International Civil Aviation Organization

ICAO **Tenth Meeting of the Air Traffic Management Sub-Group (ATM/SG/10) of APANPIRG**

Video Teleconference, 17 – 21 October 2022

Agenda Item 5:   ATM Systems (Modernization, Seamless ATM, CNS, ATFM)

ASIA/PACIFIC UNMANNED AIRCRAFT SYSTEMS UPDATE

(Presented by the Secretariat)

SUMMARY

This paper presents updated information on the availability of global and regional guidance for the regulation and integration of Unmanned Aircraft Systems in national airspace. Information is also provided on past and upcoming ICAO unmanned aviation symposia.

1.   INTRODUCTION

1.1   The Seventh Meeting of the Air Traffic Management Sub-Group of APANPIRG (ATM/SG/7, Bangkok, Thailand, 05 – 09 August 2019) ATM/SG/7 adopted the *Asia/Pacific Regional Guidance for the Regulation and Safe Operation of UAS within National* Airspace (**Conclusion ATM/SG/7-9**).

1.2   The Unmanned Aircraft Systems Advisory Group (UAS-AG) of the Remotely-Piloted Aircraft Systems (RPAS) Panel has developed ICAO UAS Toolkit, ICAO Model UAS Regulations, and UAS Traffic Management (UTM) guidance.

1.3   A series of ICAO COVID-19 series of webinars included several webinars on UAS operations, regulation and UTM systems.

1.4   The ICAO Virtual DRONE ENABLE 2021 Symposium was held from 13 to 15 and 20 to 21 April 2021. The ICAO Unmanned Aviation Symposia 2022 will be held in Montreal, Canada in November 2022.

2.   DISCUSSION

APAC Regional Guidance

2.1   The *Asia/Pacific Regional Guidance for the Regulation and Safe Operation of UAS within National Airspace*, developed by the APAC UAS Task Force (APUAS/TF) and approved by ATM/SG/7, is available on the ICAO Asia/Pacific Regional Office eDocuments web-page (ATM Section) at:

https://www.icao.int/APAC/Pages/eDocs.aspx.

2.2   The regional guidance provides background information, principles and regulatory considerations for the development of State regulations for the operation of UAS within national airspace systems. The guidance supports the relevant elements of the Asia/Pacific Seamless Air Navigation Services (ANS) Plan.

2.3   The meeting is invited to note that the scope of the guidance material is intended to include UAS operations that do not fall within the scope of the Remotely Piloted Aircraft Systems (RPAS) Panel, i.e. that are not RPAS operated in accordance with the relevant Standards and Recommended Practices (SARPS) in Annexes to the Convention on International Civil Aviation, by a licensed remote pilot using a certified remote pilot station.

<div align="center">ICAO UAS Toolkit, UAS Regulatory Guidance, UTM Framework and Webinars.</div>

2.4   The ICAO UAS Toolkit is a repository of information provided by ICAO, its member States and other experts on the management of UAS that fall outside the scope of SARPS and PANS developed for Remotely-Piloted Aircraft Systems (RPAS) operations. The Toolkit provides background information, best practices, information on UAS regulations, training, education and authorization, and examples of current State regulations.

2.5   The UAS Toolkit is available at:

https://www.icao.int/safety/UA/UASToolkit/Pages/default.aspx.

2.6   The UAS Advisory Group of the RPAS panel also developed the *ICAO Model UAS Regulations*, which provide a template for member States to implement or to supplement their existing UAS regulations. The ICAO Model UAS Regulations are available at:

https://www.icao.int/safety/UA/Pages/ICAO-Model-UAS-Regulations.aspx

2.7   The *Unmanned Aircraft Systems Traffic Management (UTM) – A Common Framework with Core Principles for Global Harmonization Edition 3* document provides a framework and core capabilities of a typical UTM system. Its aim is to provide an overarching framework for such systems, and proposes a common set of guiding principles and enabling actions.

2.8   The UTM framework document is available at:

https://www.icao.int/safety/UA/Documents/UTM%20Framework%20Edition%203%20Post%20Editorial.pdf

2.9   The ICAO COVID-19 Series of webinars includes recorded webinars on the following UAS-related topics:

- Enabling UAS Operations (link);

- Enabling UAS Operations Part II – Panel Discussion (link);

- Introducing ICAO UAS Model Regulations (link);

- UAS Beyond Visual Line of Sight Operations – for Regulators (link); and

- ICAO UAS Traffic Management (UTM) Framework (link).

<div align="center">ICAO Unmanned Aviation Symposia</div>

2.10   ICAO has conducted symposiums on RPAS and/or UAS each year since 2016. The most recent DRONE ENABLE symposium, DRONE ENABLE 4, was held by virtual means from 13 to 15 and 20 to 21 April 2021. Recordings of the symposium presentations are available at:

www.icao.tv/drone-enable

ICAO Unmanned Aviation 2022 Symposia

2.11   The ICAO RPAS Symposium – Unmanned Aviation 2022 will be held at ICAO Headquarters, Montreal, Canada, from 07 to 09 November 2022. The theme of the symposium is *To Certify or Not to Certify*.

2.12   The symposium will be one of the premier RPAS events worldwide, focusing on the technology, operation, and certification of RPAS. It will bring together a wide-ranging audience and key stakeholders, including: civil aviation authorities (CAAs), academia, industry, government, as well as interest groups. Participants will have the perfect opportunity for learning about the regulatory framework being developed and how it will be implemented by experts actively involved in the work. Networking opportunities will abound with the global audience.

2.13   Further information is available at:

https://www.icao.int/Meetings/RPAS2022/Pages/default.aspx

2.14   The ICAO DRONE ENABLE Symposium 2022 will also be held at ICAO Headquarters from 14 to 16 November 2022. The symposium will bring together key stakeholders and will focus on the complex issues presented by UTM which need to be addressed collectively in order to integrate UAS into the global aviation system. The symposium will be an opportunity for networking, collaboration and coordination between civil aviation authorities, industry and both new and existing stakeholders as we move forward in this dynamic field. It also provides a unique opportunity to progress a comprehensive and harmonized regulatory framework to support UAS activities. Further information is available at:

https://www.icao.int/Meetings/DRONEENABLE2022/Pages/default.aspx

3.   ACTION BY THE MEETING

3.1   The meeting is invited to:

a)   note the information contained in this paper;

b)   utilize the available regional guidance for the regulation and safe operation of UAS within national airspace;

c)   note and utilize the information available through the ICAO UAS Toolkit, the ICAO Model UAS Regulations, and the UTM framework; and

d)   participate in the ICAO Unmanned Aviation 2022 symposia.

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