COMMERCIAL DRONE ALLIANCE

Commercial Drone Alliance Meeting with OIRA: Small UAS Rulemaking
June 3, 2016

On behalf of its members, the Commercial Drone Alliance (Alliance) thanks OIRA for this opportunity to meet and discuss the FAA's proposed Part 107 rulemaking on Operation and Certification of Small Unmanned Aircraft Systems (UAS), which will establish a framework for the integration and operation of UAS in the national airspace system (NAS). These rules represent a long awaited and momentous step forward for the commercial UAS industry.

The Commercial Drone Alliance is a an industry-led, 501(c)6 non-profit association that is dedicated to supporting end-users looking to adopt UAS technology, in turn allowing for commercial market growth. The Alliance brings together end-users, manufacturers, insurance providers, investors, service providers, and other relevant associations. Members include AirMap, Lift, DataWing, Measure, Google, Gryphon Sensors, CNN, Aerialtronics, SkySpecs, DII, Nightingale Intelligent Systems, Talon Aerolytics, and more. The Alliance aims to educate and collaborate with lawmakers at all levels of government on the benefits of commercial UAS technologies that enable safe flight, and continued growth of the commercial UAS industry.

The benefits of commercial UAS use are substantial. Technology has moved forward rapidly, and what used to be considered toys are quickly becoming powerful commercial tools that can provide enormous societal benefits in terms of safety and efficiency. Whether UASs are performing search and rescue missions, allowing farmers to be more efficient and environmentally friendly, inspecting power lines and cell towers, gathering news and enhancing the public's access to information, performing aerial photography to sell real estate and provide insurance services, surveying and mapping areas for public policy, delivering medicine to rural locations, providing wireless internet, enhancing construction site safety, or more—society is only just beginning to realize the full potential of commercial UAS use. This technology is already bringing substantial benefits to people's daily lives, including cheaper goods, innovative services, safer infrastructure, and greater economic activity.

While the Alliance supports the overall framework and underlying goals of Part 107, there are a few key operational restrictions in the proposed rule that would prevent some of the most promising commercial UAS use applications. The Alliance has identified a few key areas of the proposed rule that should be revised to allow greater regulatory and operational flexibility,

and to accommodate rapidly developing UAS technology that will enhance aviation safety, while also enabling future growth and development in the commercial UAS industry.

Risk-Based Permitting Process

The proposed rule should include a risk-based permitting process based upon the foundational concept of an equivalent level of safety. While the operational restrictions discussed below may well be appropriate for many basic low-risk UAS operations, the proposed rule should include a path forward for those UAS operations that meet more stringent standards to obtain additional operational flexibility. Part 107 can and should be used to incentivize, not discourage, technological developments and advancements. To that end, the proposed rule should contain a risk-based permitting process to approve broader use cases, including those discussed below, expeditiously as those technologies are developed and implemented.

Beyond Visual Line of Sight (BVLOS) Operations

Proposed rule § 107.31 would prohibit all UAS operations beyond the visual line of sight of the operator or visual observer. The Alliance appreciates the safety benefits of the "see-and-avoid" principle and its longstanding tradition in civilian aviation. The Alliance also understands that broadly authorized BVLOS operations may require a new approach to air traffic management through systems such as an unmanned aircraft traffic management system (UTM), and that further developments in sense-and-avoid technology may need to be developed and deployed. That said, a complete bar on BVLOS operations under Part 107, regardless of technological developments or compensating restrictions, would effectively prevent many operations even if the rule itself does not expressly bar such operations, such as aerial delivery of packages, and inspections of geographically dispersed linear assets like railways, powerlines and pipelines. In doing so, the proposed rule eliminates many of the potential public benefits that could otherwise result from UAS operations. The proposed rule should be revised to include a process for approving some BVLOS operations when an operator presents a sufficient safety case for the operation. The process could include an evaluation of the operational circumstances of the mission, technological capabilities of the UAS, and, in some instances, the training and experience of the UAS operator.

Carrier / External Load Operations

Proposed rule § 107.1, Applicability, explicitly excludes air carrier and external load operations from Part 107. Because Part 107 would not apply, any transportation of property for compensation (e.g., package delivery) would require an air carrier certificate under section 44711 of the Title 49. Air carrier certification and the stringent standards that accompany the certification it are aimed at ensuring the safety of the traveling public and crew on board the aircraft. UAS carrier operations would be inherently less risky because they do not carry people -- only property. The FAA states that Part 107 would allow a company to transport property using a UAS in furtherance of the company's own business but that, without any apparent safety rationale, a company would not be permitted to do so for compensation from a third

party.[1] If an air carrier certificate under section 44711 of the Title 49 will be required for package delivery operations, then the proposed rule should be revised to include a streamlined certification process that focuses solely on any risk attendant to transporting property.

Title 14 CFR 1.1 defines "External load" as "a load that is carried, or extends, outside of the aircraft fuselage." To the extent that the proposed rule ultimately excludes air carrier and external load operations, § 107.1 should be revised to clarify that a gimbal and camera or similar sensor affixed to a UAS is not considered an "external load."

Restrictions on Operating Over Non-participants

Proposed rule § 107.39 would prohibit any UAS operations over any person who (i) is not directly participating in the operation of the UAS or (ii) is not located under a covered structure providing reasonable protection from a falling UAS. A blanket prohibition on all flights over non-participants, regardless of the level of risk presented to people and property on the ground, is unduly restrictive and would effectively bar some of the most beneficial use cases for UASs which involve operations above non-participants. (e.g., first responder assistance when there are other victims and bystanders at an emergency scene, newsgatherer UAS use in urban and suburban areas, and delivery of packages to a residence or business in a neighborhood). Even when there is no intention to operate over non-participating persons, an operator would need to control access, which is difficult or impossible to do in many areas.

As recognized in the FAA's suggested Micro-UAS rule and later by the Micro-UAS ARC, there are obviously some scenarios where small UAS can be safely operated over non-participating people, whether because of UAS's physical attributes and design characteristics, operational safety procedures adopted by the operator, or some combination thereof. Rather than unnecessarily delaying some of the most promising UAS uses until the FAA finalizes future rulemaking for Micro-UAS flights over people, Part 107 should be revised to include some mechanism that allows operators to present a safety case to the FAA for allowing some operations over non-participants.

Daylight Operations Only

Proposed rule § 107.29, Daylight operation, would limit UAS to daylight-only operations. This limitation is unduly restrictive and would bar many promising commercial UAS uses. In many scenarios nighttime UAS operations would be much safer than using full-sized aircraft. Given that technological developments and additional safety procedures will likely be developed to enable such nighttime operations that have an equivalent level of safety to daylight operations, the proposed outright prohibition sweeps too broadly. While there are obviously additional safety considerations for night operations that need to be addressed and mitigated, the proposed rule should provide additional flexibility to permit night flights under conditions that ensure safety. Operators should be able to present a safety case to gain approval for day and night operations. For example, nighttime flights might be permitted if the UAS to be operated

[1] 80 Fed. Reg. at 9553.

met certain equipage standards, such as vehicle lighting, as the FAA determined in a recently granted Section 333 Exemption allowing UAS night time operations.[2]

One Operator Per UAS Requirement

Proposed rule § 107.35 would limit an operator or visual observer to operating no more than one UAS at the same time. While this requirement makes sense in a majority of use cases, it does not make sense for use cases involving highly automated computer controlled flight. The one operator per UAS requirement would significantly limit the usefulness of UAS in many settings, and frustrate the development and economic viability of many innovative commercial UAS applications. Like the other more advanced UAS operations referenced above, the proposed rule should include a method for operators to make a safety case for how a single operator could safely operate more than one UAS at a time.

[2] See Exemption No. 16341 issued to Industrial Skyworks USA on April 18, 2016 (Docket FAA-2014-1060).

ATTENDEES

Hogan Lovells US LLP

Hogan Lovells is a premier global UAS legal practice and assists the Commercial Drone Alliance.

The Commercial Drone Alliance

The Commercial Drone Alliance is an industry-led, 501(c)6 non-profit association that is dedicated to supporting end-users looking to adopt UAS technology, in turn allowing for commercial market growth. The Alliance is comprised of media, manufacturers, service providers, investors, insurance, government agencies, relevant associations and more. The Alliance aims to educate and collaborate with lawmakers at all levels – federal, state and local – on the benefits of commercial UAS, technologies that enable safe flight, and continued growth of the commercial UAS industry.