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**Second Meeting of the North American, Central American and Caribbean Working Group
(NACC/WG) Aeronautical Meteorology (MET) Task Force (TF) (MET/TF/02)**

Mexico City, Mexico, 27 February to 1 March 2024

Agenda Item 2: Implementation of the Meteorological Services for International Air Navigation

**OPERATIONAL FLIGHT ON THE FREE ROUTE OF THE CENTRAL AMERICAN FIR OF THE UPPER AIRSPACE,
AVAILING SIGMET INFORMATION TO REDUCE RISK AND GUARANTEE OPERATIONAL EFFICIENCY AND
SAFETY**

(Presented by El Salvador)

EXECUTIVE SUMMARY

The provision of SIGMET information where the risk levels for atmospheric phenomena are provided, which constitutes one of the meteorological services for International Air Navigation, noting that they are part of the efficiency plans in the upper airspace for operational flights on the route. free (FRA), which corresponds to the Central American FIR in an area that covers 6 million square km from the Caribbean to the Pacific of the region, we observe the need to ensure Operational Safety (OS), guaranteeing safe movement as an initiative to the priorities of direct flights.

Action:	Prioritize the safety and efficiency of operations in the free routes of the upper airspace as a benefit to having a high level of satisfaction by providing SIGMET information use services for levels 330 to 390.
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<i>Strategic Objectives:</i>	<ul style="list-style-type: none">• Safety. Have SIGMET information available to guarantee safe movement and operational safety on the free routes (FRA) of the Central American FIR.• Capacity and efficiency of air navigation. Secure SIGMET information by guaranteeing safe movement on free routes in upper airspace.• Aviation security and facilitation. Make use of SIGMET information to identify hazards and provide free routes based on risk reduction within the upper airspace.• Economic development of air transport. Based on the operational capacity with SIGMET information, route an aircraft on a route from an initial mandatory fixed point to a non-mandatory one, considering the level of risk and the tailwind to reduce fuel consumption by shortening the flight efficiently.• Environmental Protection. Reduction in fuel consumption to reduce CO2.
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References:

- Doc.4444 - ICAO. Air Traffic Management and Aeronautical Safety.
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1. Introduction

1.1 Operational flights on free routes in the upper airspace in the Central American FIR are being used more frequently, which must be considered in the provision of SIGMET information, given that there are atmospheric resonance conditions that can cause phenomena in areas above 200 of atmospheric instability at medium levels of the troposphere due to situations of disturbances at those flight levels.

1.2 Route changes in air navigation are made when they are subject to estimating large distances, which must favor passenger comfort and the economy of the flight by shortening routes efficiently.

1.3 The use of tailwind should be considered to reduce aircraft fuel consumption.

1.4 Safe movements of air operations within upper airspace will be considered to improve operational safety by making use of SIGMET information that identifies hazards.

1.5 Based on the operational capacity of air traffic services and the use of SIGMET, it will allow the management of upper airspace, increasing safety and efficiency.

1.6 The existence of an agreement between the OVM and CENAMER makes the provision of SIGMET information and security within the FIR reliable, with responsibility for guaranteeing air traffic services.

1.7 The GANP and the COCESNA Strategic Plan are taken into consideration.

1.8 The implementation of the performance concept based on the surveillance of natural phenomena affecting the region, making use of SIGMET information.

1.9 COCESNA has proven to achieve safety and efficiency with a high level of satisfaction by promoting air transport and the benefits of the socio-economic development of the Member States.