International Civil Aviation Organization

MIDANPIRG/22 & RASG-MID/12 Meetings

(Doha, Qatar, 4 – 8 May 2025)

Agenda Item 4.2:   **Outcomes of the RASG-MID Groups (SEIG/6 Meeting)**

EVENT TRIGGERED AD-HOC AUDIT FRAMEWORK

(Presented by United Arab Emirates)

SUMMARY

This paper highlights the implementation of ad-hoc audits, that are triggered by international safety events, as a proactive safety oversight mechanism by the United Arab Emirates General Civil Aviation Authority (GCAA). These audits are conducted based on emerging trends, incidents, and accidents to identify and mitigate risks before they escalate further. In 2025, the GCAA conducted ad-hoc audits focusing on objects within the runway strip and Runway End Safety Areas (RESA) to ensure the continued compliance with national regulations following the Jeju Air Flight 2216 accident in South Korea.

Action by the meeting is at paragraph 3

REFERENCE

- ICAO Doc 9981 (PANS–Aerodromes)
- ICAO Annex 14 Aerodromes (Vol. I)

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1. INTRODUCTION

1.1   The UAE GCAA implements a comprehensive safety oversight program that includes routine and ad-hoc audits to assess compliance with national regulations. While scheduled (routine) audits provide structured compliance verification, ad-hoc audits serve as a proactive tool to address emerging safety concerns, trends, and operational risks that require a focused audit on a selected topic or limited scope.

1.2   Ad-hoc audits are conducted in response to specific triggers, such as:

- National and international safety occurrences;

- Operational trends addressing patterns in safety reports or stakeholder concerns such as incidents relating to ground handling, airlines, and air navigation service providers;

- Environmental and infrastructure changes ensuring safety amid modifications to airport infrastructure or scope of operations.

1.3   In 2025, the UAE initiated ad-hoc audits across all UAE-certified aerodromes, focusing

on runway strip and Runway End Safety Area (RESA) conditions. These audits examine critical safety aspects such as frangibility, delethalization, equipment placement, and adherence to national regulations and international standards. The process includes developing recommendations aimed at enhancing the overall safety and compliance of each aerodrome.

2. DISCUSSION

2.1 Objectives of Ad-Hoc Audits

Ad-hoc audits serve as a proactive safety oversight tool with several key objectives:

- Identify emerging safety hazards through on-site observations and data-driven analysis, enabling early intervention before they escalate into serious incidents or accidents.

- Verify compliance with national regulations and applicable international standards, ensuring that aerodrome operations consistently meet or exceed established safety benchmarks.

- Promote continuous improvement by evaluating the effectiveness of existing aerodrome safety management systems (SMS) and encouraging the adoption of best practices, lessons learned, and corrective actions that foster a culture of safety and resilience across the aviation sector.

2.2 Ad-hoc Audit Process

To effectively achieve the objectives of the ad-hoc audits, the supporting process simplifies and adapts elements of the periodic surveillance audit framework—allowing for more targeted, flexible, and responsive assessments. These audits may be conducted without prior notice and are governed by the standard audit protocols, including the documentation of findings, observations, and the issuance of safety recommendations.

2.3 2025 Ad-hoc Audits: Runway Strip and RESA Safety

In response to the Jeju Air Flight 2216 accident in South Korea, the GCAA, in January 2025, prioritized the execution of ad-hoc audits with a focused scope on runway strip and RESA safety. These audits specifically target potential risks associated with the presence, location, frangibility, and delethalization of objects within these critical areas, ensuring compliance with GCAA regulatory requirements. The focused nature of these audits has enabled more thorough inspections and precise verification of compliance in these areas.

2.4 Key audit areas include:

- Identification of non-frangible structures or equipment located within the runway strip and RESA, which may pose a hazard during aircraft excursions or overruns.

- Detection of non-essential equipment within these areas that does not directly support aircraft safety and may contribute to operational risk.

- Assessment of surface conditions and delethalization measures, with particular attention to features such as manholes and the bases of installed equipment (e.g., approach lights, glide path antennas, localizers, and other navigational aids).

- Verification of runway strip and RESA dimensions to ensure they meet design and compliance requirements as defined by national and international standards.

- Evaluation of the effectiveness of aerodrome maintenance programs in managing and preserving safety-critical conditions within the runway strip and RESA.

- Review of the aerodrome's movement area inspection regime to confirm that the runway strip and RESA are adequately included in routine safety inspections.

2.5 Lessons Learned & Future Enhancements

The ad-hoc audit initiative has highlighted several opportunities for continuous improvement. One key lesson is the need to enhance the decision-making process when selecting targeted audit areas by integrating insights from national, regional, and global aerodrome safety trends. Additionally, incorporating emerging risks and areas of concern identified in the National Aviation Safety Plan (NASP) will ensure that audit scopes remain relevant and proactive. Strengthening safety occurrence monitoring mechanisms is also essential to trigger timely audits in response to potential hazards, allowing for a more dynamic and risk-based oversight approach.

2.6 Unannounced audits in USOAP

2.1 ICAO Doc 9981 (PANS–Aerodromes) encourages the use of unannounced inspections at aerodromes, when necessary, to address specific safety concerns. Beyond their substantial contribution to operational safety, ad-hoc audits also provide States with valuable evidence in support of compliance with USOAP AGA Protocol Question 8.403, reinforcing their oversight capabilities through non-periodic, risk-based surveillance.

3. Action by the Meeting

a) Take note of the Working Paper;

b) Encourage States to consider the implementation of ad-hoc audits following significant safety occurrences or accidents, with a targeted scope to proactively identify and mitigate risks that may not be fully addressed through scheduled audits.

c) Invite States to consider utilizing the UAE's approach and experience in conducting ad-hoc audits.

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