



International Civil Aviation Organization

**MID Region ATM Enhancement Programme
Special Coordination Meeting (MAEP SCM)**

(Cairo, Egypt, 18-20 February 2014)

Agenda Item 3: MID Region ATM Enhancement Programme (MAEP) Establishment

PROPOSED MAEP TERMS OF REFERENCE

(Presented by Jordan)

SUMMARY
This paper presents a proposal for the terms of reference of the MID Region ATM Enhancement Programme (MAEP) Board. Action by the meeting is at paragraph 3.
REFERENCE
<ul style="list-style-type: none">- ATM Operational Concept- DGCA-MID/2 Final Report- GANP Document 9750 4th edition including Aviation System Block Upgrades ASBU- MIDANPIRG/14 Final Report

1. INTRODUCTION

1.1 Going through the ANS Planning development and implementation history in the last almost 30 years, shows that at the years 1980s the International civil aviation enhancement intention started under the umbrella of the ICAO with the first initiative to minimize the impact of the deficiencies and shortcomings, based on recognizing the limitations of the ANSPs (communication, navigation, surveillance) systems at that time; 2 years later, ICAO established the Future Air Navigation Systems (FANS) Committee to study, identify and assess new concepts and technologies towards a coordinated evolution of air navigation for the next 25 years which specifically identified satellite technology as the basis of the future air navigation system.

1.2 The concept of CNS/ATM was adopted at the 10th Air Navigation Meeting held in September 1991 at Montreal, Canada.

1.3 By the year 1998 Global Air Navigation Plan for CNS/ATM Systems was developed and endorsed by the World –wide CNS/ATM Systems Implementation Conference, and by the year 2000 ICAO DOC 9750 (Global Air Navigation Plan) and ICAO Circular 278 (Model for National Plan for CNS/ATM systems) were endorsed.

1.4 During those three decades, States were requested through the various meetings and MIDANPIRG recommendations to eliminate or at least minimize the impact of deficiencies and develop their own ANS plans guided by the appropriate ICAO Documents associated to the Global Navigation Plan, urging States to coordinate among them the implementation of planned and agreed systems, lacking the true commitment due to shortage human resource, financial or even technical and operational expertise and sometimes political reasons; in fact ATM improvements were implemented on a State by State basis, based on their own requirements and suitable timing and available funding.

2. DISCUSSION

2.1 The current situation is very difficult due to high unpredictable and uncontrolled increase of fuel prices for airspace users who are requesting to cut down on ATM related costs, the weakening global economy, the increasing pressure on the environmental front, growing demands at the political and social levels, in addition to the continuous traffic growth and the limitations of the ATS airspace and its capabilities, require safety enhancement, more capacity and reduction of fuel consumption (Environment protection and efficiency).

2.2 The traditional approach reactions and fragmented solutions to deal with the above mentioned issues are no longer sufficient, especially with a growth of aviation expected to double in less than ten years, to reach:

- improving safety, capacity (by Airspace restructuring, route design and spacing, elimination of fragmentation);
- operational efficiency (in terms of fuel burn);
- environmental impacts (in terms of reduced emissions, noise and preferential routes); and
- Facilitate the operational approval process for operators; (certification).

Focusing on regional and global partners not only on ourselves, (on interoperability, harmonization and globally implementation) to avoid the temporary local-only solutions, of course not forgetting the high level of cooperation and commitment between all members of the ATM community.

2.3. DGCA-MID/2 CONCLUSION 2/4 – MID REGION ATM ENHANCEMENT PROGRAMME (MAEP) BOARD, highlighted the importance of establishing MID Region ATM Enhancement Programme (MAEP) and MAEP Board for the overall supervision, direction, and management of the Programme, to ensure Regional synchronized implementation, global harmonization and interoperability to overcome inefficient stand alone systems and isolated States solutions.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) Consider the information provided in this working paper; and
- b) Review, update and agree with the proposed Terms of Reference TOR at **Appendix A** to this working paper.

APPENDIX A

MID REGION ATM ENHANCEMENT PROGRAMME (MAEP) BOARD TERMS OF REFERENCE

1. OBJECTIVES AND SCOPE

- a. Consider the immediate (10 year) ATM infrastructure including operational and technical requirements for the MID region and the capacity of the existing aviation infrastructure to meet forecast demand.
- b. Determine the long-term (10+ years) ATM infrastructure including operational and technical requirements for the MID region and the capability of the existing aviation assets serving the region to meet the forecast market demand in air transportation. This would include consideration of:
 - Existing and required air transport infrastructure to support aviation safety in the MID Region.
 - Existing and future aviation system capacity and capacity protection from any future impediment which may limit its effective long-term operations and growth.
 - Airport and ATM legislative requirements.

2. TERMS OF REFERENCE OF THE MAEP BOARD

- a) Establish MAEP Board taking into consideration:
 - Human Resources qualification and training;
 - MAEP Board representatives of high level with appropriate experience;
 - Programme/project management; and
 - Legal, institutional and financial issues.
- b) Identify the ATM operational concept elements in the MID Region, and define those elements as enhancement requirements.
- a) Ensure and facilitate MID Region States national ATM innovation plans mapping to ICAO Aviation System Block Upgrades (ASBU) initiative and exploiting the ATM solutions or upgrades specified in ASBU Block 0 Modules and eventually Block 1 Modules endorsed during the 12th Air Navigation Conference and 38th Assembly.
- b) Ensure continuous and coherent development of the Middle East Regional ATM system in a manner that is harmonized and compatible with adjacent regions, consistent with ICAO SARPs and Global Air Navigation Plan (Doc 9750) and the Aviation System Block Upgrades (ASBU) methodology and in line with the ATM operational concept reflecting global requirements.
- c) Facilitate the implementation of ATM systems and services as identified in the MID Region Air Navigation Plan including but not limited to:
 - Approach and Departure Operations including Continuous Descent (CDOs) Continuous Climb Operations (CCO), and performance based navigation;
 - Airport capacity;
 - Flexible Airspace structure and route network;

- En-Route Trajectories based operations;
 - Situation awareness;
 - ground surveillance; and
 - Vertical, lateral and longitudinal separation. Taking into consideration the primacy of air safety, regularity and efficiency.
- d) Monitor the status of implementation of the MID Region ATM-related ASBU Modules included in the MID Region Air Navigation Strategy as well as other required ATM facilities , services and where necessary.
- e) Ensure interregional horizontal and vertical harmonization, taking due account of organizational aspects, economic issues and environmental matters.
- f) Ensure the identification, assessment, prioritization, elimination and reporting by States of air navigation deficiencies in the MID Region which represent critical safety issues and are directly in relation with the Global Aviation Safety Plan (GASP).
- g) Provide advice and concise guidance to those involved in the ATM plan implementation and in the resolution of the related deficiencies when required.

3. WORK PROGRAMME

In order to meet the Terms of Reference, the MID Region ATM Enhancement Programme Board shall:

- a) Identify any matters that will need to be considered, in delivering additional aviation capacity and efficiency to provide advice in order to ensure the effective management of the MID region air traffic management system through transparent and independent performance review and target setting system.
- b) Maintain a close and permanent consultation and cooperation with Air Traffic Management (ATM) service providers, representative organizations of airspace users and airport authorities, representatives of regulatory bodies and or other bodies or international organizations which can contribute to the work of the Board and optimize the use of available expertise and resources.
- c) Establish, review, and propose when necessary, the target dates for implementation of facilities, services and procedures to ensure the coordinated development of the ATM Systems in the Mid Region.
- d) Facilitate and advise the development and implementation of an action plan by States to resolve identified deficiencies, where necessary.
- e) Ensure the assessment of human resources planning and training issues and propose where necessary human resources development capabilities.
- f) Continuous review of the MID Region Air Navigation Plan, and propose changes to the MID Region Air Navigation Plan/Strategy and Air Navigation priorities, as appropriate based on ATM operational requirements.
- g) Monitor and review the latest ATM developments and provide expert inputs for the implementation of the Air Navigation Systems based on ATM operational requirements.
- h) Provide regular progress reports to the MIDANPIRG concerning its work programme including recommendations for the improvement of these functions.
- i) Provide necessary assistance and guidance to States to ensure harmonization and interoperability in line with the GANP, the MID ANP and ASBU methodology.

4. MAEP BOARD COMPOSITION

The MID Region ATM Enhancement Programme Board will be composed of:

- a) High level representatives and Senior Officials nominated by ANSP from concerned States and Organizations, and experts from, AACO, ACI, CANSO, IATA, IFALPA and IFATCA.
- b) Election the Chairperson and Vice-Chairperson by the Board.
- c) Additional representatives from MIDANPIRG Member States and International/Regional Organizations may be invited on ad-hoc basis, as observers, when required.

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