



Agenda Item 6: Other business

MET ACTIVITIES IN SUPPORT OF AIR NAVIGATION

(Presented by the Secretariat)

SUMMARY

This paper presents the activities carried out in the MET area in support of air navigation.

References:

- Annex 3 – Meteorological service for international air navigation
- Annex 11 - Air traffic services
- Doc 9377 – Manual on coordination between ATS, AIS, and MET
- Doc 9750 – GANP
- Doc 9854 – ATM operational concept
- Doc 10003 – Manual on the digital exchange of aeronautical meteorological information
- Doc 10045 – Report of the Meteorology (MET) Divisional Meeting
- Report of the GREPECAS/18 meeting

1. Introduction

1.1 According to Annex 3, the objective of the meteorological service for international air navigation will be to contribute to the safety, regularity and efficiency of international air navigation.

1.2 Annex 11 mentions meteorological services, mainly for the formulation of contingency plans and flight information services.

1.3 ICAO Doc 9377 lists the information that meteorological services should provide to air traffic service units in order to support the work of ATS, as well as the information that ATS units must send to MET units.

1.4 ICAO Doc 9854 states that the provision of meteorological information will be an integrated function of the ATM system. Information will be adapted to meet ATM requirements in terms of content, format and timing.

1.5 SARPs in the MET area are implemented in the SAM Region through projects authorised by GREPECAS.

1.6 The ASBU methodology incorporates module B0-AMET into the GANP.

2. Discussion

2.1 Annex 3 states that, in order to meet the purpose of meteorological services for air navigation, the following users must be provided with the meteorological information necessary for the performance of their respective functions: operators, flight crews, air traffic service units, search and rescue service units, airport administrations, and other parties involved in the operation or development of international air navigation. The necessary meteorological information includes OPMET messages (METAR, SPECI, TAF, SIGMET) as well as aerodrome warnings, wind shear warnings, special warnings, significant weather charts, wintem charts, satellite images with nepho analysis, *inter alia*.

2.2 The GANP, upon incorporating B0-AMET, has shown the activities to be implemented in the MET area in support of air navigation.

2.3 The SAM Region has been working in these MET implementations through projects authorised by the GREPECAS Programmes and Projects Review Committee. Project currently underway are:

- a) Project H2 – *Implementation of the IAVW (International airways volcano watch)*
- b) Project H3 – *Implementation of the MET/QMS*
- c) Project H4 – *Optimisation of OPMET exchange, including SIGMETs (WS, WV, WC and WR), warnings and meteorological alerts*
- d) Project H5 – *Improvements of MET services in accordance with the new operational requirements in support of ATM*

2.4 Furthermore, work has been carried out on volcanic ash contingency plans in coordination with the ATM, AIM and CNS areas.

2.5 Activities carried out under Project H2 have improved the availability of volcanic ash SIGMET messages, increased the availability of SIGMET messages related to other phenomena, and corrected the formats. Work has been carried out in coordination with ANS and MET providers, as well as with volcanological services, to improve the flow of information on volcanological activity or the presence of volcanic ash clouds in an FIR. The VONA (volcano observatory notice to aviation) has been implemented in five States.

2.6 Within the activities of Project H2, a volcanic ash contingency plan was prepared. This plan includes the participation of the AIM, ATM and MET areas in the States. Unfortunately, despite the State letters sent, the designation of ATM focal points has not been achieved yet.

2.7 Within this same context, the contingency plan on radioactive material released into the atmosphere was a task given to ATM. However, this task is pending. For the MET area, it is very important to coordinate with ATM in case of release of radioactive material, since, according to the note contained in Annex 3, 3.4, the specialised regional meteorological centre (London), in case of release of radioactive materials into the atmosphere, will transmit the report received from IAEA to the ACCs/FICs with details on the release.

2.8 Within the context of Project H3, good progress has been achieved in the Region. At present, all States have implemented it and nine States have been certified under ISO 9001 version 2008. Furthermore, so far, five States have been re-certified under version 2015 of the standard.

2.9 Regarding Project H4, the controls of the Brasilia International OPMET databank and the industry reports have permitted work on deficiencies identified in message formatting and availability, thus improving efficiency by 0% since 2014.

2.10 Regarding Project H5, the Coordinator is working on it, especially in the development of the survey addressed to ANSPs for collecting information on the type of meteorological service and messages they will require for the implementation of ATFM and other air navigation services. It will be very important to reckon with the support of the ATM area of the States in order to work in a CDM and A-CDM environment.

2.11 Likewise, Amendment 78 to Annex 3 introduces new challenges, such as the implementation of the Space Weather Service, the ICAO meteorological information exchange model (IWXXM), and the qualification of aeronautical meteorological personnel. The GREPECAS/18 meeting noted that, in order to implement these amendments, States should take into account the infrastructure required for the implementation of the ICAO meteorological information exchange model (IWXXM), national and regional coordination in case of release of radioactive material, and the provision of new MET services to meet the requirements of the CDM and A-CDM environment, among other challenges related to the exchange of OPMET messages and the qualification of aeronautical meteorological personnel.

2.12 In order to provide guidance for the implementation of OPMET messages in XML/GML format, ICAO has developed Manual 10003 that contains guidelines to be considered by the States when preparing OPMET messages to be included and managed in a SWIM environment.

3 Suggested action

3.1 The Meeting is invited to take note of the information contained in this information paper.
