



DIRECTORS GENERAL OF CIVIL AVIATION-MIDDLE EAST REGION

Second Meeting (DGCA-MID/2)
(Jeddah, Saudi Arabia, 20-22 May 2013)

Agenda Item 5: Air Navigation

RATIONALIZATION OF THE ATS ROUTE NETWORK IN THE MID REGION

(Presented by the Secretariat)

SUMMARY

This paper gives a progress report on the work achieved within the framework of MIDANPIRG towards the rationalization of the ATS Route Network in the MID Region based on the Flexible Use of Airspace (FUA) and Performance Based Navigation (PBN) concepts.

Action by the meeting is at paragraph 3.

REFERENCES

- AN-Conf/12 Recommendations
- DGCA-MID/1 Meeting
- MIDANPIRG/13 Report

1. INTRODUCTION

1.1 Aircraft used to navigate using external electronic guidance or self-contained information that is provided by ground-based navigation aids. As technology advanced, Area Navigation (RNAV) was introduced as a method of navigation which permits aircraft operation on any desired flight path within the coverage of the station-referenced navigation aids or within the limits of the capability of self-contained aids, or a combination of these.

1.2 The continuing growth of traffic in the MID Region (forecasted to 2,346,000 movements in 2025) requires more demands on airspace capacity and accordingly an optimum utilization of the available airspace by establishing more direct ATS routes and reducing the ATS route spacing.

1.3 The airspace capacity is an emerging issue in the MID Region as current constraints limit capacity and force inefficient routings. The route structure does not currently make full use of the advanced navigation capability of modern airline fleets. In addition, the concept of Flexible Use of Airspace (FUA) is not yet fully implemented.

2. DISCUSSION

2.1 The meeting may wish note that the Twelfth Air Navigation Conference (AN-Conf/12) (Montréal 19- 30 November 2012), considered issues related to civil/military coordination/cooperation, FUA and the limited access by civil traffic to military segregated airspace in many areas of the world. The non-FUA prevents aircraft from operating along their preferred trajectories resulting in excess fuel consumption and related emissions. Further, it was noted that the situation has not improved enough in recent years despite ICAO having held global and regional events and issued additional guidance material (Circular 330, Civil/Military Cooperation in Air Traffic Management). It was also recognized that successful cooperation between civil and military airspace users and planners requires collaboration based on education, communication, and mutual trust, which will increase efficiency, capacity and enhance safety.

2.2 The meeting may wish to recall that the DGCA MID/1 meeting was apprised of the Middle East Regional Airspace Review (MIDRAR) initiative and through *DGCA-MID/1 CONCLUSION 1/3* showed general support to the initiative. (More information on the MIDRAR initiative is contained in WP/12).

2.3 Furthermore, the DGCA MID/1 meeting recognized the need for rationalization of the ATS Route Network in the MID Region based on FUA and PBN concepts. In this respect, the meeting recalled that the ATS Route Network Task Force (ARN TF) was established in December 2007 to, inter-alia:

- a) review the MID ATS route network in order to assess its capacity and constraints;
- b) based on the airspace user needs and in coordination with stakeholders (States, International Organizations, user representative organizations and other ICAO Regions), identify requirements and improvements for achieving and maintaining an efficient route network in the MID Region; and
- c) propose a strategy and prioritized plan for development of improvements to the route network, highlighting:
 - areas that require immediate attention
 - interface issues with adjacent ICAO Regions

2.4 The ARN Task Force convened six (6) meetings since its establishment. However, the objectives set forth by MIDANPIRG have not yet been fully achieved. It is to be highlighted that the ARN TF/6 meeting (Cairo, Egypt, 22-24 April 2013) underlined that twelve (12) approved ATS routes published in the MID Air Navigation Plan, have not yet been implemented due to military restrictions.

2.5 The ARN TF/6 reiterated MIDANPIRG Conclusion 13/3 below, that urged MID States to identify ATS routes within their airspace that are not economically feasible and to coordinate with their appropriate authorities to agree to align and shorten the ATS routes in order to enhance safety, efficiency and increase environmental sustainability, based on the definition of City Pairs, the PBN and FUA concepts and the major air traffic flows:

CONCLUSION 13/3: IMPROVEMENT OF THE ATS ROUTE STRUCTURE IN THE MID REGION

That, as a first step towards the rationalization of the ATS route network in the MID Region:

- a) States be urged to:
 - i) identify those ATS Routes that are not economically structured within their airspaces;*
 - ii) coordinate and agree with appropriate authorities on the priority of action to replace the identified routes with more economical routes based on the definition of City Pairs, the PBN and FUA concepts;**
- b) Users to:
 - i) identify those ATS Routes that are not economically structured in the MID Region;*
 - ii) provide priority of action; and**
- c) States and Users; provide feedback to the ARN TF/6 meeting.*

2.6 In connection with the above, the ARN TF/6 meeting noted with concern that little progress has been achieved in the implementation of the MIDANPIRG/13 conclusion 13/3, due mainly to military and political constraints. Accordingly, the meeting agreed that, as a first step in the implementation of the above-mentioned MIDANPIRG/13 Conclusion, ICAO, States and Users should identify a top 20 priority proposals of ATS Routes extracted from the ATS Route Catalogue, that was developed to reflect the users requirements which have not yet been included in the Air Navigation Plan. The ATS Route Catalogue includes presently seventy seven (77) ATS route proposals.

2.7 Based on the above, the ARN TF/6 meeting urged States to coordinate with their relevant military authorities, the possibility of civil-military joint use of certain segregated airspace. This could be facilitated by the implementation of RNAV1 Routes leading to significant reduction in fuel consumption and CO₂ emissions.

3. ACTION BY THE MEETING

3.1 The meeting is invited to agree on a mechanism to achieve the above-mentioned objectives.