



## International Civil Aviation Organization

### AFI OPMET MANAGEMENT TASK FORCE FIRST MEETING (MTF/1)

(Dakar, Senegal, 19 – 20 October 2009)

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**Agenda Item 2: Review of the AFI Meteorological Bulletin Exchange (AMBEX) scheme**

- 2.1: *Review of the requirements for OPMET information exchange in AFI and adjacent regions and procedures for exchange of all required OPMET data types*

#### **OPMET INFORMATION EXCHANGE AND PROCEDURES REQUIRED FOR SA, SP, FC, FT, WS, WC, WV, FK, FV, UA DATA TYPES**

(Presented by the Secretariat)

##### **SUMMARY**

This paper reviews the new requirements for OPMET information exchange in the AFI region and between the AFI and EUR, MID, CAR/SAM and NAT/NAM regions introduced by the 7<sup>th</sup> edition of the AMBEX Handbook. In particular the procedures for exchange of all required OPMET data types (SA, SP, FC, FT, WS, WC, WV, FK, FV, UA) are reviewed.

#### **1. INTRODUCTION**

1.1 Recently, it has been identified that significant changes in the scheme were needed in order to make it compatible with the existing communication environment and satisfy the evolving user requirements. In view of this, APIRG adopted the conclusion 16/55 that called for the inclusion of Regional OPMET Data Banks (RODB) and SIGMET requirements in the AMBEX Handbook and the conclusion 16/54 that called for the establishment of an AFI OPMET Management Task Force (AFI MTF) with terms of reference to further develop the AMBEX scheme according to the new operational requirements. The 7<sup>th</sup> edition of the AMBEX Handbook was developed early this year to meet these requirements.

1.2 This paper reviews the requirements for OPMET information exchange in the AFI region and between the AFI and EUR, MID, CAR/SAM and NAT/NAM regions in particular requirements in Chapter 4 of the AMBEX Handbook (OPMET Information and Exchange) are reviewed. The procedures for exchange of all required OPMET data types (SA, SP, FC, FT, WS, WC, WV, FK, FV, UA) under paragraph 4.3 of the AMBEX Handbook, are reviewed.

2. **DISCUSSIONS**

2.1 AMBEX scheme was intended initially only for TAF exchanges; AIREPs and METAR were added to the scheme at a later stage. In March 2009, the 7<sup>th</sup> edition of the AMBEX Handbook introduced new OPMET data types for SIGMETs (WS, WV, WC), Volcanic Ash Advisory (VAA) and tropical Cyclone (TCA) in the AMBEX Scheme, to make the AMBEX scheme compatible with the existing communication environment and satisfy the evolving user requirements.

2.2 In this regard, the OPMET information and exchanges described in chapter 4 of the AMBEX Handbook in **Appendix A**, is provided for review by the meeting and implementation as the OPMET requirements for the AFI region.

**Recommendation 1/XX.....AFI OPMET INFORMATION EXCHANGE REQUIREMENTS**

**That, the OPMET data type, OPMET bulletin and types of OPMET exchange in the Appendix A to this paper, be implemented by Dakar and Pretoria Regional OPMET Data Banks (RODB), AMBEX Bulletin Compiling Centres (BCC) and National OPMET Centres (NOC) as the OPMET requirements in the AFI region.**

3. **ACTION BY THE MEETING**

The meeting is invited to:

- a) Note the information in this paper and;
- b) Suggest required actions to improve OPMET exchange in the AFI region.

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## APPENDIX A

## OPMET INFORMATION AND OPMET EXCHANGES

**1.1 OPMET Data Type****1.1.1 The following OPMET data types should be handled by the AMBEX scheme:**

<b>Data type</b>	<b>Abbreviated name</b>	<b>WMO data type designator</b>
Aerodrome reports	METAR SPECI	SA SP
Aerodrome forecasts	TAF: 24 and 30 hour	FT
SIGMET information	SIGMET SIGMET for TC SIGMET for VA	WS WC WV
Volcanic ash and tropical cyclone advisories	Volcanic Ash Advisory Tropical Cyclone Advisory	FV FK
Air-reports	AIREP AIREP SPECIAL (ARS)	UA
Administrative	ADMIN	NO

**1.2 OPMET bulletins**

1.2.1 The exchange of OPMET data is carried out through bulletins containing one or more meteorological messages (METAR, SPECI, TAF or other OPMET information). An OPMET bulletin contains messages of the same type.

1.2.2 The format of OPMET bulletins is determined by:

- *ICAO Annex 10, Aeronautical telecommunications*, as regards the AFTN envelope of the bulletin;
- *WMO-No.386, WMO Manual on the Global telecommunication System*, as regards the WMO abbreviated heading of the bulletin;
- *ICAO Annex 3 and WMO-No.306, Manual on Codes*, as regards the format and coding of the information included in the bulletin.

### **1.3 Types of OPMET exchange**

#### **1.3.1 Regional exchange – AMBEX scheme**

1.3.1.1 The AMBEX scheme covers the exchange of OPMET information in the AFI region. It includes several types of exchanges as described below.

1.3.1.1.1 *Regular Exchange under AMBEX.* This is a scheduled exchange that encompasses collection of messages from the originating stations, compiling of bulletins and their dissemination according to predetermined distribution schemes. The collection and distribution is carried out at fixed times and the bulletin content is defined in the current Handbook.

1.3.1.1.2 *Non-regular exchange.* This includes:

- a) *Exchange on request (request-reply service).* The RODBs store OPMET data and make them available on request.
- b) *Exchange of non-routine reports:* SPECI; TAF AMD; SIGMET; TCA and VAA; ADMIN messages.

#### **1.3.2 Inter-regional OPMET exchange**

1.3.2.1 Exchange of OPMET data between the AFI and the other ICAO Regions is carried out via designated centres, which serve as Inter-regional OPMET Gateways (IROG). An IROG is set up for sending/receiving specified OPMET data between AFI and every other ICAO region for which AFI OPMET data are required.

*Note: The former name of these centres is ODREP.*

1.3.2.2 Inter-regional OPMET exchange via IROGs is carried out through the ground segment of the AFS (currently, through the AFTN).

#### **1.3.3 Exchange of OPMET information through the satellite segment of the AFS**

1.3.3.1 The three satellite broadcasts provided by the United Kingdom (Satellite Distribution System for Aeronautical Information Relating to Air Navigation - SADIS) and the United States (International Satellite Communication System – ISCS/1 and ISCS/2), form another type of OPMET exchange, which is global in nature and is intended to cover the emerging requirement for global access to all available OPMET data.

1.3.3.2 All AFI data handled by the AMBEX scheme should be relayed to the SADIS for global broadcast.

#### **1.3.4 Other OPMET exchanges**

1.3.4.1 Where OPMET exchanges described in the above paragraphs are not sufficient, direct AFTN addressing should be utilized by the originating centres.