

INTERNATIONAL CIVIL AVIATION ORGANIZATION



**AFI PLANNING
AND IMPLEMENTATION REGIONAL GROUP (APIRG)**

**REPORT OF THE FOURTH MEETING OF THE
AFI OPMET MANAGEMENT TASK FORCE (AFI MTF/4)**

(Pretoria, South Africa, 10 - 11 September 2012)

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of ICAO concerning the legal status of any country, territory, city or area of its authorities, or concerning the delimitation of its frontiers or boundaries.

TABLE OF CONTENTS

TABLE OF CONTENTS	iii
LIST OF RECOMMENDATIONS	iv
LIST OF DECISIONS	v
PART 1 - HISTORY OF THE MEETING	1
1.1 Date and Site of the Meeting.....	1
1.2 Officers and Secretariat	1
1.3 Attendance.....	1
1.4 Working Languages.....	1
1.5 Agenda	2
1.6 Documentation and working Language.....	2
1.7 Recommendations.....	2
PART II- REPORT ON THE AGENDA	3
Agenda Item 1: Election of Chairman and Vice-Chairman of the Subgroup.....	3
Agenda Item 2: Review of the AFI OPMET MTF/3 Report	3
Agenda Item 3: Provision of tropical cyclone and volcanic ash for the AFI Region and of the corresponding SIGMET by MWOs and Review of report on SIGMET Tests conducted in November 2011	4
Agenda Item 4: Review of regional guidance material on OPMET exchange.....	4
Agenda Item 5: Future developments	10
Agenda Item 6: Terms of reference, work programme and composition of the AFI OPMET MTF..	11
Agenda Item 7: Any other business.....	12

LIST OF RECOMMENDATIONS

Number		Page
4/03	Arrangements between adjacent WMOs for the provision of SIGMET information	4
4/04	Updating of AFI Regional SIGMET	5
4/09	Monitoring of OPMET bulletins in coordination with ROC Toulouse	7
4/10	Increasing the availability of OPMET information to users in AFI and ICAO regions	8
4/11	Implementation of Special air Reports	8
4/15	Development of capabilities of handling OPMET information in digital format	11

LIST OF DECISIONS

Number		Page
4/01	Participation of AFI RODBs in Regular EUR SIGMET Tests	3
4/02	Review of Previous OPMET Related APIRG Conclusions and Decisions	3
4/05	Improving the annual RODBs implementation Status Report	6
4/06	Updating of the list of AFI AMBEX Focal points through invitation letter	6
4/07	Updating of the list of AFI AMBEX Focal Points through the invitation letter	6
4/08	Establishment of a core team to review the AMBEX Scheme	7
4/12	Finalizing AFI OPMET Data catalogue	9
4/13	Developing of AFI RODBs Back up Procedures	10
4/14	Transition towards Table-Driven Data Representation for OPMET	11
4/16	Future work programme of the MTF	12
4/17	Venue for the AFI OPMET MTF Meetings	12

PART 1 - HISTORY OF THE MEETING

1.1 Date and Site of the Meeting

1.1.1 The fourth meeting of the AFI OPMET Management Task Force (MTF/4) was held in Pretoria, South Africa at the Jemea Manor Guest House through the courtesy of the South African Weather Service. The meeting was held from 10 to 11 September 2012.

1.2 Officers and Secretariat

1.2.1 Ms. G.E. Khambule, Senior Manager, Aviation Weather Centre, South African Weather Service opened the meeting on behalf of the CEO of the South African Weather Service, Dr. Linda Makuleni who was not able to attend the opening ceremony due to prior commitments of equal importance.

1.2.2 In her opening remarks, Ms. Khambule expressed appreciation to the participants for attending the meeting and to their respective administrations for availing resources that enabled them to attend. She recalled that this was the second time the Task Force was meeting in South Africa in the last three years and noted that it reflected the confidence and honour the Task Force and ICAO in general bestowed upon South Africa.

1.2.3 Ms. Khambule reminded the meeting that the main objective of the OPMET Management Task Force (OPMET MTF) was to enhance operational meteorological (OPMET) information exchange in the AFI Region and adjacent regions by regularly reviewing the OPMET exchange scheme and developing proposals for their optimization. She underscored the importance of commitment of the Force to the exercise for realization of concrete results.

1.2.4 Mr. Vitalis Ahago, Regional Officer, Aeronautical Meteorology, ICAO Eastern and Southern African Office, Nairobi, Kenya, served as the Secretary assisted by Mr. Benoit Okossi, Regional Officer, Aeronautical Meteorology, ICAO Western and Central African Office, Dakar, Senegal.

1.3 Attendance

1.3.1 The meeting was attended by fourteen (12) participants from four (4) Member States.

1.3.2 The list of participants is at **Appendix A**.

1.4 Working Languages

1.4.1 The discussions were conducted in the English language only as per APIRG procedures concerning Task Force.

1.5 Agenda

1.5.1 The following Agenda was adopted:

- Agenda Item 1: Election of Chairperson and vice Chairperson of the Task Force and adoption of the Agenda.
- Agenda Item 2: Review of MTF/3 recommendations, MET/SG/10 and APIRG/18 Conclusions and Decisions.
- Agenda Item 3: Provision of tropical cyclone and volcanic ash advisories for the AFI Region and of the corresponding SIGME by MWOs and Review of report on SIGMET Tests Conducted in November 2011.
- Agenda Item 4: Review of regional guidance material on OPMET exchange.
- Agenda Item 5: Future developments with regard to OPMET information.
- Agenda Item 6: Terms of reference, work programme and composition of the AFI OPMET MTF.
- Agenda Item 7: Any other business.

1.6 Documentation and working Language

1.6.1 The working language of the meeting as well as the documentation was in English as per APIRG procedures concerning task forces.

1.6.2 Nineteen (19) Working Papers and six (6) Information Papers were presented at the meeting. The list of the papers is included at **Appendix B** to this report.

1.7 Recommendations

1.7.1 The OPMET MTF recorded its actions in the form of recommendations and decisions, with the following significance:

- Decisions deal with matters of concern only to the OPMET MTF;
- Recommendations, when reviewed by the MET/SG, become Draft Conclusions for matters which in accordance with the APIRG Terms of Reference, merit the attention of States or on which further action will be initiated by ICAO in accordance with established procedures, or Draft Decisions, when approved by MET/SG, deal with matters of concern only to MET/SG.

PART II- REPORT ON THE AGENDA

Agenda Item 1: Election of Chairman and Vice-Chairman of the Subgroup

1.1 In accordance with the relevant provisions contained in the APIRG Procedural Handbook, the Sub-group elected its Chairperson and Vice-Chairperson. Mr. Gicheru Winstone Njuguna, Kenya, and Mrs. Mary Iso, Nigeria, were elected chairperson and Vice-Chairperson respectively.

Agenda Item 2: Review of the AFI OPMET MTF/3 Report

2.1 The rapporteur of the Task Force presented to the meeting a summary of the MTF/3 meeting report. In reviewing the list of Decisions and Recommendations contained in the report, the Task Force noted that Decision 3/10, on invitation of AFI RODBs to monitor SIGMET during the regular EUR SIGMET Tests, had not been implemented. It was further noted that failure to implement was due to the fact that the two RODBs had not been provided with information regarding the dates of the EUR SIGMET monitoring exercise. To ensure participation of the AFI RODBs in future monitoring exercises, the Task Force formulated the following Decision.

**Decision 4/01 Participation of AFI RODBs to Regular EUR
SIGMET Tests**

**That, ROC Toulouse notifies AFI RODBs on time for their participation to
the Regular EUR SIGMET Tests**

2.2 The meeting recalled Decision 18/01 of the APIRG/18 meeting, calling for a review and update of APIRG Conclusions and Decisions by APIRG Sub-Groups including the MET/SG. The meeting then reviewed the OPMET related Conclusions and Decisions of APIRG/13 to APIRG/17 as shown in Appendix C to this report.

2.3 The meeting also reviewed the OPMET related Decisions and Conclusions from MET/SG/10 and APIRG/18 as shown in the Appendix D to this report for the progress so far made on their implementation.

2.4 The Task Force was informed that in the APIRG/18 meeting, concern was expressed that the number of Conclusions and Decisions had become cumbersome to manage effectively. It was therefore necessary that a strategy be developed for their streamlining. In this regard, the Meeting agreed that the Sub-Groups should review all APIRG Conclusions and Decisions since APIRG/13 meeting, with the objective of identifying those with the following characteristics:

- a) Those which have been implemented or become obsolete due to developments;
- b) Those which have matured to be included in the work programme of APIRG and its subsidiary bodies as well as the Terms of Reference or Handbook of the Group;
- c) Those which are adequately covered by other specific provisions of ICAO including SARPs, Assembly Resolutions and Regional requirements, to be deleted or re-formulated to complement such other ICAO provisions; and
- d) Those which have since become redundant.

2.5 In relation to this, the Task Force formulated the following Decision:

**Decision 4/02: Review of Previous OPMET Related APIRG Conclusions and
Decisions**

**That, the reviewed list of OPMET related APIRG Decisions and Conclusions in
Appendix C to this report, be submitted to the MET/SG/11 Meeting for further
review.**

Agenda Item 3: Provision of tropical cyclone and volcanic ash for the AFI Region and of the corresponding SIGMET by MWOs and Review of report on SIGMET Tests conducted in November 2011

3.1 The meeting recalled that ICAO Annex 3 provides that SIGMET information shall be issued by a meteorological watch office (MWO) and shall give a concise description in abbreviated plain language concerning and /or expected occurrence of specified en-route weather phenomena, which may affect the safety of aircraft operations, and of the development of those phenomena in time and space. It also provides the required technical specifications relating to the preparation and issuance of SIGMETs.

3.2 Annex3 further recommends that SIGMET messages concerning volcanic ash cloud and tropical cyclones should be based on advisory information provided by VAACs and TCACs, respectively designated by regional air navigation agreement.

3.3 The meeting also recalled that, following concerns by users, the MET Divisional Meeting (2002) formulated recommendation 1/12 b), urging for periodic tests of SIGMET messages to be conducted.

3.4 The meeting noted that SIGMET Tests have been conducted on annual basis in the AFI Region since 2008. The report of the tests conducted in November 2011 is attached at **Appendix E** to this report. Analysis of the past SIGMET tests showed that 22 MWOs (61%) are still not issuing SIGMETs at the time of the test. In this regard the meeting reviewed the Recommendations proposed by the report and formulated the following recommendation:

Recommendation 4/03 Arrangements between Adjacent MWOs for the Provision of SIGMET information

That MWO Providers States that have never issued SIGMETs during SIGMET Tests be assisted by Dakar and Nairobi ICAO regional Offices to establish bilateral arrangements with adjacent operational MWOs as per AFI BASIC ANP, Part VI, paragraph 9, for the provision of SIGMET information awaiting operational implementation of their MWOs.

3.5. The meeting was pleased to learn that since December 2011 the Tropical Cyclone Advisory Centre (TCAC) La Reunion has been disseminating Tropical Cyclone Advisories in graphical format.

Agenda Item 4: Review of regional guidance material on OPMET exchange

4.1 Review of AFI SIGMET GUIDE

4.1.1 The meeting recalled that one of the terms of reference for the Task Force is to regularly update regional guidance material related to OPMET exchange. The meeting further recalled that Decision 16/54 called for the timely review of the regional guidance material on the OPMET to ensure

that guidance material covers procedures for the exchange of all required OPMET data types.

4.1.2 In respect of the above, the Task Force reviewed the current version of the AFI SIGMET Guide i.e. ninth Edition, amendment 2-June 2011 given in **Appendix F** to this report. The version had been amended to reflect Decision 18/47 of the APIRG/18 meeting which required inclusion of explanations of Table MET 3A and Table MET 3B.

4.1.3 The Task Force noted that the list of Meteorological Watch Offices (MWOs) in the AFI Region is contained in Appendix A to the AFI Regional SIGMET Guide whereas the World Meteorological Organization (WMO) headings used by AFI MWOs are contained in Appendix H to the Guide. The meeting then reviewed the two documents to ensure that they are consistent particularly with regards to the names of MWOs and the corresponding Flight Information Regions served.

4.1.4 The Task Force noted that in the fourth meeting of the METWSG meeting held from 15 to 18 May 2012 in Montreal, Canada, it was noted that several inconsistencies existed between some ICAO Regional SIGMET guides. The METWSG meeting had agreed to form an *ad hoc* group with the objective to, among others, develop generic guidance on the issuance of SIGMET for each ICAO region to consider in their respective SIGMET guides to remove inconsistencies. In this regard the Task Force requested the Secretariat to amend the AFI SIGMET Guide based on the outcome of the said *ad hoc* working group which would become available following the METWSG/4 Meeting to be held in June 2013.

4.1.5 In reviewing the documents, the meeting noted that the word “Standard” is used as part of the heading of the Appendix and this could easily be confused with its use in Annex 3 where it implies a mandatory requirement. The meeting further noted that Table A6-1, of ICAO Annex 3, Meteorological Service for International Air Navigation, contains several provisions to be applied to describe area affected by hazardous weather which are not included in Appendix F of the latest AFI Regional SIGMET Guide.

4.1.6 In order to avoid the possible confusion, the meeting was of the view that the provisions in the guidance material should be re-worded to exclude reference to a “standard”. The meeting therefore formulated the following Recommendation.

Recommendation 4/04: Updating of AFI Regional SIGMET Guide

That,

- a) **the AFI Regional SIGMET Guide, Appendix A &H, be updated to reflect the correct MWO names and location indicators for South Africa as follows:**
 - 1) **the MWO name as Johannesburg (FAJS);**
 - 2) **FIRs names and location indicators served as Cape Town FIR (FACA), Johannesburg FIR (FAJA) and Johannesburg Oceanic FIR (FAJO);**
- b) The Secretariat update the Regional SIGMET Guide to reflect the outcome of the global review being carried out by the METWSG;
- c) **the heading in Appendix F to the AFI Regional SIGMET guide be revised with a view to replace the word “Standard” with the word “Procedures”, and**
- d) **the amended SIGMET Guide given in Appendix F to this report, be endorsed as the AFI Regional SIGMET Guide Ninth Edition, Amendment 3.**

4.2 *RODBS implementation status report*

4.2.1 The meeting noted that the reports presented by the two RODBs managers did not include implementation status as called for by the MTF decision 2/6. To RODBs were then requested to be including implementation status in their reports. In this regard the Task Force formulated the

following Decision:

Decision 4/05: Improving the Annual RODBs Implementation Status Report

That, Dakar and Pretoria RODBs issue their respective annual implementation status reports based on the MTF, MET/SG and APIRG Decisions and Conclusions related to the AFI RODBs.

4.3 Review of the current edition of the AFI meteorological bulletin exchange (AMBEX) handbook

4.3.1 The Task Force reviewed the amended AMBEX Handbook given in **Appendix G** to this report and undertook some editorial corrections to improve it.

4.3.2 The Task Force noted that Appendix G to the AMBEX Handbook details the list and contacts of AMBEX Focal Points for the AFI Region. The meeting underscored the importance of the list as it is an additional effort to ensure compliance with the AMBEX Scheme and other OPMET exchange procedure requirements in the AFI Region. The list could also provide useful contacts for the two AFI Regional OPMET Data Banks (Dakar and Pretoria). In view of this, the meeting felt that there was need for the secretariat to invite States whose information about the AMBEX Focal points is not complete to provide the relevant details.

4.3.3 The Task Force was informed that the SADISOPSG/17 meeting held in Cairo, Egypt from 29 to 31 May 2012, of the eminent cessation (1 July 2012) of the satellite segment of the Aeronautical Fixed System (AFS) of the International Satellite Communication System (ISCS 1 and ISCS 2). The meeting recalled that ISCS 1 and ISCS 2 were used for the retrieval of World Area Forecast System (WAFS) products. In light of this, the SADISOPSG/17 formulated Conclusion 17/30 calling for the review of all SADIS documentation and subsequent replacement of all reference to ISCS by WAFS Internet File Service (WIFS). The Task Force noted that reference to ISCS in the AMBEX Handbook and other documentation still existed. In light of these developments, the meeting agreed that there was a need to review the AMBEX Handbook and other guidance material.

4.3.4 The Task Force recalled that the AFI OPMET MTF/2 meeting was informed of the implementation of the internet based “request reply” service by the Pretoria RODB. The Task Force noted with appreciation that the Dakar RODB had similarly implemented the internet service for querying AFI Bulletins by users. However, the meeting further noted that the foregoing was not indicated in the latest version of the AFI AMBEX Handbook.

4.3.5 In reviewing chapter 8.3 of the AFI AMBEX Handbook, the Task Force agreed that it was necessary to remove the phrase ‘as necessary’ in paragraph 8.3.4 as this may imply that the BCCs or National OPMET Centers (NOCs) were not obliged to compile and exchange OPMET bulletins as per the AMBEX Scheme. In this regard, the following Decisions were formulated:

Decision 4/06: Updating of the list of AFI AMBEX Focal Points through invitation letter

That, the Secretariat be invited to urge States to ensure that the information regarding their AFI AMBEX focal point in Appendix G of the AFI AMBEX Handbook is kept up to date by responding to the invitation letter sent to them every year.

Decision 4/07 Updating of the AFI AMBEX Handbook

AFI AMBEX HB, be monitored at all these facilities for comparison and continuous improvement.

4.3.10. Following an enquiry from ASIA/PAC Regional Office as to whether what was received on their side was what they should be receiving as per the AFI routine tables, the meeting was of the opinion that the status of OPMET exchange within AFI Region needed to be improved.

4.3.11. The Task Force recalled that the two AFI Regional OPMET Databanks had the responsibility of storing and disseminating bulletins originating from AFI AMBEX centers and other ICAO Regions and also of conducting routine monitoring as per previous AFI MTF conclusion and to report on the outcome of the monitoring to ICAO. The monitoring activities revealed that in the AFI Region, the BCCs are not compiling bulletins as per AMBEX Handbook. The meeting then agreed that this could contribute to the lack of AFI OPMET Bulletins in the region and other ICAO Regions.

4.3.12. In order to ensure the availability of AFI OPMET information to users in AFI and other ICAO Regions as well as IROGs, the meeting agreed that it was crucial that the different role players play their role as described in AMBEX Handbook. In this regard, the meeting formulated the following Recommendation.

Recommendation 4/10: Increasing the availability of OPMET information to users in AFI and ICAO regions

That, AFI Bulletin Compiling Centers (BCCs) and National OPMET Center (NOCs) Provider States:

- a) **take note of their responsibilities regarding the compilation of AFI OPMET Bulletins and initiation of OPMET data respectively as described in the AFI AMBEX HB, and**
- b) **be invited to implement the AMBEX scheme accordingly.**

4.3.13. The meeting noted that the exchange of special air reports remains a challenge despite the existence of related provisions in ICAO Annex 3, *Meteorological Service for International Air navigation*, and guidance material in *Manual on Coordination between Air Traffic Services, Aeronautical Information Services and Aeronautical Meteorological Services (Doc 9377)*, and procedures in AFI SIGMET guide.

4.3.14. The Task Force recalled that the requirements for relaying of Special Air Reports by Air Traffic Service (ATS) units are defined in ICAO Annex 3, paragraph 5.8 as well as Doc 9377, paragraph 4.2.12. Further, the AFI SIGMET Guide provides the procedures in this regard under paragraph 2.1.2.

4.3.15. The meeting was of the view that sufficient guidance material exists which would improve the availability of this data type at RODBs and to users if applied appropriately. The meeting regretted that despite that concern was raised by ICAO on the lack of compliance by States to the requirements for dissemination of Special Air Report not much improvement has been made.

4.3.16. The Task Force concurred that it was necessary to engage the AFI AMBEX Focal points with a view to taking steps in order to address the lack of this data type in the databanks and other platforms. In this regard therefore, the formulated the following recommendation:

Recommendation 4/11: Implementation of Special air reports

That States be reminded of :

- a) **their responsibilities regarding the dissemination of Special Air Reports and implementation of related existing mechanisms; and**
- b) **ATS units of their responsibilities for obtaining dissemination of Special Air Reports to their associated MWOs.**

4.3.17 The Task Force recalled that Conclusion 17/59 of APIRG/17 Meeting calls for the implementation of the interface control document (ICD) for AFI OPMET database access procedures. The AFI ICD has since been updated, published and placed on the ICAO website as per Decision 3/6 of the MTF/3 Meeting.

4.3.18. The Task Force reviewed the updated AFI data catalogue presented to the meeting and recalled that Decision 10/10 of the MET/SG/10 Meeting which called for the finalization of the AFI OPMET data catalogue by AFI RODB Managers. In this regard the meeting requested the RODB managers to finalize the catalogue by making reference to the SADIS User Guide and AFI FASID MET Table 1B. The following Decision was then formulated:

Decision 4/12: Finalizing AFI OPMET Data Catalogue

That, Dakar and Pretoria RODBs finalize the AFI OPMET Data Catalogue using Appendix 1 to the SADIS User Guide (METAR/SPECI, TAF) and AFI FASID MET Table 1B (SIGMET) on time for the MTF/5 meeting.

4.3.19. The meeting recalled that AFI OPMET MTF/2 recommended that a Core Team of experts be established to develop backup procedures for implemented by both Pretoria and Dakar RODBs, (recommendations 2/7 and 2/9 refers). The recommendations were subsequently endorsed by MET/SG/10 through formulation of Decision 10/6 and Conclusion 10/7, calling for the establishment of the Core Team and implementation of an AFTN circuit between Dakar and Pretoria to support the backup procedures.

4.3.20. The Task Force further recalled that during the AFI OPMET MTF/3 and METSG/10 meetings the Core Team of experts reported very little progress with regard to the development of the backup procedures. In this regard the meeting stressed the need for better coordination of the activities of the team to ensure that progress was made.

4.3.21. The meeting noted that following the METSG/10, the Core Team considered several options for backup of the two AFI RODBs (Dakar and Pretoria), focusing on procedures which would be both practical and cost effective. The meeting noted that the Core Team contacted IROG Toulouse through email on 21 May 2012 with a view to learn from procedures implemented in the EUR Region. It was established that the backup mechanism used in the EUR was still under development and could therefore not be much helpful to the AFI Region.

4.3.22. Given the above circumstances, the Core Team therefore did not have much choice but to develop backup procedures from scratch. In this regard the Task team considered the various options presented for their cost effectiveness and practicability and also taking into account the different challenges existing in the AFI Region with regard to OPMET data exchange. The options presented were as follows:

- a) A dedicated line to be established linking the two RODBs. The line should have sufficient capacity to handle large volumes of data;
- b) The two AFI RODBs to be backed up through Toulouse. This means that both RODBs would promulgate OPMET information to Toulouse and incase one fails, the information would still be retrievable from Toulouse;

- c) The Global Telecommunication System (GTS) protocol to be investigated as a possible medium to be used for exchange of OPMET information between the two RODBs. This was considered an alternative to the AFTN line;
- d) A routine procedure be established which would require the AFI AMBEX compiling centers (BCCs) to re-route OPMET bulletins directly to the other RODB in the event that one fails.

4.3.23. In considering the options, the meeting concurred with the Core Team of experts that the fourth option (iv) was the most appropriate. However, the meeting noted that there was need for further investigation and formulated the following Decision:

Decision 4/13: Developing of AFI RODBs Back Up Procedures

That, the Task Force:

- a) **Appreciates the work so far undertaken by the Core Team of Experts in developing the AFI RODBs Back Up Procedures; and**
- b) **Encourage the Core Team to further investigate ways to improve the backup procedures so far developed using contributions from existing backup procedures especially from London and Washington WAFCs.**

Agenda Item 5: Future developments

5.1 The meeting recalled that the Global Air Traffic Management (ATM) Operational Concept contained in ICAO Doc. 9854, describes the future ATM system outlining the scope of the concept, guiding principles, expected benefits, system performance, different expectations and coordination, the manner in which the ATM system will deliver services and the associated benefits to airspace users by 2025. The meeting was informed that the Aviation System Block Upgrades (ASBU), is a methodology to implement the future ATM system based on operational concepts extracted from NEXTGEN (USA), SESAR (Europe) and CARATS (Japan).

5.2 The meeting also noted that ASBU methodology would facilitate interoperability of different technologies, accommodating different procedures covering all elements of the ANS systems (ATM, CNS, AGA, AIM and MET). It would also provide harmonization thus leading to seamlessness across regions. This would be achieved through progressive, cost effective and cooperative implementation of air navigation systems worldwide. The meeting further noted that the Block upgrades will allow for a structured approach to meet the needs of individual aviation communities worldwide and that the use of meteorological (MET) information in a net-centric ATM environment and satisfying the foreseen performance requirements for MET will have an impact on the information that needs to be made available and exchanged between information providers and users.

5.3 A roadmap had been designed to enable the exchange of aeronautical meteorological information in a flexible, easy expandable, open and transparent manner. Nevertheless it remains clearly focused on the transition of currently defined user products as prescribed by Annex 3. The implementation roadmap or general guidance to support implementation could be considered by the ICAO Secretariat in conjunction with the publication of an amendment of Annex 3. Potential issues to consider in this context are:

- XML coding at source (e.g. weather observation system at an airport) versus
- ----- XML coding exclusively by collecting centres that will distribute information international;
- Transition of OPMET Databanks towards new formats including XML;

- Implication for information providers to fulfill metadata requirements.

5.4 A proposed logical structured flow of actions to be considered in the transition, thus roadmap, are the development of:

- XML/GML format for TAC OPMET;
- Metadata requirements;
- ICAO Weather Information Exchange Model (IWXXM);
- Information Management for ATM / SWIM

5.5 The meeting noted the improvement steps that needed to be incorporated in the transformation process and the road map to be followed.

5.6 The Task Force considered that it was important that the Secretariat make a follow-up of the regional implication of the roadmap on the transition towards Table-driven data representation for OPMET and report back after the publication of the 17th Edition of ICAO Annex 3. In this regard, the Task Force formulated the following decision:

Decision 4/14: Transition towards Table-Driven Data Representation for OPMET

That the Secretariat liaises with the concerned ICAO study groups to follow up the regional implication of the roadmap on the transition towards Table-driven data representation for OPMET, and report on time for the MTF/6 meeting.

5.7 Considering the important role the databank provider States will be playing with the introduction of meteorological information in digital format, the meeting encouraged AFI data bank provider States to start developing the necessary capability of handling OPMET bulletins in digital format as the exchange of the same on bilateral basis is expected after the applicability of Amendment 76 to Annex 3 in November 2013. The meeting noted with appreciation that necessary assistance and guidance would be provided to the provider States. In this regard the meeting formulated the following recommendation.

Recommendation 4/15: Development of Capabilities of Handling OPMET Information in Digital Format

That both Pretoria and Dakar RODBs be encouraged to:

- a) **start developing capability of handling OPMET data in digital format as soon after November 2013 as possible;**
- b) **test the codes based on the table-driven data representation (XML/GML) schema for METAR/SPECI, TAF and SIGMET with a view to fine tuning over the first year; and**
- c) **take a leading role over the transition aspect of XML/GML and assist other AFI States in implementing table-driven data representation wherever possible.**

Agenda Item 6: Terms of reference, work programme and composition of the AFI OPMET MTF

6.1 The meeting recalled that the AFI OPMET MTF was established by Conclusion 16/54 of the APIRG/16 meeting with terms of reference and composition as given in the **Appendix H** to this report.

6.2 Under this agenda item, the Task Force reviewed its work programme given in **Appendix I** to this report.

6.3 The Task Force noted that the composition of the MTF and its Terms of Reference shown in Appendix I was as described by APIRG during the establishment of the AFI OPMET MTF. The Task Force further recalled that the Terms of Reference reflected the overall tasks of the MTF and need to be revised only when major changes are introduced to the MTF programme and that any change would have to be subject to a draft conclusion to be endorsed by APIRG. The meeting therefore agreed that there was no need to amend the terms of reference at the meeting.

6.4 The Task Force reviewed its work programme shown in **Appendix I** to this report and formulated the following Decision:

Decision 4/16 Future work programme of the MTF

That, the updated work programme of the AFI OPMET MTF as shown in Appendix I be endorsed.

Agenda Item 7: Any other business

7.1 The meeting recalled APIRG Conclusion 16/54 which established the OPMET Management Task Force and APIRG Decision 17/80 which set the frequency of and venues for the meetings. Having evaluated the activities of the two RODBs, the Task Force Considered that the RODBs were now well established and running as expected and therefore it was no longer necessary to visit the RODBs during every MTF meeting. In this regard, the meeting formulated the following Decision:

Decision 4/17: Venue of the AFI OPMET MTF Meetings

Due to the progress made by Dakar and Pretoria RODBs Provider States in implementing the RODBs, the Task Force will meet at ICAO ESAF and WACAF Regional Offices from its fifth meeting (MTF/5).