

INTERNATIONAL CIVIL AVIATION ORGANIZATION
CAR/SAM REGIONAL AIR NAVIGATION PLANNING AND IMPLEMENTATION GROUP
(GREPECAS)
FOURTH MEETING OF THE AERONAUTICAL METEOROLOGY SUBGROUP
(AERMETS/4)

(Mexico City, 22 to 26 May 2000)

Agenda Item 6: **Review of volcanic ash warning and tropical cyclone warning systems including advisory procedures in the CAR/SAM Regions**

ISSUANCE OF METEOROLOGICAL VOLCANIC ASH WARNINGS AND REPORTS

(Presented by Ecuador)

SUMMARY

This working paper contains the necessary justifications to issue SIGMET warnings that detail information regarding volcanic ash clouds and the coding of this phenomenon in the METAR and SPECI reports

1. Introduction

1.1. This Working Paper is presented to the Fourth Meeting of the Aeronautical Meteorology Subgroup (AERMETS/4) of the CAR/SAM Regional Air Navigation Planning and Implementation Group (GREPECAS), in order to consider the need to prepare and publish SIGMET warnings, and to regulate and standardize the procedures related to volcanic activities and the effect that volcanic ash clouds have in the CAR/SAM Region, as well as to have a proper coding of this phenomenon in the METAR and SPECI reports.

2. Background

2.1 The presence of volcanic ash clouds in Ecuador, are mainly produced by hard and frequent explosions of the Guagua Pichincha (around 71 per month) and Tungurahua (around 135 per month) volcanoes, which caused, for the first time since this phenomenon has been observed, several deficiencies in the production of national and international meteorological messages and warnings, such as:

- a) Errors in the production of SIGMET messages issued in the Meteorological Watch Office (MWO) from Guayaquil's Airport.
- b) Difficulty to code the presence of volcanic ash clouds and/or ash precipitation, over the station or in the vicinities, in the METAR and SPECI reports, which are originated in the meteorological aerodrome offices that are near the volcanoes (in this case Guagua Pichincha and Tungurahua).
- c) Lack of training in the interpretation of the volcanic ash fall intensity phenomenon, in order to code in a proper manner the meteorological reports

2.2 Considering that the activity of these volcanoes has not ceased, and that explosions and/or eruptions are expected at any time, the resulting presence of volcanic ash clouds is considered to pose a threat to safe air operations not only in the airspace of the Guagua Pichincha and Tungurahua volcanoes but in all potentially active volcanoes within the CAR/SAM Region.

3. Recommendation

3.1 The following Draft Conclusions are presented for the consideration and study of the AERMET Subgroup:

DRAFT CONCLUSION 4/XX

That in close coordination with the OMM, ICAO urge States who have experience in the production of SIGMET warnings of volcanic ashes to provide training in their National Meteorological Services, or to send specialists to those States that require this type of training, with the sole purpose to regulate and standardize the production and issuance of SIGMET warnings of volcanic ash clouds.

DRAFT CONCLUSION 4/XX

Request the OMM, through ICAO, to issue an instructions brochure that contains the procedures for the interpretation and coding of volcanic ash clouds and/or ash fall, over the station or in the vicinity of aerodromes, in the METAR and SPECI reports.