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**Agenda Item 1: Monitoring the implementation of SNOWTAM**

**IMPLEMENTATION OF ASHTAM AND SNOWTAM IN BRAZIL**

(Presented by Brazil)

<b>SUMMARY</b>	
This working paper presents the compliance of the Brazilian State with the 7th AMDT of Doc 8126 - AIS Manual.	
<b>References:</b>	
<ul style="list-style-type: none"><li>• Doc 8126 – AIS Manual</li><li>• Doc 9691 -Manual on Volcanic Ash, Radioactive Material and Toxic Chemical Clouds</li><li>• Report of conclusions and recommendations of SAM/AIM/16</li></ul>	
<b>Strategic objectives from ICAO:</b>	<i>A – Operational Safety</i> <i>B – Capacity and efficiency</i>

**1. Introduction**

1.1 Due to Brazil's predominantly equatorial and tropical climate, the legislation of the Department of Airspace Control (DECEA) did not provide for the issuance of NOTAMs for snow at airfields, known as SNOWTAM. However, in 2021, with the new edition of DOC 8126, the information included in these NOTAMs has been expanded to cover conditions such as mud and water on the slopes. This led the country to initiate studies to incorporate SNOWTAM into its national legislation.

1.2 Regarding ASHTAM, CIRCEA 63-2 "Operational procedures related to the dissemination of information on volcanic ash", provided that, for information on volcanic ash, the Brazilian NOF should issue NOTAM so that aviators are aware of the resulting dangers.

1.3 In this scenario of updates to Doc 8126, the Brazilian State prepared a study addressed to the 7th TDMA of Doc 8126, through a Working Group composed of AIS specialists, with the aim of implementing the modifications derived from the ICAO Document, including the implementation of ASHTAM and SNOWTAM.

1.4 In 2023, at the Sixteenth AIM Multilateral Workshop, Brazil offered to issue ASHTAM and NOTAM in 2024 to comply with current ICAO documentation requirements.

1.5 In that context, in May of this year, DECEA will issue ICA 53-10 addressing these types of NOTAMs. The Institute of Aeronautical Cartography (ICA) will be responsible for issuing these notices to aviators, through the NOTAM Center.

1.6 For this reason, it is considered appropriate to present a Study Note on the implementation of these types of NOTAM by the Brazilian State with a view to the application of Doc 8126 – AIS Manual.

## 2. SNOWTAM and ASHTAM Overview

2.1 SNOWTAM is a special series of NOTAM (Notice to Airmen) issued to report hazardous conditions in moving areas of the airport due to snow, ice, mud, frost or standing water. This notification is crucial to ensure the safety of aircraft during take-off, landing and taxiing operations. The format and guidelines for issuing SNOWTAM are specified in ICAO Doc 8126, ensuring uniformity and clarity in the dissemination of this critical information.

2.2 ASHTAM is another special NOTAM series that provides information on volcanic activity, including eruptions and ash clouds that can significantly affect flight operations. Issued when there is a change in a volcano's activity, the ASHTAM is vital in warning aircraft to avoid dangerous aerial areas. ICAO Doc 8126 defines the structure and content requirements for ASHTAM, enabling standardized reporting and effective risk management.

### ASHTAM & SNOWTAM Details

2.3 The ASHTAM is classified into three domains: domestic, international, and foreign. Its maximum period of validity is twenty-four hours (24 hours). There is only one series of ASHTAMs for both domestic and international distribution: V – domestic and international. The national ASHTAM originates from an Aeronautical Information Release Request (SDIA) completed by the ACC involved. The ACC must consult the Integrated Meteorological Center (CMI), at CIMAER, for the verification, analysis and validation of the information to be disseminated through ASHTAM.

2.4 The ASHTAM should be issued whenever there is a change in the alert level. Only the information contained in the most recent ASHTAM in force should be considered. The national ASHTAM is part of the international NOTAM exchange and will be issued only as mutually agreed between the NOF involved and between the NOF and the NOTAM multinational processing units. In addition, the ASHTAM must be part of the GDP (Pre-Flight Information Bulletin).

2.5 ASHTAM provides information about a volcano's activity when some change is, or may be, considered of operational importance. This information is provided using the volcano's alert level, as color-coded. To ensure the rapid transmission of initial information to aircraft, the first ASHTAM issued should contain only the fact that an eruption or ash cloud has been reported at a given location, date and time. If an ASHTAM needs to be disclosed for a volcano not listed in the Volcanic Ash, Radioactive Materials, and Toxic Chemical Clouds Manual (Doc 9691), the "existence" of the volcano must be disclosed by NOTAM with field C) containing the abbreviation PERM. The NOTAM disclosing a volcano should include in the address list the Meteorological Monitoring Center (MWO) associated with the origin, all Volcanic Ash Advisory Centers (VAAC), as shown in Figure 1.

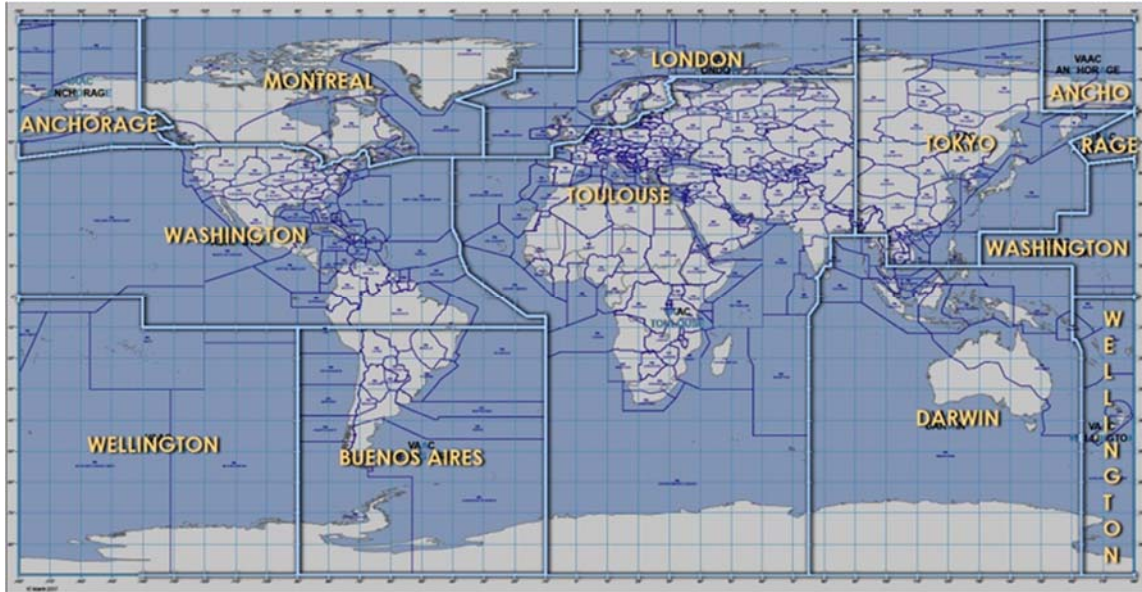


Figure 1 - Volcanic Ash Advisory Centers (VAAC)

2.6 SNOWTAM is classified into three domains: domestic, international and foreign. The maximum period of validity of the SNOWTAM is eight hours (8h). There is a single series of SNOWTAMs for both domestic and international distribution, identified as S – national and international. The national SNOWTAM originates from an Aeronautical Information Release Request – SDIA to be completed by the aerodrome operator.

2.7 A new SNOWTAM will be issued whenever a new runway condition report is received. The following alterations in runway conditions are considered significant: a change in the coefficient of friction of approximately 0.05; alterations in the depth of the reservoir greater than 20mm for dry snow, 10mm for wet snow, 3mm for mud; an alteration in the available length or width of the runway of 10% or more; any change in deposit type or extension of coverage that requires reclassification in SNOWTAM Fields F or T; where critical snowbanks exist on one or both sides of the runway, any change in height or distance from the centerline; any change in the visibility of runway lighting caused by dimming of the lights; and any other condition recognized significant according to local experience or circumstances.

2.8 SNOWTAM must be part of GDP.

### 3. Final Thoughts

3.1 With the implementation of ASHTAM and SNOWTAM, Brazil will be in compliance with ICAO standards and recommendations. This measure aims to disseminate in advance aeronautical information on meteorological events related to volcanic eruptions, which are of direct and immediate interest for the safety and regularity of air navigation. In addition, it will make it possible to provide detailed reports on significant changes in surface conditions, notifying the presence or cessation of hazardous conditions caused by snow, ice or other adversities in the area of movement of an aerodrome.

4. **Action Required**

4.1 The Meeting is invited to learn about the Brazilian practice in the study led by Brazil to analyse and implement the 7th TDMA of Doc 8126 – AIS Manual, through a Working Group (WG) composed of AIS experts, which resulted in the internalization of the issuance of ASHTAM and SNOWTAM.