NACC/DCA/11 — IP/32 15/06/23

Eleventh North American, Central American and Caribbean Directors of Civil Aviation Meeting (NACC/DCA/11)

Varadero, Cuba, 28-30 June 2023

Agenda Item 4: NAM/CAR Regional Safety/Air Navigation Implementation

4.2 Air Navigation Implementation Matters

SAFE AND EFFICIENT INTEGRATION OF UAS INTO AIRSPACE

(International Air Transport Association (IATA))

EXECUTIVE SUMMARY The pace at which the Unmanned Aircraft System (UAS) industry is growing is unprecedented. With such high growth rates, it is critical to find the balance between developing safety standards, smart regulations, and innovation. Such a balance can be realized by recognizing industry's working groups and platforms that can complement ICAO's work strategy and together, industry and ICAO can shape the airspace of the future. The focus of this working paper will be on UAS that are used for commercial purposes and excludes the mitigation of risks caused by rogue drones. **Action:** a) Note the content of this working paper, and b) Invite States to establish regional framework through which it can work with Industry on developing provisions for new airspace entrants. Strategic Safety, Capacity, Efficiency and Economic Development. Objectives: References:

1. Introduction

1.1 The aviation industry has been a driver of innovation as well as a significant contributor to the setting of global safety standards. Together, we have worked towards a better-connected world, building a safer, and more efficient air transport system. Recently, there has been an accelerated influx of automation; digital application, robotics, and artificial intelligence, allowing for the development of new vehicles and modes of operation. This technology, although disruptive to the status quo, can provide a positive transformation to the air transport sector if properly managed.

1.2. Concepts related to urban air mobility and last to medium mile cargo delivery are transforming the transportation of goods, and people. Air travel is no longer perceived as a journey from airport A to airport B but rather a door-to-door integrated service. However for such transformation to be sustainable, it must remain safe, reliable, and cost effective. This can only be realized with a responsive regulatory framework that can move at the right pace, and ensure a balance between safety standards and innovation.

2. **DISCUSSION**

- 2.1. There is a need for standards and regulations to keep pace as new airspace users develop their own technology as well as their supporting mechanisms. One of our main concerns is that such development might proceed without the necessary safeguards and standards in place. We can learn from existing trials, and build upon these to better understand the appropriate regulatory framework to match requirements.
- 2.2. Unmanned Aircraft Systems are a fast-growing group of airspace users which will gradually require larger portions of airspace for their operations, Therefore it is critical for us to define how the framework in which they operate will interact with existing operational airspace. The forecasted growth in the commercial use of UAS, indicates that segregation of UAS operations may not be sustainable in the long term. Therefore, the industry should collectively look at evolving from accommodation to integration.
- 2.3 A closer and more consistent collaboration with the UAS industry is needed to collect data, learn from trials, and develop provisions and guidelines. The industry partners presenting this working paper would like to support such work and assist ICAO's governance structure with a working framework to develop requirements. Leveraging existing platforms, including IATA's Think Tank, the industry will be able to develop provisions and provide input to ICAO, reducing the onus on its resources and complementing existing programs. Such work and possible proposals for provisions when completed, would be evaluated under the regular ICAO review process. We need to ensure that the integration of UAS into civil airspace, will not have a negative safety or operational impact on international commercial aviation.
- 2.4 There are several industry initiatives developing work on the safe and efficient operation of UAS. These initiatives can be coordinated and serve as an extended resource to progress concepts of operations and best practices using unmanned technology.
- 2.5 Industry fully appreciates the positive impact that UAS can have on regional and global economies, and accordingly, volunteers to assist ICAO in ensuring that safety and efficiency are maintained whilst allowing for the growth of this new and emerging air transport. The following are recommendations, which would be subject to validation by ICAO:
 - a) The work will be based on a pre-agreed scope, including but not limited to; the definition and performance requirements for Unmanned Traffic Management (UTM), requirements for UTM/ATM interface and transformation in ATM, and possible review of airspace classification and new flight rules.

b) b. IATA volunteers to lead this effort with other industry partners and work with ICAO on progressing the safe and efficient integration of UAS.

3. Conclusion

- 3.1. The rapid proliferation of UAS for commercial use requires a safe and efficient integration into existing operational airspace. It is necessary to develop provisions allowing for harmonized regulations by States. Industry can contribute to the process by building on existing platforms and work done so far.
- 3.2 IATA request the NACC States to consider implementation of harmonized provisions and standards on the use and integration of UAS used for commercial purposes and new entrants.