



Agenda

Item 3:

Report of activities and deliverables of the Interop TF and Subgroups

**ACTIVITIES EXECUTED BY BRAZIL FOR THE REGIONAL
OPMET DATA BANK (RODB) 3.0 IWXXM**

(Presented by Brazil)

SUMMARY	
This working paper presents the activities carried out by Brazil to facilitate using of the new features of the RODB 3.0 IWXXM	
References	
<ul style="list-style-type: none">- AMD 77 to ICAO Annex 3- AMD 78 to ICAO Annex 3- Guidelines for the implementation of OPMET Data Exchange using IWXXM- Final Report of SAM/IG/27 Meeting (Virtual, 31 de mayo al 3 de junio de 2022); and- Summary of Discussions of the INTEROP TF/3 Meeting (Virtual, 14 to 17 March 2022).	
ICAO Strategic Objectives:	<i>A – Safety</i> <i>B – Air Navigation Capacity and Efficiency</i> <i>ASBU: AMET-B0/4 (IWXXM) y COMI-B0/7 (AMHS).</i>

1. INTRODUCTION

1.1 OPMET's main function is to receive, select, store, and automatically send meteorological information to predetermined recipients, to ensure safer flight plans.

1.2 The system features an architecture based on an integrated platform, which includes a highly available hardware infrastructure and a dedicated software application, allowing Air Navigation Service Providers (ANSP) to have quality and highly available weather information.

1.3 The new Regional OPMET Data Bank (RODB) of Brasilia is a fully web and user-friendly system, developed by DECEA together with the company Atech, adhering to the new IWXXM messaging model, defined as a world standard by the International Civil Aviation Organization (ICAO).

1.4 Considering the IWXXM protocols, it is possible to see great benefits generated by the new IWXXM format, such as reducing the size of files transported on the network and making it easier for users to understand.

1.5 The system allows the sharing of meteorological information with simplicity and security, in digital format, XML, according to the new SWIM (*System Wide Information Management*), a concept proposed by the ICAO, which aims to provide a global environment of interoperability of data and information related to the flight, thus contributing to more efficient and less costly air operations, without affecting the levels of operational safety.

1.6 The solution also offers a series of advanced features and reports, which can be accessed remotely through web services, ensuring quick access to meteorological information for everyone involved in air operations.

2. ANALYSIS

2.1 The reference for the implementation of the new IWXXM format, the document Guidelines for the Implementation of OPMET Data Exchange Using IWXXM – Fourth Edition November 2020, has been made available by the SAM Regional Office, which can be accessed via the link below:

<https://www.icao.int/SAM/Documents/2022-RLA06901-GTINTEROP3/4.%20IWXXM%20Guidelines%20v4.pdf>

2.2 The evolution brought about by the advent of the new OPMET is associated with the use of the internet, which allows the reception and sending of meteorological messages. It should be noted that, even with the use of the Internet, the system still maintains the regular processing of messages through the ATS Message Handling System (AMHS), allowing access to weather messages through more than one channel.

2.3 In July 2022, a presentation was made by Brazil, through the company Atech, to the States of the CAR/SAM Region with the objective of encouraging the States of the CAR/SAM Region to develop integration with the webservice of the Regional Database Brasilia OPMET.

2.4 An application developed as an example to integrate meteorology systems to the OPMET Bank of Brasília was presented at the meeting. The purpose of this application is to show in practice the steps that must be followed when developing the integration between banks (system-system) using the webservice facility.

2.5 The source code was made available in the repository below, emphasizing that it is a public source code and can be used by States as an example to carry out queries to the OPMET database:

https://github.com/antonioidiasabc/OPMET_search

2.6 It was agreed that the States would send the name and institutional e-mail of their representatives to the SAM Regional Office, for later forwarding to DECEA.

2.7 Thus, the registration by DECEA of all requested personnel was carried out, after ICAO had sent the list. However, few requests for access to consult the Bank has been seen by the management of OPMET of Brasília so far.

2.8 It is worth noting that the expiration date of the link sent to the representatives of the States to register, and access is 72 hours, and the validity of the token to allow consultation with the Bank is 90 days, deadlines that are stipulated and managed by DECEA.

2.9 It is also worth noting that DECEA officially sent the Interface Control Document (SICD) of OPMET System 3.0 in Brasília to the ICAO secretariat, whose Secretariat has already made it available to States of the CAR/SAM Region.

2.10 Finally, Brazil remains available to carry out tests for the exchange of messages in the new IWXXM format via AMHS, as well as tests via webservice.

3. SUGGESTED ACTION

3.1 The Meeting is invited to:

- a) Take note of the activities carried out by Brazil; and
- b) Analyze other considerations that the Meeting deems pertinent.

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