International Civil Aviation Organization
North American, Central American and Caribbean Office (NACC)
Seventh Central Caribbean Working Group Meeting
(C/CAR WG/7)
Mexico City, Mexico, 13 to 16 July 2009

Agenda Item 2: Review of Air Navigation matters
2.3 Air Navigation specific activities:
2.3.4 Aeronautical Meteorology (MET)

AERONAUTICAL METEOROLOGICAL SERVICE IN THE CENTRAL CARIBBEAN REGION

(Presented by the Secretariat)

SUMMARY	
The aeronautical meteorological service has a fundamental role in the safety and efficiency of air navigation	
References: • Doc. 9750 /963 - Global Air Navigation Plan. 3rd ed. 2007. • Doc. 8733. Air Navigation Plan for the CAR/SAM Regions. • Final Report of GREPECAS/15 Meeting (Rio de Janeiro, Brazil, 13 to 17 October, 2008)	
Strategic Objectives	*This working paper is related to Strategic Objectives A, D, E*

1. Introduction

1.1 Aeronautical technology has delivered great achievements; notwithstanding, aircraft operations are still vulnerable to adverse meteorological conditions and volcanic ash clouds that cause accidents, incidents and delays. Meteorological service in the Central Caribbean region is of crucial importance for the safety and efficiency of air transport operations, particularly with the noted frequency of regional and seasonal occurrence of tropical cyclones, thunderstorms, heavy rainfall, wet runways and low density air.

1.2 *Meteorology in the Global Air Navigation Plan*

1.2.1 Meteorological information used primarily for aircraft operations is called “OPMET data”; OPMET data include meteorological reports (METAR, SPECI and local reports), aerodrome forecasts (TAF), landing forecasts (TREND), aircraft observations, SIGMET and AIRMET information.

1.2.2 The increase of air transport operations demands better meteorological information to take advantage of fair weather and avoid dangerous atmospheric phenomena and volcanic ash. In fact, the Global Air Navigation Plan demands **immediate** access to **high-quality** aeronautical meteorological (OPMET) information that is required to assist Air Traffic Management in tactical decision-making for aircraft surveillance, air traffic flow management and flexible and dynamic aircraft routing that will contribute to the optimization of the use of airspace. Such stringent requirements demand efficient OPMET data exchange, an increase in automated meteorological systems and more data links to download and upload meteorological information.

1.2.3 The Global Air Navigation Plan also demands a meteorological service for international air navigation provided in an integrated and comprehensive manner through global systems such as the World Area Forecasts System (WAFS), the International Airways Volcano Watch (IAVW) and the ICAO tropical cyclone warning system.

1.3 *Monitoring OPMET data in the Central Caribbean Region*

1.3.1 The ICAO NACC Regional Office supports Global Air Navigation Plan activities. RO/MET monitors, via internet, OPMET data (METAR and TAF) issued by the CAR States and Territories and provides assistance to them, via e-mail or telephone, to eliminate problems when data are not available or contain coding errors. While performing this task, it has been noted with satisfaction that, in the Central Caribbean Region, there is collaboration among the Meteorological Services and that meteorological personnel of some aerodromes prepare and issue aeronautical meteorological reports, day to day without interruptions or delays, even under severe weather conditions caused by tropical cyclones (Gustav and Paloma). At the same time, it has also been noticed that the current status of the Meteorological Services of some C/CAR States is not always accurately reflected in the Air Navigation Plan for the CAR/SAM Regions; in particular, the information for Cayman Islands Dominican Republic and Haiti in Tables MET1A and MET2A are not up-to-date. In this regard, the meeting may agree that the Civil Aviation Authorities of the Central Caribbean States and Territories, in coordination with their Meteorological Authorities, should review and update, if necessary, their meteorological information in Tables MET1A and MET2A of Part VI FASID MET of the Air Navigation Plan for the CAR/SAM Regions.

1.4 *GREPECAS MET Conclusions*

1.4.1 The meeting is also invited to review Conclusions 15/4 to 15/18 of the Final Report of GREPECAS 15 Meeting, related to meteorological matters, in particular to take note of Conclusion 15/9 concerning the need to update WAFS workstations to ensure continuity in OPMET data exchange and reception of WAFS graphical and alphanumerical products.

1.4.2 RO/MET has been informed that several WAFS workstations in the C/CAR Region are out of order due to damage caused by lightning strikes and that their repair will be delayed due to high costs. In one case, RO/MET requested support to NOAA to grant permission to one Central Caribbean State to transmit their OPMET data via Internet using the USA/NOAA/NWS E-mail Data Input System.

1.4.3 Considering the usefulness of the WAFS workstation and the high cost to repair it, the meeting may agree to formulate the following draft conclusion:

DRAFT
CONCLUSION 7/X PROTECTION TO WAFS WORKSTATIONS

That the State Civil Aviation Authorities, in coordination with the Meteorological Authorities adopt necessary measures to protect their WAFS workstations against lightning strikes, current surges in the communication lines and voltage pikes in the power supply.

1.5 *Quality Management System in Meteorology.*

1.5.1 The meeting is invited to take note that the establishment of a Quality Management System in Meteorology is a requirement to support the Global Air Traffic Management. Therefore, standard 2.2.2 of Annex 3, demands the implementation of a properly organized quality system to provide for the quality management of the meteorological information to be supplied to the aeronautical users. In this regard, the meeting is invited to take note that the Civil Aviation Authority of Jamaica has confirmed his kind offer to host an ICAO Seminar / Workshop on this matter. In this regard, the meeting is invited to formulate the following conclusion:

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CONCLUSION 7/X SUPPORT TO METEOROLOGISTS TO ATTEND THE ICAO SEMINAR / WORKSHOP ON THE METEOROLOGICAL SERVICE FOR THE INTERNATIONAL AIR NAVIGATION TITLED "DEVELOPMENT OF A QUALITY ASSURANCE SYSTEM TO ENHANCE THE AERONAUTICAL METEOROLOGICAL SERVICE," IN ENGLISH

That the States Civil Aviation Authorities in coordination with the Meteorological Authority of each Central Caribbean State make their best effort to ensure that aeronautical meteorologists of their States participate in the ICAO Seminar / Workshop on the Meteorological Service for the International Air Navigation titled "Development of a Quality Assurance to enhance the Aeronautical Meteorological Service", in English, to be held in Jamaica, 25-27 November 2009.

1.6 *Deficiencies in the field of Meteorology*

1.6.1 It has been noticed that some meteorological deficiencies have been outstanding for some time in all Central Caribbean States, may be due to insufficient assistance in this matter. In this regard, the Central Caribbean States Civil Aviation Administrations, in coordination with the Meteorological Authorities should review their outstanding MET deficiencies and if necessary request assistance to eliminate them and report results to the NACC Regional Office of ICAO.

2. Suggested Action

2.1 The Meeting is invited to take note of this working paper and to adopt the draft conclusions contained in paragraphs 1.4.3 and 1.5.1.

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