. § 91.7 (a); 14 C.F.R. § 91.9 (b) (2); 14 C.F.R. § 91.103(b); 14 C.F.R. § 91.109; 14 C.F.R. § 91.119; 14 C.F.R. § 91.121;

14 C.F.R. § 91.151(a); 14 C.F.R. §§ 91.203(a) and (b); 14 C.F.R. § 91.405 (a); 14 C.F.R. § 91.407 (a) (1); 14 C.P.R. § 91.409 (a)(2); 14 C.P.R. § 91.409 (a)(2); and, 14 C.P.R. §§ 91.417 (a) & (b) to commercially operate its fleet of small unmanned vehicles and lightweight unmanned aircraft vehicles in facility assessment operations, to conduct its own research, and to support economic platforms for law enforcement / first responders, search and rescue.

Granting Delphi Automotive Systems LLC's request for exemption will reduce current risk levels and thereby enhance safety.

There are no people on board Delphi Automotive Systems LLC's UASs and therefore the likelihood of death or serious bodily injury is significantly limited. Delphi Automotive Systems LLC's operation of its

UASs, weighting less than 55 pounds and traveling at speeds lower than 50 knots in cordoned off areas will provide at least an equivalent level of safety as that achieved under current FARs.

Delphi Automotive Systems LLC respectfully requests that the FAA grant its exemption request without delay. The FAA has the authority to issue the exemption sought by Delphi Automotive Systems LLC pursuant to the Federal Aviation Act, 85 P.L. 726 (1958), as amended (the "Act").

Sincerely,

Brian Godsen, Systems Engineer
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