



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

**MEETING/WORKSHOP TO ENHANCE STATE
COORDINATION BETWEEN MET, AIM, AND ATM FIELDS**

(Mexico City, Mexico, 26-28 July 2016)

Summary of Discussions
Draft

MEETING/WORKSHOP TO ENHANCE STATE COORDINATION BETWEEN MET, AIM, AND ATM FIELDS

SUMMARY OF DISCUSSIONS

- Date:** 26 to 28 July 2016
- Venue:** ICAO NACC Regional Office, Mexico City, Mexico
- Participants:** The Meeting/Workshop was attended by 41 representatives of 11 NAM/CAR States, 3 International Organizations representatives. The list of participants appears in the **Appendix** to this document.

1. Introduction

1.1 The Meeting/Workshop was held in accordance with the North American, Central American and Caribbean Air Navigation Implementation Working Group Conclusion ANI/WG/1/11, which was superseded by Decision ANI/WG/2/1 :

*DECISION
ANI/WG/2/1 MEETING/WORKSHOP ON ATM, AIM AND MET
COORDINATION*

That, in preparation for the Meeting/Workshop on ATM/AIM/MET Coordination (May 2016), and in order to promote coordination to improve safety during natural events with major aviation impact, States/Territories of the CAR Region and COCESNA provide information on coordination among ATM, AIM and MET services to the ICAO NACC Regional Office by 28 December 2015.

1.2 The main objective of the Meeting/Workshop was to analyze the mechanisms established by States to ensure the access and exchange of aeronautical and meteorological information services in support of Air Traffic Management (ATM) and Air Traffic Flow Management (ATFM) under contingency conditions.

1.3 All meeting/workshop documentation and presentations are available at: <http://www.icao.int/NACC/Pages/meetings-2016-aimmetatm.aspx>.

2. Discussions

2.1 States noted the regional guidelines and processes of Air Traffic Services (ATS) contingency plans approved by the CAR/SAM Regional Planning and Implementation Group (GREPECAS) (<http://www.icao.int/NACC/Pages/edocs-atm.aspx>) to develop and/or update their own ATS contingency plan.

2.2 States should develop Collaborative Decision-Making (CDM) Processes for Airspace organization and management (AOM), ATFM, Aerodrome Operations (AO) and Airspace user operations (AUO) elements, and coordination procedures in prevention of volcanic ashes and hurricanes affectations for ATM community, in accordance with Doc 9854 — *Global Air Traffic Management Operational Concept* and Doc 9766 – *Handbook on the International Airways Volcano Watch (IAVW) — Operational Procedures and Contact List (IAVW)* concepts, as appropriate.

2.3 In view of the updates provided in Amendment 77 to Annex 3, the Secretariat presented an Information Concerning En-Route Weather Phenomena which may Affect the Safety of Aircraft Operations (SIGMET) analysis report explaining its contribution in support to ATM and ATFM providing specific information regarding the occurrence or expected occurrence of specified en-route weather and other phenomena in the atmosphere, such as volcanic ashes, radioactive material, and toxic chemical clouds.

2.4 Results on Volcanic ash exercise – FICTITUS were disseminated. This exercise was established to verify communication channels and quality of the information broadcasted between Volcanic Ash Advisory Centre (VAAC), International NOTAM Offices (NOFs) and Meteorological Watch Offices (MWOs). The need to provide an interagency simulation scenario which involves other stakeholders in accordance with Doc 9966 — *Oversight of Fatigue Management Approaches* was mentioned.

2.5 Mechanisms which allow appropriate and timely SIGMET preparation and dissemination within the Region were explained, emphasizing the need to provide exchange in a digital environment enhancing team work between MWOs and explaining the introduction to digital format established by Amendment 77 that will get into force from 10 November 2016 as a recommended method. Finally, a survey developed to meet the participants' perceptions on SIGMET information and its impact on the AIM-ATM-MET coordination process was circulated, with the aim to direct efforts to assist ICAO Standards and Recommended Practices (SARPs) implementation, particularly related with Annex 3. The results support the recommendation formulated by the Secretariat.

2.6 In regard to volcanic ash, *Mexican Instituto Politécnico Nacional (IPN)*, on behalf of the Working Group on the Development of Identification Maps of Volcanic Ashes Cloud Dispersion for the Aviation Risks Mitigation provided a presentation on the update of the activities carried out by the Group since 2013, which included the impact to the airports located at 50, 10, and 200 NM radius around the Popocatepetl Volcano, as well as the adjacent airways, the temporary closure of the airways and their operational and financial impact, and the seasonal risk map product of the volcanic ashes dispersion.

2.7 The Secretariat provided a presentation on the contributing factors in aviation accidents. The presentation began with global statistics on accidents of scheduled commercial flights extracted from the ICAO Safety Report - 2016 Edition and from the Regional Aviation Safety Group – Pan America (RASG-PA) Annual Safety Report (ASR), 7th Edition – Draft on fatality risk, showing good progress in relation to the established target in the *Port-of-Spain Declaration*.

2.8 The Secretariat presented a thorough analysis on the contributing factors in accidents related to the threats and latent conditions in the NAM and Latin American region. Moreover, the Secretariat established the eventual correlation between the aforementioned factors and the lack of implementation of the Critical Elements (CE) in accordance with the Universal Safety Oversight Audit Programme (USOAP) – Continuous Monitoring Approach (CMA), State Safety Programme (SSP), aerodrome certification, and the CAR/SAM Regional Planning and Implementation Group (GREPECAS) Air Navigation Deficiencies Database (GANDD).

2.9 The Meeting was made aware of the challenges and opportunities for the region on safety matters. The Meeting expressed concern on the presented issues, especially in the ones related to aviation personnel training to practice a safety effective surveillance as it is expected by the regulator.

2.10 The Secretariat explained the scope of the audits, the multidisciplinary visits under the NACC No Country Left Behind (NCLB) strategy and the ICAO Global Aviation Training (GAT) activity.

2.11 The Secretariat provided a presentation on flight operations with low visibility conditions in order to highlight the importance of a proper coordination among the different air navigation services to reach the required international standards in matter of safety and efficiency.

2.12 The Secretariat emphasized that the precise and updated meteorological information, as well as the NOTAMs and ASHTAM, are key aspects during the preflight and flight phases, in order to have a successful air operation.

2.13 The Meeting acknowledged the importance to involve all the actors in this type of information dissemination, especially to pilots and air traffic controllers as the end users through the Aeronautical Information Publication (AIP) and NOTAM, in order to increase the level of awareness on the activities that each group of professionals execute the operations looking for a greater level of safety and efficiency.

2.14 The Secretariat mentioned that as part of RASG-PA activities, workshops between pilots and air traffic controllers were initiated to improve the use of aviation phraseology, in accordance with ICAO Doc 4444 — *Air Traffic Management*, in English and Spanish, and urged the Meeting to promote this type of initiatives at the national and regional level.

2.15 United States mentioned that the FAA has resumed the initiative to allow that ATC be in the cockpit during the flight execution and also pilots can visit the control towers and control centers in order to optimize the operations.

2.16 The Secretariat referred to the A39-WP/31 that will be presented by the Secretariat in the ICAO 39th Triennial Assembly to inform the Meeting about the outcomes on emerging issues of the Second High-level Safety Conference 2015 (HLSC 2015) that was held at ICAO Headquarters from 2 to 5 February 2015. It can be found in Doc 10046 — *Montréal Declaration on Planning for Aviation Safety Improvement* published in the *Second High-level Safety Conference 2015 Report*.

2.17 The Secretariat highlighted the following issues: regulatory oversight for the effective implementation of Performance-Based Navigation (PBN); global flight tracking; conflict zones; civil/military cooperation; extreme meteorological conditions; Civil/military cooperation; Public health (CAPSCA); Remotely piloted aircraft systems (RPAS); Global Aviation Safety Plan (GASP); Fatigue Risk Management System (FRMS) for pilots and ATCs; cybersecurity; lithium batteries; spectrum allocations (Automatic dependent surveillance – broadcast - ADS-B, and Global Aeronautical Distress and Safety System-GADSS).

2.18 As a follow-up regional actions to the HLSC 2015 and the Assembly — 39th Session (AN-WP/31), the following topics were mentioned:

2.18.1 *Item 4 – c) Regulatory oversight for the effective implementation of performance-based navigation (PBN):* In accordance with the Resolution A37-11 and the performance-based navigation global goals, more than 90% of States have successfully implemented PBN approach procedures, and it is expected that by December 2016 a 97% will be reached including their publication in the AIPs.

2.18.2 *Item 10 – 4) ICAO should support regional Search and Rescue (SAR) training exercises related to abnormal flight behavior and share the outcomes with the international community:* the next SAR event will be held in Trinidad and Tobago in October 2016, the agenda item will include civil-military coordination, oceanic areas oversight and flight tracking.

Theme 2: FUTURE APPROACH TO MANAGE AVIATION SAFETY

2.18.3 *Item 28 – 4) ICAO should expedite the development of provisions to be used by States to regulate remotely piloted aircraft system (RPAS) operations within their airspace and to educate users regarding the risks associated with their operations:* RPAS discussion was held at the ANI/WG/3 meeting and 60% of States have already published airspace and international aerodromes regulations and Aeronautical Information Circulars (AICs).

2.18.4 As part of the NACC No Country Left Behind (NCLB) strategy some associations between safety oversight entities has been created such as the Caribbean Aviation Safety and Security Oversight System (CASSOS) for the Eastern Caribbean (English-speaking States) and ACSA in Central American (Spanish-speaking States), devoted to ensure inspections programme and Standards and Recommended Practices (SARPs) compliance.

2.19 In regard to the presentation from SENEAM Mexico, it was noted that real-time information from seismographs installed at the Popocatepetl volcano is used to detect significant volcanic ash eruptions to prompt SIGMET and ASHTAM issuance provided by AFTN and web page.

3. Recommendations

3.1 Based on the presentations and discussions, the Meeting agreed on the following Recommendations:

Recommendation 1. States to inform their training needs to the ICAO NACC Regional Office in order present them in the Third NAM/CAR Civil Aviation Training Centres Working Group Meeting (NAM/CAR/CATC/WG/3) to be held in Mexico City, Mexico, from 19 to 20 October 2016, and to be considered in the regional catalog of courses for 2017.

Recommendation 2. Additionally to their ATS Contingency Plan, States should develop Natural Disaster Emergency Response Plans, considering timely messaging coordination between ATS, AIM and MET and SAR services

- Recommendation 3. That ICAO formulate and develop mechanisms to assist States in order to promote the implementation of digital exchange of operational meteorological information – OPMET based on ICAO Meteorological Information Exchange Model (IWXXM).
- Recommendation 4. Increase efforts to assure the effective implementation of Quality Management Systems (QMS) AIM/MET, in order to fulfill the stakeholders' requirements. In order to assist the States on SIGMET information production, the NACC Office will promote the planning of a workshop in 2017 and the update of related guidance materials, requesting active involvement of member States.
- Recommendation 5. States to update the current Letters of Agreement (LoA) between ATM, AIM, and MET services, with the propose to improve the regional coordination, following the recommendation exposed in the Doc 9691 - *Manual on Volcanic Ash, Radioactive material and Toxic Chemical Clouds* as required.
- Recommendation 6. That States analyze and assure the Access and exchange of aviation and meteorological information in real time in support the Air Traffic Flow Management (ATFM).
- Recommendation 7. The Meeting recommended start regional works on CDM (ATM, MET and AIM) using emerging technologies and concepts according the System Wide Information Management (SWIM) seeking to meet expectations of ATM and pilots community members, MET, AIM and CNS areas, as required.
- Recommendation 8. That the Working Group on the Development of Identification Maps of Volcanic Ashes Cloud Dispersion for the Aviation Risks Mitigation continues with its activities and to prepare a national drill for 2018 fostering an inter-agency simulation scenario which involves other stakeholders.
- Recommendation 9. CAR Region States to promote multidisciplinary initiatives in order to achieve regional integration on this matter; and consider the inclusion of contingency plans investigation results to assess the possibility of formulating projects aimed to increase expected information by Volcanology Observatories in Mexico.

4. Other Business

4.1 Finally, the Meeting was informed that the Fifth North American, Central American and Caribbean Working Group Meeting (NACC/WG/5) and Eighteenth Meeting of the CAR/SAM Regional Planning and Implementation Group (GREPECAS/18) will be held next year as a follow-up on necessary actions to meet the recommendations aforementioned.

4.2 The Meeting agreed to have another meeting in 2017 in the ICAO NACC Regional Office. The tentative date would be by second semester.



North American, Central American and Caribbean Office (NACC)
Oficina para Norteamérica, Centroamérica y Caribe (NACC)

**Meeting/Workshop to enhance State Coordination between the MET, AIM, and ATM Fields
Reunión/Taller para mejorar la coordinación entre las áreas MET, AIM y ATM
(AIM/MET/ATM)**

Mexico City, Mexico, from 26 to 28 July 2016 / Ciudad de México, México, del 26 al 28 de julio de 2016

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