



Agenda Item 1: Follow-up to the implementation of air navigation priorities

FOLLOW-UP TO MET IMPLEMENTATION GOALS

(Presented by the Secretariat)

SUMMARY

This working paper refers to GREPECAS Programmes and Projects in the MET area, and presents the progress made by SAM States, Territories and international organisations in the implementation of the quality management system (MET/QMS) and the status of implementation of IAVW, volcanic ash contingency plans, IWXXM and the new requirements introduced by Amendment 78 to ICAO Annex 3.

References

- Eighteenth meeting of GREPECAS, Punta Cana, Dominican Republic, 9-13 April 2018
- Fourth meeting of Air Navigation and Flight Safety Directors, Lima, Peru, 2-4 October 2017
- Annex 3 – *Meteorological service for international air navigation*
- Doc 9750 – GANP
- Doc 10003 - *Manual on the digital exchange of aeronautical meteorological information*

ICAO strategic objectives:

- *A – Safety*
- *B – Air navigation capacity and efficiency*

1. Introduction

1.1 The Eighteenth meeting of GREPECAS reviewed the status of implementation of the MET Programme.

1.2 The Fourth meeting of Air Navigation and Flight Safety Directors reviewed MET implementation priorities.

1.3 Amendment 78 to Annex 3, effective on November 2018, included new requirements on space weather, IWXXM implementation and other aspects related to the qualification of aeronautical meteorological personnel.

1.4 The GANP includes B0-AMET in the ASBU methodology, which is part of the connecting thread of SWIM in the evolution to Block 1.

2. Discussion

2.1 The AN&FS/4 meeting analysed the progress made in the achievement of goals concerning MET requirements. It also took note of priority issues in the MET area for the period 2017-2019.

2.2 The GREPECAS/18 meeting reviewed activities in the MET area. It noted that, regarding MET/QMS implementation, the States of **Brazil, Chile, Panama, Paraguay, and Peru** had been certified under ISO 9001:2015. In this regard, the Secretariat received information from the other States, as follows:

- **Argentina:** Is in the process of aligning the MET/QMS to the new requirements and extending its scope. Certification audits are being scheduled for the end of 2019.
- **Bolivia:** Has completed the implementation process. Certification is still pending.
- **Colombia:** Certified under version 2008. There is no information available on alignment to the requirements of ISO 9001 version 2015.
- **Ecuador:** Continues in the implementation process.
- **Guyana:** Completed the process of implementation and alignment to the requirements of version 2015. The certification process has not started.
- **Suriname:** Certified under version 2008. There is no information available on alignment to the requirements of ISO 9001 version 2015.
- **Uruguay:** The MET/QMS implementation process has been reformulated due to changes in INUMET authorities. They are currently in the process of adjusting the previous system to include the new requirements of version 2015.
- **Venezuela:** The MET/QMS implementation process in SERMETAVIA has been completed. The certification process has not started.

2.3 Regarding the volcanic ash contingency plan, States have updated their points of contact for meteorological watch offices. Likewise, those States that have volcano observatories have implemented VONA (Volcano Observatory Notice for Aviation). Argentina is reviewing the agreement among ANAC, EANA, SMN and SEGEMAR in order to update the information on points of contact and procedures.

2.4 Regarding the implementation of the exchange of OPMET messages in XML/GML format, the Meeting should note that it is directly related to AMHS implementation and AMHS interconnections. OPMET messages in XML/GML format exceed 1800 characters (maximum exchange capacity through AFTN). Likewise, the AMHS system should have a module to convert the OPMET message in alphanumeric format to the XML/GML format so that the process is seamless to the operator. The Meeting should consider urging the CNS area to work with the MET area, under the guidelines set forth in Doc 10003 – *Manual on the digital exchange of aeronautical meteorological information*, in order to achieve OPMET exchange in XML-GML format. It should be noted that the Brasilia international OPMET data bank has implemented the system to receive OPMET data in XML format.

2.5 The Meeting should note that, as part of the new requirements introduced by amendment 78 to Annex 3, plans should be developed for implementation of Space Weather and IWXXM. The implementation of IWXXM is related to the exchange of OPMET messages in XML/GML format, and represents a preliminary step for interoperability between meteorological data and aeronautical information. The Meeting should also take into account the training of MET personnel to face these new requirements, as well as the required infrastructure, mainly related to communication networks.

2.6 The Meeting should urge States to consider drafting contingency plans for cases of release of radioactive material. At present, Argentina conducts a drill at national level that includes aviation, and Panama has contacted the Panama Canal authority to work on the issue of radioactive material.

2.7 Furthermore, the Meeting should take note of MET implementation priorities. It should be recalled that implementation requires interoperable systems. Data and system interoperability requires interoperability of the elements of modules B0-AMET and B0-DATM, which are essential for PIA 2. **Appendix A** to this working paper contains the priorities for the period 2019-2021.

3. **Suggested action**

3.1 The Meeting is invited to:

- a) take note of the information presented herein;
- b) review and discuss the activities for MET/QMS implementation and certification;
- c) review and discuss activities for the implementation of OPMET data in XML/GM and IWXXM format;
- d) plan for the implementation of Space Weather;
- e) review MET implementation priorities for the period 2019 -2021; and
- f) take any other action it may deem appropriate.

- END -

APPENDIX A

MET AREA

<i>B0 – AMET: Meteorological information supporting enhanced operational efficiency and safety</i>						
ELEMENTS	SCOPE	INDICATORS / METRICS	GOALS: %/ Date			STATUS
			2019	2020	2021	
MET/QMS/ according to ISO 9001:2015	All States	Indicator: % of States that have implemented QMS for MET (100% by the end of 2018) Supporting metrics: Number of States that have implemented QMS for MET	8	12	14	All States should update their MET/QMS documentation to align it with the changes made to ISO 9001. At present, five States have implemented and certified the MET/QMS in their aeronautical meteorological services under version 2015. Three States have certified under version 2008, but these certifications expire in September.
Implementation of SIGMET messages in graphical format	All States	Indicator: % of international aerodromes / MWOs that have implemented graphical procedures Supporting metrics: Number of international aerodromes /MWOs that have implemented graphical SIGMET procedures	8	10	12	At present, five States have implemented SIGMET messages in graphical format.
Implementation of the IAVW procedure	All States	Indicator: % of international aerodromes/MWOs that have implemented IAVW procedures Supporting metrics: Number of international aerodromes/MWOs that have implemented IAVW procedures	10	12	13	At present, eight States have implemented SIGMET messages in graphical format.

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ELEMENTS	SCOPE	INDICATORS / METRICS	GOALS: %/ Date			STATUS
			2019	2020	2021	
Implementation of the OPMET format in XML/GML	All States	Indicator: % of States that have implemented OPMET messages in XML/GML format Supporting metrics: Number of States that have implemented OPMET messages in XML/GML format	2	6	9	No State has implemented OPMET exchange in XML/GML format
Implementation of tropical cyclone watch procedures	States that require this procedure	Indicator: % of international aerodromes/MWOs with tropical cyclone watch Supporting metrics: Number of international aerodromes/MWOs with tropical cyclone watch	2	3	4	Only Colombia, Guyana, French Guiana, Panama, Suriname and Venezuela could be affected by tropical cyclones in the SAM Region
Implementation of oversight procedures for the release of radioactive material	All States	Indicator: Percentage of meteorological watch offices (MWOs) that have implemented monitoring procedures for the release of radioactive material Supporting metrics: Number of MWOs that have signed international cooperation agreements with ACCs for the delivery of the report on the release of radioactive material	2	4	7	SMN of Argentina has an agreement with the State authority responsible for radioactive material and even participates in the drills.
Implementation of windshear advisory and alert procedures	All States	Indicator: Percentage of international aerodromes/ AMOs that have implemented windshear advisory and alert procedures Supporting metrics: Number of international aerodromes/ AMOs that have implemented windshear advisory and alert procedures	6	9	12	