International Civil Aviation Organization
North American, Central American and Caribbean Office

WORKING PAPER

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Fifth NAM/CAR Air Navigation Implementation Working Group Meeting (ANI/WG/5)
Mexico City, Mexico, 27 to 31 May, 2019

Agenda Item 3: Global and Regional Air Navigation Developments

Regional challenges and objectives in the MET area

(Presented by the Secretariat)

EXECUTIVE SUMMARY	
This working paper is presented for the consideration of the Meeting and the necessary actions, as well as a summary of the Meteorology Panel activities and its work on the amendments of Annex 3 to the Chicago Convention Standards and Recommended Practices (SARPs); in addition, the working paper introduces the expected update of the Global Air Navigation Plan and the possible transition of the Meteorological Service for International Air Navigation.	
Action:	Suggested actions are presented in section 4.
Strategic Objectives:	• Safety • Air Navigation Capacity and Efficiency • Environmental Protection

1. Introduction

1.1 The Meteorology Panel (METP) was established by the Air Navigation Commission (ANC) in September 2014. It is comprised by 24 voting Members from 18 invited States and 6 International organizations, (Euro Control [ECTL], International Air Transport Association [IATA], International Federation of Air Line Pilot's Associations [IFALPA], International Federation of Air Traffic Controllers' Association [IFACTA], Agency for Aerial Navigation Safety in Africa and Madagascar [ASECNA], World Meteorological Organization [WMO]) and, additionally, two observers, 65 technical advisors and the ICAO Secretariat.

1.2 Work is assigned by ANC in the form of Job Cards. The METP is organized around the grouping of Job Cards. There are currently five Working Groups (WGs), each headed by a Rapporteur. Subordinate Work Streams are each headed by a Coordinator. The primary deliverables for each Job Card include draft Standards and Recommended Practices (SARPs) and any additional necessary documentation, including: operations concepts documentation, roadmaps, functional and performance requirements, and service provider selection criteria (in the case of entirely new meteorological services). Each effort is expected to culminate in formal amendments of ICAO Annex 3.

1.3 Furthermore, the mechanism established in the NACC Region to assist States in the effective implementation of ICAO SARPs and provide technical assistance, is primarily based on the Meteorology Programme Projects structure of the CAR/SAM Planning and Implementation Regional Group (GREPECAS) that focuses current efforts on the following three projects:

a. Project H2 - Implementation of meteorological watch for the monitoring of en-route severe phenomena, volcanic ash, tropical cyclones and the release of radioactive material
b. Project H3 - Implementation of the quality management system for the provision of the meteorological service for international air navigation (QMS/MET)
c. Project H4- Optimization of Operational meteorological information (OPMET) exchange, including Significant meteorological information concerning en-route weather phenomena, which may affect the safety of aircraft operations (SIGMET), warnings and meteorological alerts

2. Annex 3 amendment status

2.1 METP has held four meetings at ICAO Headquarters: on April 2015, October 2016, April 2018 and September 2018; reports of the meetings are available at the METP website (see here) for consultation and monitoring by States.

2.2 During the previous four years, Annex 3 to the Chicago Convention has been updated through amendments 77A, 77B and 78, consolidated in the nineteenth and twentieth editions.

2.3 Statistics recorded by the Online Framework (OLF) of the Universal Safety Oversight Audit Programme (USOAP) for the Compliance Checklist (CC) in the Electronic Filling of Differences (EFOD) with respect to Annex 3 for NACC Region States, only reached 64.36% as of May 2019, indicating that some States do not successfully complete the SARPs amendment process.

2.4 In general, the main topics introduced by the SARPs amendment process to Annex 3 have been:

a. Digital format for volcanic ash and tropical cyclone advisories and Information concerning en-route weather phenomena which may affect the safety of low-level aircraft operations (AIRMET);
b. The provision of Meteorological aerodrome report METAR/Aeronautical special meteorological report (SPECI), Aerodrome forecast (TAF) and SIGMET information in digital format as a recommended practice;
c. Introduction of World Area Forecast System (WAFS) forecast information on cumulonimbus clouds, icing and turbulence and additional flight levels for WAFS gridded forecast information;
d. Removal of legacy satellite distribution systems in lieu of Internet-based services;
e. Modification of Area forecast for low-level flights (GAMET) forecast requirements;
f. Clarification of runway visual range assessment requirements; and editorial amendments;
g. Use of a global reporting format for assessing and reporting runway surface conditions;
h. Introduction of space weather advisory information services;
i. Improvement of the provision of SIGMET information by meteorological watch offices (MWOs); information on the release of radioactive material into the atmosphere; SIGMET and AIRMET information;
j. Modifications of ICAO Weather Information Exchange Model (IWXXM) representations of information;
k. Aeronautical meteorological personnel qualification and competency, education and training; and consequential amendment concerning change of references related to the provision of aeronautical information service.

2.5 In addition, a new proposal for amendment of Annex 3 has been circulated for State comments by 9 July 2019; the proposal contains at least 13 relevant matters as the re-suspended volcanic ash, the Quality management system for the provision of meteorological services, the harmonization of SIGMET information, among others.

3. Additional considerations

3.1 In 2016, the Council and the Assembly of ICAO adopted and endorsed a new fifth edition (2016) of the Global Air Navigation Plan (GANP) (Doc 9750). The 2016-2030 GANP has retained the Aviation System Block Upgrades (ASBU), first introduced as part of the fourth edition of the GANP in 2013, although the blocks themselves have been organized into non-overlapping six-year period increments. Four performance improvements areas (PIA) of the ABSU have also been retained unchanged.

3.2 The next edition of the GANP (sixth edition, 2019) is expected to undergo a more comprehensive update, aligned with the six-year block periods. In addition, as a result of the METP experts analysis, a possible restructure of the Advanced Meteorological Information Thread (AMET) Blocks 0 and 1 will be implemented, including a different organization and distribution of elements to highlight the foreseen transition from a product-centric environment to an information-centric environment, as well as the migration to include MET in the future System-Wide Information Management (SWIM).

3.3 Finally, it is important to mention the need to know States' perspective regarding relevant emerging aspects, such as the recent World Meteorological Organization (WMO) request to determine whether there is an aeronautical requirement for tropical cyclone advisory information in the Western South Atlantic, in light of the development of tropical storm Iba off the East coast of Brazil in March 2019, and the well-known, but infrequent development of tropical/subtropical storms or tropical cyclones in the same area over the past decade and more.

4. Suggested action

4.1 The Meeting is invited to:

a. share with the Meeting the deployed implementation mechanism, the challenges faced and assistance needs.

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