



ICAO

International Civil Aviation Organization  
North American, Central American and Caribbean Office

WORKING PAPER

NACC/DCA/5 — WP/07  
14/04/14

**Fifth North American, Central American and Caribbean Directors of Civil Aviation Meeting  
(NACC/DCA/5)**

Port-of-Spain, Trinidad and Tobago, 28 to 30 April 2014

**Agenda Item 5: Air Navigation**  
**5.3 Fourth North American, Central American and Caribbean Working Group (NACC/WG/4) Meeting and other Regional Implementation Group Results**

**RESULTS OF THE FOURTH NORTH AMERICAN, CENTRAL AMERICAN AND CARIBBEAN WORKING GROUP MEETING (NACC/WG/4)**

(Presented by the Secretariat)

**EXECUTIVE SUMMARY**

This working paper presents the results of the Fourth North American, Central American and Caribbean Working Group Meeting (NACC/WG/4) highlighting the agreed actions on regional air navigation matters in line with the NAM/CAR Regional Performance-Based Air Navigation Implementation Plan (NAM/CAR RPBANIP), work of the sub-regional implementation working groups - NAM/CAR Air Navigation Implementation Working Group Meeting (ANI/WG) and Eastern Caribbean Civil Aviation Technical Group Meeting (E/CAR/CATG), and draft conclusions for approval by the Meeting.

<b>Action:</b>	The suggested action is presented in Section 3
<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 (NAM/CAR RPBANIP) Version 3.1</li><li>• First NAM/CAR Air Navigation Implementation Working Group Meeting (ANI/WG/1), Mexico City, Mexico, 29 July to 1 August 2013</li><li>• Fourth North American, Central American and Caribbean Working Group Meeting (NACC/WG/4), Ottawa, Canada, 24 to 27 March 2014</li></ul>

## 1. Introduction

1.1 The NACC/WG/4 was held in Ottawa, Canada, from 24 to 28 March 2014, with the participation of 43 delegates from 12 States/Territories of the CAR and NAM Regions and 3 international organizations; 36 working papers, 41 information papers, 3 presentations and 7 discussion papers were presented.

1.2 As a part of the NACC/WG/4 Meeting, the ANI/WG and sub-regional working groups such as the E/CAR/CATG also met informing on NAM/CAR RPBANIP implementation progress, updating valid outstanding conclusions, and reviewing technical proposals for approval by the Meeting. The ANI/WG and its Task Forces, which were established in response to NACC/DCA/4 Conclusion 4/9 - *Consolidation of Sub-Regional Working Groups in the CAR Region*, which consolidated the existing sub-regional working groups and improved regional harmonization focused on Air Traffic Management (ATM), Communications, Navigation and Surveillance (CNS), and Aeronautical Information Management (AIM) air navigation fields – see: <http://www.icao.int/NACC/Documents/Meetings/2014/NACCWG4/NACCWG4WP31.pdf>

1.3 The NACC/WG/4 Meeting Report contains the agreements and results of air navigation matter discussions, follow-up on regional working group implementation activities as well as follow-up on valid conclusions/decisions and review of working group terms of reference and action plans.

## 2. Discussion

2.1 The NACC/WG/04 followed-up on and analyzed implementation progress of the NAM/CAR RPBANIP and achievements obtained by Task Force implementation, highlighting the following agreements and progress:

- Review of the RPBANIP with metrics and targets in accordance with the ICAO ASBU methodology for approval by the North American, Central American and Caribbean Directors of Civil Aviation Meeting (NACC/DCA/5), considering the Port-of-Spain Declaration developed by the First Safety and Air Navigation Directors of the CAR Region Meeting (CAR/DCA/OPSAN/1) Meeting
- Foster alignment of national implementation plans in accordance with the RPBANIP; several States presented progress with their national plans
- Support for the WRC-2015 ICAO position for including C-band protection and support for the reception of satellite-based Automatic Dependent Surveillance Broadcast (ADS-B)
- Carry out follow-up on harmonized implementation of air navigation matters for the NAM/CAR Regions, review progress of the regional implementation groups (ANI/WG, E/CAR/CATG, MEVA Technical Management Group (MEVA TMG), Eastern Caribbean Network Technical Group (E/CAR/NTG), MET and AGA projects) and approve the corresponding action plans; GREPECAS/16 and NACC/DCA/4 conclusions were also reviewed.

- Review and update the regional implementation plans (Performance Based-Navigation (PBN); air traffic services Inter-facility Data Communication (AIDC); Aeronautical Message Handling System (AMHS); Controller-Pilot Data Link Communication (CPDLC); Aeronautical Information Management (AIM) Quality Management System (QMS); aerodrome certification, etc.)
- Agreements for air navigation metrics data collection for the Regional Dashboards and Global Air Navigation Plan, including actions for reporting fuel savings and CO<sub>2</sub> gas emission reduction
- Update and follow-up on the status of filed Flight Plan (FPL) converters in the CAR Region and AMS communication improvement activities
- CPDLC functionalities implementation support by the ANI/WG Global Operational Data Link Document (GOLD) Task Force
- Agreed actions to reduce Air Traffic Services (ATS) incidents and Large Height Deviation (LHD) occurrences and Air Traffic Flow Management (ATFM) requirements in Aeronautical Information Publications (AIPs) and Doc 7030 - *Regional Supplementary Procedures* publications
- Adoption of specific directives to streamline air navigation implementation in the NAM/CAR Regions:
  - AIXM 5.1 information exchange model
  - Dec. 2018 target date for ADS-B Out implementation
  - NAM ICD as the preferred Interface Control Document in the NAM/CAR Regions
  - New revision of the CAR IPv4 addressing scheme
  - Use of the GOLD Document, version 2, for data link applications
- Continuity of mitigation and solution activities implementation for missing and duplicate Flight Plans including the creation of a Flight Plan Monitoring Group under the AIDC Task Force
- Follow-up on the results of the First NAM/CAR Civil Aviation Training Centres Meeting (NAM/CAR/CATC/1) and establishment of the NAM/CAR Civil Aviation Training Centres Working Group (NAM/CAR/CATC/WG)

2.2 The NACC/WG/4 Meeting Draft Report is available at: <http://www.icao.int/NACC/Documents/Meetings/2014/NACCWG4/NACCWG4DraftReport.pdf>

2.3 The draft conclusions formulated by the NACC/WG/4 Meeting are shown in **Appendix A**.

2.4 Based on the Regional Performance Objectives (RPOs) defined in the NAM/CAR RPBANIP, the NACC/WG/4 Meeting reviewed its Terms of Reference (ToRs), work programme and membership (including the ANI/WG activities), which remained the same.

2.5 The reviewed NACC/WG ToRs, work programme and membership are shown in **Appendix B**.

2.6 The successful and harmonized implementation of air navigation services and systems following performance-based ASBU methodology criteria will only be possible through the commitment of NAM/CAR States and Territories to follow-up on and implement NAM/CAR RPBANIP activities. Therefore, it is very important to designate the most suitable experts to actively participate on each Task Force making use of the tools and facilities established in the ToRs.

### **3. Next Meeting Venue**

3.1 In accordance with the ToRs of the NACC Working Group (NACC/WG), meetings will be convened every three years or when deemed necessary with the following established rotation: Central America, North America, Eastern Caribbean (E/CAR) and Central Caribbean (C/CAR).

3.2 Since the NACC/WG/4 Meeting was held in Canada, North America, the Meeting proposed that the next NACC/WG meeting take place in the second quarter of 2017 in the E/CAR area. Meanwhile, Dominican Republic agreed to host the NACC/WG/6 Meeting in 2020. The Host Rotation Programme for hosting NACC Working Group Meetings is as described in **Appendix C**.

### **4. Suggested actions**

4.1 The Meeting is invited to:

- a) review and approve the NACC/WG/4 Meeting Report;
- b) approve the draft conclusions formulated by the NACC/WG/4 Meeting as detailed in **Appendix A**; and
- c) approve the revised ToRs of the NACC/WG as shown in **Appendix B**.

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**APPENDIX A  
DRAFT CONCLUSIONS**

**DRAFT  
CONCLUSION  
NACC/WG/4/3**

**FUEL SAVINGS AND CO<sub>2</sub> GAS EMISSION RESULTS IN THE  
NAM AND CAR REGIONS**

That, considering the importance of obtaining effective information on the consumption of fuel, IATA:

- a) coordinate with Canada, Dominican Republic, Mexico and United States regarding effective fuel savings information resulting from the implementation of RNAV routes as well as PBN approach procedures at peak hours in 10% of airports in States with the largest number of operations, as applicable, in accordance with the format included in **Appendix A** (*Attachment to this Appendix*) to this report; and
- b) provide the ICAO NACC Regional Office with information on fuel savings and reduction of CO<sub>2</sub> gas emissions obtained from implementation of PBN routes and approach procedures in the NAM and CAR Regions not later than **31 December 2014**.

**DRAFT  
CONCLUSION  
NACC/WG/4/4**

**ATS INCIDENTS SAFETY ASSESSMENT**

That, considering the need to improve ATS safety, States and Territories that have not already done so, should implement by **31 May 2015**:

- a) training programmes on flight plan coordination messages in ATC units; and
- b) ATS incidents and LHD occurrences safety assessment processes in accordance with the ICAO Safety Management System (SMS) and timely reporting of assessment tendencies to their corresponding civil aviation authorities.

**DRAFT  
CONCLUSION  
NACC/WG/4/5**

**ACTIVE SUPPORT FROM STATES FOR ICAO ITU WRC-2015  
POSITION**

That States/Territories, in order to ensure their active support for the ICAO WRC-15 position for the protection of the aeronautical frequency spectrum and satisfy future frequency spectrum aviation needs:

- a) include the main points addressed by the ICAO International Telecommunication Union (ITU) WRC-15 position for the protection of the C-band when used for aeronautical purposes and the ICAO WRC-15 position as a whole, including any amendments, when preparing national ITU WRC-15 proposals in coordination with the National Spectrum Management Authority;
- b) include representatives from civil aviation administrations and aviation experts from national delegations, to the extent possible, when participating in the ITU- Radio and regional preparatory activities for WRC-15; and
- c) if not already done so, nominate their focal point for WRC-2015 to ICAO by **December 2014**.

**DRAFT  
CONCLUSION  
NACC/WG/4/6**

**REPORTING ON THE PROGRESS ACHIEVED IN THE  
IMPLEMENTATION OF THE AERONAUTICAL  
INFORMATION EXCHANGE MODEL (AIXM)**

That States and international organizations:

- a) adopt the AIXM 5.1 information exchange model; and
- b) report on the progress achieved with application of the conceptual model and aeronautical information exchange to the ICAO NACC Regional Office by **31 December 2014**.

**DRAFT  
CONCLUSION  
NACC/WG/4/7**

**AIM ACTION PLANS FOR THE AIS TO AIM TRANSITION**

That CAR States that have not yet done so:

- a) develop/update and execute the Action Plans for transition from AIS to AIM taking into consideration the latest AIM developments and AIM Task Force work until AIM is completed according to the RPBANIP AIM RPO; and
- b) inform the ICAO NACC Regional Office of all AIM progress to be presented at the upcoming GREPECAS/17 Meeting.

**DRAFT  
CONCLUSION  
NACC/WG/4/8**

**AMENDMENT TO REGIONAL SUPPLEMENTARY  
PROCEDURES (DOC 7030) ON THE AIR TRAFFIC FLOW  
MANAGEMENT (ATFM) IMPLEMENTATION IN THE  
NAM/CAR REGIONS**

That:

- a) ICAO, with CAR and NAM States support, take the necessary actions to publish the required information on Air Traffic Flow Management (ATFM) in the Regional Supplementary Procedures (Doc 7030) for the NAM and CAR by **31 December 2014**; and
- b) States timely publish corresponding information on Air Traffic Flow Management (ATFM) applicable in their ATS airspace jurisdiction in the AIP accordingly.

**DRAFT  
CONCLUSION  
NACC/WG/4/9**

**ADOPTION OF NAM INTERFACE CONTROL DOCUMENT  
(ICD)**

That the NAM ICD be adopted as the preferred ICD in the CAR Region, not precluding the use of other ICDs under circumstances favourable to the latter.

**DRAFT  
CONCLUSION  
NACC/WG/4/10**

**ADS-B OUT IMPLEMENTATION IN THE NAM/CAR REGIONS**

That all States/Territories in the NAM/CAR Regions adopt/include the ADS-B implementation date of **31 December 2018**, in their implementation plans to finalize operational implementation of ADS-B out.

**DRAFT  
CONCLUSION  
NACC/WG/4/11**

**ADOPTION OF THE GOLD DOCUMENT, VERSION 2, FOR  
DATALINK APPLICATIONS IN THE NAM/CAR REGIONS**

That, in order to promote and facilitate implementation of data link applications in the NAM and CAR Regions, the respective States and Territories adopt the GOLD Document, Version 2, as the guidance material and reference document for implementation of data link applications.

**DRAFT  
CONCLUSION  
NACC/WG/4/12**

**APPROVAL OF IPV4 ADDRESSING SCHEME, VER 1.0**

That, in order to expedite and facilitate the implementation of the IPv4 ATN in the CAR Region, States/Territories of the CAR Region:

- a) approve the revised version of the CAR IPv4 addressing scheme, version 1.0;
- b) implement their Aeronautical Telecommunication Networks (ATNs) in accordance with the IPv4 addressing scheme ver. 1.0, where applicable; and
- c) report use/planned use to the ICAO NACC Regional Office no later than Dec. 2015.

**DRAFT  
CONCLUSION  
NACC/WG/4/13**

**APPROVAL OF ANI/WG ACTION PLANS AND TASK FORCE(S) ToRs AND WORK PROGRAMMES**

That, in order to align implementation activities with regional NAM/CAR RPBANIP air navigation and optimize implementation working groups coordination and results of the, the NAM/CAR States/ Territories:

- a) approve the ANI/WG Actions Plans and revised ToRs and work programme of its Task Forces; and
- b) urge all sub-regional working groups to align their work programme by **December 2014** with the ANI/WG Action Plans and Task Force work programmes.

**DRAFT  
CONCLUSION  
NACC/WG/4/14**

**CAR REGIONAL AERODROME CERTIFICATION IMPLEMENTATION PLAN (CRACIP)**

That, in order to support and facilitate completion of the CAR Regional Aerodrome Certification Implementation Plan with the required information, CAR States/Territories report aerodrome certification status and aerodrome traffic density contained in the CRACIP at the web link: [http://www.icao.int/NACC/Pages/ES/edocs-aga\\_ES.aspx](http://www.icao.int/NACC/Pages/ES/edocs-aga_ES.aspx) and return the completed plan of the respective State/Territory to the ICAO NACC Regional Office no later than **15 August 2014**.



**DRAFT  
CONCLUSION  
NACC/WG/4/15**

**AIR NAVIGATION REPORTING/ MONITORING IN THE  
NAM/CAR REGIONS**

That **no later than December 2014**, for the harmonized and efficient collection of data for reporting and monitoring air navigation implementation progress and achieved performance/benefits, NAM/CAR States/Territories:

- a) invite all air navigation stakeholders to participate in the data collection and reporting process;
- b) use the RPBANIP Air Navigation Report Forms ( ANRFs) to the extent possible to report their national, sub-regional and regional implementation and performance progress; and
- c) periodically report to the ICAO NACC Regional Office on the air navigation implementation status.

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**ATTACHMENT TO APPENDIX A  
ROUTES AND PBN APPROACH PROCEDURES POST IMPLEMENTATION SUPPORT  
METRICS**

**OBJECTIVES:**

Asses and quantify the real benefits in order to be compared with previous estimated values to the routes and SID/STAR/APCH PBN procedures implementation of a selected airspace.

**INFORMATION SOURCE:**

- Aircraft FMS
- RDP of ATM systems

**ASSESSMENT CRITERIA:**

- ID 24 Bit (ACID=additional)
- FL
- Lat-long tracks (geographic)

**PROCEDURE:**

- 1) Dates, hours and flight selection
- 2) Data validation (control test) – for information comparison of the same flights of both sources
- 3) Main information source selection
- 4) Information extract
- 5) Ploting tracks and results measure

For ATS surveillance system, it is recommended that information is provided in text format by the State according to the ASTERIX category (1, 2, 34, 48)

Example: AST Category 48:

I048/220	I048/240	I048/140	I048/100	I048/042	I048/090
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## **APPENDIX B**

### **TERMS OF REFERENCE OF THE NORTH AMERICAN, CENTRAL AMERICAN AND CARIBBEAN WORKING GROUP (NACC/WG)**

#### **1. Terms of Reference (ToRs)**

- a) promote development of the CAR/SAM and NAM Air Navigation Plans and other relevant regional documentation in compliance with ICAO SARPs, as required;
- b) facilitate implementation of air navigation systems and services as identified in the CAR/SAM and NAM Air Navigation Plans;
- c) address emerging aviation issues focusing on continued operational efficiency improvements through enhanced coordination, harmonized procedures, network interoperability and implementation of new technologies;
- d) promote implementation initiatives and associated technologies to improve safety, increase operational and economic efficiency and/or capacity of Air Navigation Services (ANS);
- e) harmonize implementation of the Regional Performance Objectives (RPOs) related to the Doc 9750 ASBU methodology, Block 0 selected modules, included in the NAM/CAR Regional Performance-Based Air Navigation Implementation Plan (RPBANIP) for the NAM/CAR Regions;
- f) share implementation initiative information to enhance air traffic management operational compatibility;
- g) support implementation initiatives associated with ICAO's strategic objectives; and
- h) recommend operational initiative improvements to be included in the NAM/CAR RPBANIP as well as related implementation activities to the NAM/CAR Directors of Civil Aviation.

#### **2. Work Programme**

The work programme is based on RPOs activities/tasks and the selected ASBU Block 0 modules contained in the NAM/CAR RPBANIP. To comply with this strategy, the NACC/WG should:

- a) review and recommend deadlines for implementation of facilities, services and air navigation procedures in the NAM/CAR Regions;
- b) develop guidelines and make recommendations for States/Territories/international organizations to implement national ANS plans;

- c) make recommendations for proposals for amendment to Doc 7030 and Doc 8733 to satisfy ANS expectations and requirements;
- d) monitor implementation of air navigation facilities and services to ensure interregional harmonization, taking into account ATM community expected performance measurements, environmental benefits and safety issues;
- e) provide recommendations to improve human resources planning and development in line with ICAO guidelines;
- f) promote close cooperation among States, Territories, international organizations and users to optimize the use of available expertise and resources;
- g) conduct activities in the most efficient manner with a minimum of formality and documentation, using electronic tools and telephone conferences to ensure complete exchange of information, when required;
- h) logically align implementation initiatives with the seven components of Doc 9854, (AOM, DCB, AO, TS, CM, AUO ATMSDM) as appropriate;
- i) avoid duplication of work; and
- j) quantify cost/benefit analysis and provide results to the ICAO NACC Regional Office in terms of performance indicators, deadlines, responsible body for implementation and results as well as human factors performance.

### **3. Membership**

3.1 All ICAO States/Territories which are accredited to the ICAO NACC Regional Office and international organizations, shall be members of the NACC/WG. Other States adjacent to the CAR and NAM Regions may be invited to participate in the NACC WG.

### **4. Working Methods**

- a) the Chairperson of a NACC/WG Meeting will be a representative from the host State/Territory/international organization for the duration of the meeting;
- b) at the beginning of each meeting, a Vice-Chairperson will be elected for the duration of the meeting; and
- c) the members of the NACC/WG will conduct coordination of works as follows:
  - via written correspondence, i.e., e-mail, fax, etc.
  - via phone and teleconference calls
- d) meetings will be convened every three years or as necessary.

**5. Meeting Sites**

- a) the ICAO NACC Regional Office will convene the NACC/WG Meeting at least six months in advance;
  - b) the NACC/WG will meet in accordance with the following rotational scheme: Central America (CA), North America (NAM), Eastern Caribbean (E/CAR) and Central Caribbean (C/CAR); and
  - c) any member State/Territory/international organization may, at any time, offer to host a NACC/WG meeting.
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**APPENDIX C**  
**HOST ROTATION PROGRAMME FOR FUTURE NACC WORKING GROUP MEETINGS**

<u>Meeting</u>	<u>Year</u>	<u>States / Territories</u>
1 <sup>st</sup> Meeting	2007	Trinidad and Tobago (E/CAR)
2 <sup>nd</sup> Meeting	2008	Jamaica (C/CAR)
3 <sup>rd</sup> Meeting	2011	Guatemala (CA)
4 <sup>th</sup> Meeting	2014	Canada (NAM)
5 <sup>th</sup> Meeting	2017	E/CAR
6 <sup>th</sup> Meeting	2020	C/CAR
7 <sup>th</sup> Meeting	2023	CA

- END -