



International Civil Aviation Organization

MIDANPIRG Communication, Navigation and Surveillance Sub-Group

Twelfth Meeting (CNS SG/12)
(Amman, Jordan, 2-4 May 2023)

Agenda Item 4: CNS planning and implementation in the MID Region

RADAR DATA SHARING IN THE MID REGION

(Presented by Jordan)

SUMMARY

This paper presents an initiative to establish an action group to study the feasibility of sharing Radar data among MID States, identifies challenges and possible solutions, benefits and requirements

Action by the meeting is at paragraph 3

REFERENCES

- ICAO Emerging Surveillance Symposium (3-5 September 2022, Tunis)
- MID Region Surveillance Plan

1. INTRODUCTION

1.1 The Air Navigation Services Providers in the MID Region have deployed surveillance systems, mostly Radars, that play an important role in Air Traffic Control (ATC) resulting in overlaps of surveillance coverage areas across states and neighbouring Flight Information Regions (FIR). States may take advantage of the current gap and the upcoming surveillance infrastructure for collaborating and sharing surveillance data with one another in order to enhance the surveillance coverage in the Region.

2. DISCUSSION

2.1 The Radars in State may have some coverage limitations, existence of non-radar covered area (gap area) due to terrains or Radar blind range.

2.2 States need to plan for better redundancy, specially in case of outage for maintenance or failure.

2.3 The meeting may wish to recall that ICAO Emerging Surveillance symposium (5-7 September, Tunis) acknowledged the need to share Radar data among adjacent States and Military and noted associated challenges and potential solutions.

2.4 Furthermore, the symposium appreciated France's experience related to sharing Radar data with Military and neighboring States and encouraged other States to implement similar practices.

2.5 In connection with the above, the MID Region Surveillance plan stated that "States to share SSR/ADS-B data to improve boundary coverage and enhance the surveillance availability services".

2.6 The meeting may wish to note that Radar data sharing can be exchanged with other ANSPs or organizations.

2.7 The meeting may wish to recall that, the 1090 MHz activity results from both SSR Mode A/C and Mode S type interrogators, however SSR Mode A/C operation is less spectrum efficient than Mode S SSR. Therefore, managing interrogations in heavily surveilled airspace is very important, SSRs sharing surveillance data via networking thereby eliminating redundant surveillance coverage in overlapping geographic Regions.

2.8 Based on all the above, sharing Radar data among MID States will improve redundancy, enhance surveillance coverage and reduce 1090 RF congestions. Therefore, the meeting is invited to discuss and agree to the following Draft Conclusion:

Why	To assess the feasibility of Radar Data sharing in the MID Region
What	Establish RDS Action Group
Who	MIDANPIRG/20
When	May 2023

DRAFT CONCLUSION 12/X: RADAR DATA SHARING IN THE MID REGION

That, the Radar Data Sharing Action Group (RDS AG) be:

a) *established to assess the feasibility of Radar data sharing among MID States, identify challenge(s) and possible solution(s) and implementation requirements by 1 January 2024; and*

b) *composed of:*

Ibrahim Faraj (Jordan)

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3. ACTION BY THE MEETING

3.1 The meeting is invited to agree on Draft Conclusion at para 2.8.

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