



INTERNATIONAL CIVIL AVIATION ORGANIZATION

**THE MIDDLE EAST AIR NAVIGATION PLANNING
AND IMPLEMENTATION REGIONAL GROUP
(MIDANPIRG)**

**REPORT OF THE FIFTH MEETING OF
MET SUB-GROUP (MET SG/5)**

(Jeddah, Saudi Arabia, 2 – 4 September 2014)

The views expressed in this Report should be taken as those of the MIDANPIRG MET Sub-Group and not of the Organization. This Report will, however, be submitted to the MIDANPIRG and any formal action taken will be published in due course as a Supplement to the Report.

Approved by the Meeting
and published by authority of the Secretary General

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MET SG/5
History of the Meeting

PART I – HISTORY OF THE MEETING

1. PLACE AND DURATION

1.1 The Fifth meeting of the Meteorology Sub-Group of the Middle East Air Navigation Planning and Implementation Regional Group (MET SG/5) was hosted by Presidency of Meteorology Affairs and Environment (PME) at the Intercontinental Hotel – Jeddah, Saudi Arabia, from 2 to 4 September 2014.

2. OPENING

2.1 Dr. Ayman Gulam, Deputy Meteorological Affairs, Presidency of Meteorology and Environment (PME), Saudi Arabia, opened the meeting. He welcomed all the participants to Jeddah and wished them success in addressing MET related issues in the MID Region that would improve MET Services for international civil aviation.

2.2 Mr. Mohamed Smaoui, Deputy Regional Director, ICAO Middle East Office, thanked His Excellency Dr. Abdulaziz Al-Jasser, President of PME as well as Dr. Ayman Gulam, Deputy Meteorological Affairs, PME, and Mr. Fahad A. Al-Malki, consultant PME, for graciously hosting the MET SG/5 meeting and for the warm welcome and excellent hospitality. Mr. Smaoui welcomed all the participants to Jeddah and noted that 8 States were represented at the meeting, which was a respectable number.

2.3 Mr. Smaoui highlighted the importance of implementing current meteorological provisions for international civil aviation, which supported the implementation of the Aviation System Block Upgrade Block 0 (B0-AMET) as part of the Global Air Navigation Plan. He highlighted that MIDANPIRG/14 endorsed the Draft MID Air Navigation Strategy which includes 11 ASBU Block Zero Modules that were considered as priority for implementation in the MID Region, among them Block Zero A-MET. He noted the important developments related to the Meteorology Divisional Meeting 2014, which recommended MET as being part of future upgrades such as B2-AMET covering the period 2023-2028 to support ATM systems and System Wide Information Management (SWIM). Of relevance to the MID Region he strongly encouraged implementing current standards and preparing to support ATM systems and SWIM.

2.4 Mr. Smaoui also emphasized the importance of the establishment of the Regional OPMET Centre (ROC) in Jeddah which will be responsible for the exchange of OPMET in the MID Region and inter-regionally in the legacy alphanumeric character form as well as future digital form. He was pleased to note the outcomes of the ROC Implementation Workshop that was held in Jeddah from 31 August to 1 September 2014.

2.5 Mr. Smaoui wished the meeting success and emphasized the need to address the MET issues from a Regional perspective.

3. ATTENDANCE

3.1 The meeting was attended by a total of twenty four (24) participants, from eight (8) States (Austria, Egypt, Kuwait, Oman, Qatar, Saudi Arabia, Sudan and United Kingdom). The list of participants is at the **Attachment A**.

MET SG/5
History of the Meeting

4. OFFICERS AND SECRETARIAT

4.1 The meeting was chaired by Mr. Ali Almotawa, Chief of Met Aviation, Meteorology Department of Kuwait. The Secretary of the meeting was Mr. Christopher Keohan, Air Navigation Systems Implementation (Meteorology), Europe and North Atlantic, supported by Mr. Mohamed Smaoui, Deputy Regional Director of the ICAO Middle East Office.

5. LANGUAGE

5.1 The meeting was conducted in English and documentation posted under meetings on the ICAO MID Regional Office website.

6. AGENDA

6.1 The following Agenda was adopted:

Agenda Item 1: Adoption of the Provisional Agenda

Agenda Item 2: Follow-up on MIDANPIRG/14 Conclusions and Decisions relevant to the MET field

Agenda Item 3: Global/Regional developments related to MET

Agenda Item 4: Performance Framework for MET implementation in the MID Region:

4.1 Review of the implementation of WAFS and SADIS

4.2 Review implementation of the meteorological advisories and warnings:

- a) International Airways Volcano Watch (IAVW);
- b) Tropical Cyclone Warning System; and
- c) SIGMET and AIRMET information, and other warnings

4.3 Review of requirements for OPMET data and status of OPMET data exchange as well as the establishment of a Regional OPMET Centre

4.4 Review and update of the draft MID Air Navigation Strategy parts related to MET

4.5 Quality Management System

4.6 Review of the MET Provisions in the MID Air Navigation Plan

Agenda Item 5: Review of air navigation deficiencies in the MET field

Agenda Item 6: Future Work Programme

Agenda Item 7: Any other business

MET SG/5
History of the Meeting

7. CONCLUSIONS AND DECISIONS - DEFINITIONS

7.1 All MIDANPIRG Sub-Groups and Task Forces record their actions in the form of Conclusions and Decisions with the following significance:

- a) **Conclusions** deal with the matters which, in accordance with the Group's terms of reference, merit directly the attention of States on which further action will be initiated by ICAO in accordance with established procedures; and
- b) **Decisions** deal with matters of concern only to the MIDANPIRG and its contributory bodies.

8. LIST OF DRAFT CONCLUSIONS AND DRAFT DECISIONS

DRAFT CONCLUSION 5/1: MID SCRAG NOMINATION

DRAFT CONCLUSION 5/2: MID SIGMET CONTACT POINTS

DRAFT CONCLUSION 5/3: AMHS ROUTING FROM MID TO EUR REGIONS

DRAFT CONCLUSION 5/4: MID eANP – MET PARTS

PART II: REPORT ON AGENDA ITEMS

REPORT ON AGENDA ITEM 1: ADOPTION OF THE PROVISIONAL AGENDA

1.1 The meeting reviewed and adopted the Provisional Agenda as at Para 6 of the History of the Meeting.

REPORT ON AGENDA ITEM 2: FOLLOW-UP ON MIDANPIRG/14 CONCLUSIONS AND DECISIONS RELEVANT TO MET

2.1 The meeting noted the status of relevant MIDANPIRG/14 Conclusions and Decisions related to the MET field and the follow up actions taken by States, the secretariat and other parties concerned as at **Appendix 2A**. The meeting agreed also to review the Conclusions and Decisions, which are still current, under the associated Agenda Items with a view to propose to MIDANPIRG/15 appropriate follow-up action.

REPORT ON AGENDA ITEM 3: GLOBAL/REGIONAL DEVELOPMENTS RELATED TO MET

3.1 The meeting noted the developments at the global level, and in particular from the International Airways Volcano Watch Operations Group (IAVWOPSG), Meteorological Warnings Study Group (METWSG), and Aerodrome Meteorological Observation and Forecast Study Group (AMOFSG) that are provided in **Appendix 3A**.

3.2 The meeting was apprised of the outcomes of the Meteorology Divisional Meeting 2014 that was held in Montréal from 7 to 18 July 2014. It was highlighted that the Recommendations included a proposal to add MET in the second block upgrade (B2-AMET for the period 2023-2028) in order to support ATM systems and System Wide Information Management (SWIM). In addition, future provisions and guidance such as those relating to radioactive cloud, space weather, evolution of existing WAFS and IAVW, establishment of regional hazardous advisory centres (RHWACs), meteorological services in the terminal area will be considered. These recommendations from the MET Divisional meeting will be reviewed by the Council in the coming months and if approved, would be included in the work programme of ICAO. The ANC would then decide whether or not to establish a MET Panel and support working groups to carry these MET related tasks.

3.3 The meeting requested an action list relevant to the MID Region associated with the outcomes of MET Divisional Meeting, however, the Secretariat noted that the recommendations from the MET Divisional Meeting had not been approved by the Council and that it was premature to act on recommendations not yet approved. One suggestion in relation to RHWACs was to include sandstorm and dust storm to phenomenon produced by the RHWACs. It was highlighted that the need to avoid duplication between the information published by the RHWACs and local centre needs to be further clarified in order to define exactly the responsibilities and priorities related to the above issue. The meeting agreed that these items could be reviewed during the next meeting of the MID Bulletin Management.

REPORT ON AGENDA ITEM 4: PERFORMANCE FRAMEWORK FOR MET IMPLEMENTATION IN THE MID REGION**4.1: REVIEW IMPLEMENTATION OF THE WAFS AND SADIS**

4.1.1 The meeting reviewed a summary of WAFS developments that included outcomes of the nineteenth meeting of the SADIS Operations Group (SADISOPSG/19, London, United Kingdom from 27 to 29 May 2014) as well as the eighth meeting of the World Area Forecast System Operations Group (WAFSOPSG/8, Bangkok, Thailand, from 2 to 5 September 2013). The full reports of each meeting can be viewed at the following websites:

www.icao.int/safety/meteorology/sadisopsg/Lists/Meetings/Allitems.aspx and
www.icao.int/safety/meteorology/WAFSOPSG/Lists/Meetings/Allitems.aspx.

4.1.2 The meeting recalled MIDANPIRG Conclusion 12/68 that called for training of new World Area Forecast System (WAFS) forecasts in 2011 or 2012 for the MID Region on the use of the new gridded WAFS forecasts for convective clouds, icing and turbulence. The World Area Forecast Centre (W AFC) Provider States, in coordination with the WAFSOPSG Secretary, proceeded with the development of computer-based (including voice over) initial training material for WAFS gridded global forecasts for CB clouds, icing and turbulence. The training material was made available on the WAFSOPSG website www.icao.int/safety/meteorology/WAFSOPSG/Pages/GuidanceMaterial.aspx. The meeting noted that the training material is posted in the six different ICAO languages, which includes Arabic.

4.1.3 In addition, the following changes took effect on 14 November 2013:

- Withdrawal of WAFS Upper Air-Forecasts in WMO GRIB Edition 1 code form
 - Note folders were removed from Secure SADIS FTP 12 August 2014.
 - SADIS Provider agreed to offer guidance to States who have not yet acquired GRIB2.
- Distribution of W AFC London CB, icing and turbulence data via SADIS 2G.
- Removal of trial status of W AFC London CB, icing and turbulence.
 - Note trial folders were removed from Secure SADIS FTP 12 August 2014.
- WAFS Upper Air data for FL410 was made available on SADIS 2G and Secure SADIS FTP.

4.1.4 Other milestones included:

- Both W AFCs brought forward the availability of the GRIB2 cumulonimbus, icing and turbulence data. The data is now made available routinely by T+4:35 on Secure SADIS FTP and T+5:00 on SADIS 2G since 12 March 2014.
- Increase in Secure SADIS FTP bandwidth from 4Mbit/sec bursting to 8Mbit/sec to 16Mbit/sec bursting to 24Mbit/sec on 20 August 2013.
 - Individual client limits were increased from 128Kbit/sec to 512Kbit/sec.
 - If users have issues related to bandwidth, they were encouraged to provide feedback in the annual SADIS survey or directly to the SADIS Manager.
- SADISOPSG endorsed targets to be used for the availability of W AFC London GRIB2 and SIGWX data on SADIS2G and Secure SADIS FTP.
- SADISOPSG endorsed the provision of a dedicated server for monitoring of availability of W AFC London data on SADIS 2G and Secure SADIS FTP.
 - Implementation expected by 30 September 2014.
- SADISOPSG endorsed distribution of corrections to SIGWX forecasts and GRIB2 data via SADIS. Implementation is planned for end of November 2014.

- SADISOPSG endorsed a proposal by the SADIS Provider to implement additional files/folders to provide traditional alphanumeric OPMET data at one minute intervals.
 - Implementation planned by 31 October 2014.

4.1.5 Subject to final approval of Amendment 77 to Annex 3, it is expected that data for extra Flight Levels (FL080 (750hPa), FL210 (450hPa) and FL480 (125hPa)) for WAFS gridded upper air forecasts will be implemented in November 2016.

4.1.6 With regard to WAFC London SIGWX forecasts, the meeting noted that in response to feedback received from Bahrain, WAFC London has investigated forecast CB bases in the MID Region as they were reportedly too high. After investigating, WAFC London was in agreement with this observation and since has lowered the CB bases and when appropriate listed as FLxxx for those CB bases that are below FL100. The SADIS Provider State reiterated the importance of obtaining such feedback as a positive contribution to providing improved products.

MIDANPIRG SADIS Cost Recovery Administrative Group (SCRAG) Member

4.1.7 The meeting noted that the SCRAG Member from Egypt, Mr. Mohamed Desouky, had not been able to correspond with the SCRAG and attend the annual meetings, as a result a new nomination was necessary. The ICAO MID Regional Office received a nomination from Egypt and one from the United Arab Emirates to represent the MID Region on the SCRAG.

4.1.8 The MET SG/5 meeting agreed that based on cost shares related to payment for the SADIS service, the United Arab Emirates, who has the greatest cost share in the MID Region, should represent the MID Region on the SCRAG. The UAE nominated Mr. Ahmed Alobadli as member of the SCRAG for consideration by MIDANPIRG.

4.1.9 Considering that the next meeting of the SCRAG is planned for 4 November 2014, Frankfurt, Germany, which is prior to the MSG/4 and MIDANPRIG/15 meetings, the nomination would be processed by the ICAO MID Regional Director (Secretary of MIDANPIRG) in coordination with concerned parties (MIDANPIRG Chairperson, ICAO HQ and UAE). Accordingly, the meeting agreed to the following Draft Conclusion:

DRAFT CONCLUSION 5/1: MID SCRAG NOMINATION

That, Mr. Ahmed Alobadli from the United Arab Emirates be nominated as the MIDANPIRG member of the SADIS Cost Recovery Administrative Group.

REPORT ON AGENDA ITEM 4: PERFORMANCE FRAMEWORK FOR MET IMPLEMENTATION IN THE MID REGION**4.2: REVIEW IMPLEMENTATION OF THE METEOROLOGICAL ADVISORIES AND WARNINGS**

4.2.1 The meeting recalled MIDANPIRG/13 Conclusion 13/52 that invited States' MID SIGMET Test focal points to participate in the bi-annual SIGMET tests conducted by the EUR Region and report any deficiencies at each MET SG meeting. ROC Vienna provided the meeting with a list of participants from the EUR SIGMET test in February 2014 and the Asia/Pacific SIGMET test on tropical cyclone in November 2013. With reference to WS SIGMET test on 5 February 2014, three test bulletins (WSKW31 OKBK, WSSD41 OEJD, and WSEG31 HECA) were received from the MID Region. For the WV SIGMET test on February 2014, four test bulletins (WVBN31 OBBI, WSJD01 OJAM, WVER31 OMAE and WVSD31 OEJD) were received from the MID Region. It was highlighted that for the WC SIGMET test on 12 November 2013, one test bulletin message (WCBNnn OBBI) was received but ended in the error log due to the lack of providing series numbers.

4.2.2 The meeting noted that WS SIGMET test occurs generally on the first Wednesday of February and September and WV SIGMET test occurs generally on the first Thursday of February and September and that WC SIGMET test occurs in November of each year and the date was determined in the APAC Region which would be conveyed to MID States at least two months in advance. With reference to the WS SIGMET test on 3 September 2014, many States were planning to participate. With regard to the WV SIGMET test on 4 September 2014, the meeting noted this test was cancelled due to the volcanic activity and possible eruption in Iceland.

4.2.3 The meeting requested to have 3 SIGMET tests conducted each year due to the low participation; however, since ROC Vienna was not present during this discussion, the Secretariat would inquire with ROC Vienna on this suggestion during the EUR Data Management Group meeting in October 2014.

4.2.4 With reference to SIGMET contact points, Regional OPMET Centre (ROC) Vienna noted that many contacts were no longer in use. The meeting agreed that this contact list should be updated and agreed to the following Draft Conclusion:

DRAFT CONCLUSION 5/2: MID SIGMET CONTACT POINTS

That, States be urged to update their SIGMET points of contact by 1 December 2014 in order to continue to increase SIGMET test participation.

4.2.5 The meeting recalled MIDANPIRG/13 Conclusion 13/53 that invited States with meteorological watch office responsibilities, and that have not already done so, to provide by 1 July 2012, the World Meteorological Organization Abbreviated Header Lines used for the issuance of SIGMET for flight information regions (FIRs) under their area of responsibility for inclusion in the MID Regional SIGMET Guide. The meeting noted that entries for Iraq, Lebanon, and Syria still needed to be verified. Furthermore, the meeting recalled that MID SIGMET Guide was updated after the BMG/4 meeting and based on the template provided by the METWSG. This guidance material can be accessed at the following website under eDocuments:

https://portal.icao.int/RO_MID/Pages/default.aspx.

4.2.6 The meeting recalled SADISOPSG Conclusion 17/15, Inventory of WMO AHLs used by States to promulgate special air-reports, which were to be in accordance with WMO Publication No. 386, *Manual on the Global Telecommunications System*. Appendix E of the referenced MID Regional SIGMET Guide contains a list of headings in this regard to be used by States. Confirmation

and/or updates to the entries in the MID Regional SIGMET Guide have been received by Egypt, Kuwait, Libya, Oman, Qatar, Saudi Arabia and Sudan.

4.2.7 The meeting discussed the method of correcting SIGMET, since in the MID Regional SIGMET Guide the guidance was to cancel an erroneous SIGMET and issue a new correct SIGMET (as recommended by the METWSG).

4.2.8 The reason for this recommendation from the METWSG was that there were no provisions in Annex 3 in this regard. Therefore, the template adopted described changes in SIGMET be reissued as a separate SIGMET and the invalid SIGMET be cancelled immediately after the new SIGMET was issued.

4.2.9 The meeting also noted that it may be difficult for the user to identify components of the SIGMET that had been changed and that issuing a new SIGMET would assure the user has the most current SIGMET without having to determine what changes were made since there is no policy with regard to the sequence number. In addition, COR SIGMET was not allowed in the ICAO Meteorological Information Exchange Model (IWXXM), because the IWXXM schema was developed using ICAO Annex 3. If a conversion from TAC to IWXXM is needed, COR SIGMET would not currently be accepted. For these reasons, the meeting agreed that WMO documentation should be aligned with Annex 3.

REPORT ON AGENDA ITEM 4: PERFORMANCE FRAMEWORK FOR MET IMPLEMENTATION IN THE MID REGION**4.3: REVIEW OF REQUIREMENTS FOR OPMET DATA AND STATUS OF OPMET DATA EXCHANGE**

4.3.1 The meeting recalled MIDANPIRG/14 Conclusion 14/30 that called for Saudi Arabia in coordination with ICAO to establish a MID Regional OPMET Centre (ROC) by the first half of 2015 to improve the regional and inter-regional OPMET efficiency. In addition, Bahrain in coordination with ICAO would establish a back-up Regional OPMET Centre (ROC). Lastly, the MID States were encouraged to continue cooperation in the exchange of OPMET data in the MID Region.

4.3.2 The meeting was apprised of the MID Regional OPMET Centre Implementation Workshop that was held in Jeddah, Saudi Arabia from 31 August 2014 to 1 September 2014. Outcomes of the workshop are provided at **Appendix 4.3A**. This Appendix provides information related to implementing a ROC that includes information on communications and hardware as well as obligations by States in the exchange of OPMET information and obligations by the ROCs for collecting OPMET information and disseminating this information inter-regionally. In addition to collecting OPMET information from the MID States as per MID FASID Table MET 2A as well as SIGMET and special air-reports and collecting EUR OPMET information as per EUR FASID Table MET 2A as well as non-routine EUR OPMET data (from IROG Vienna), ROC Jeddah would also be responsible for sending each State in the MID Region a sub-set of global OPMET data required by that State (based on users' needs). States' requirements in this regard would be communicated to ROC Jeddah by a form created at the workshop as at **Appendix 4.3B**. Sudan volunteered to provide information in coordination with ICAO and ROC Jeddah related to this form for the proper transition in providing OPMET data to ROC Jeddah and receiving OPMET data from ROC Jeddah.

4.3.3 With reference to other issues identified related to OPMET exchange, each State would receive instructions from ICAO that would:

- provide the required data as per MID FASID Table MET 2A as well as SIGMET and special air-reports to ROC Jeddah;
- eliminate multiple OPMET bulletins; and
- eliminate multiple occurrences of OPMET in multiple bulletins. Details were provided in presentation two of the workshop.

4.3.4 The implementation plan provided includes three phases with the first phase of implementation focusing on six States (Bahrain, Egypt, Kuwait, Oman, Saudi Arabia, and Sudan) by end of 2014. The second phase of implementation involves four States (Iran, Jordan, Qatar, and United Arab Emirates) by the first quarter of 2015 and the remaining States (Iraq, Lebanon, Libya, Syria and Yemen) by the beginning of the second quarter 2015.

4.3.5 A meeting was expected to occur at ROC Vienna the second half of October 2014 with Saudi Arabia, Bahrain and ICAO in order to learn about ROC operations as well as develop a draft backup plan.

4.3.6 The meeting noted issues associated with AFS communication requirements for the exchange of OPMET information between the two Regions. The current AFTN/CIDIN communication paths from Jeddah (primary ROC) and Bahrain (planned backup ROC) to Vienna support the OPMET data exchange in Traditional Alphanumeric Code (TAC) format. However, the communication paths are limited to 9.6 kilobits per second bandwidth and exclude an AMHS path. XML coded OPMET data cannot be transported by AFTN/CIDIN. Currently, no AMHS communication path between the two Regions exists. Given the fact that the data volume would

increase between 25 (compressed) and 100 (uncompressed) times from TAC to digital form, the workshop noted that a bandwidth of 150 kilobits per second to 600 kilobits per second would be needed for exchanging OPMET data in digital form. The exchange of OPMET data in digital form for METAR/SPECI, TAF and SIGMET will be recommended in 2016 and required in 2019 as per Annex 3. As a result, the workshop agreed that AMHS communication paths should be implemented in a feasible way between Jeddah, Bahrain and Vienna in preparation for the exchange of OPMET data in digital form. Given the above, the meeting agreed to the following Draft Conclusion:

DRAFT CONCLUSION 5/3: AMHS ROUTING FROM MID TO EUR REGIONS

That, the MIDANPIRG CNS Sub-Group be invited to consider developing a plan to implement AMHS communication paths between Jeddah, Bahrain and Vienna to enable the exchange of OPMET data in digital form between MID and EUR Regions.

Note: Coordination between the MIDANPIRG CNS Sub-Group and the EANPG AFSG should be performed as deemed necessary.

4.3.7 With reference to the implementation of the ICAO Meteorological Exchange Model (IWXXM), the meeting noted that inter-regional coordination was necessary as to harmonize implementation to the extent possible. The meeting noted that there was an information paper with reference to the status of implementation of IWXXM in the Asia/Pacific Region which was provided to the APAC MET SG as information paper 6. In addition, the EUR Data Management Group was developing a concept of operations on the transition to IWXXM that could be referenced by other Regions. The MID Region could consider these developments at the next Bulletin Management Group meeting (June 2015) when some documentation being developed matures.

4.3.8 The meeting agreed no changes were necessary to the terms of reference of the MID OPMET Bulletin Management Group (BMG).

REPORT ON AGENDA ITEM 4: PERFORMANCE FRAMEWORK FOR MET IMPLEMENTATION IN THE MID REGION

4.4: REVIEW AND UPDATE OF THE DRAFT MID AIR NAVIGATION STRATEGY PARTS RELATED TO MET

4.4.1 The meeting recalled that MIDANPIRG/14, through Conclusion 14/5, endorsed the ASBU Block 0 Modules prioritization Table and noted that B0-AMET was endorsed as one of the Modules with Priority 1.

4.4.2 The meeting also noted that MIDANPIRG/14 endorsed a Draft MID Air Navigation Strategy and agreed to the following Conclusion.

CONCLUSION 14/6: DRAFT MID REGION AIR NAVIGATION STRATEGY

That,

- a) the Draft MID Region Air Navigation Strategy at Appendix 4.1F to the Report on Agenda Item 4.1 be:

 - i) endorsed as the initial version of the MID Region Air Navigation Strategy; and*
 - ii) further reviewed and completed by the different MIDANPIRG subsidiary bodies**
- b) MID States be urged to:

 - i) develop their National Air Navigation Performance Framework, ensuring the alignment with and support to the MID Regional Air Navigation Strategy;*
 - ii) incorporate the agreed MID Region Performance Metrics into their National reporting and monitoring mechanisms; and**
- c) provide the ICAO MID Regional Office, on annual basis, with relevant data necessary for regional air navigation planning and monitoring.*

4.4.3 In accordance with the above, the meeting reviewed and updated the Draft MID Region Air Navigation Strategy parts related to B0-AMET, including the agreement on the performance Targets as follows:

<i>B0 – AMET: Meteorological information supporting enhanced operational efficiency and safety</i>				
<i>Elements</i>	<i>Applicability</i>	<i>Performance Indicators/Supporting Metrics</i>	<i>Targets</i>	<i>Remarks</i>
SADIS 2G and Secure SADIS FTP	<i>All States</i>	Indicator: % of States having implemented SADIS 2G satellite broadcast or Secure SADIS FTP service Supporting metric: number of States having implemented SADIS 2G satellite broadcast or Secure SADIS FTP service	93% end of 2015 100% end of 2017	Current status 14 out of 15 States

QMS	<i>All States</i>	Indicator: % of States having implemented QMS for MET Supporting metric: number of States having implemented QMS for MET	66% end of 2015 80% end of 2017	Current status 7 out of 15 States
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4.4.4 The meeting agreed that the Implementation of Meteorological Watch Offices as well as OPMET availability would not be required to be reviewed by MIDANPIRG, however, with further development could form the basis of Volume III of the electronic Air Navigation Plan.

REPORT ON AGENDA ITEM 4: PERFORMANCE FRAMEWORK FOR MET IMPLEMENTATION IN THE MID REGION**4.5: QUALITY MANAGEMENT SYSTEM**

4.5.1 The meeting recalled that Annex 3, paragraph 2.2.3 requires States to ensure that the designated meteorological authority establish and implement a properly organized quality system comprising procedures, processes and resources necessary to provide for the quality management of the meteorological information to be supplied to the users listed in Annex 3, paragraph 2.1.2.

4.5.2 The meeting recalled that implementation of Quality Management System (QMS) was a key performance indicator expressed in percentage of States in the MID Region that meet QMS provisions in Annex 3. The associated key performance indicator is described in Agenda Item 4.4.

4.5.3 The meeting was pleased to note that Saudi Arabia was certified ISO 9001 in August 2014 and that Sudan was also recently certified ISO 9001 on 5 June 2014. Therefore, 7 out of 15 States (Bahrain, Egypt, Kuwait, Qatar, Saudi Arabia, Sudan and the United Arab Emirates) have been certified ISO 9001 meeting. Iran and Jordan were also expected to be certified in the first half of 2014; however, were not present at the meeting to confirm certification. Therefore, the Secretariat would consult these two States as well as those not yet certified as to their progress on implementation. The status of implementation is provided at **Appendix 4.5A**.

4.5.4 The meeting noted that a new ISO 9001:2015 was coming in 2015 with some fundamental changes in the organization of leadership and risk management. All the States would have to prepare themselves to respond to these challenges. These developments will also require adequate funding for States to implement.

4.5.5 The meeting encouraged States to exchange information and share experience and best practices related to implementation of QMS.

REPORT ON AGENDA ITEM 4: PERFORMANCE FRAMEWORK FOR MET IMPLEMENTATION IN THE MID REGION

4.6: REVIEW OF THE MET PROVISIONS IN THE MID BASIC ANP AND FASID

4.6.1 The meeting recalled that the amendment proposals for the MID Basic ANP (Serial No. MID-BASIC 14/01-MET) and MID FASID (Serial No. MID-FASID 14/02-MET) were approved on 14 April 2014 (AN 10/5A – 14/103) and 7 April 2014 (AN 10/5A-14/092) respectively. These amendment proposals were based on States’ inputs as well as outcomes from the seventh meeting of the World Area Forecast System Operations Group (WAFSOPSG/7) and seventh meeting of the International Airways Volcano Watch Operations Group (IAVWOPSG/7). Furthermore, the meeting recalled the proposal for amendment for the MID-FASID (Serial No. MID-FASID 14/05MET) was approved on 16 July 2014 (AN 10/5A-14/192). This proposal was based on the outcome of the eighth meeting of the International Airways Volcano Watch Operations Group (IAVWOPSG/8).

4.6.2 The meeting agreed that the FASID Table MET 2C, “Exchange of Operational Meteorological Information during the Pilgrimage Season”, was still necessary and should be placed in the specific regional requirements of Volume II of the electronic Air Navigation Plan.

4.6.3 The meeting was apprised of the progress achieved in the development of the new Regional Air Navigation Plan Template and the Action Plan for the development of the eANP.

4.6.4 The meeting noted that the Secretariat WG agreed that the ANP data related to the air navigation facilities and services could be classified as: stable, dynamic or flexible. In this regard, it was agreed that the new ANP should be composed of three volumes:

- a) Volume I should contain stable plan elements whose amendment necessitated approval by the Council and these elements be related to:
 - assignment of responsibilities;
 - mandatory requirements subject to regional agreement; and/or
 - additional requirements specific to the region which are not covered in SARPs

Note. The following is a non-exhaustive list of such elements:

Flight Information Regions (FIR) boundaries (Table and Charts); Search and Rescue Regions (SRR) boundaries (Table and Charts); Volcanic Ash Advisory Centres (VAAC); Tropical Cyclone Advisory Centres (TCAC); Volcano Observatories (VO).

- b) Volume II should contain dynamic plan elements whose amendment did not n relevant PIRG) and these elements be related to:
 - assignment of responsibilities;
 - mandatory requirements subject to regional agreement; and/or
 - additional requirements specific to the region which are not covered in SARPs.

Note.-The following is a non-exhaustive list of such elements:

Major traffic flows: ATS route network; Meteorological Watch Offices (MWO); Secondary Surveillance Radar (SSR) codes; Five-letter name-codes; VOLMET Broadcasts.

4.6.5 Volume III should contain dynamic/flexible plan elements providing implementation planning guidance for air navigation systems and their modernization taking into consideration emerging programmes such as the ICAO Aviation System Block Upgrades (ASBUs) and associated technology roadmaps described in the Global Air Navigation Plan (GANP) (Doc 9750). The ANP Volume III would also include appropriate additional guidance, particularly with regard to implementation, to complement the material contained in the ANP Volumes I and II. The amendment of these elements does not require approval by the Council, nor regional agreement.

4.6.6 The meeting noted that the Council endorsed the ANP Template, which includes new procedure of amendment of the eANP. The approval of the eANP of each Region would be accomplished in accordance with the procedure for amendment.

4.6.7 The meeting recalled that MIDANPIRG/14 agreed that the MID eANP should be developed/approved as soon as possible following the Council approval of the ANP Template in accordance with the timeliness outlined in the Action Plan developed by the eANP WG. In this respect, MIDANPIRG/14 meeting agreed that the development of the MID eANP based on the Council-approved ANP Template, be included in the work programme of the different MIDANPIRG subsidiary bodies, including the ANP Ad-hoc Working Group (ANP WG), whose second meeting is tentatively scheduled for December 2014. Accordingly, MIDANPIRG/14 meeting agreed to the following Decision:

DECISION 14/24: DEVELOPMENT AND ENDORSEMENT OF THE MID eANP

That, in support to the ICAO efforts to align the Regional Air Navigation Plans (ANP) with the Fourth Edition of the Global Air Navigation Plan (GANP) (Doc9750):

- a) the development of the MID eANP based on the Council-approved ANP Template, be included in the work programme of the different MIDANPIRG subsidiary bodies; and*
- b) the relevant Parts of the MID eANP be presented, as soon as available, to MSG/4 and/or MIDANPIRG/15 for endorsement.*

4.6.8 Based on the above, the meeting agreed that the Secretariat populate the MID eANP as a matter of urgency for review by States in time for the MSG/4 meeting (November 2014) and agreed to the following Draft Conclusion:

DRAFT CONCLUSION 5/4: MID eANP – MET PARTS

That,

- a) the Secretariat populate the MID eANP – MET Volumes I and II by 30 September 2014;*
- b) distribute a) to States for comments/inputs to the ICAO MID Regional Office by 31 October 2014; and*
- c) the relevant Parts of the MID eANP be presented to MSG/4 for review and consideration.*

Note: Volume III will be addressed in due time, but it is expected that developments be presented to the MSG/4 meeting and be further addressed by the ANP WG/2 meeting (Cairo, 16-18 December 2014).

REPORT ON AGENDA ITEM 5: REVIEW OF AIR NAVIGATION DEFICIENCIES IN THE MET FIELD

5.1 The meeting reviewed the MIDANPIRG Air Navigation Deficiency Database (MANDD) on the ICAO MID website (<http://www.icao.int/MID/Pages/meetings.aspx>) and noted the inclusion of the following deficiencies at the MIDANPIRG/14 meeting: HEOW in Egypt (METAR, 30-hour TAF), ORSU in Iraq (METAR), and OSAP in Syria (METAR and 24-hour TAF).

5.2 In addition, the meeting noted that Lebanon was not listed in the SADIS Status of Implementation and consequential lack of WAFS forecasts deemed necessary for briefing and flight documentation (Annex 3 para 9.1.4, 9.3.1, 9.4.1 and Appendix 2, 2.1.1). This would result in a deficiency if not remedied by Lebanon.

5.3 With reference to quality management system as described in Agenda Item 4.5, 8 out of 15 States (Iran, Iraq, Jordan, Lebanon, Libya, Oman, Syrian Arab Republic, and Yemen) in the MID Region have not yet met the relevant requirements in Annex 3, paragraph 2.2.3. The meeting agreed that these States be included in the list of deficiencies as shown in **Appendix 5A**, and progress on implementation be reported to the MIDANPIRG/15 meeting.

5.4 The meeting also noted that the remarks section in the MANDD would indicate a reference to USOAP audits (excluding Iraq and Yemen). In addition, it was highlighted that States should submit to the ICAO MID Regional Office their action plan which should indicate elements of the implementation plan such as timeline and resources.

REPORT ON AGENDA ITEM 6: FUTURE WORK PROGRAMME

6.1 The meeting reviewed the Terms Of Reference (TORs) of the MET Sub-Group and agreed that they are still current and do not need any update.

6.3 The meeting agreed that the BMG/6 meeting would be held in June 2015 in Bahrain concurrently with MIDANPIRG/15. The MET SG/6 meeting would be held in the first half of 2016.

REPORT ON AGENDA ITEM 7: ANY OTHER BUSINESS

7.1 Nothing has been discussed under this Agenda Item.

APPENDICES

APPENDIX 2A

FOLLOW-UP ACTION PLAN ON MIDANPIRG/14 CONCLUSIONS AND DECISIONS

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
<p>DEC.14/2: UPDATE OF THE MIDANPIRG PROCEDURAL HANDBOOK</p> <p>That, the Seventh Edition of the MIDANPIRG Procedural Handbook be endorsed as at Appendix 4.1B to the Report on Agenda Item 4.1.</p>	Implement the Decision	ICAO MID	Post updated MIDANPIRG Procedural Handbook	2014	COMPLETE
<p>CONC.14/5: MID REGION AIR NAVIGATION PRIORITIES</p> <p>That,</p> <p>a) the ASBU Block 0 Modules prioritization Table at Appendices 4.1E to the Report on Agenda Item 4.1 be endorsed as the initial version of the MID ASBU Implementation Plan; and</p> <p>b) the ASBU Block 0 Modules prioritization Table be reviewed on regular basis and be extended to cover Block 1 Modules, as appropriate.</p>	Implement the Conclusion	MIDANPIRG/14	Adopt ASBU Block 0 Modules prioritization Table	Dec 2013	COMPLETE with reference to (a) ONGOING with reference to (b)
<p>CONC.14/15: MID REGION ATM CONTINGENCY PLAN</p> <p>That, the MID Region ATM Contingency Plan be endorsed as at Appendix 4.3B to the Report on Agenda Item 4.3.</p>	Implement the Conclusion	MIDANPIRG/14	Adopt MID Region ATM Contingency Plan	Dec 2013	COMPLETE
<p>DEC. 14/24: DEVELOPMENT AND ENDORSEMENT OF THE MID EANP</p> <p>That, in support to the ICAO efforts to align the Regional Air Navigation Plans (ANP) with the Fourth Edition of the Global Air</p>	Implement the Decision	ICAO MID	Update work programme of MET	2014	ONGOING (reference MET)

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
<p>Navigation Plan (GANP) (Doc 9750):</p> <p>a) the development of the MID eANP based on the Council-approved ANP Template, be included in the work programme of the different MIDANPIRG subsidiary bodies; and</p> <p>b) the relevant Parts of the MID eANP be presented, as soon as available, to MSG/4 and/or MIDANPIRG/15 for endorsement.</p>			<p>SG</p> <p>Present MET Part of the MID eANP to MET SG/5</p>	<p>September 2015</p>	<p>SG/5 draft Conclusion 5/4 – to populate the MID eANP – MET Vol I and II by 30 Sep 2014 and distribute to States for comments/inputs to ICAO MID RO by 31 October 2014)</p>
<p>CONC. 14/30: ESTABLISHMENT OF MID REGIONAL OPMET CENTRE</p> <p>That,</p> <p>a) Saudi Arabia in coordination with ICAO establish a MID Regional OPMET Centre (ROC) by the first half of 2015 to improve the regional and inter-regional OPMET efficiency;</p> <p>b) Bahrain in coordination with ICAO establish a back-up Regional OPMET Centre (ROC); and</p> <p>c) MID States be encouraged to continue cooperation in the exchange of OPMET data in the MID Region.</p>	<p>Implement the Conclusion</p>	<p>ICAO, Saudi Arabia, Bahrain as well as all MID States</p>	<p>Establishment of ROCs</p>	<p>Mid-2015</p>	<p>ONGOING (MID ROC implementation workshop developed an implementation plan to fulfil this Conclusion – reference summary of discussion of workshop)</p>
<p>DEC. 14/31: UPDATE TO BULLETIN MANAGEMENT GROUP TERMS OF REFERENCE</p> <p>That, the Terms of Reference and future work programme of the Bulletin Management Group of the MET Sub-Group be updated as at Appendix 4.7A to the Report on Agenda Item 4.7.</p>	<p>Implement the Decision</p>	<p>MIDANPIRG/14</p>	<p>Update ToRs of BMG of MET SG</p>	<p>December 2013</p>	<p>COMPLETE</p>

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
<p>CONC. 14/32: ELIMINATION OF AIR NAVIGATION DEFICIENCIES IN THE MID REGION</p> <p>That, States be urged to:</p> <p>a) use the MID Air Navigation Deficiency Database (MANDD) for the submission of requests for addition, update, and elimination of Air Navigation Deficiencies; and</p> <p>b) submit a Formal Letter to the ICAO MID Regional Office containing the evidence(s) that mitigation measures have been implemented for the elimination of deficiency(ies) when requesting the elimination of deficiency(ies) from the MANDD.</p>	Implement the Conclusion	ICAO MID States	Update MANDD State Letter	2014	ONGOING (MET SG/5 to include those States to the MANDD that have not yet implemented QMS with priority A – States expected to provide an implementation plan that should include timeline and resources)
<p>CONC. 13/56: TIMELINESS OF OPMET DATA</p> <p>That, States be notified of procedures related to METAR and TAF compilation and dissemination times as per Appendix 4.6D to the Report on Agenda Item 4.6.</p>	Implement the Conclusion	ICAO	State Letter	31 Aug 2012	COMPLETE SL AN 10/11 – 12/182 Dated 18 June 2012
<p>CONC. 13/57: REVISED TOR OF THE MET SG</p> <p>That, the Terms of Reference (ToR) of the Meteorology Sub-Group be updated as at Appendix 4.6E to the Report on Agenda Item 4.6</p>	Implement the Conclusion	MIDANPIRG	Updated TOR and Procedural Handbook	April 2012	COMPLETE

APPENDIX 3A

IAVWOPSG, METWSG and AMOFSG developments

The meeting reviewed developments related to the IAVWOPSG/8 (17 to 20 February 2014, Melbourne) meeting which produced actions agreed of interest to the Region (<http://www.icao.int/safety/meteorology/iavwopsg/Pages/default.aspx>). In particular, the *Handbook on the International Airways Volcano Watch (IAVW) – Operational Procedures and Contact List* (Doc 9766) would be updated to include: guidance for VAACs regarding collaborative decision analysis and forecasting (CDAF) process as well as adding a new paragraph concerning the dissemination of aircraft reports of volcanic ash to VAACs. In addition, regional SIGMET guides would be updated with proposed guidance material for the provision of SIGMET information for a complex volcanic ash cloud. VAACs were also expected to implement operational use of the standardized international volcano database as provided by the Smithsonian Institution to assign volcano name and number in the volcanic ash advisories.

With reference to a possible provision of volcanic ash information beyond the current T+18 hours, the VAACs will jointly develop and produce a trial T+24 hour forecast of volcanic ash clouds, to compile the results of the trial and feedback from users and report back to the IAVWOPSG/9 meeting. Allocation of forecast confidence in the remarks section of volcanic ash advisories would also go through a trial phase and report back to the IAVWOPSG/9. Also, an ad-hoc group was established to improve the dissemination of aircraft reports on volcanic ash to VAACs. With reference to space weather, an ad-hoc group would develop a *Manual on Space Weather for International Air Navigation* that should include information to support the required space weather services (as proposed in Amendment 77 to Annex 3) and their associated effects and impacts on international air navigation. The IAVWOPSG/8 meeting also endorsed version 3.0 of the concept of operations for space weather information in support of international air navigation.

The meeting also recalled the Global Database of Area Control Centre (ACC) AFTN 8-Letter Addresses for the Notification by VAAC London Concerning the Release of Radioactive Material into the Atmosphere noting entries were missing from Iraq (Baghdad and Basrah ACCs), Iran (Tehran ACC, FIC, FIR), Lebanon (Beirut ACC), and Syria (Dam ACC). These States were encouraged to provide their ACC AFTN addresses to receive notification on the release of radioactive material into the Atmosphere.

The meeting was apprised of the outcome of the METWSG/5 (20 to 21 June 2013, Montréal) and agreed that it is of interest to the Region (<http://www.icao.int/safety/meteorology/METWSG/Lists/Meetings/AllItems.aspx>); in particular, the developments of a proposal related to regional advisory centres for the issuance of SIGMET advisories that would be considered at the proposed MET Divisional Meeting in July 2014. The METWSG agreed to have a high-level strategic statement relating to the short- and long-term vision for the provision of information for hazardous meteorological conditions in time for the MET/14 meeting. Further development of a concept of operation for a regional SIGMET advisory system that would reflect the views of the users and regulatory authorities as well as the short- and long-term vision would be conducted by an ad-hoc group. Furthermore, an ad-hoc group would develop a plan for future governance and equitable cost recovery of a regional SIGMET advisory system for consideration at the MET/14 meeting.

Changes would be expected to draft Amendment 77 to Annex 3 – *Meteorological Service for International Air Navigation*, Appendix 6, Table A6-1 such that the location descriptors for volcanic ash cloud used in SIGMET messages are simplified and consolidated; the option to repeat elements location, level, movement or expected movements, changes in intensity and forecast position of the same phenomenon covering more than one area within the flight information region/control area (FIR/CTA) be removed except for a volcanic ash cloud and cumulonimbus cloud associated with a

tropical cyclone; the use of a polygon of latitude and longitude coordinates (in degrees and minutes) to describe the cumulonimbus (CB) cloud tops associated with a tropical cyclone in a SIGMET message be enabled; the use of multi-segment lines and areas between two lines in the horizontal extent to describe the location of a phenomenon in SIGMET and AIRMET messages be enabled; the application of the descriptors ENTIRE FIR and ENTIRE CTA to all phenomena warranting the issuance of a SIGMET message be enabled; and the use of SFC (surface) for the height of cloud base in AIRMET messages, be enabled.

With reference to the dissemination of special air-reports, a proposal to modify the draft Amendment 77 to Annex 3 – *Meteorological Service for International Air Navigation and consequently the Procedures for Air Navigation Service – Air Traffic Management* (PANS-ATM, Doc 4444) concerning the dissemination of special air-reports to the centres designated by regional air navigation agreement for the operation of the aeronautical fixed service (AFS) satellite distribution system and Internet-based services. Furthermore, a proposal is being developed to modify the *Procedures for Air Navigation Services – Air Traffic Management* (PANS-ATM, Doc 4444), Appendix 1, Model AIREP SPECIAL to ensure that special air-reports (downlink) to be issued also for the flight level of a volcanic ash cloud, moderate turbulence (with or without EDR) and moderate icing, thus ensuring consistency with Annex 3 – *Meteorological Service for International Air Navigation*, Appendix 3, Table A4-1 (*Template for the special air-report (downlink)*).

The meeting was apprised of the outcome of the AMOFSG/10 (17 to 19 June 2013, Montréal) and agreed that it is of interest to the Region (<http://www.icao.int/safety/meteorology/amofsg/Lists/Meetings/AllItems.aspx>); in particular, the numerous proposals to modify Annex 3 as part of draft Amendment 77 such as updating the application of time averaging criteria used in aerodrome local reports; introducing a definition for a meteorological watch office and amends the definition of SIGMET information; possible inclusion of provisions related to crosswind and headwind/tailwind information, including for gusts; modification to runway light intensity used in runway visual range assessment; modify reporting of showers in automated local routine and special reports and METAR and SPECI whereby when showers cannot be determined based upon a method that takes account of the presence of convective cloud, the precipitation should not be characterized by showers (SH); ensure that only one weather phenomena is represented per recent weather group in the supplementary information of local routine and special reports and METAR and SPECI; modification to the siting of instrumented systems used for the measurement of cloud amount and height of cloud base at aerodromes; representation of midnight in TAF as 00 instead of 24; and possibly updating required transit times of meteorological information.

APPENDIX 4.3A

ROC Implementation Workshop Outcomes

1. General

The MID Regional OPMET Centre (ROC) implementation workshop was held in Jeddah, Saudi Arabia from 31 August 2014 – 1 September 2014 and hosted by the Presidency of Meteorology and Environment (PME) of Saudi Arabia. 26 participants from 4 States (Austria, Kuwait, Saudi Arabia, and Sudan) and ICAO attended the workshop. Presentations related to OPMET exchange and the role of Regional OPMET Centres were provided by Austria and ICAO that included a general overview, existing guidance material used in EUR, MID OPMET traffic and suggested optimized routing, AFTN/CIDIN/AMHS Working Groups, AMC (ATS Messaging Management Centre), first draft implementation plan for States and ROCs, and transition from TAC to IXWWM. In addition, Sudan provided a presentation on the collection and distribution of OPMET data. The presentations provided the background information necessary to discuss in more detail an implementation plan.

2. Implementation Plan

Implementation issues were composed of the following parts: communications, hardware, MET information required and method of dissemination as well as deficiencies identified in current OPMET exchange. Each was examined in more detail as provided below.

Communications

- Lines of communication between Vienna and Jeddah (Bahrain backup) exist, however, the following issues were identified:
 - Current network would not allow for the exchange of OPMET data in digital form (AvXML) which would require a bandwidth of approximately 25 times what is currently needed (660 kbs)
 1. A draft Conclusion* for MET SG/5 will be formulated as to implement AMHS in a feasible way from Jeddah, Bahrain to Vienna to be considered by the MID CNS sub-group which meets the week of 8 September 2014. Coordination with the appropriate EUR CNS group may be necessary.
 - States should be aware that cost is associated with upgrading lines.

*details of draft Conclusion provided at the end of this Appendix

Hardware (currently at ROC Vienna)

- 2x HP ProLiant G6;
- Storage MSA2000, 4x 146 GigaByte disks;
- Interfaces
 - AFTN over IP
 - WMO TCP Socket

- Oracle Database
 - Compilation of bulletins
 - Reply to RQM/requests
- Message throughput (measured)
 - 20 messages/second
- Current practices at a ROC is to accept the cost of the hardware (which is minimal) and to monitor the results of MET Divisional Meeting 2014 recommendation that relates to cost recovery for regional services

MET information required and method of dissemination

MID OPMET Data Collection by ROC Jeddah

- Each State in the MID Region should route OPMET data as required by MID FASID Table MET 2A as well as SIGMET and special air-reports to ROC Jeddah at the specific AFTN address OEZMMIV and ROC Bahrain at the AFTN address OBBIxxxx
 - ROC Jeddah and ROC Bahrain to provide AFTN addresses for receipt of the above data from the National OPMET Centres in the MID Region.
 - The bulletins could use the country code (Kuwait – KW), but the States of concern may agree that an area code be used, which must be in accordance with WMO Doc 386. The number of aerodromes provided in a bulletin should be limited as not to exceed the maximum 2,100 characters allowed.
 - The bulletins should be numbered between 01-39 for OPMET data listed in MID FASID Table MET 2A.
 - ROC Jeddah monitors the completeness of received OPMET data to the specific AFTN address. Centre – to avoid duplication of data used during a trial period as to avoid the complication of having more than one bulletin at a ROC.

OPMET Data Distribution to MID States by ROC Jeddah

- ROC Jeddah distributes to each State in the MID Region a **subset** of global OPMET data, which is required in the respective State. Each State should request its required OPMET data from ROC Jeddah using a prepared form that will be distributed in due time.
 - Each State will provide a list of OPMET information they need that is listed in the global FASID Table MET 2A.
 - If ROC Jeddah needs updated OPMET information from APAC Region, coordination with ICAO and RODB Bangkok will be performed (likewise from NAM Region, coordination with RODB Washington; SAM Region, coordination with Brazil; AFI Region coordination with Dakar or Pretoria).

MID OPMET Data Distribution to EUR Region

- Step 1: IROG Jeddah forwards the MID OPMET data (FASID Table MET 2A) as well as SIGMET and special air-reports received in the MID Region to IROG Vienna at the trail AFTN address of LOZZXMID. This will avoid the duplication of bulletins during the transition phase. Additionally, it enables Vienna to monitor the completeness of reception from Jeddah.
- Step 2: Other MID States should stop submitting their OPMET data to the EUR Region (currently Bahrain, Egypt, Iran, Lebanon, Iraq and Syria). IROG Jeddah will submit all MID data to LOZZMMID.
 - To include in implementation plan for Bahrain, Egypt, Iran, Lebanon, Iraq and Syria by ICAO Secretariat

EUR OPMET Data Distribution to MID Region

- IROG Vienna sends EUR OPMET data (FASID Table MET 2A) as well as non-routine data such as SIGMET, AIRMET, special air-reports, and volcanic ash advisories to IROG Jeddah at the specific AFTN address of OEZZMEUR (as well as to the Backup Centre Bahrain OBBIxxxx). The use of a specific address for EUR OPMET data enables Jeddah to monitor the completeness of reception from Vienna.
- Step 2: IROG Vienna stops sending EUR OPMET data to other MID States (currently Iran, Kuwait and Yemen). ROC Jeddah will provide required EUR OPMET data (subset requested) as well as the non-routine data mentioned (subset requested) to all MID States.

OPMET Deficiencies

- Each State in the MID Region should follow instructions provided by ICAO (**Appendices** to presentation 2), where applicable, to:
 - Eliminate duplicate bulletins
 - Eliminate multiple occurrence of OPMET data in multiple bulletins
 - Provide OPMET data as required in MID FASID Table MET 2A

3. Implementation Plan

- The following implementation plan to complete the above was agreed at the workshop:
 - ICAO and Sudan with the support of ROC Vienna to provide a trial State implementation form for the development of ROC by end of September.
 1. Identify issues related to this form – if there are any, correct them before issuing to the other States in the first phase
 - Second half October 2014, visit/meeting to ROC Vienna by Saudi Arabia and Bahrain (backup procedures to be drafted which could entail a lag in implementation by the backup ROC).

- End of 2014: Bahrain, Egypt, Kuwait, Oman, Saudi Arabia, Sudan.
- 1stqtr 2015: Iran, Jordan, Qatar, United Arab Emirates
- Beginning of 2ndqtr 2015: Iraq, Lebanon, Libya, Syria, Yemen
- 2016: consider the need of implementing a possible translator from TAC to IWXXM at ROC and backup ROC

4. Conclusions

A ROC Implementation plan was developed at the ICAO MID ROC implementation workshop. Provided each State and ROCs implement their tasks, the first series of States (Bahrain, Egypt, Kuwait, Oman, Saudi Arabia, and Sudan) should be providing their OPMET information to ROC Jeddah (and Bahrain as backup) before the end of 2014. A second series of States should have this process complete by April 2015. The remaining States should have this process complete by the beginning of the 2nd quarter of 2015 to enable the ROC to become operational, preferably by MIDANPIRG/15 (June 2015).

MET SG/5 draft Conclusions

The ICAO Regional OPMET Centre (ROC) Implementation Workshop held in Jeddah, Saudi Arabia from 31 August to 1 September 2014 identified issues associated with AFS communication requirements for the exchange of OPMET information between the two Regions. The current AFTN/CIDIN communication paths from Jeddah (primary ROC) and Bahrain (planned backup ROC) to Vienna support the OPMET data exchange in Traditional Alphanumeric Code (TAC) format. However, the communication paths are limited to 9.6 kbs bandwidth and exclude an AMHS path. AvXML coded OPMET data cannot be transported by AFTN/CIDIN. Currently, no AMHS communication path between the two Regions exists. Given the fact that the data volume would increase between 25 (compressed) and 100 (uncompressed) times from TAC to digital form, the workshop noted that a bandwidth of 150 kbs to 600 kbs would be needed for exchanging OPMET data in digital form. The exchange of OPMET data in digital form for METAR/SPECI, TAF and SIGMET will be recommended in 2016 and required in 2019 as per Annex 3. As a result, the workshop agreed that AMHS communication paths should be implemented in a feasible way between Jeddah, Bahrain and Vienna in preparation for the exchange of OPMET data in digital form. As a result, the MET SG/5 meeting is invited to consider the following Draft Conclusion:

***DRAFT CONCLUSION 5/XX: AMHS ROUTING FROM MID TO EUR
REGIONS***

That, the MIDANPIRG CNS Sub-Group be invited to consider developing a plan to implement AMHS communication paths between Jeddah, Bahrain and Vienna to enable the exchange of OPMET data in digital form between MID and EUR Regions.

Note: Coordination between the MIDANPIRG CNS Sub-Group and the EANPG AFSG should be performed as deemed necessary.

APPENDIX 4.3B

MID ROC WORK PACKAGE

MID-ROC Work Package					
MRWP Title:	Transition of NOC xxxx				
Project Manager:					
	Phone:		E-Mail		
Reporting Frequency:	Monthly	Date:	xx/xx/xx	MRWP Version:	1
MRWP Start Date:	xx/xx/xx	MRWP Finish Date:	xx/xx/xx	MRWP Duration:	x days

Contact Information			
Role:	Name:	Phone	E-Mail
MRWP Manager Jeddah			
MRWP Manager Khartoum			
ROC Jeddah	Operator		
NOC Khartoum	Operator		
?I/R-contacts?			

Transition Part 1

MRWP Part 1/1: OPMET Data provided by NOC (to be filled in by NOC)					
TT	CCCC	Header	AOP (Y/N)	International AFTN-Addresses the bulletin is sent to	
				AFTN	GTS
SA	HSKA		Y		
SA	HSSS	SAAF32 HECA	Y		
FT	HSSS	FCSU31 HSSS FTAF39 HECA	Y		
SA	HSOB		N		
FT	HSOB	FCSU31 HSSS	N		
SA	HSPN		Y		
WS	HSSS				
WA	HSSS				
UA	----				
FA	HSSS				

MRWP Part 1/2: Routing Test			
ROC Jeddah to set up routing for OPMET data actually not received to Vienna IROG Test-address LOZZXMID			
Done:	(Yes/No)	Comments:	
NOC to activate routing of actually not send OPMET data to Jeddah Test-address (OEJNxxxx) as well as to B-ROC (Backup-ROC) Bahrain (OBBIxxxx)			
Done:	(Yes/No)	Comments:	
Vienna to check reception of OPMET data.			
Reception O.K.:	(Yes/No)		
Experienced problems:			
Co-ordinated date to switch to operational address LOZZMMID:	xx/xx/xx		

4.3B-3

MRWP Part 1/3: Co-ordination with centres to which NOC is providing OPMET-data directly			
Contact details of centre <i>(if in other ICAO-regions contact I/R-Gateway)</i>	Bulletin provided by NOC	Co-ordinated transition date	Done? (Y/N)
		xx/xx/xxxx	

MRWP Part 1/4: Co-ordination with other regions		
Region	Co-ordinated transition date	Done? (Y/N)
AFI		
ASIA/PAC		
NAM		
CAR/SAM		

MRWP Part 1/5: The routing information for all OPMET data from the NOC has to be shared with BROC Bahrain to enable the preparation of the backup routing in case of a ROC Jeddah failure.

Transition Part 2

MRWP Part 2/1: Actual received OPMET data by NOC (to be filled in by NOC)			
Bulletin Header TTAAii CCCC	Received from	Bulletin includes FASID MET 2-A data (for routine data only) (Y/N)	Received by ROC (Y/N)

MRWP Part 2/2: Co-ordination with centres providing data to NOC the transition					
Contact details of centre (if in other ICAO-regions contact I/R- Gateway)	Bulletin provided to NOC	Received by ROC? (Y/N)	Received by B-ROC? (Y/N)	Co-ordinated transition date	Done? (Y/N)
				xx/xx/xxxx	

MRWP Part 2/3: The routing information for all OPMET sent to the NOC has to be shared with BROCC Bahrain to enable the preparation of the backup routing in case of a ROC Jeddah failure.

Transition Part 3

Required Routine Data <i>(filled in by NOC)</i>		Result of investigation by ROC Jeddah			
Data Type	Location Indicator	In FASID MET-2A (Y/N)	Data available (Y/N)	Made available at	Comments
				xx/xx/xx	

Required Non-Routine Data <i>(filled in by NOC)</i>		Result of investigation by ROC Jeddah		
Data Type	FIR Indicator	Data available (Y/N)	Made available at	Comments
			xx/xx/xx	

Inform BROCC Bahrain about any new data or changes to the routing table!

MID-ROC Work Package Form

1. Introduction

To support the implementation of the ROC (Regional OPMET Centre) in Jeddah as well as the Backup ROC in Bahrain, a form has been developed and presented to the participants of the "Regional OPMET Center Workshop" in Jeddah (31st August to 1st September 2014). This form shall make it easier for the involved centers to be aware of the necessary routing changes within MID-region as well as to keep track of the transition. It should also make it easier to identify necessary co-ordination with involved centers apart from the ROC and a certain NOC.

For each NOC a separate form has to be filled, in order to not mix up different issues with different centers.

This paper can be seen as guidance for using the form. As the actual version of the form is a first draft, the structure and content may still change in order to make it more efficient and easier to use.

2. How the form is structured

The form consists of 4 major parts.

- The first part is just an overview of the involved persons for the transition
- The second part (Transition Part 1) takes care of the OPMET data produced by the NOC
- The third part (Transition Part 2) takes care of the OPMET data received (currently?) by a NOC
- The fourth part (Transition Part 3) takes care of new requirements by a NOC for OPMET data

Following those parts will be described in detail.

2.1 General Part of the Form

As already stated above, this part of the format holds information about the persons involved in the transition. It also contains some dates and version numbering. Following the different fields will be explained.

MRWP: The abbreviation MRWP, used several times in the form, stands for MID-ROC Work Package. As well as the rest of this form, also this title could be changed if found to be not suitable.

Project Manager: It is assumed that there will be a project manager for the whole transition. The manager is the one to have the overview of the whole project and will keep track of the status of the work packages (WP). It is possible to have more than one WP active at the same time and worked on in parallel. If there is a need to report about the actual status and progress of the transition, the project manager is the one to provide this information. The information to be entered for this position are

- Name
- Phone Number
- E-mail address

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Reporting Frequency: A reporting frequency could be defined. This can range from some days up to a month.

Date: This is the actual date when a new version of the form (new entries have been added) is generated. New versions shall be exchanged between all involved people, and always include the Project Manager.

MRWP Version: The version of the transition form

MRWP Start Date: The date when work on transition starts. Most probably when the NOC fills in data in MRWP Part 1/1.

MRWP Finish Date: Represents the intended date to finish the transition .

MRWP Duration: Days between Start and Finish Date

Contact Information: There are several entries in that table which are important in regard to the co-ordination between the ROC and the involved center. Especially the two MRWP-Manager shall maintain close co-ordination.

- **MRWP Manager Jeddah:** Contact details of the person coordinating all necessary steps at the ROC Jeddah and with the NOC in order to progress on the transition.
- **MRWP Manager NOC:** The contact-details of the person responsible for providing all necessary information from the NOC, acting also as a focal point for all other issues arising at the NOC
- **ROC Jeddah:** Contact details of the operational ROC staff which could be contacted in case of problems. Probably this information is already available at the NOC
- **NOC:** Contact details of the operational NOC staff which could be contacted in case of problems. Probably this information is already available at the ROC
- **I/R-Contacts:** As also centers of other regions may get involved, the idea was to have the contact details of the I/R-Gateways listed here. As those will not change throughout the whole transition phase, those might as well be kept in a different place, known by all involved persons.

2.2 Transition Part 1

MRWP Part 1/1: OPMET Data provided by NOC (to be filled in by NOC)

This table has to be filled in by the NOC. It shall contain all OPMET data that is actually produced (SA, SP, FC, FT, WS, WV, WC, WA, FA, UA). In regard to the routine OPMET data the list shall be limited to those locations listed in the FASID Table MET 2-A. There is no limitation in regard to the non-routing OPMET data. ROC Jeddah might already fill in the required data as indicated in FASID Table MET 2-A.

Very important information is to be provided in the last column "International recipients the bulletin is sent to". The column is divided in two parts. On the left side all AFTN-addresses shall be indicated to which the bulletin is sent. The right side may not be applicable for all NOCs if only AFTN is used to exchange OPMET-data. In case also GTS is involved, the NOC shall indicate all GTS-centers to which the bulletin is sent.

This information is important as ROC Jeddah will take over the responsibility to provide the OPMET-data to those recipients. In case of GTS-centres involved, investigations have to take place to find possible solutions by using AFTN.

MRWP Part 1/2: Routing Test

As already stated in the title, this part can be used to keep track of the routing and especially the testing of the good reception of the OPMET data from the NOC at ROC Jeddah as well as IROG Vienna.

After the NOC has provided the Part 1/1, ROC Jeddah as well as BROC (Backup ROC) Bahrain shall update their routing tables with the new bulletin headers. ROC Jeddah will define a routing to the test AFTN-address of IROG-Vienna (LOZZXMID). BROC Bahrain shall keep it only internally and shall not send it to any recipient.

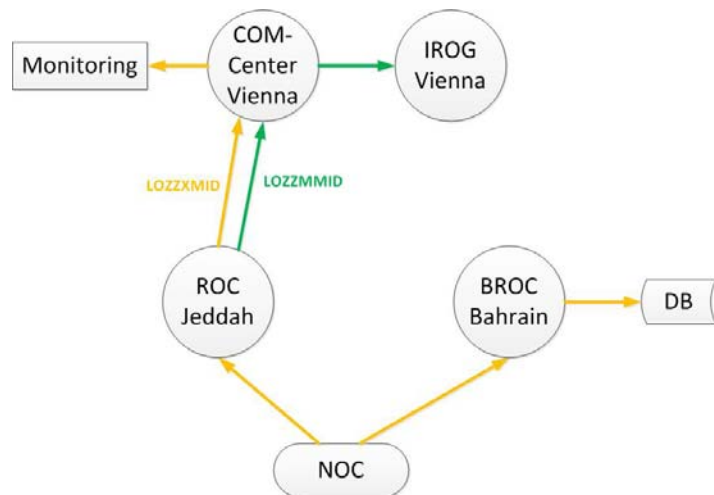
Using the above IROG Vienna test address prevents any double reception at the Vienna MET-switch as the data will only be sent to a monitoring tool. If one or more bulletins in Part 1/1 are already received by ROC Jeddah and forwarded on to IROG Vienna, this may be indicated in the "Comment" field. This field might be used for all other problems or important information the MRWP-Manager wants to log.

Once the routing is in place, the NOC shall activate the routing of the OPMET bulletins not sent till now to ROC Jeddah and BROC Bahrain.

Final stage of Part 1/2 is for IROG Vienna to check the reception of the new data and to give feedback to ROC Jeddah.

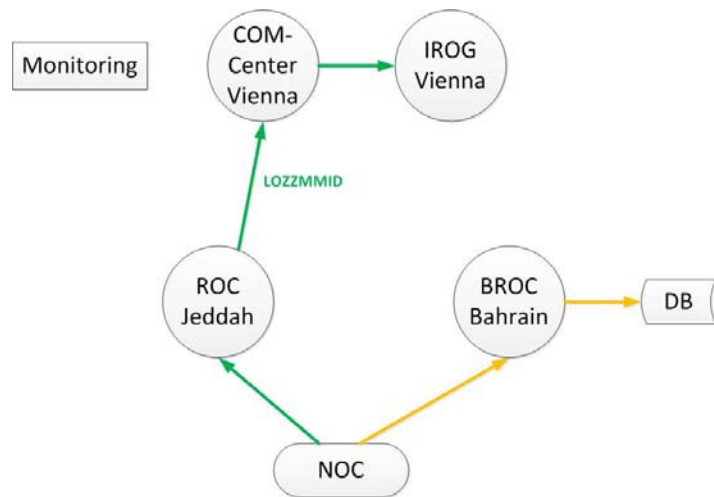
Any experienced problems can be logged in the last field of Part 1/2 .

The following picture shows the situation at that moment.



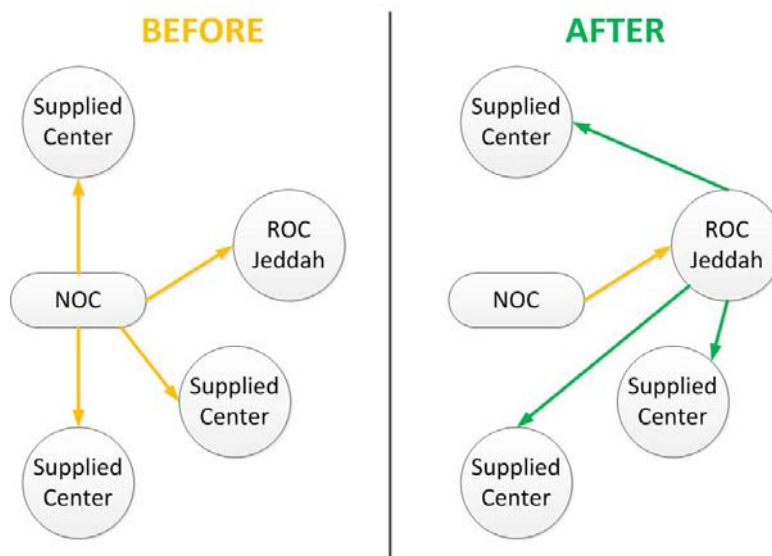
As soon as ROC Jeddah and IROG Vienna agree that no problems exist with the new data, a date will be co-ordinated to switch to the operational IROG-Vienna AFTN-address LOZZMMID. This implies no changes for BROC Bahrain.

4.3B-9



MRWP Part 1/3: Co-ordination with centres to which NOC is providing OPMET-data directly

Behind this long title hides a lot of work. Based on the list provided by the NOC in Part 1/1, ROC Jeddah has to contact all centers to co-ordinate a date for the provision of the data by ROC Jeddah instead of the NOC. This date has also to be co-ordinated with the NOC. At the defined date, at a defined time, the NOC shall stop sending the OPMET data to the certain center whereas ROC Jeddah will start to send the data. Only after the center has confirmed that all data is received from ROC Jeddah without problems, the last column in Part 1/3 can be marked as "Done". If any non-routine data is involved, ROC Jeddah might ask the NOC to issue a test message in order to check the routing.



MRWP Part 1/4: Co-ordination with other regions

Finally the other ICAO-regions might be informed about the new available data by ROC Jeddah. This whole part may also be shifted to be handled before the "Transition Part 3" or even be

indicated as a separate Part as not only new data has to be co-ordinated with ICAO-regions but also all FASID MET 2-A data per region as well as the non-routine data should be received from there.

MRWP Part 1/5: Share routing information with BROCC Bahrain

BROCC Bahrain shall take over the collection as well as the dissemination of OPMET data in case ROC Jeddah fails for a longer period of time. Therefore ROC Jeddah shall send the routing information in an agreed format to BROCC Bahrain, enabling them to prepare the routing in their system to be activated in such a situation only.

2.3 Transition Part 2

The "Transition Part 2" again starts with homework for the NOC.

MRWP Part 2/1: Actual received OPMET data by NOC

The NOC shall insert all bulletin headers they receive from outside their country. Those could be received from NOCs within the MID or even other ICAO-regions. If the NOC wants to help ROC Jeddah, the MRWP Manager of the NOC will already indicate whether the listed routine data bulletins include FASID MET 2-A data or not. In case a bulletin includes only not required OPMET data, ROC Jeddah will not take over the responsibility to provide this bulletin to the NOC. The actual provision on bilateral basis shall be continued.

ROC Jeddah has to check whether the listed bulletins are already received. If not, co-ordination has to take place with the originator. To document this procedure MRWP Part 2/2 shall be used.

As MRWP Part 2/1 & Part 2/2 hold nearly the same information, those two tables might be combined.

The goal is to contact the originator to

- have the OPMET data sent to ROC Jeddah and BROCC Bahrain (if not already received)
- co-ordinate a date & time when ROC Jeddah will take over the responsibility to provide the OPMET data to the NOC

MRWP Part 2/3: Share routing information with BROCC Bahrain

ROC Jeddah shall send the routing information in an agreed format to BROCC Bahrain, enabling them to prepare the routing in their system to be activated in a backup situation.

2.4 Transition Part 3

This part enables the NOC to indicate OPMET data (routine and non-routine) for which a requirement exists at the NOC but which is not received by now.

4.3B-11

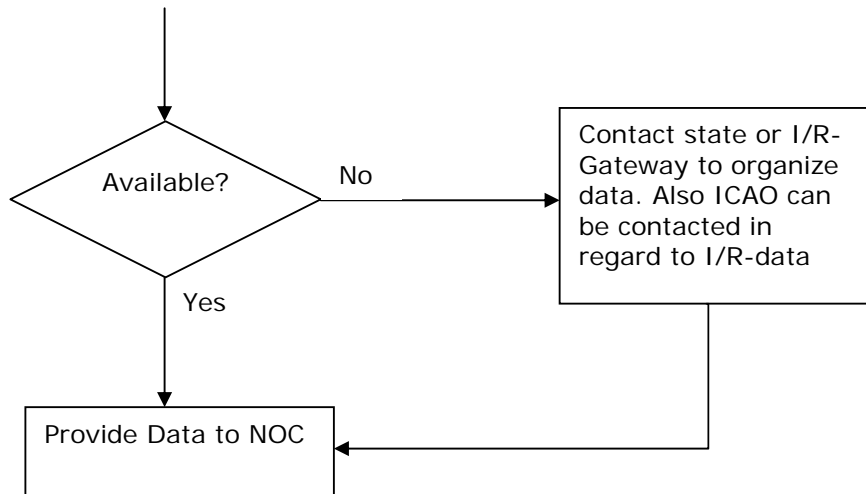
In regard to the routing OPMET data ROC Jeddah has to check whether those are in FASID Table MET 2-A. Once that has been done it shall be checked whether the data is available at ROC Jeddah. If not, co-ordination has to take place with the responsible state within the MID-region or with the applicable IROG-Gateway of the ICAO-region the state is located in.

If ROC Jeddah was able to organize the data, the date of provision to the NOC shall be entered in the table and the NOC informed.

In case it was not possible to organize the data, the reason (if known) shall be entered and the NOC informed.

Each time a new routing is implemented this shall be indicated to BROCC Bahrain enabling them to update their backup-routing table.

In case of new OPMET-data received it shall be organized that the data is also sent to BROCC Bahrain.



APPENDIX 4.5A

STATUS OF QUALITY MANAGEMENT SYSTEM IMPLEMENTATION IN MID REGION

State	Status	Implementation/Certification Date	Planned Implementation Date
MID Region			
Bahrain	QMS implemented	2008	
Egypt	QMS implemented	23 May 2012	
Iran, Islamic Republic of	Near completion		Expected Feb 2014
Iraq			Implementation plan not received
Jordan	Near completion		Expected Apr 2014
Kuwait	QMS implemented	23 Aug 2013	
Lebanon			Implementation plan not received
Libya			Implementation plan not received
Oman	New organizational structure, expects to make progress by end of year – possibly 80% completed by end of 2014		TBD
Qatar	QMS implemented	Dec 2011	
Saudi Arabia	QMS implemented	Aug 2014	
Sudan	QMS implemented	5 June 2014	
Syrian Arab Republic			Implementation plan not received
United Arab Emirates	QMS implemented	19 Dec 2012	
Yemen			Implementation plan not received

APPENDIX 5A

Deficiencies in the MET Field

BAHRAIN

Item No	Identification		Deficiencies			Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination	Description	Executing Body	Date of Completion	Priority for Action
No Deficiencies Reported									

⁽¹⁾ Rationale for non-elimination: “F”= Financial

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

Deficiencies in the MET Field

EGYPT

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	MID FASID Table MET 1A	HEOW METAR and 30-hour TAF	HEOW METAR and 30-hour TAF not available internationally	Nov, 2013	newly reported	O	HEOW-OPMET Data to be routed to ROC Vienna (LOZZMMID) No Corrective Action Plan submitted by the State	Egypt	May, Dec. 2014	A

⁽¹⁾ Rationale for non-elimination: “F”= Financial

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

Deficiencies in the MET Field

IRAN

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	QMS – MET Para 2.2 of Annex 3	Meteorological information to be supplied to users listed in 2.1.2 of Annex 3	Confirmation of QMS for MET not yet received	Sep, 2014	(USOAP-CMA finding)	O	No Corrective Action Plan submitted by the State	Iran	Dec. 2015	A

⁽¹⁾ Rationale for non-elimination: “F”= Financial

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

Deficiencies in the MET Field

IRAQ

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	MID-FASID Table MET-1A	ORSU METAR	ORSU METAR not available internationally	Nov, 2013	newly reported	⊖	ORSU METAR to be routed to ROC Vienna (LOZZMMID)	Iraq	21 Sep 2014 <i>Confirmed receipt of OPMET at ROC Vienna</i>	A
2	QMS – MET Para 2.2 of Annex 3	Meteorological information to be supplied to users listed in 2.1.2 of Annex 3	Confirmation of QMS for MET not yet received	Sep, 2014	-	O	No Corrective Action Plan submitted by the State	Iraq	Dec. 2015	A

⁽¹⁾ Rationale for non-elimination: “F”= Financial

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

Deficiencies in the MET Field

JORDAN

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	QMS – MET Para 2.2 of Annex 3	Meteorological information to be supplied to users listed in 2.1.2 of Annex 3	Confirmation of QMS for MET not yet received	Sep, 2014	(USOAP-CMA finding)	O	No Corrective Action Plan submitted by the State	Jordan	Dec. 2015	A

⁽¹⁾ Rationale for non-elimination: “F”= Financial

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

Deficiencies in the MET Field

KUWAIT

Item No	Identification		Deficiencies			Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination	Description	Executing Body	Date of Completion	Priority for Action
No Deficiencies Reported									

⁽¹⁾ Rationale for non-elimination: “F”= Financial

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

Deficiencies in the MET Field

LEBANON

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
I	QMS – MET Para 2.2 of Annex 3	Meteorological information to be supplied to users listed in 2.1.2 of Annex 3	Confirmation of QMS for MET not yet received	Sep, 2014	(USOAP-CMA finding)	O	No Corrective Action Plan submitted by the State	Lebanon	Dec. 2015	A

⁽¹⁾ Rationale for non-elimination: “F”= Financial

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

Deficiencies in the MET Field

OMAN

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	QMS – MET Para 2.2 of Annex 3	Meteorological information to be supplied to users listed in 2.1.2 of Annex 3	Confirmation of QMS for MET not yet received	Sep, 2014	(USOAP-CMA finding)	O	No Corrective Action Plan submitted by the State	Oman	Dec. 2015	A

⁽¹⁾ Rationale for non-elimination: “F”= Financial

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

Deficiencies in the MET Field

QATAR

Item No	Identification		Deficiencies			Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination	Description	Executing Body	Date of Completion	Priority for Action
No Deficiencies Reported									

⁽¹⁾ Rationale for non-elimination: "F"= Financial

"H"= Human Resources

"S"= State (Military/political)

"O"= Other unknown causes

Deficiencies in the MET Field

SAUDI ARABIA

Item No	Identification		Deficiencies			Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination	Description	Executing Body	Date of Completion	Priority for Action

No Deficiencies Reported

⁽¹⁾ Rationale for non-elimination: “F”= Financial

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

Deficiencies in the MET Field

SYRIA

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	MID FASID Table MET 1A	OSAP METAR and 24-hour TAF	OSAP METAR and 24-hour TAF not available internationally	Nov, 2013	newly reported	O	OSAP-OPMET data to be routed to ROC Vienna (LOZZMMID) No Corrective Action Plan submitted by the State	Syria	Aug, 2014 Dec. 2014	A
2	QMS-MET Para 2.2 of Annex 3	Meteorological information to be supplied to users listed in 2.1.2 of Annex 3	Confirmation of QMS for MET not yet received	Sep, 2014	(USOAP-CMA finding)	O	No Corrective Action Plan submitted by the State	Syria	Dec. 2015	A

⁽¹⁾ Rationale for non-elimination: “F”= Financial

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

Deficiencies in the MET Field

UAE

Item No	Identification		Deficiencies			Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination	Description	Executing Body	Date of Completion	Priority for Action

No Deficiencies Reported

⁽¹⁾ Rationale for non-elimination: “F”= Financial

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

Deficiencies in the MET Field

YEMEN

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	QMS-MET Para 2.2 of Annex 3	Meteorological information to be supplied to users listed in 2.1.2 of Annex 3	Confirmation of QMS for MET not yet received	Sep, 2014	-	O	No Corrective Action Plan submitted by the State	Yemen	Dec. 2015	A

⁽¹⁾ Rationale for non-elimination: “F”= Financial

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

Note:* Priority for action to remedy a deficiency is based on the following safety assessments:

'U' priority = Urgent requirements having a direct impact on safety and requiring immediate corrective actions.

Urgent requirement consisting of any physical, configuration, material, performance, personnel or procedures specification, the application of which is urgently required for air navigation safety.

'A' priority = Top priority requirements necessary for air navigation safety.

Top priority requirement consisting of any physical, configuration, material, performance, personnel or procedures specification, the application of which is considered necessary for air navigation safety.

'B' priority = Intermediate requirements necessary for air navigation regularity and efficiency.

Intermediate priority requirement consisting of any physical, configuration, material, performance, personnel or procedures specification, the application of which is considered necessary for air navigation regularity and efficiency.

Definition:

A deficiency is a situation where a facility, service or procedure does not comply with a regional air navigation plan approved by the Council, or with related ICAO Standards and Recommended Practices, and which situation has a negative impact on the safety, regularity and/or efficiency of international civil aviation.

⁽¹⁾ Rationale for non-elimination: “F”= Financial

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

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