

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



**INFRASTRUCTURE AND INFORMATION MANAGEMENT (IIM)  
SUB-GROUP**

**METEOROLOGY PROJECT 1**

**TERMS OF REFERENCE (ToR)**

**Version 1.0**

**REVISION INDEX SHEET**

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### ABBREVIATIONS

Term	Definition
<b>AFI</b>	<b>Africa and Far East Indian Ocean</b>
<b>AMS</b>	<b>Aeronautical Mobile Service</b>
<b>APIRG</b>	<b>AFI Planning and Implementation Regional Group</b>
<b>APCC</b>	<b>APIRG Projects Coordination Committee</b>
<b>ASBU</b>	<b>Aviation System Block Upgrade</b>
<b>ATM</b>	<b>Air Traffic Management</b>
<b>CNS</b>	<b>Communication Navigation Surveillance</b>
<b>COM</b>	<b>Communication</b>
<b>GANP</b>	<b>Global Air Navigation Plan</b>
<b>GOLD</b>	<b>Global Operational Data Link</b>
<b>HF</b>	<b>High Frequency</b>
<b>ICAO</b>	<b>International Civil Aviation Organization</b>
<b>IIM</b>	<b>Infrastructure and Information Management</b>
<b>OPMET</b>	<b>Operational Meteorological</b>
<b>PANS</b>	<b>Procedure for Air Navigation</b>
<b>PBN</b>	<b>Performance Based Navigation</b>
<b>SAR</b>	<b>Search and Rescue</b>
<b>SARP</b>	<b>Standards and Recommended Practices</b>
<b>VHF</b>	<b>Very High Frequency</b>

## 1. EXECUTIVE SUMMARY

THIS Terms of Reference outlines the requirements needed for the implementation of the **SIGMET/QMS/DEFICIENCIES (MET Project 1)** project aimed at ensuring the improvement of the provision of meteorological service to the international Air navigation within the ICAO AFI region.

The IIM Sub-Group Meteorology Project 1 is responsible for recommendations and state assistance with respect to activities that will assist states to improve the implementation of SIMET, QMS, address Deficiencies and D-OPMET.

## 2. INTRODUCTION

Aeronautical meteorological service provision is integral to the realization of a safer and more efficient globally interoperable air transport system. In this regard, Aeronautical Meteorology (MET) is required to provide information to satisfy the needs of the future ATM system. As the future ATM system evolves, the demands on MET will require improved or new systems, information and products to support it.

In line with the latest edition of the Global Air Navigation Plan (GANP) approved by ICAO Council in 2013 and the associated Aviation System Block Upgrades (ASBU) methodology, the overarching outcome of MET/14 is that the future development of MET services shall be fully aligned and integrated into the future ATM system.

The IIM/SG Meteorology Project 1 has the task to assist States in the implementation of:

- a) SIGMET and standards and recommended practices of Annex 3 and Part V – MET of the AFI Air Navigation Plan (ANP), Volumes I, II, III concerning the issuance and distribution of en-route weather phenomena including volcanic ash clouds (WV), tropical cyclones (WC) and other phenomena (WS - thunderstorms, severe turbulence, icing, mountain waves, heavy sandstorms and dust storm), likely to affect the safety of aircraft operations, and the evolution of such phenomena in time and space (SIGMET WV, WC and WS);
- b) QMS/MET and certification where applicable, by developing a regional QMS/MET guide to assist States in the production of MET documentation under ISO 9001: 2008, enhancing the training of MET personnel in States that have not implemented QMS, encouraging States to institute cost recovery mechanism to support QMS maintenance in accordance with ICAO Annex 3 and Part V – MET of the AFI ANP, and conducting audit trials;
- c) An action plan to assist concerned States in their effort to remove air navigation deficiencies in the MET field listed in the APIRG report; and
- d) The transition plan from current aeronautical meteorological information to the future SWIM-enabled environment in the AFI region by encouraging AFI States to progressively develop capability of handling OPMET data in digital format (XML/GML) and to start using XML/GML codes in operational environment by 2018

This will be in accordance with the operational requirements of ICAO Annex 3, the provision of meteorological service to the international Air navigation and relevant guidance documents.

### 3. TERMS OF REFERENCE

#### 3.1 Purpose

The IIM Sub-Group Meteorology Project 1, was established and mandated by APIRG to support the implementation of ICAO Standard and Recommended Practices (SARPs) and carry out specific activities aimed at enabling APIRG to discharge its functions and responsibilities in the area of meteorological service.

The purpose of the IIM Sub-group Meteorology Project 1 is to assist States with the implementation of QMS/SIGMET/address deficiencies and D-OPMET to ensure that the provision of Meteorological service within the ICAO AFI region satisfy the needs of the future ATM system.

The IIM Sub-Group Meteorology Project 1 team members will evaluate, and recommend project deliverables; and submit to the IIM-Sub-Group Chair, Vice-Chair as well as the ICAO Secretariat.

#### 3.2 Key Functions

3.2.1 The Sub-Group shall perform its function as guided by APIRG.

- a) Foster the implementation of specific Modules of the ICAO Aviation System Block Upgrades (ASBU) assigned by APIRG
- b) Carry out the implementation of projects in support of States, related to the area of SIGMET, Quality Management System, removal of Met Deficiencies, and progressive implementation of digital OPMET in accordance with ASBU methodology and as guided by the Regional performance objectives, to support states in the implementation of SARPs and regional requirements.
- c) Keep under constant review the adequacy of requirements in the area of IIM taking into account changes in user requirements, the evolution in operational requirements and technological developments in accordance with ASBU methodology
- d) Identify and collect, States information on MET deficiencies in accordance with the methodology approved by the Council and the APIRG guidance; analyse the collected information and propose solution, report on progress and challenges which extend beyond the capacity of the group.

#### 3.2.2 Tasks

- a) Coordinate and conduct meetings of the IIM Sub-Group Meteorology 1.
- b) Monitor implementation performance of relevant ASBU modules to ensure robust implementation relationship of operational requirements supporting infrastructure and digital information
- c) Monitor performance of relevant ASBU modules
- d) Review and update the list of deficiencies with regard to the provision of meteorological service to the international air navigation within ICAO AFI region and propose remedial actions carry out comprehensive reviews and updates of all Conclusions and Decisions within the framework of APIRG that are capable to the IIM Sub-group in order to ensure continued relevance of the conclusion and decisions
- e) Report to APIRG Through APCC

#### 4. PROJECT COMPOSITION

Only permanent members or proxies have the voting rights. The IIM Sub-group Meteorology Project 1 Coordinator is nominated by APIRG meeting and can serve a maximum of period communicated by the IIM Chair

##### 4.1 Project Team Members

State		Name and email address
<b>SOUTH AFRICA (Coordinator)</b>		
<b>COTE D'IVOIRE</b>		

#### 5. Meeting Procedure

##### 5.1. Frequency

The frequency of the IIM Sub-Group Meteorology project shall be once every month. The frequency may be reduced by mutual consent of the committee should the need arise

##### 5.2 Notice of meeting

The IIM Sub-group meteorology project 1 coordinator shall manage and schedule the frequency, date and venue of the project meeting

##### 5.3 Reporting to the IIM Chair

The IIM Sub-group Meteorology Project 1 coordinator shall submit the project progress report of the group's activities to the IIM Sub-group chair and/or Vice Chair after each meeting or when requested.

##### 5.3.1 The report shall include the following

5.3.1.1 Status of the project

5.3.1.2 Project challenges encountered

5.3.2.3 Recommendations to address challenges

##### 5.4 Minutes

The project meeting minutes shall be prepared for approval at the next IIM Sub-group meteorology Project 1 meeting

##### 5.5 Quorum

The quorum for convening the meeting shall be 40% of the IIM SUB-Group meteorology Project 1 permanent members or as agreed by the meeting

**6. Responsibilities of team members**

Members input required

**7. Decision Making**

Members input required

**8. Dispute resolution**

Members input required

**9. Attendance and apologies**

Members input required

**10. Review of Terms of reference**

Members input required

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