



## Requirements for Operation of Civil Remotely Piloted Aircraft System (RPAS) Comments of the Small UAV Coalition November 30, 2017

The Small UAV Coalition is an organization of leading technology companies dedicated to expediting the safe commercial, civil, and philanthropic use of unmanned aircraft systems (UAS). While the Coalition's activities are primarily in support of laws and regulations in the United States, Coalition member companies<sup>1</sup> seek to operate globally and support efforts to ensure that people around the world will benefit from safe, secure, and ubiquitous UAS operations. Further, the Coalition and its member companies are active participants in a number of international UAS advisory bodies, including the Joint Authorizes for Rulemaking on Unmanned Systems (JARUS), that seek to enable UAS integration worldwide. As such, the Coalition appreciates the opportunity to comment on the draft Civil Aviation Requirements (CAR) Section 3 Series X Part I Requirements for Operation of Civil Remotely Piloted Aircraft System (RPAS).

The Coalition applauds the Government of India and the Office of the Director General of Civil Aviation (DGCA) for proposing a regulatory framework to permit UAS operations in India, a welcome change from the status quo that will help India begin to embrace the economic and consumer benefits of UAS technology. As noted in the CAR introduction, UAS offer a wide range of promising commercial and civil applications, from precision agriculture to surveying and search and rescue. One recent report estimates the addressable market value of global drone powered solutions at over \$127 billion<sup>2</sup>.

The Coalition's comments offer recommendations drawn from experience with UAS regulatory frameworks in the United States and the European Union. In the United States, commercial UAS operations are under the framework of the Federal Aviation Administration (FAA) small UAS rule, commonly known as Part 107<sup>3</sup>. In the European Union, the European Aviation Safety Agency (EASA) has put forth a Notice of Proposed Amendment (NPA) outlining technical and operational requirements for small UAS operations that is expected to be submitted to the European Commission following formal adoption of updated civil aviation regulations by the end of this year. The Coalition's comments focus on four areas:

- Aircraft registration
- Operational limitations
- Equipage
- Training

**Aircraft Registration.** The Coalition believes that aircraft registration is an important component of both safety and accountability and supports the proposed requirements for most

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<sup>1</sup> Small UAV Coalition member companies include Airmap, Amazon Prime Air, X (formerly Google X), Intel, Kespry, PrecisionHawk, Verizon, Aerwaze, AGI, Flirtey, Fresh Air Educators, T-Mobile, and Walmart.

<sup>2</sup> Clarity from above: PwC global report on the commercial applications of drone technology, May 2016.

<sup>3</sup> 14 CFR part 107.



categories of civil RPA to obtain a Unique Identification Number (UIN) (6.1). The Coalition recommends that DGCA reevaluate some of the documents required for issue of a UIN as they relate to an operator or remote pilot, but not to an aircraft, including purpose and area of operation (6.2b), security clearance (6.2h), and verification of character of the remote pilot from local police (6.2i).

**Operational Limitations.** The CAR allows micro UAS to operate without limitation, but proposes strict limitations on all other UAS with no opportunity for exceptions, including categorical prohibitions on operations beyond the visual line of sight, at night, and in which one remote pilot operates more than one UAS. These types of operations are critical to the continued growth of the commercial UAS industry and the Coalition recommends that DGCA consider allowing these types of operations if operators can provide evidence to demonstrate that they can be performed safely through a designated review process. In the United States, operators can provide this evidence through the Part 107 waiver process, through which a number of restrictions, including those on flights beyond the visual line of sight, over people, and at night, can be waived. In the European Union, EASA’s Notice of Proposed Amendment takes a risk-based approach to allow these types of operations without approval for certain categories of UAS.

**Equipment.** Several of the equipment requirements proposed by the CAR go well beyond those currently required in the United States and proposed in the European Union. Some of these requirements may indeed be necessary to allow operations over people and beyond the visual line of sight, but not necessary under a set operational limitations. The Coalition recommends that DGCA consider requiring compliance with technical or performance standards for the necessary equipment (11.1 and 11.2), as well as defining a requirement for compatibility or interoperability to ensure that required equipment is effective in an operating environment populated by many UAS.

**Training.** The Coalition applauds the CAR for placing strong emphasis on the importance of training; the Coalition supports universal training and testing for UAS operators. The Coalition encourages the DGCA to further define “practical training” (9.2) and to require testing for remote pilots, as required in both the United States and proposed by EASA. Further, the Coalition urges DGCA to specify that any required training or testing may be completed online to increase compliance and accountability.

Thank you for the opportunity to submit these comments. The Coalition looks forward to near-term opportunities for safe, secure UAS operations in India that will deliver consumer, economic, and philanthropic benefits to the Indian people.