International Civil Aviation Organization

MIDANPIRG Steering Group

Fourth Meeting (MSG/4)
(Cairo, Egypt, 24 - 26 November 2014)

Agenda Item 4: MID Region Air Navigation Planning

INTEGRATED FLIGHT PLAN PROCESSING SYSTEM (IFPS)

(Presented by Bahrain)

SUMMARY

This working paper presents the current status of the Bahrain FIR/UIR - Integrated Flight Plan Processing System (IFPS) System and the proposal for the establishment of a Regional IFPS.

Action by the meeting is at paragraph 3.

REFERENCES

- CNS SG/6 Report

1. INTRODUCTION

1.1 Over the last years the Bahrain FIR/UIR aircraft movement statistics show about 100,000 arrivals and departures in Bahrain and about 500,000 over flights a year. This causes the same number of ICAO Flight Plans (FPL) messages accompanied by about 30% more of other ICAO ATS messages.

1.2 These FPL and ATS messages have been, in many cases, not according to ICAO PANS-ATM (Doc 4444) and many did not conform with required level restrictions or required routings within the Bahrain FIR/UIR as published by AIP Supplements.

1.3 In cases of flights from Europe, double distributions have been observed due to improper usage of the European Union (EU) Network Manager (NM) IFPS System by aircraft operating agencies.

2. DISCUSSION

2.1 The meeting may wish to note that the issues mentioned above in the introduction have caused additional workload and sometime confusing situations because of imprecise flight plans and unclear intensions of flights in Bahrain Area Control Centre (ACC), Aerodrome Control Towers (TWR), and ATS Reporting Offices (ARO).

2.2 To overcome the issues described in item 1 above BCAA introduced an IFPS System for the Bahrain FIR/UIR in 2013.

2.3 The system is the entry system for all Bahrain FIR/UIR FPL in order to:

- raise the quality of FPL before distributing them to ACC, TWR, and ARO;
- prevent double distribution to ACC, TWR and ARO;
- reject FPLs in case of major errors;
- send Rejection Messages (RJE) or Acknowledge Messages (ACK) to the originator of the FPL according to the system configuration based on individual configurations for each FPL originator; and
- ensure additional FPL addressing for national, non-ICAO requirements.

2.4 At the CNS SG/6 meeting, it was highlighted that the implemented functions of the Bahrain FIR/UIR IFPS are of general nature and could support the needs of other FIRs/UIRs as well as regional or sub-regional needs in the ICAO MID Region, as the system is expandable.

2.5 The meeting agreed that the IFPS initiative should be revived. However, it was highlighted that in order to reach a decision regarding the operational requirements, the inputs from the ATM experts in the Region are needed. Furthermore, the CNS SG should address the system from the technical point of view, in terms of infrastructure, equipment, cost, human resources, etc.

2.6 The meeting agreed that the IFPS could be a good candidate for a working package under the MAEP framework. Accordingly, the meeting encouraged States to provide the Flight Plan Data/Difficulties to Bahrain in order to carry out further studies for the Region.

2.7 The meeting requested Bahrain to present a Working Paper to the MAEP Board/2 meeting on the subject and agreed to the following Draft Conclusion:

DRAFT CONCLUSION 6/11: REGIONAL IFPS STUDY

*That, States be urged to provide the Flight Plan Data/Difficulties to the ICAO MID Regional Office **before 31 December 2014,** in order for Bahrain to carry out further studies for the Region.*

2.8 Based on the above, Bahrain with the support of the Secretariat developed the Draft Project Proposal at **Appendix A** for consideration by the MAEP Board.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

a) support the establishment of a MID Region IFPS as one of the MAEP projects/Working Packages;

b) urge States to provide comments/inputs on the Draft IFPS Project Proposal at **Appendix A** before 31 December 2014; and

c) endorse Conclusion in para 2.7.

APPENDIX A

Integrated Flight Plan Processing System (IFPS) for the ICAO MID Region

MID-IFPS

Project proposal

Submitted by

Bahrain

Date	23/11/2014
Version	0.1

Change Control

Version	Change	Date
0.1	Initial draft	23/11/2014

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Content

Executive Summary

This document is developed to justify the need to have an IFPS in the ICAO MID Region and the feasibility of implementing IFPS in the MID Region by continued development of the Bahrain Initial Flight Plan Processing System (IFPS). Bahrain conducted a study that has identified the need for a regional IFPS and highlighted some of the benefits such a system would provide.

Problem Statement

The safe and efficient operation of Air Traffic Control (ATC) relies heavily upon the timely receipt and processing of flight data in the form of flight plans. Any delay or problem with the data content could affect the efficiency of ATC operations. Undetected errors passed through to ATC could have serious implications for flight safety.

Late or missing flight plans cause unnecessary delay that can have a knock-on effect to other ATS units. Aircraft operators can also be affected by ATC delays and assignment of inappropriate levels etc.

The a need to address vigorously the frequent problems associated with flight plan processing, justify the need to investigate the feasibility of introducing an IFPS to the Middle East for the benefit of all MID States.

In Summary the flight plan Flight plan messages are still suffering from the following:

- Delays in the exchange of the flight plan messages.

- Loss of flight plan messages.

- Duplication of flight plan messages.

- Errors in the flight plan messages due to non-adherence to the ICAO Standard flight plan format.

- Lack of implementation of changes in the flight data management systems in case of the introduction of new route structures or changes to the existing routes in the flight information regions or any other change that would require changes in the flight plan messages.

Project Objectives and Scope

1. Quantify and define the problem. This will include the assessment of existing studies where available and if necessary the initiation of further studies by member states. This process will clarify the scope of the problem and take into consideration local variations, anomalies and exceptions

2. Assess the level of FDP automation within the region and identify capabilities, deficiencies and common aspects
3. Identify potential problem areas relating to IFPS design, implementation and operations and propose viable solutions
4. Canvass views from airlines and other potential stakeholders to ensure IFPS works in the best interests of all concerned parties
5. Assess the regulatory framework requirement and initiate the production of Regional IFPS User Manual that will provide a common rule base, acceptable to all member states, upon which the successful operation of IFPS will depend
6. Set up a phased pilot project to further explore the problem and its possible solutions and act as a system development test-bed
7. Provide baseline statistics related to data processing against which future development can be compared
8. Identify the resources required for each project phase to include documentation, hardware, software, personnel and infrastructure
9. Highlight the potential benefits of the system
10. Suggest possible future development areas

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