# ICAO/IATA/CANSO Performance-Based Navigation (PBN) Harmonization, Modernization and Implementation Meeting for the Caribbean(CAR) Region

## Colombia's PBN route proposals

#### SUMMARY

In this Working paper, the meeting is invited to analyze the implantation, realignment and cancelation proposals, of routes RNAV 5 for the optimization of the ATS Route Network in CAR Region, in complement or replacement of the routes to be presented and making the modifications and improvements it deems appropriate.

#### References:

- ✓ Annex 11 ICAO Convention.
- ✓ Document 4444 ATM, Procedures for Air Navigation Services.
- ✓ Doc. 9426, Manual on Planning of Air Traffic Services.

ICAO Strategic Objectives:	A – Safety. C - Environmental protection and
	sustainable development of air transport.

#### 1. Background

- 1.1 As it stated in the introduction and results of the work already done in March 2013, during the PBN workshop airspace redesign, the OACI, IATA and CANSO have jointly organized this meeting to assist the CAR Region to facilitate, coordinate and harmonize PBN plans, to align ANSP civil aviation activities, operators and the State.
- 1.2 In the final report of the seventh meeting of ATS SAM route network optimization (SAM ATSRO/7) held in October 2015, in the Attachment 2, routes that were pending to coordinate with the CAR region for the final implementation of the same are described.

### 2. Analysis

2.1 The Meeting ATSRO/7, in a detailed analysis of the study by experts, noted that the calculation of savings in this optimization was very promising, even though it only considered point to point and Terminal to Terminal trajectories, not taking into account the analyzes involving trajectories within the terminal areas of the States themselves and their inputs and outputs standardized.

#### 3. Proposals

#### **ROUTE RNAV VIR/MLY**

Note: It is important to consider the need to eliminate the ATS routes and turn them into PBN (RNAV)

FIR	PROPOSAL	PATH	AWY	ACTIVITIES
AMAZONICA (SBAZ), BOGOTA /SKED), BARRANQUILLA (SKEC), KINGSTON (MKJK),	ROUTE RNAV NEW (OTAMO- MLY)	Current Tranche LET PUPAS SJE EJA DAGAN BAQ OTAMO MLY	UA 301	. State proposal . Route Data . Statistical Data . Analysis of the proposal . CNS Analysis . Savings . SMS Analysis . LOA . Publications . CTA Training
		Proposed Tranche LET PUPAS SJE EJA DAGAN BAQ OTAMO MLY	CREATE NEW ROUTE RNAV BY THE SAME POINTS AND PATHS OF UA301.	

# Suggested proposal -02

### **ROUTE RNAV TBG /PALAS**

Note: It is important to consider the need to eliminate the ATS routes and turn them into PBN (RNAV)

FIR	PROPOSAL	PATH	AWY	ACTIVITIES
		Current Tranche: TBG-AGUJA-ESKOR NESMO-ERIKO-OROSA- IRBAR-LIDOL-PUTAR- MASEN-PALAS	UA 319	. State proposal . Route Data . Statistical Data . Analysis of the proposal . CNS Analysis . Savings . SMS Analysis . LOA . Publications . CTA Training
PANAMA (MPZL), BARRANQUILLA (SKEC), CURACAO (TNCF), SANTO DOMINGO (MDCS)	ROUTE RNAV NEW (TBG-BETIR)	Proposed Tranche: TBG AGUJA ESKOR NESMO SIPOK OSUBO OROSA BETIR	Create RNAV regional bidirectional between TBG - OROSA, maintaining teh path UA-319 CREATE RNAV BETWEEN OROSA AND BETIR	

# Suggested proposal -03

## **RUTA RNAV TBG / PJG**

Note: It is important to consider the need to eliminate the ATS routes and turn them into PBN (RNAV)

FIR	PROPOSAL	PATH	AWY	ACTIVITIES
PANAMA (MPZL), BARRANQUILLA (SKEC), MAIQUETIA (SVZM), CURACAO (TNCF)	ROUTE RNAV NEW (TBG-PJG)	Current tranch: TBG-BOGAL-CTG- BAQ SMR RHC GILGA DATOR	UA 574	. State proposal . Route Data . Statistical Data . Analysis of the proposal . CNS Analysis . Savings . SMS Analysis . LOA . Publications . CTA Training
		Proposed tranche: TBG- FIR SKEC - FIR SVZM - FIR TNCF- PJG	Create RNAV regional bidirectional between TBG - PJG.	