

Fourth Meeting of the APIRG Infrastructure and Information Management Sub-Group (IIM/SG5)

(Virtual, July 26-29, 2022)

Agenda Item 3.1: Status of implementation of applicable ASBU elements

WP3.1D2 Summary of achievements of APIRG IIM MET Project 2

MET Project 2: Implementation of terminal area forecasting and warning, use of World Area Forecast System (WAFS) forecasts provided by the World Area Forecast Centers (WAFS) via SADIS, International Airways Volcano Watch (IAVW) and operating procedures in ICAO Doc 9766 and the AFI Volcanic Ash Contingency Plan (VACP) and Optimization of OPMET data exchange

(Presented by Senegal)

SUMMARY
This paper presents the status of implementation of the deliverables related to the APIRG IIM Sub Group MET, Project 2.
Action by the meeting in paragraph 3
REFERENCE(S): <ul style="list-style-type: none"> ▪ Doc 9750, Global Air Navigation Plan ▪ Electronic Air Navigation Plan- Africa-Indian Ocean Region (eANP- AFI) ▪ APIRG Procedural Handbook
Related ICAO Strategic Objective(s): A - Aviation Safety, B - Air Navigation Capacity and Efficiency.

1. INTRODUCTION

- 1.1. The AFI Planning and Implementation Group (APIRG) under the project approach, the Infrastructure and Information Management Sub-Group (IIM/SG MET project 2) was set up at the first APIRG IIM/SG meeting held in Nairobi, Kenya on 27-30 June 2017. The main objective of the establishment of the Group, is to assist AFI States in the implementation of :
- 1.2. **AD WRNG, WS WRNG, WAFS through SADIS, IAVW** including the implementation of **ICAO Doc 9766** operational procedures and AFI Volcanic Ash Contingency Plan (**VACP**) activities; the Meteorological Bulletin Exchange (**AMBEX**) manual in accordance with the provisions of **ICAO Annexes 3 and 10 and Volumes I, II and III** of the **AFI ANP Part V- Meteorology**, for the preparation, issue, dissemination and monitoring of **OPMET** information (**METAR, SPECI, SIGMET, TAF, AIREP, Volcanic Ash and Tropical Cyclone Advisories**).

1.3. The IIM sub-group, through its MET 2 project, worked through coordination meetings in video-conference format. Thus, the questionnaire investing in the implementation of the AMET Block B0 was developed, validated and circulated to the States and the results of the survey will be analysed in this report for a better appreciation of the status of implementation of the Standards and Recommended Practices in accordance with the provisions of ICAO Annex 3 and associated documents.

2. DISCUSSIONS

2.1 Framework/Competence

- The terminal area-warning portion of the project will include all AFI International aerodromes listed in *MET Table II-2 of the AFI ANP Volume II* and aerodromes affected by **wind shear** events;
- The **WAFS** and **IAVW** part of the project concerns all AFI aerodromes listed in the *AFI ANP MET II-2 table* and the weather watch centers listed in column 4 of the *AFI ANP MET II-1 table*.
- The **AMBEX** part of the project will include AFI aerodromes listed in *MET Table II-2 of the AFI OTP*, including Dakar and Pretoria RDBO's, Bulletin Compilation Centers (**BCCs**), National OPMET Centers (**NOCs**), the AFI Center in Toulouse, the Tropical Cyclone Advisory Centre (**TCAC**) in La Reunion and **WAFC** in London

2.2 Actions taken

Summary of results of MET 2 meetings and activities

Item no.	Elements B0 AMET	Achievement		
		Items submitted To the Questionnaire	deliverables	Seminars organized
1	Aerodrome warning	✓		
2	Wind shear and alert warning	✓		
3	Use of WAFS products through SADIS	✓		
4	IAVW and VACP Procedures		Draft operational guidelines	Volcanic ash exercise held on 30 Nov. 2021
5	Management of data OPMET exchanges	✓	Update of the AMBEX manual	Meeting held on 27 June 2022 to set up an implementation committee

2.3 The Challenges

- ✓ The participation rate of the MET 2 Member States is generally average in terms of both contribution and participation;

Date of meeting	Present	Absent	excused	Total	Participation rate
MET Project 2: 17 February 2021	10	13	3	26	38%
MET Project 2: 03 March 2021	Broad AFI participation	7	-	-	-
MET Project 2: 27 July 2021	10	10	3	26	38%
MET Project 2: 30 November 2021, volcanic ash exercise	ICAO, Cape Verde, BRDO, BCC, NOC, Toulouse, Kenya, South Africa	-	-	All stakeholders	100 %-
MET Project 2: 17 April 2022, Coordination meeting between the two RDBOs, Dakar and Pretoria	Senegal, ASECNA, South Africa, ICAO (06)	21	-	26	23%
MET Project 2: Follow-up to the recommendations of the volcanic ash exercise	Senegal, ASECNA, ICAO, Niger	-	-	All stakeholders	100 %
MET Project 2: Follow-up meeting on the implementation of the digital format for OPMET data exchange and update of the AMBEX manual, held on 27 June 2022	Dakar/Senegal; Pretoria/Southern Africa; ICAO, MET 2 Project Coordinator	-	-	All stakeholders	100 %

- The absence of interpretation services was also a hindrance to the smooth running of the meetings.

2.4 Procedures / Strategies

- All tasks are carried out by MET experts nominated by the AFI States participating in the project, led by the project team coordinator and under the supervision of the project facilitators (RO / MET, Dakar and Nairobi) via the "GoTo Meeting" tool.
- Once the tasks are completed, the results are sent to the project facilitators as a final document for submission to the IIM_SG and approval by the APIRG Project Coordination Committee (APCC).
- In order to adopt a collaborative decision-making process, meetings are organised with the entities concerned (States, industry, secretariat).

3. ACTION TO BE TAKEN

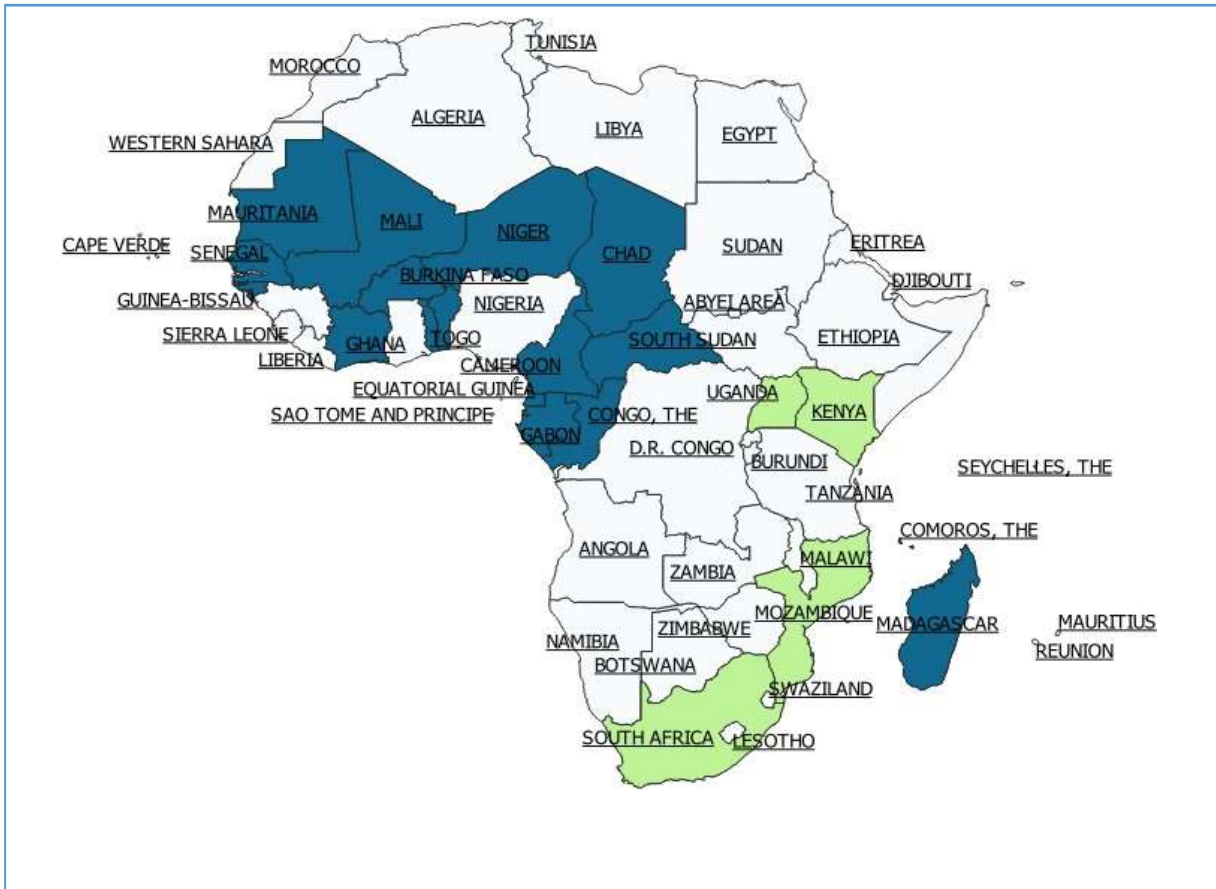
3.1. The meeting is invited to:

- a) ask States to nominate new experts in case of lack of participation among those nominated;
- b) To further urge Central, Eastern and Southern African states to respond to the questionnaire for a better appreciation of the implementation status of the ASBU AMET B0 block;
- c) discuss terms of reference for project costing

IMPLEMENTATION STATUS OF THE ASBU B0 AMET MODULE ACCORDING TO THE PROVISIONS OF THE OF THE PROJECT MET 2

List of airports and aerodromes (see attachment)

Table 1. Map of states covered by ASECNA and states in South and East Africa that responded to the questionnaires



ANALYSIS OF THE QUESTIONNAIRE RESPONSE

Implemented elements	N aerodromes covered (ASECNA area + East Africa)	Implementation Rate	Remarks comments
AD WRNG	34 / 43	79%	Aerodromes which do not provide this report : Nouadhibou Mongomeyen Ollombo
WS WRNG	29 / 43	67%	
SADIS-VSAT/FTP	32 / 43	74%	
Produits du WAFS	28 / 43	65%	
IAVW	4 / XX		XX : number of countries with an active volcano
SADIS WIFS	27 / 43	62%	

This map shows a good coverage of ASECNA states in the AFI region. In this regard, the implementation of the B0 ASBU elements was initiated in a community dynamic facilitating the compliance of most of the main airports.

On the details of this coverage, we recorded 43 airports and aerodromes that were subject to the questionnaire.

At all affected airports and aerodromes, the implementation rate of the ASBU Block B0 elements exceeds 50%. In addition, aerodrome-warning messages are the most common in all affected areas.

ANALYSIS OF REMARKS/OBSERVATIONS ON THE ELEMENTS IMPLEMENTED

1. For the ASECNA area,

The observations relate to the development in Mauritania of the Nouadhibou **AD-WRNG** by the Nouakchott CMP and the methods used for wind shear detection:

- Wind shear warning
 - ✓ Detection by installed equipment (not yet available or being implemented at most aerodromes)
 - ✓ Detection and reporting of aircraft sightings (currently the most used).
- Dissemination of OPMETs in **IWXXM** format

RDBO/BRDO	implemented components/Eléments mis en œuvre	
	Dissemination of OPMET messages in IWXXM format/ Traduction des messages OPMET au format IWXXM	Remark /Obs
GOBD - Dakar (Senegal)	X	<i>Version IWXXM 3.0</i>
FAPR - Pretoria (South Africa)	X	

– The RDBO and the Dakar BCC have been converting the required OPMETs from their areas of responsibility since 5 November 2020.

– The BCCs in Brazzaville and Niamey and the NOCs in the ASECNA area will all be capable of converting OPMETs to IWXXM 3.0 format by June 2022.

- **IAVW**

The questionnaire does not report the number of active volcanoes in the AFI area. However, we note that the operational procedures of ICAO Doc 9766 and the ICAO Volcanic Ash Contingency Plan (**VACP**) activities are not implemented.

2. For Southern and Eastern Africa

- Wind shear warning
 - ✓ For Mozambique, the implementation of the **WS-WRNG** and the dissemination of OPMETs in **IWXXM** format are effective for the eleven aerodromes of the country.
- Dissemination of OPMETs in **IWXXM** format
 - ✓ for the Seychelles the dissemination of OPMETs in **IWXXM** format is not yet effective
 - ✓ for Kenya: the dissemination of OPMETs in **IWXXM** format is effective at Jomo Kenyatta International Airport, Nairobi

- ✓ for South Africa: the dissemination of OPMETs in **IWXXM** format is effective at O.R. Tambo International Airport.

South Africa has implemented the **IWXXM** at O. R. TAMBO International (**FAOR**) at 97.8%, King Shaka International (**FALE**) at 99.2% and Cape Town International (**FACT**) at 97.3%

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