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COMMITTEE A

Agenda Item 2: Enabling the global air navigation system
2.3: Future provision of aeronautical meteorological service

IMPLEMENTATION OF REGIONAL OPMET CENTRE (ROC) JEDDAH

(Presented by Saudi Arabia)

EXECUTIVE SUMMARY

This paper provides information on the implementation of regional OPMET Centre (ROC) in Jeddah as well as on the progress of introduction of ICAO Meteorological Information Exchange Model (IWXXM) for meteorological information and data exchange between Jeddah ROC, MID National OPMET Centre (NOC) and adjacent regions.

The challenges faced by ROC Jeddah are OPMET exchange with NOC to provide compliant routine and special observations and forecasts of meteorological conditions occurring or expected to occur at aerodrome located in the Middle East (MID) Region and conversion of OPMET textual data (traditional alphanumeric code (TAC)) into IWXXM.

1. INTRODUCTION

1.1 Based on MIDANPIRG/14 Conclusion 14/30, Saudi Arabia worked closely with ICAO MID Office to establish a MID Regional Operational Meteorological (OPMET) Center (ROC) by the first half of 2015 to improve the intra-regional and inter-regional OPMET exchange as well as assist the Region in managing meteorological data exchange in alphanumeric and digital forms. The initial implementation plan was periodically monitored and an updated copy with detailed progress status were discussed during MIDANPIRG/15 and MIDANPIRG/16.

1.2 Previously, the MID Region was served and monitored by the international OPMET data bank in Vienna classified as ROC which was in charge of the reception and storage of all required OPMET bulletins from MID Region.

1.3 Consequently, the MID Region OPMET schema was updated such that OPMET from each State in the MID Region as per MID FASID Table MET 2A requirements is sent to Inter-regional OPMET gateway (IROG) Jeddah for international distribution. OPMET data from other regions needed in each MID State is received by ROC Jeddah which is obtained from other IROGs. IROG Jeddah is also

distributing non-routine OPMET data (e.g. SIGMET) to IROG Vienna for distribution to IROG London in order to be available on satellite distribution system for information relating to air navigation (SADIS).

1.4 Currently ten MID States have fully implemented the appropriate OPMET exchange scheme. Three MID States have partially implemented the OPMET exchange scheme and two MID States have not implemented the OPMET exchange scheme.

2. DISCUSSION

2.1 The current capabilities available within the MID Region are mainly composed of TAC data exchange, via the aeronautical fixed service (AFS), primarily the aeronautical fixed telecommunications network through AFTN and AMHS protocols. The role of the NOC is to collect and validate all - international required OPMET messages – required AOP and agreed exchanged non AOP as per MID eANP, Volume II, Table MET II-1 and II-2 generated by all originating units within the MID State, to compile national data into bulletins and to distribute them in accordance with the regional distribution schema. Based on provided OPMET data, ROC Jeddah is transmitting to other regions and to SADIS in order to support flight operations from/to MID.

2.2 The current use of OPMET in a TAC format presents an obstacle to the digital use of the data. This makes the handling of OPMET data difficult to use correctly and require additional resources to ensure efficient automation and effective exchange of OPMET data with adjacent regions.

2.3 The challenges faced by ROC Jeddah is the transition of intra and interregional operational meteorological (OPMET) digital data exchange as it is applicable for the international exchange of OPMET data. The exchange of IWXXM-based information as required by ICAO Annex 3 — *Meteorological Service for International Air Navigation* since November 2013, is enabling States to exchange their OPMET data not only in TAC form but also in extensible mark-up language (XML) and more precisely geography mark-up language (GML).

2.4 As IWXXM represents the first step to move to an environment where the systems handling this data can make more use of standard applications and techniques. This represented a major challenge for ROC Jeddah as the provision and exchange of textual OPMET data should move towards a digital environment supporting system-wide information management (SWIM).

2.5 Given the size and character set of IWXXM messages, it is not be possible for these messages to be transmitted via AFTN. The file containing the bulletin should be compressed and file transfer body part (FTBP) under extended ATS message handling system (AMHS) and should be used to exchange IWXXM data at MID intra and inter-regional through the AFS.

2.6 Although ROC Jeddah has acquired capabilities (platforms and software) to use IWXXM, there is a need for data conversion from TAC into IWXXM to ensure widely use and exchange of digital OPMET data and overcome limitations towards meteorological data exchange between ROC, States and inter-regions. Therefore, there is a need to develop adequate implementation guidance, both in terms of technical and operational aspects that support use of IWXXM for OPMET data coding and use of SWIM for regional and global exchange of meteorological information.

3. CONCLUSION

3.1 ROC Jeddah has adequately planned transition towards the use of IWXXM to make reliable data sets available to users for exploitation at intra- and inter-regional levels.

3.2 In light of the above, the Conference is invited to take note of the status of implementation of ROC Jeddah.

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