



COCESNA's experience in support  
to its Member States and Users  
with PBN requirements.

P/ 19 REV – Agenda Item 6.3

NACC/ DCA/ 8, Ottawa, Canadá

July-August, 2018



# MISSION

**“Provide air navigation services in a secure and efficient manner, adding value to the development of aeronautical activity”**





# VISION

**“Being a world model as a provider of high performance in aeronautical navigation services”**





# Introduction

In COCESNA we also believe that to achieve a harmonized modernization of air navigation services, ASBU is the best frame of reference.

COCESNA Strategic Plan is aligned with the objectives of the Global Navigation Plan, the RPBANIP and the strategy of ICAO; “None Country left behind”.

# STRATEGIC OBJECTIVES OF COGESNA



Ensure the provision of services safely and continuous.



Improve productivity in management.



Having a competent and efficient human resource.



Maintain the economic-financial capacity.



To promote environmental management and corporate social responsibility.





Interoperability

The master plan of COCESNA, to modernize ATM, aims to comply with guidelines ASBU, regional plans, and the Member States plans, in order to ensure global interoperability with the modernization of its capabilities.



## ATM Modernization



# PIA 2- SWIM (System Wide Information Management)

ASBU

RPBANIP

Module	Progress of implementation
<b>FICE</b>	<ul style="list-style-type: none"><li>• COCESNA is part of the MEVA III network since 2015.</li></ul>
	<ul style="list-style-type: none"><li>• At the end 2015,finish the migration of the AFTN network from all Central America to the Aeronautical Message Handling System (AMHS).</li></ul>
	<ul style="list-style-type: none"><li>• Implemented AIDC with Guatemala, El Salvador, Nicaragua, Cuba and Mexico.</li></ul>
<b>DAIM</b>	<p>Currently COCESNA has been implemented an AIM Operations Center, all aeronautical information from the Central America is being centralized and digitized to support Member States and User to get;</p> <ul style="list-style-type: none"><li>• AIXM Database;</li><li>• eAIP; y</li><li>• Preparation for eNotam</li></ul>





# PIA 3- Global ATM Collaboration

ASBU

RPBANIP

## Module

## Progress of implementation

### FRTO

The Central American states designated COCESNA the task to redesign the regional Central American air space, lower and upper airspace. A meeting planner with specialists from the six (6) Central America States, was hosted at El Salvador, 25-29 June, 2018.

Dynamic ATC sectors has been implemented in the Central American upper airspace, in order to avoid demand and capacity imbalances.

COCESNA has LOA with each C.A. State both military and Civil authorities.

### NOPS

ATFM Implementation advances in Central America-

COCESNA is member of CANSO Data Exchange Network for the Americas CADENA.



# PIA 3- Global ATM Collaboration

ASBU

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## Module

## Progress of implementation

### ASUR

#### ADS-B

Since 2016, COCESNA has begun the renewal of 6 MSSR radars and 7 Mode S radars, all of them will have ADS-B capability. The project will be completed by 2018.

#### Multilateration

Currently, a feasibility analysis is being carried out for the implementation of multilateration system La Aurora International airport in Guatemala

### SNET

-COCESNA has renewed the CENAMER ACC Control Center and is currently renewing the APP Control Centers of Central America, this allows the selection of Short Term Conflict Alerts (STCA), Area Proximity Warning (APW), Minimum Safe Altitude Warning), Medium Term Conflict Alert (MTCA) and also Clearance Level Adherence Monitor (CLAM) and Route Adherence Monitor (RAM).



# PIA 4- Trajectory based Operations

Module	Progress of implementation
<b>CDO</b>	COCESNA, within the redesign of the Central American airspace, will carry out continuous Climb (CDO) and Descents (CDO) between the cities of San Jose, Costa Rica and Guatemala City. Also, the possibility of continuous Climb and Descents among other CITY PAIRS will be studied.
<b>CCO</b>	
<b>TBO</b>	To improve ATC operations, COCESNA has implemented in the Oceanic Airspace ground-air communications through Data Link (CPDLC) and ADS-C surveillance.

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# Others improvements COM

Module	Progress of implementation
<b>AMS CENAMER</b>	Supply of the equipment and devices of the aeronautical mobile service (AMS) in replacement of existing equipment that are located in different sites, under the responsibility of COCESNA in Central America used by CENAMER, for the air traffic control.
<b>AMS STATES</b>	Supply of AMS systems used by the countries of the region, mainly in the airports of Belize, Guatemala, El Salvador, Honduras, Nicaragua and Costa Rica.

ASBU

RPBANIP



# Others improvements Surveillance

Module	Progress of implementation
<b>MSSR-S</b>	Contract for the "supply of materials and equipment, logistical support, training, installation, integration, testing, commissioning and operation and certification of a primary surveillance radar, PSR, to be integrated and installed with secondary radar MSSR-S of the" MHLM international airport in San Pedro Sula, Honduras.
<b>MSSR-S ADS-B</b>	Contract for the supply of materials and equipment, logistical support, training, installation, integration, testing, operation and certification for projects implementation: Guatemala; MGMM, secondary Radar MODO-S, APP Control Center with integrated ADS-B receiver. Nicaragua; Bluefield, MODE-S secondary Radar with embedded ADS-B receiver.

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# Others improvements ILS/ DME and VOR/ DME

Module	Progress of implementation
<b>ILS/DME and VOR/DME For Members States</b>	Contract for the supply, testing and installation of three (3) ILS/DME systems for international airports of: MRLB (IGUA) MSLP (ICUS) MNMG (IMGA) VOR/DME Two (2) VOR/DME systems MRLB MPZA

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# Other improvements MET

Module	Progress of implementation
<b>AWOS For Member States</b>	Supply, installation and commissioning systems AWOS (Automated Airport Weather Observing Stations System), to international airports: Belize; MZBZ El Salvador; MSSS Guatemala; MGGT, MGMM Honduras; MHRO, MHLM, MHLC, MHTG, Budgeted in the Investment Master Plan 2016-2020.

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# Challenges for ATM Modernization

Achieving global harmonization and interoperability in ATM.

To achieve a global harmonization and interoperability in ATM

Standards-setting

Provide Air Navigation Services under a Regional Approach



# Conclusions

- 1) A collaborative approach is required for this effort to not just bring about new technologies, but also to harmonize the development efforts to ensure interoperability.
- 2) The modernization of the ATM infrastructure, also requires a successful decision making of the States, legislation and regulation, to regulate and develop standards that facilitate interoperability.

¿Thank you?