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North American, Central American and Caribbean Office

WORKING PAPER

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**Fifth North American, Central American and Caribbean Working Group Meeting (NACC/WG/5)**  
Port of Spain, Trinidad and Tobago, 22-26 May 2017

**Agenda Item 3: Implementation on Air Navigation Matters**  
**3.3 ANI/WG Progress on AIM, ATM and CNS**

**PROGRESS REPORT ON PBN TF WORK PROGRAMME**

(Presented by ANI/WG PBN TF Rapporteur)

<b>EXECUTIVE SUMMARY</b>	
<p>This Working Paper presents the progress achieved by the Performance-Based Navigation (PBN) Task Force since its creation in the First NAM/CAR Air Navigation Implementation Working Group (ANI/WG/1) Meeting. Following the work programme of the Task Force and its deliverables, the note includes the results for these deliverables and recommendation for improving the Task Force function and coordination.</p>	
<b>Action:</b>	The suggested action is presented in Section 4
<i>Strategic Objectives:</i>	<ul style="list-style-type: none"> <li>• Safety</li> <li>• Air Navigation Capacity and Efficiency</li> <li>• Environmental Protection</li> </ul>
<i>References:</i>	<ul style="list-style-type: none"> <li>• NAM/CAR Regional Performance-Based Air Navigation Implementation Plan (RPBANIP)</li> <li>• Minutes of PBN TF teleconferences</li> <li>• ICAO/IATA/CANSO Performance-Based Navigation (PBN) Harmonization, Modernization and Implementation Meeting for the Caribbean (CAR) Region 28 March – 1 April 2016, Fort Lauderdale, Florida, United States – Final Report</li> <li>• Final report of the Third NAM/CAR Air Navigation Implementation Working Group Meeting (ANI/WG/3), ICAO NACC Regional Office, Mexico City, Mexico, 4 - 6 April 2016</li> <li>• Progress Report by PBN Task Force ANI/WG/3 - WP/08</li> <li>• Regional and National Air Navigation Performance Framework/Aviation System Block Upgrade (ASBU) Implementation Workshop for the NAM/CAR Regions (Mexico City, Mexico, 22 – 26 August 2016) – Final report</li> <li>• Second ICAO/IATA/CANSO Performance-Based Navigation (PBN) Harmonization, Modernization and Implementation Meeting for the Caribbean (CAR) Region, San Jose, Costa Rica, 7– 9 December 2016 – Final report</li> </ul>

## **1. Introduction**

1.1 During the ANI/WG/3 Meeting, many PBN concerns were identified as limitations and concerns expressed by most States:

- States should amend their organizational structure to meet current need of Air Navigation Service Providers (ANSPs)
- States must meet the requirements of staff associated with the amendment structure
- States should pay particular attention to filling their organizational structure with suitable qualified and experienced personnel
- States should address the urgent need for succession planning
- States should ensure that the appropriate and relevant personnel represent them at meetings
- States should address the urgent need to procure equipment as necessary to enhance safety and efficiency required in the provision of Air Navigation Services (ANS)

### ***Training needs required for successful implementation***

1.2 There was a general consensus among all States on the fact that training is required for the successful implementation of PBN. States identified the urgent need for the following:

- ASBU Training
- PBN Implementation workshops/training
- Follow-up training as required above (involving Regional Training Centres)

## **2. PBN TF Progress and results**

2.1 For ASBU Training, the ICAO NACC Regional Office (RO) held the Regional and National Air Navigation Performance Framework/Aviation System Block Upgrade (ASBU) Implementation Workshop for the NAM/CAR Regions (Mexico City, Mexico, 22 - 26 August 2016). The workshop was attended by 40 representatives from 15 NAM/CAR States/Territories and 4 International Organizations.

2.2 Successful Area Navigation (RNAV) 5 live trials held within Piarco's Continental en-route airspace in July 2016, with the participation of major airline operators (e.g. AAL, ACA, DAL, TAM and UAL). Results from the trials showed savings in fuel, time and increased operational efficiency.

2.3 There were two PBN Task Force teleconferences held in June 2016. Items discussed were the new PBN route proposals and the submission in the ICAO format. Routes had to be finalized by 30 June 2017, for ICAO's approval.

2.4 In preparation for the Second PBN Harmonization, Modernization and Implementation Meeting held in San Jose, Costa Rica, from 7 to 9 December 2016, a series of monthly teleconferences was also held to discuss progress post ICAO/IATA/CANSO Performance-Based Navigation (PBN) Harmonization, Modernization and Implementation Meeting for the Caribbean (CAR) as well as other matters.

2.5 There were four teleconferences held in total to discuss these matters.

- Review and open items from previous meetings/teleconferences
- Updates on modernization/harmonization activities – Group Rapporteurs
- Updates on Implementation Activity
- New route proposals as Proposal for Amendment (PfA1) to be presented at the Costa Rica Meeting. This PfA will be included in the ICAO Doc 7030 - *Regional Supplementary Procedures* and the Doc 8733- *Air Navigation Plan- Caribbean and South American Regions*.

2.6 There was an ATS Routes review teleconference on 23 November 2016, for final review of routes before admission to PfA1.

2.7 The Second PBN Harmonization, Modernization and Implementation Meeting updated information for the PfA development to Doc 8733.

2.8 The Meeting discussed relevant actions on the Proposal for Amendment implementation as follows:

- Route proposals were reviewed one by one, allowing the interaction among stakeholders in order to concur in modifications, changes and agreements
- United States noted that the PBN ATS Routes within its FIRs may be used by aircraft below FL180 and that for regulatory reasons, it does not use the Upper or Lower designator prefixes to differentiate
- Dominican Republic did not reflect Venezuela and Curacao requirements

- Colombia agreement is required on waypoints in the Maiquetia and Curacao FIRs
- Jamaica expressed concern for not concluding their proposal
- ICAO will assist States with the assignment of 5LNC with ICARD system usage

2.9 As agreed at the first PBN meeting in Ft. Lauderdale, Florida, all participating States agreed, to the extent applicable, to reduce longitudinal separation from 80 NM to 40 NM between transferred air traffic operating in the FIRs of the CAR Region. Some States, in some areas, further agreed to reduce separation to 20 NM between transferred air traffic operating in the CAR Region FIRs.

2.10 Letters of Agreement (LoAs) for the coordination and operational procedures between the air traffic control facilities continue to be negotiated and signed. As discussions have now included FIRs of States in the ICAO South American (SAM) Region, States and ANSPs have agreed to further review and introduce applicable longitudinal separation minima of 40 NM or 20 NM between transferred air traffic operating in the FIRs of the CAR region and adjacent FIRs of the SAM Region.

- There were review proposals of new PBN Routes, implementation and trials in the FIRs of the CAR Region and coordination with adjacent regions. During these discussions, States and ANSPs of the CAR and SAM Regions agreed to further review Air Traffic Service (ATS) new Routes, in order to introduce all the new requirements of the air traffic operating in the FIRs of the CAR Region and adjacent FIRs of the SAM Region, in this regard the Meeting agreed on the following: CAR States submit routes which have been agreed by the respective adjacent FIRs to ICAO for a Second Proposal for Amendment (PfA2) not later than 27 February 2017
- The Federal Aviation Administration (FAA) will submit proposed Area Navigation (RNAV) routes from the METROPLEX and “Y” projects to harmonize regional ATS route network

2.11 In order to have better coordination and harmonization within the sub-regions, the ANI/WG PBN Taskforce selected Regional champions as follows:

- Mr. Robert Rooplal – Trinidad and Tobago- (E/CAR)
- Mr. Alexi Batista – Dominican Republic -Eastern (C/CAR)
- Mr. Courtney Malcolm – Jamaica- Western -(C/CAR)  
Mr. Christopher Chambers (former)
- Mr. César Turcios Valiente – Costa Rica—(CA)

2.12 It was concluded the need for intersessional work. It was agreed that monthly teleconferences with the Regional champions be held to discuss the following:

- Review of completed Proposal for Amendment (PfA)
- Submission/Briefings of New Proposals
- Presentation by States
- Review of Progress on Longitudinal Separation
- Break-out sessions by Regions facilitated by Champions
- Briefings by IATA on Operational Matters

2.13 During this meeting, Cuba, Curacao, Dominican Republic, and Trinidad and Tobago presented new ATS routes to be proposed for the PfA2, to be coordinated with adjacent FIRs through their Regional champions.

2.14 Monthly teleconferences were held on the following dates to discuss as follows:

- 9 February 2017: Development of the Second Proposal for Amendment (PfA2) and report on the event logistics for the Third PBN meeting (PBN/3) in Florida, United States from 8 to 12 May 2017
- 17 March 2017 (for Champions): To report on Proposals for Amendment (PfA1 and PfA2)
- 17 March 2017: To report on Proposals for Amendment (PfA1 and PfA2)
- 28 March 2017: To update on Proposals for Amendment (PfA1 and PfA2)

2.15 An ICAO PBN Technical Assistance Mission (TEAM) in Jamaica was conducted from 13 to 15 March 2017. The team performed a Gap analysis on the Jamaica PBN Implementation Plan and has since submitted recommendations aimed at accelerating their progress.

2.16 Regarding PfA2, champions were notified by ICAO NACC that there are still some unresolved coordination problems, delayed by lack of response of some States. ICAO NACC determined that 31 March 2017, as the new deadline for this submission (PfA2).

2.17 On 31 March 2017, ICAO NACC advised that the Third Meeting (Florida, United States, 8-12 May 2017) will be postponed, due to venue conflicts. There will be a teleconference on 21 April 2017 to provide follow-up in this matter and PfAs status.

### **3. PBN Taskforce Recommendations**

- States/Territories/Organizations need to continue engaging in the Collaborative Decision Making (CDM) process with all stakeholders when re-designing their airspace
- States/Territories should continue to provide data to ICAO NACC RO and the PBN Taskforce on developments in their airspace
- States/Territories/Organizations should continue to participate in the regional project to harmonize the upper level airspace routing structure among the NAM/CAR/SAM Regions
- States/Territories/Organizations should take advantage of the PBN TEAMS provided by the ICAO NACC RO.

**4. Suggested Actions**

4.1 The Meeting is invited to:

- a) Evaluate the progress of the PBN TF;
- b) review and support the PBN TF recommendations indicated in Section 3; and
- c) propose any other actions as deem necessary.

— END —