



International Civil Aviation Organization

MIDANPIRG Air Traffic Management Sub-Group

Eleventh Meeting (ATM SG/11)
(Abu Dhabi, UAE, 19 – 23 October 2025)

Agenda Item 3: Planning and implementation issues related to ATM/SAR

**NEED FOR REGIONAL GUIDANCE ON ATM-UTM INTEGRATION
IN THE MID REGION**

(Presented by Sultanate of Oman)

SUMMARY

This paper proposes the need of harmonized MID Regional Guidance for ATM-UTM integration – responding to rapidly expanding BVLOS/VLL UAS activity around aerodrome/CTR and inconsistent national approaches – in line with ICAO Doc 10019 (Ch.14) and the ICAO UTM Framework (Ed.4); it further proposes establishing an ATM-UTM Integration Task Force (AUI-TF) under ATMSG to draft the Guidance and a minimum information-exchange dataset, develop an ATCO training module and model aerodrome/CTR procedures, and validate these through regional consultation and trials.

Action by the meeting is at paragraph 3.

REFERENCES

- ICAO – Doc 10019, Manual on RPAS, Ch. 14
- ICAO – UTM: A Common Framework with Core Principles for Global Harmonization (Ed. 4)
- MIDANPIRG/19 WP/17 – UASs
- ICAO – AAM/UTM Framework: Drone Challenges & Opportunities (2025)
- ICAO – RPAS Concept of Operations (unedited version)

1. INTRODUCTION

1.1 UAS activities in the MID Region is growing fast at Very Low Level (VLL) airspace and around CTR/CTA. While States are progressing national UAS/UTM rules, divergent approaches create risks at the ATM-UTM interface.

1.2 Growing application of Beyond Visual Line of Sight (BVLOS) and VLL operations for inspections, logistics, public-safety, etc. near aerodromes and CTR boundaries highlights the need for common boundary/transition policies, clear roles for ANSPs and UTM providers, and information exchange that improves situational awareness without adding undue controller workload.

1.3 The MID Region needs harmonized guidance to define roles/boundaries, a minimum ATM-UTM data set, ATCO training/unit procedures, and common contingency handling—implemented in a phased manner as key technical enablers mature.

1.4 Some of these enablers for safe ATM-UTM integration include Detect and Avoid (DAA) to keep aircraft well-clear, robust Command and Control (C2) links with the needed reliability and integrity, Remote Identification (Remote ID) for real-time accountability of the aircraft and operator, digitally published UAS Volume Reservations (UVR) to show constraints and reserved 3-D airspace, and appropriate cybersecurity mechanism to protect systems, data and Application Programming Interfaces (APIs).

1.5 These enablers enable strategic deconfliction, conformance monitoring, contingency handling and controller situational awareness—supporting a phased path from segregation to coordinated operations and, ultimately, integration.

2. DISCUSSION

2.1 ICAO Doc 10019 (Ch. 14) and the ICAO UTM Framework (Ed. 4) provide the global baseline, which should be tailored to MID operational realities through harmonized regional guidance.

2.2 Accordingly, harmonized regional guidance is needed to set roles, boundaries and transition policies; define a minimum ATM-UTM dataset with interoperable APIs; align ATCO training; and standardize contingency procedures—implemented in phases.

2.3 The proposed guidance should:

- a) define operational, legal and technical boundaries and transitions between ATM and UTM, especially near aerodromes/CTR;
- b) establish a minimum UTM–ATM information-exchange dataset;
- c) promote interoperable, performance-based digital interfaces among ANSPs, USPs and operators;
- d) harmonize contingency and emergency coordination; and
- e) require safety risk assessments and performance minima to enable scalable BVLOS and shared operations.

2.4 To develop the guidance material, an ATM-UTM Integration Task Force (AUI-TF) under ATMSG has been proposed which would produce:

- a) the MID Regional Guidance, that includes model procedures/scenarios for aerodrome/CTR use-cases;
- b) a Data-Exchange Profile; and
- c) a regional ATCO training module.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information contained in this paper;

- 3 -

- b) agree to establish an ATM-UTM Integration Task Force (AUI-TF) under ATMSG;
- c) task the AUI-TF to develop the deliverable as mentioned in paragraph 2.4 for MID regional consultation and validation; and
- d) invite States to nominate focal points and volunteer for scenario-based trials.

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