



International Civil Aviation Organization

MIDANPIRG/20 and RASG-MID/10 Meetings

(Muscat, Oman, 14-18 May 2023)

Agenda Item 2.2: Update from States and International Organizations

Drone Regulation and Encounter the Threat in Oman

(Presented by Oman)

SUMMARY

This WP presents Oman-CAA best practices being hardly achieved since 2015 in order to regulate and permit UAS (Drone) operation in Oman airspace. We are so thrilled and proud to become one of regional states started earlier to legalize and regulate drone activities. Therefore, sharing our experience and effective practices with ICAO member States in order to enhance our regulations, emphasize the international harmonization and to address the regulatory, technical and operational aspects of permitting the Drone and encounter the threat.

Action by the meeting is at paragraph 3.

REFERENCES

- Convention on International Civil Aviation Article 8 /Pilotless aircraft
- ICAO Circular 328
- ICAO Doc 10019
- Civil Aviation Law /Royal Decree No. (76/2019) Article (28.a)
- Regulations for Practicing Aviation Activities and Air Works by Drone No. (417 / 2020)
- Civil Aviation Regulations CAR102/ Rev.2

1. INTRODUCTION

1.1 By the time the 4th industrial revolution is evolving. The inherent need for automation becomes frequently demanded. Drone/UAS/RPAS tops the list of required automations. In fact, nobody denies the variety of benefits of drones, hence companies and hobbyists, in addition to governments, all are struggling to get one, making use of its features, facilitate their assignments and cost-cut. On the other hand, malicious acts can deliberately breach privacy, conduct terror attacks and endanger air navigation.

2. DISCUSSION

2.1 Among all rapid changes in aviation industry technology, especially those dedicated to deal with drone, CAA has never ever segregated itself. CAA representing in DGCAR has strived hardily and logically to cope with the same, as all concerned international authorities.

2.2 Challenges of developing drone laws and regulations

- a) Every day the drone technology evolving and the flying demand increasing.
- b) Increasing the security and the safety of air navigation concerns
- c) There are no detailed SARPs for these aircraft issued by the ICAO
- d) Harmonization and collaboration between MID Region States are not mature in this particular field.

2.3 The CAA Approved Drone Civil Aviation Law /Royal Decree No. (76/2019) Article (28.a), Regulations for Practicing Aviation Activities and Air Works by Drone No. (417/2020) and CAR102 regulation include mainly the following topics:

- a) Prohibition usage of remotely controlled or unmanned aircraft or any other flying object in the Territory of the Sultanate without obtaining the Competent Authority's approval.
- b) Determine the competent authority.
- c) The legal capacity of the licensee.
- d) Import and Export.
- e) Avoid flying in protected areas and close to the airports.
- f) Excluded from the drone permit.
- g) Determine the altitude of the flight.
- h) Observe the rules of the air and bulletins.
- i) Fees and penalties
- j) Security aspects.
- k) UAS weights and related provisions.
- l) Registration and certificates
- m) Drone Maintenance.
- n) Pilot licenses.
- o) Accidents and incidents
- p) Training School Requirements
- q) Drone manufacturing.
- r) C2 Link (new).

2.4 The items in 2.3 will serve as a tool to support and reinforce ICAO contracting states to make use of them and enhance them to suit their need. Moreover, to flourish the external interfaces and interaction collaboration between states in the MID Region.

2.5 The steps and requirements of permitting drone operation in the Sultanate of Oman are listed in the **Appendix 1** and **Appendix 2**.

2.6 **Testing agreement with UTM provider:**

Another advanced step towards the airspace securing, streamlining the drone permit, protect the public, properties and environment, the AirGo, A new Omani provider of Unmanned Traffic Management Systems (UTM) has signed an agreement with Oman's Civil Aviation Authority to live testing 'Tahleeq' Functions

through UTM scenarios. The agreement was signed by Eng. Nayef bin Ali Al-Abri, Civil Aviation Authority President, and Ms. Anwaar Al-Hinai, CEO of AirGo. This agreement will allow the CAA to maintain safe integration and separation of drones in low-altitude airspace. The system will be a centralized system where concerned governmental authorities are connected with commercial & recreational drone pilots.

2.7 **Counter-Drone/Anti-drone:**

CAA representatives working with high level military and security committee formed in early 2021 to set up the Counter-Drone mechanism regulations and to effectively and legally implement them. They came up with this new requirement: "It is prohibited to install platforms or devices to impede the movement of unmanned aircraft system (drones), disturb their frequency, mislead their path, or control them and force them to land, except with the approval of the CAA and in coordination with the concerned authorities".

2.8 **UAM (urbane Air mobility)**

Establish the Sultanate of Oman as the Center of excellence and leadership in aviation by launching an autonomous eVTOL air taxi service Air Taxi company and the CAA worked together and signed an agreement with the objective of providing a regulatory and commercial path to operate an air taxi service in Oman including approval for Air Taxi to operate an autonomous, commercial, passenger carrying, point to point air taxi service.

3. **CONCLUSIONS:**

3.1 Oman CAA would like to present its 8 years' experience that encompass the whole spectrum of civil aviation DRONE ACTIVITIES by implementing effective safety oversight system.

3.2 Oman CAA started with phase one of establishment critical elements of laws, regulations, operating procedures with electronic permitting system and technical guidance, coordination with all concerned government authorities to define their share responsibilities and qualifying its technical personnel to enhance their competence at the desired level.

3.3 Then it went to implementation elements with certification and authorisations/permission under its oversight and surveillance responsibilities by launching an autonomous eVTOL air taxi service Air Taxi company taking in considerations the security and penalty issues,

4. **ACTION BY THE MEETING**

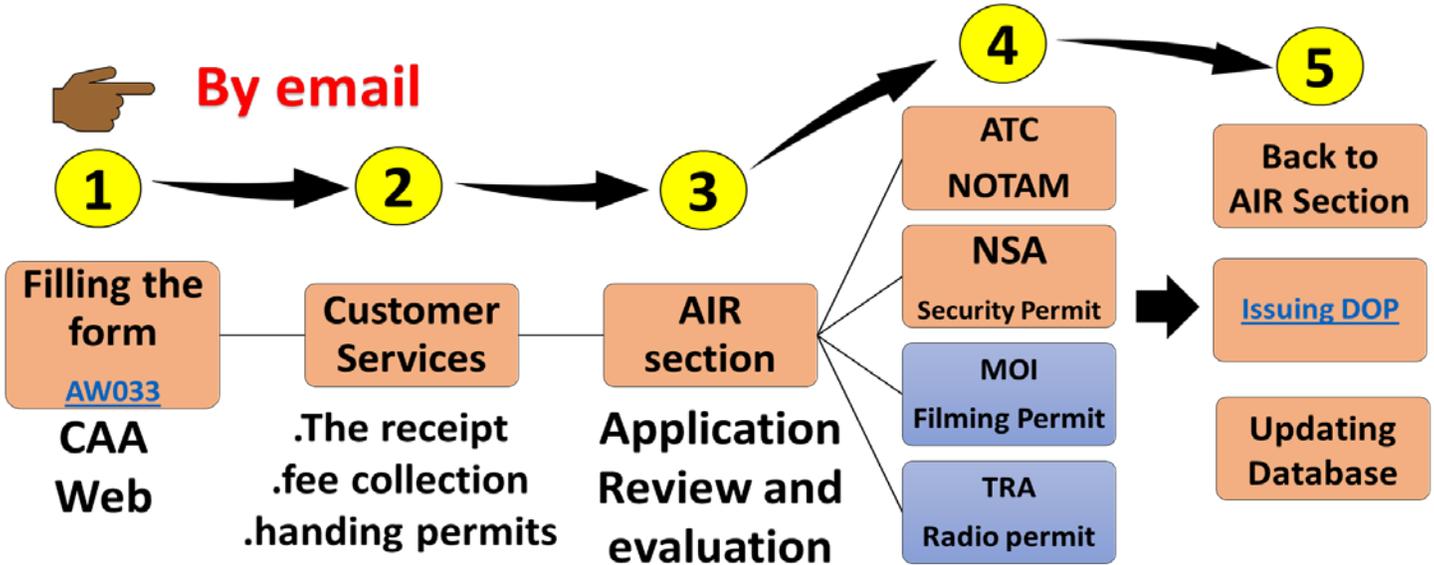
4.1 **The meeting is invited to:**

- a) review the information contained in this paper
- b) invite States to participate and contribute to the elaboration of this important topic that could endanger the air navigation.
- c) consider this paper as 'ready reckoner' to assist the competent authorities to extrapolate the information and elaborate as necessary based on the ICAO provisions and regime within the state.
- d) discuss the best practices by the States regarding the uplink and downlink C2 connectivity.
- e) urge States to prepare for UAM (urbane Air mobility) as there are more 700 + prototypes some are being granted initial certifications.
- f) invite the ICAO Panels and study group to specify and standardize the drone classification.
- g) encourage international harmonization and conduct of awareness campaigns and trainings on Drones..
- h) encourage Drone regulators to be familiar with drone manufacturing and operation.
- i) encourage Drone regulators to participate in ICAO DRONE ENABLE Symposium.

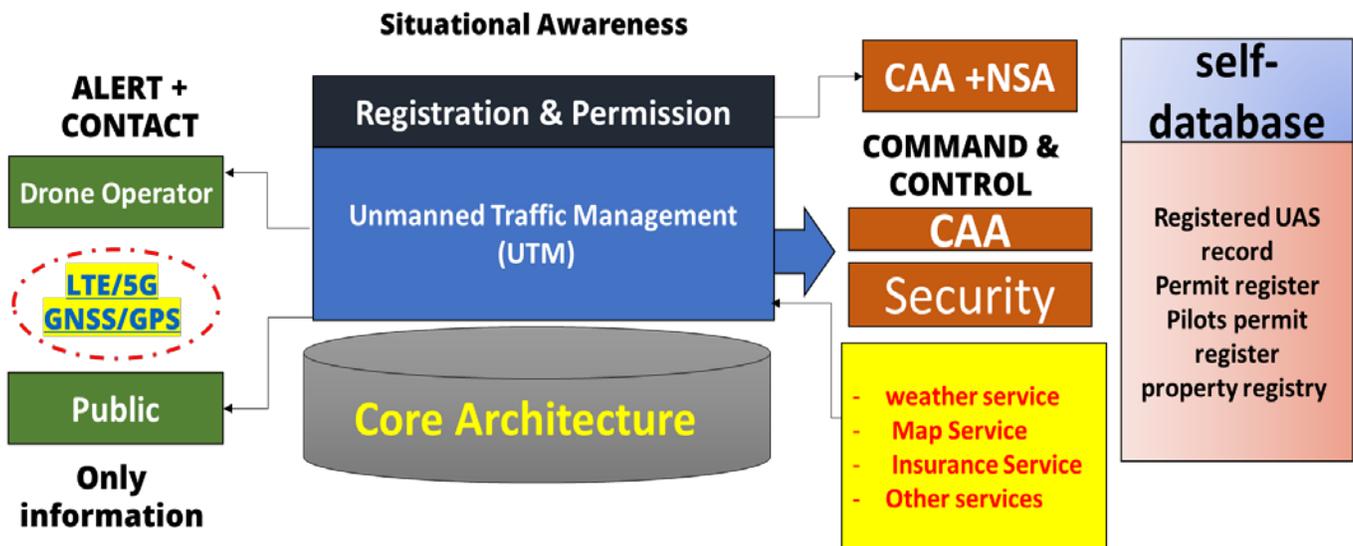
- j) encourage States to involve Security and Military Authorities in setting the drone law and regulations.
- k) note that Oman CAA is ready to exchange its experiences with others by conducting workshops, seminars, etc.

Appendix 1

Current Permitting System



Future electronic permitting system



Appendix 2

Drone Permit requirements

Filling in the AWR033 form Completely using computer typing. handwriting is not accepted

Use the link below to obtain the AWR033 form

<http://caa.gov.om/services/flight-safety-department/airworthiness-1/unmanned-aircraft-systems-uas-drone>

Forward it Customer service: [Tel : 24354433](tel:24354433) customerservice@caa.gov.om

- 1- The applicant age shall not be less than 18 (eighteen years)
- 1- Sponsor/contractor official letter for governmental and commercial project
- 2- License from Ministry of Information in case of filming production.
- 3- Radio license Certificate (as per CAR102)
- 4- Insurance Certificate (as per CAR102)
- 5- Maintenance Policy (as per CAR102)
- 6- Prove Remote pilot; License/Training (as per CAR102)
- 7- Operation Manual/Drone Specifications
- 8- Operational Site coordinates should be right and accurate, you can attach an image of the site
- 9- Proof of the operator's classification as a Small and Medium Enterprise for commercial purposes
- 10- Any Documents as may be required by CAA