



ICAO

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North American, Central American and Caribbean Office  
INFORMATION 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 2: Review and Follow-up to Valid Conclusions/Decisions of the ANI/WG/04, NACC/WG/05 and GREPECAS/18 Meetings**
- 2.1 Follow-up and performance and monitoring assessment of the NAM/CAR Regional Performance-Based Air Navigation Implementation Plan (RPBANIP)**

**MET IMPLEMENTATION PROGRESS IN CUBA**

(Presented by Cuba)

<b>EXECUTIVE SUMMARY</b>	
This Information Paper describes the MET Service Implementation Progress in Cuba.	
<i>Strategic Objectives:</i>	<ul style="list-style-type: none"><li>• Safety</li><li>• Environmental Protection</li></ul>
<i>References:</i>	<ul style="list-style-type: none"><li>• AN-Conf/12</li><li>• ANI/WG/2 Final Report</li><li>• National Program of the task subgroup for the implementation of module B0-105/AMET</li><li>• National meetings of the task subgroup</li></ul>

**1. Introduction**

1.1 The Twelfth Conference on Air Navigation (AN-Conf./12) under the concept of "Single Sky", conceived a concept, on a global scale, to develop the implementation plans, infrastructure and procedures required, both at the scale regional and national, In Cuba and based on what was agreed during the first meeting of the working group on air navigation implementation for the NAM/CAR Regions (ANI/WG), it was agreed to activate the task subgroup format for the implementation of the module B0-105/AMET in order to make implementation activities related to air navigation more efficient.

## 2. Development.

2.1 Through the System Wide Information Management (SWIM), the meteorological information constitutes one of the enabling elements, key for the realization of the operational concept of a global Air Traffic Management (ATM).

2.2 We are using meteorological information, increasingly, in support of greater efficiency and safety, the Significant Meteorological Information (SIGMET) to provide information on the occurrence or expected occurrence of specific meteorological phenomena en route that may affect the safety of aircraft operations and other Operational Meteorological Information (OPMET), including Meteorological Aerodrome Report (METAR)/SPECI and Aerodrome Forecast (TAF), to provide routine and special observations and forecasts of meteorological conditions that occur or are expected to occur at the aerodrome.

2.3 The use of global, regional and local meteorological information provided by the global area Forecast Centres (WAFC), Volcanic Ash Advisory Centres (VAAC), Tropical Cyclone Warning Centres (TCAC); the aerodrome meteorological offices and the meteorological surveillance offices have provided us with a more flexible management of the airspace, a better situational awareness and collaborative decision-making, as well as the optimized planning of flight trajectories.

2.4 Improvements in the availability of meteorological information have brought benefits in terms of:

*The efficiency:*

- a) improve the capacity of aerodromes and airspace and reduce unnecessary fuel consumption
- b) avoid unjustified delays due to weather conditions at the aerodromes.

*To operational safety:*

- a) increase flights through areas with favourable meteorological conditions and avoid or reduce flights through areas with adverse weather conditions or clouds of volcanic ash.
- b) Avoid landing operations in airports under minimum weather conditions.

Elements	Implementation Objectives and Progress
<b>1. WAFS</b>	<b>100% Implemented since June 2012</b>
<b>2. IAVW</b>	<b>100% Implemented since December 2014</b>
<b>3. Tropical cyclone warning</b>	<b>100% Implemented since November 2007</b>
<b>4 Aerodrome warnings</b>	<b>100% Implemented since June 2012</b>
<b>5. Wind Shear Warnings and Alerts</b>	<p><b>It is implemented in the international aerodromes / ARO/AIS/MET Offices 100% of the procedures since December 2015.</b></p> <ul style="list-style-type: none"> <li>• <b>The installation of a wind profiler in MUHA is planned</b></li> </ul>
<b>6. SIGMET</b>	<b>100% Implemented since November 2007</b>

Elements	Implementation Objectives and Progress
7 OPMET (METAR, SPECI y TAF) Information	<p><b>It is implemented 100% since November 2013</b></p> <ul style="list-style-type: none"> <li>• <b>Equipment for the detection of the track visibility (RVR) at airports Inter.</b></li> <li>• <b>Automatic Stations at all Inter/Nat.</b></li> <li>• <b>Equipment is installed to detect the height of the cloud ceiling (Ceilometer) at Inter Airports.</b></li> </ul>

### 3. Conclusions.

3.1 We can conclude that Cuba has maintained a gradual progress in the implementation of the MET service, and will continue to strive to comply with the proposed goals, in support of greater efficiency and safety.