



International Civil Aviation Organization

**MIDANPIRG/23 & RASG-MID/13 Meetings**

*(Cairo, Egypt, 14 – 18 June 2026)*

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**Agenda Item 5.3: Aeronautical Information Management (AIM)**

**ARTIFICIAL INTELLIGENCE BOT IMPLEMENTATION FOR THE AERONAUTICAL  
INFORMATION PUBLICATION (AIP)**

*(Presented by the United Arab Emirates)*

**SUMMARY**

This paper presents the development and operational deployment of an Artificial Intelligence (AI) BOT that provides aviation professionals with instant, user-friendly access to the content of the Aeronautical Information Publication (AIP). The initiative reduces search time, enhances operational efficiency and supports safe, informed decision-making by enabling rapid, version-specific retrieval of aeronautical information.

Action by the meeting is at paragraph 3.

**REFERENCE**

- UAE AERONAUTICAL INFORMATION PUBLICATION (AIP), GCAA
- ICAO ANNEX 15 AND PANS-AIM (DOC 10066)
- ICAO GLOBAL AIR NAVIGATION PLAN (GANP), DOC 9750

**1. INTRODUCTION**

1.1 The AIP is the authoritative source of aeronautical information essential for safe air navigation. Aviation professionals, including air traffic controllers, pilots, operators and procedure designers, rely on timely access to its content for operational and regulatory decision-making. Emerging AI technologies can simplify access to AIP information by enabling natural language queries, reducing the need for users to navigate complex publication structures.

1.2 As a practical example of this approach, the UAE General Civil Aviation Authority (GCAA) has developed an AI BOT for the AIP that delivers instant answers, smart search capabilities and context-based guidance drawn directly from structured AIP content, without the need to manually browse lengthy documents

**2. DISCUSSION**

2.1 An AIP AI BOT is queried in natural language through a web-based interface. A key safety feature is the ability to select between the currently effective AIP and the next effective AIP; the

selectable version changes with every AIRAC cycle, ensuring the BOT draws on the correct source of data and supporting pre-implementation familiarisation with forthcoming amendments. In this implementation, this capability is accessible through the organisation website.

2.2 Each response is accompanied by source references linking to the relevant AIP attachment, allowing users to navigate to the precise location from which the response was generated. The BOT supports queries across the AIP sections, charts and procedures and regulatory provisions, and can summarise sections, generate comparison tables, extract key data and produce plain-language digests. Best results are obtained using clear, specific questions with relevant ICAO location indicators and AIP section references.

2.3 Beyond reducing search time, an AIP AI BOT delivers wider operational benefits, including improved accessibility to aeronautical information, reduced training requirements for new users, faster retrieval of relevant information, and an enhanced user experience, in support of broader State digital transformation objectives.

2.4 The BOT is an information access tool that complements, but does not replace, the official AIP. While its responses are derived from official aeronautical data sources, users remain responsible for verifying operationally critical information against current official publications. A user feedback mechanism supports continuous improvement and response accuracy.

2.5 Such initiatives are aligned with the objectives of ICAO Annex 15 and ICAO Doc 10066 (PANS-AIM), which promote the transition from traditional Aeronautical Information Services (AIS) to data-centric Aeronautical Information Management (AIM). They also support the digital transformation objectives of the ICAO Global Air Navigation Plan (GANP), including the increased use of digital technologies to enhance information accessibility and data quality. Sharing experiences, best practices and lessons learned from AI-enabled AIM implementations can support regional digital transformation efforts across the MID Region.

### **3. ACTION BY THE MEETING**

3.1 The meeting is invited to:

- a) note the information contained in this paper;
- b) note the willingness of the UAE to support any State wishing to develop or implement a similar Artificial Intelligence initiative, through the sharing of its experience, best practices and lessons learned; and
- c) encourage States to take into consideration the adoption or implementation of similar Artificial Intelligence initiatives to facilitate access to aeronautical information and improve user experience.