



*International Civil Aviation Organization*

**MIDANPIRG CNS/ATM/IC Sub-Group  
(CNS/ATM/IC SG)**

**Sixth Meeting**

*(Cairo, Egypt, 31 January – 02 February 2012)*

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**Agenda Item 4: MID Region Air Navigation Performance Based Approach**

**UNIFICATION OF 10NM RADAR LONGITUDINAL SEPARATION MINIMA FOR  
TRAFFIC OPERATING WITHIN THE ICAO MIDDLE EAST REGION**

*(Presented by Kingdom of Bahrain)*

**SUMMARY**

The aim of this working paper is to demonstrate that regional uniform 10NM radar longitudinal separation requirement developed with collaborative ATM procedures will result in increased capacity and safety for system users.

Action by the meeting is at paragraph 3.

**1. INTRODUCTION**

1.1 The continuous traffic growth within the ICAO Middle East Region constantly exceeds projections and has scored the highest rate of growth in the world. Users in the region, supported by record purchases of aircraft, continue to lead the world in aerodrome expansion, route and destination development.

1.2 The airspace saturations in most of the MID Region Fir's has put a lot of pressure on the air navigation services providers at the Fir's. This has led to necessary actions such as the restructure of their ATS routes and modernizes their ATM systems, and it became necessary to continuously collaborate in order to synchronize procedures and routing requirements to ensure the safest and most efficient system available. Such collaboration has resulted in many areas where reduced lateral requirements have increased capacity while maintaining a uniform standard of safety.

**2. DISCUSSION**

**2.1 Capacity**

2.1.1 The MID Region States should be encouraged to continue efforts exploit the inherent and currently untapped airway capacities in order to meet airspace user demands at peak times and locations while minimizing restrictions on traffic flow.

2.1.2 To cope with the current and future growth, capacity must increase, while ensuring that there are no adverse impacts on safety, and giving due consideration to the environment through fuel efficient routings and altitude assignments.

2.1.3 It is our experience that an airway separation minimum of ten nautical miles, constant or increasing, maximizes airway efficiency while maintaining an acceptable level of safety. Current separation requirements range from ten to forty miles and depending upon the requirements for the receiving FIR.

## 2.2 Consistency

2.2.1 Uniform separation minima of ten nautical miles can be established for airway within the MID Region. This can be accomplished without external resource requirements or influence.

2.2.2 Predictability is essential to airspace users as they develop and operate their schedules. Predictability refers to the ability of airspace users and Air Traffic Control Service providers to provide consistent and dependable levels of performance.

2.2.3 ATM systems, specifically radar surveillance systems, currently in operation within the MID Region, allow for consistent separation standards across most FIR boundaries. Therefore, States should look into reducing the radar separation currently implemented to 10 NM for those traffic operating between the MID Region airports.

## 2.3 Benefits

2.3.1 The cost benefit ratio of current ATM system upgrades would increase dramatically.

2.3.2 Provide an opportunity for the MID Region to model benefits of increased capacity through collaborative working agreements for other ICAO Regions.

## 3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information contained in this working paper, and
- b) to update the Regional Performance Framework Forms of the Optimization of the ATS Route Structure En Route Airspace to include in the strategy the implementation of 10NM longitudinal Radar separation for traffic operating within the MID Region States.