



Meeting on GREPECAS MET Programme Projects

(Lima, Peru, from 18 to 22 September 2017)

Agenda Item 1: Review of the Project H2 – Implementation of the International Airways Volcano Watch (IAVW)

**ANALYSIS OF THE INTERNATIONAL AIRWAYS VOLCANO WATCH (IAVW)
IMPLEMENTATION IN THE CAR REGION**

(Presented by the Secretariat)

SUMMARY	
<p>This working paper presents the implementation status of International Airways Volcano Watch (IAVW) in the CAR Region describing background information and relevant developed activities and propose the activity plan for H2 project in the CAR Region, putting into consideration the need to carry out Volcanic ash exercises on a regional basis in order to practice and develop inter-agency response to volcanic activity in order to maintain safety, regularity and efficiency of aviation.</p>	
Action:	Suggested actions presented in Section 4
Strategic Objectives:	<ul style="list-style-type: none">• Safety• Air Navigation Capacity and Efficiency• Environmental Protection
References:	<ul style="list-style-type: none">• Reports of the Sixteenth and Seventeenth Meetings of the CAR/SAM Regional Planning and Implementation Group (GREPECAS)• Report of the Second, Third and Fourth Meetings of the Programmes and Projects Review Committee (PPRC)• Regional Performance-Based Air Navigation Implementation Plan (RPBANIP)• Doc 9766 Handbook on the International Airways Volcano Watch (IAVW).

1. Introduction

1.1 PPRC/2 meeting was informed about the difficulties encountered with the designation of a project coordinator, which had hindered achievement of results. In this regard, the Meeting considered that the project should be cancelled until the required experts were obtained and urged CAR States to support the project with experts to perform such activities.

1.2 PPRC/4 meeting approved the reactivation of Project H2 and recognized as a difficulty encountered for the development of MET projects, scarce availability of experts from CAR States which might hinder the reactivation of the Projects.

2. Discussion

2.1 In accordance with the Regional Performance-Based Air Navigation Implementation Plan (RPBANIP) and the objectives formulated for the implementation of the International Airways Volcano Watch (IAVW) procedures, NACC Region achieved an implementation rate of 77.8% exceeding the agreed target. <https://www.icao.int/NACC/Pages/Implementation-Targets.aspx>

2.2 During 2016 and 2017 as part of the NACC Regional Office No Country Left Behind strategy – NCLB, several NACC States received assistance to enhance the action plans for the improvement of the Universal Safety Oversight Audit Programme (USOAP) Effective Implementation (EI) status; The missions and the teleconferences evidence two common findings associated with the IAVW programme: the lag of provisions related with the special air-reports for volcanic ash and the issuance of Information Concerning En-route Weather Phenomena Which may Affect the Safety of Aircraft Operations (SIGMET) messages for volcanic ash; in addition the Air Traffic Services (ATS)/Aeronautical Meteorology (MET) coordination agreements not include procedures related to the radioactive material in the atmosphere, radioactive clouds, or toxic clouds.

2.3 Upon request of the NACC Office and in coordination with the SAM Office, the Washington VAAC, launched two periodic tests on volcanic ash SIGMETs denominated FICTITUS exercise on 12 and 13 December 2015 and 16 December 2016; In compliance with the Conclusion 3/9 PPRC/3, NACC and SAM Regional Offices reviewed the protocols resulting in a test carried out during a period of 12 hours between 15 and 22 December 2016.

2.4 The exercise performed on December 2015 had the participation of eight States (Argentina, Chile, Cuba, Honduras, Jamaica, Mexico, United States, and Uruguay); the second exercise performed on December 2016 had the participation of 17 States (Argentina, Brazil, Colombia, Chile, Cuba, Dominican Republic, Ecuador, Honduras, Jamaica, México, Panama, Peru, Suriname, Trinidad and Tobago, United States, Uruguay, Venezuela)

2.5 Both exercises showed active participation of the Argentina and Washington Volcanic Ash Advisory Centres (VAACs), as well as the Notice to Airmen (NOTAM) and World Meteorological Organization (MWO) Offices of the involved States were observed; the involved units generated volcanic ash advisories, NOTAM-ASHTAM and SIGMET respectively, the most significant findings were: mistakes in headers and numeration, intermittence in Aeronautical Message Handling System (AMHS) terminals, omission in coordination procedures and communication failures.

2.6 The recurring volcanic ash tests allowed the verification of the communication channels and the suitability of the information, its frequency, format, and content, however, the present design of the exercise does not review the preparation and the operative response in terms of planning, processes, and procedures of the operators and air traffic services, as the objectives and concepts formulated in Doc 9766 Handbook on the IAVW.

2.7 In accordance with ICAO Doc 9766, Handbook on the International Airways Volcano Watch, Appendix F – Guidance for conducting volcanic ash exercises in ICAO Regions, volcanic ash exercises should be conducted by ICAO on a regional basis in order to practice and develop interagency response to volcanic activity, in order to maintain safety, regularity and efficiency of aviation in the event of a volcanic eruption. The frequency and scope of volcanic ash exercises is the responsibility of the ICAO region concerned. Where frequent volcanic activity results in adequate information about system performance, exercises may be omitted or constrained to infrequent, extraordinary situations or be held only to test revised procedures.

2.8 A volcanic ash exercises steering group may be established by an ICAO Planning and Implementation Regional Group (PIRG) to coordinate all aspects of the organization and conduct of the exercises. The steering group should have representatives from, as a minimum, the volcanic ash advisory centres (VAACs) concerned, air navigation service providers (ANSPs), airspace users and regulators.

3. Conclusion

Analyzing the working paper the meeting could consider the following conclusion

Draft conclusion

Request the PPRC to:

- a) approve the H2 project activity plan shown in **Appendix**,
- b) request States to verify ATS / MET letters of agreement to confirm procedures related to the release of radioactive materials into the atmosphere, radioactive clouds or toxic clouds and to request assistance from Regional Offices as needed.

4. Suggested action

4.1 The Meeting is invited to:

- a) note of the information contained in this working paper and review the H2 project activity plan presented as Appendix A,
- b) that CAR States designate experts to develop the H2 project activity plan; and
- c) recommend additional actions as deemed appropriate.

APPENDIX A

PROJECT FOR THE IMPLEMENTATION OF THE INTERNATIONAL AIRWAYS VOLCANO WATCH (IAVW)

CAR Region	PROJECT DESCRIPTION (DP)	DP N° H2	
Programme	Project Title	Starting date	Ending Date
Aeronautical Meteorology <i>Programme Coordinator: Luis Raúl Sánchez Vargas</i>	IMPLEMENTATION OF THE INTERNATIONAL AIRWAYS VOLCANO WATCH (IAVW) <i>Project Coordinator: To be determined Experts contributing to the project: To be determined</i>	<i>To be determined</i>	<i>To be determined</i>
Objective	To verify the implementation status of the IAVW in CAR Region promoting compliance with standards and recommended practices of Annex 3, The CAR / SAM Electronic Air Navigation Plan and ICAO Doc. 9766 , Handbook on the International Airways Volcano Watch (IAVW)		
Scope	In coordination with CAR States verify the procedures established by State volcano observatories, Aerodrome meteorological offices, Meteorological watch offices, Volcanic ash advisory centre, as well as the coordination procedures between mentioned entities and the Air traffic services units, aeronautical information services units, and procedures for the generation of Meteorological observations and reports.		
Metrics	# of verified entities in the States (State volcano observatories, Aerodrome meteorological offices, Meteorological watch offices, ATS Units, and Aeronautical Information Units).		
Strategy	All tasks will be carried out by experts nominated by CAR States participating in the project, led by the Project Coordinator and under the supervision of the MET Programme Coordinator through the “GoToMeeting”. Upon completion of the tasks, the results will be sent to the MET Programme Coordinator as a final document for submission to, and if necessary approval by, the GREPECAS PPRC through the GREPECAS fast-track procedure. For the purpose of collaborative decision-making, meetings will be held with the areas involved.		
Rationale	The severity, persistence and increased frequency of volcanic activity events with ash dispersion in the CAR Region and their consequent impact on the provision of air navigation services lead to the need to provide all the necessary tools to the personnel involved in the different areas of air navigation receive, give proper use and disseminate quality information related to these events. Likewise, it is necessary to have contingency plans not only for this kind of events but also for radioactive clouds, due to the experience of Japan, when they affect one or more of the FIRs in the region		

Related Projects	<ul style="list-style-type: none"> ➤ Optimisation of the en-route airspace structure ➤ Implementation of ATFM 				
Project Deliverables	Relation with RPBANIP	Responsible Party	Status of Implementation¹	Delivery Date	Comments
Deliverables of the project will be formulated jointly with the project team					
Resources	<i>To be determined</i>				

- END -

¹

- Grey* Task not started yet
- Green* Activity being implemented as scheduled
- Yellow* Activity started with some delay, but will be implemented on time
- Red* Activity not implemented on time; mitigation measures are required