International Civil Aviation Organization

MIDANPIRG Communication, Navigation and Surveillance Sub-Group (CNS SG/15)

(Doha, Qatar, 11 – 14 May 2026)

Agenda Item x: Surveillance Matters

MODE S INTERROGATOR CODE ALLOCATION PROCESS IN THE MID REGION

(Presented by Secretariat)

SUMMARY

This paper presents an overview of the Mode S Interrogator Code Allocation (MICA) process in the MID Region and recent observations on its implementation and use. It highlights challenges related to timely processing of conflict reports, confirmation of code implementation, and periodic revalidation of assigned codes, as well as limitations arising from the absence of an IC monitoring tool.

The paper calls for improved adherence to MICA processes by users and invites consideration of the need for Mode S IC monitoring in the MID Region.

Action by the meeting is at paragraph 3.

REFERENCES

- MIDANPIRG/18 Report
- ICAO MID MICA Workshop

1. INTRODUCTION

1.1 The introduction of Mode S within the ICAO MID Region highlighted the need for a coordinated approach to the allocation and implementation of the limited number of Interrogator Codes. In 2011, the ICAO MID Regional Office formally requested EUROCONTROL to provide support for Mode S Interrogator Code Allocation (MICA) in the MID Region. It was subsequently agreed that the EUROCONTROL MICA Cell would support the ICAO MID Region using the same processes and procedures applied within the EUR Region.

2. DISCUSSION

2.1 The meeting may recall that the Mode S Interrogator Code Allocation (MICA) process in the MID Region is managed by the EUROCONTROL MICA web application since 2011.

2.2 The MICA Workshop for the MID Region was organised in 2019 to educate MID Region users on MICA coordination process and operations. The Workshop documentation can be found Pages - Surveillance/Mode S Interrogator Code Allocation (MICA) Workshop

2.3 It has been noted that users from ten (10) States have registered to the MICA as in ***Appendix A.***

2.4 The meeting may recall that MIDANPIRG/15, through Conclusion 15/32, agreed that the Eurocontrol Document "Requirements process for the coordinated allocation and use of Mode S Interrogator Codes in the ICAO Middle East Region" (Edition 1.02 dated August 2014), be used for the allocation of the Mode S IC Codes. The document was updated in 2019.

2.5 The MICA has three types of users:

a) **Mode S Operator**: a person, organisation or enterprise operating or offering to operate a Mode S radar, including:
   - Air navigation service providers;
   - Mode S interrogators manufacturers;
   - Airport operators;
   - Military authorities;

b) **Focal Point:** a person representing a competent State or an international organisation applying for interrogator codes, who is responsible for the coordination of all matters concerning the IC allocations between the EUROCONTROL MICA Cell and the Mode S Operators in his area of oversight.

c) **ICAO MID Super Focal Point**: ICAO MID regional officer who coordinates the IC allocation in the ICAO MID region

2.6 For the safety of the air traffic surveillance system, the coverage of two Mode S radars operating on the same Interrogator Code (IC) shall not overlap. Mode S radars with overlapping coverage shall operate on different Interrogator Code. A radar operating on a wrong IC can create an IC conflict and prevent one or several other Mode S radars to reliably detect incoming traffic.

2.7 In case of IC conflict, MICA users can report IC conflicts through the MICA website. An IC conflict is an uncoordinated overlap of lockout coverage of two or more Mode S radars operating on the same IC, potentially resulting in aircraft remaining undetected by at least one of the Mode S radars.

2.8 It has been noted through the assessment of MID users' usage of the MICA, that certain activities are not being performed in a timely and consistent manner.

- Conflict reports have not been processed by MID users in a timely manner.
- Several assigned codes have not been confirmed as implemented.
- Assigned codes require revalidation every five years; however, States may not complete this process in a timely manner.

2.9 The meeting may wish to note that EUROCONTROL uses a Mode S IC monitoring system to observe and analyse the real-time use of Interrogator Codes in the surveillance environment, detect conflicts or incorrect configurations, and ensure that operational usage matches the centrally allocated codes managed under the MICA framework. This supports coordination with ANSPs and helps maintain the integrity and safety of Mode S surveillance operations across the EUR Region

2.10 The absence of such a tool in the MID Region makes conflict detection and the identification of incorrect IC code usage more difficult. It requires extensive manual coordination and may not be straightforward.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

a) invite States operating Mode S Surveillance that have not assigned MICA users to do so;

b) urge MICA users to:
   i) carry out the necessary actions in a timely manner, including confirmation of implementation, and where applicable, revalidation of assigned codes;

   ii) respond to conflict reports, where involved, and take the necessary corrective action without delay; and

   iii) indicate any challenges encountered in using the MICA platform or following the associated processes

c) discuss the need for Mode S IC monitoring in the MID Region.

Column3	Column4	Column5
Country	User Name	Organisation
Bahrain	YASEEN ALSAYED	BCAA
Egypt	AMIR ALY EID	NANSC
Egypt	AHMED EL MARADY	Egyptian CAA
ICAO MID	MUNA ALNADAF	ICAO MID
Iran	Seyed hamidreza SANEI	IRAN CAA
Iran	Seyed mahmood QAZI MIRSAEED	Iran Airports Company
Iraq	IBRAHIM SABAH	Iraqi GCANS
Jordan	AMENA DODIN	Jordan CARC
Jordan	IBRAHIM FARAJ	Jordan CARC
Kuwait	Aziz ALAWADI	DGCA Kuwait
Oman	KHALED ELTANANY	OMAN CAA
Oman	ABDULLAH ALFARSI	OMAN CAA
Qatar	Ali mohammad sulaiman hassan ALHAIL	Qatar CAA
Saudi Arabia	ZAKI AL-AMRI	GACA
United Arab Emirates	JACOB AVIS	GCAA Air Navigation Services
United Arab Emirates	ABDULLA ALSAYED	GCAA Air Navigation Services