International Civil Aviation Organization
North American, Central American and Caribbean Office (NACC)
Twenty-fifth Meeting of Directors of Civil Aviation of the Eastern Caribbean (E/CAR/DCA/25)
St. John's, Antigua and Barbuda, 3–5 December 2013

Agenda Item 5:   **Air Navigation Matters**
                          5.7   Port-of-Spain Declaration

PORT-OF-SPAIN DECLARATION

(Presented by the Secretariat)

<table>
<tr><td align="center">SUMMARY</td></tr>
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This working paper presents the proposed performance-based metrics and goals/targets for air navigation, safety and environment in line with ICAO Strategic Objectives, the Global Air Navigation Plan (GANP) and Global Aviation Safety Plan (GASP). Considering that these metrics and targets will guide the achievement of the regional priorities for the upcoming years, a regional commitment shall be made at the upcoming NACC/DCA/05 Meeting under the signature of the Port-of-Spain Declaration.

The suggested action for the Meeting is indicated in Section 4.

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<tr><td align="center">References:</td></tr>
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- Doc 9750, *Global Air Navigation Plan* (GANP)
- Doc 10004, *Global Aviation Safety Plan* (GASP)
- First NAM/CAR Air Navigation Implementation Working Group Meeting (ANI/WG/1), Mexico City, Mexico, 29 July to 1 August 2013
- NAM/CAR Regional Performance-Based Air Navigation Implementation Plan (NAM/CAR RPBANIP)

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<tr><td><i>Strategic Objectives</i></td><td><i>This working paper is related to Strategic Objectives:</i>
<i>A. Safety – Enhance Global Civil Aviation Safety</i>
<i>C. Environmental Protection and Sustainable Development of Air Transport</i></td></tr>
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1.   Introduction

1.1   Since 2008, ICAO has promoted a performance-based approach for planning and implementation of air navigation matters. This approach is reflected in the NAM/CAR Regional Performance-Based Air Navigation Implementation Plan (RPBANIP) and by implementation progress as informed by the regional air navigation implementation groups.

1.2   The RPBANIP is in line with the fourth edition of the GANP and results are shared with GREPECAS in order to report regional operational benefits and air navigation implementation progress.

1.3   The Regional Aviation Safety Group – Pan America (RASG-PA), which includes the NAM/CAR and SAM Regions, has published the RASG-PA Annual Safety Report (ASR) since its establishment, which is already on its fourth edition and includes a series of indicators that were developed collaboratively by the members. The information is organized in accordance with its nature: reactive, proactive and predictive. This report has been the tool for consensus, enabling all RASG-PA stakeholders to coordinate their efforts in areas where operational safety intelligence shows that action is needed.

1.4   The RASG-PA Executive Steering Committee (ESC/18) Meeting agreed that it would be difficult to set general safety targets for the Pan American Region, considering that it is not a homogenous region. Therefore, the Meeting agreed to have sub-regional safety targets that would be more representative of the reality of the different States/Territories that are included in the particular sub-region. ICAO NACC and SAM Regional Offices agreed to work with their respective Member States in order to set these safety targets in line with the ICAO mandate. Therefore, the Meeting agreed to formulate the following decision:

>   **DECISION**
>   **RASG-PA/ESC/18/D/4   RASG-PA SAFETY TARGETS**
>
>   The RASG-PA/ESC/18 Meeting agreed to set and publish sub-regional safety targets in line with ICAO mandate.

1.5   Also, the RASG-PA/ESC/18 Meeting adopted a RASG-PA risk reduction goal presented by the PA-RAST/14 Meeting and made the following decision:

>   **DECISION**
>   **RASG-PA/ESC/18/D/5   RASG-PA RISK REDUCTION GOAL**
>
>   The RASG-PA/ESC/18 Meeting approved the RASG-PA risk reduction goal that consist in using 2010 as a baseline, reduce fatality risk of Part 121 equivalent operations by 50% by the year 2020 in Latin America and the Caribbean.

2.   Analysis

2.1   Based on the last review of the RPBANIP, where updates consisting of Regional Performance Objectives (RPOs) were proposed to align regional priorities with the ICAO Aviation System Block Upgrade (ASBU) methodology, an initial set of metrics and targets were agreed as shown in the **Appendix** to this working paper.

2.2   The progress made with these processes confirms that the NAM/CAR Regions are developing an effective way of managing implementation of necessary improvements in the field of safety and air navigation. However, clear goals need to be established for the upcoming years, and States need to commit to achieve them.

2.3   With this goal in mind, and following coordination for the annual Global Air Navigation Report and the Regional Performance Dashboard, the ICAO NACC Secretariat, in coordination with ICAO Headquarters, will propose that all Directors of Civil Aviation at the NACC/DCA/05 Meeting sign the Port-of-Spain Declaration as the NACC Regional agreement and commitment to achieve a minimum set of these performance-based metrics and goals/targets for air navigation, safety and environment.

2.4   The Declaration will contain goals/targets to be achieved in the following areas:

2.4.1   Safety

Indicators/Metrics (all HQ data)

a)   State Safety Oversight System
   • Percent of effective implementation by State

b)   Significant Safety Concerns (SSCs) (if applicable)
   • Number of SSCs or number of SSC States

c)   Accidents
   • Number of accidents per million departures
      o   Runway related
      o   Controlled Flight Into Terrain
      o   Loss of Control In-flight

d)   Aerodrome Certification
   • Percentage of States with aerodrome certification requirements based on 4 USOAP Protocol Questions (PQs)

e)   State Safety Programme (SSP)
   • Number of States SSP Gap analysis in the Integrated Safety Trend Analysis and Reporting System (iSTARS)

2.4.2   Air Navigation

Indicators/Metrics

a)   Performance Based Navigation (PBN) Approach (HQ data)
   • Percentage of runways at international aerodromes with APV

b)   Air Traffic Flow Management (ATFM) (Regional data)
   • Percentage of States using ATFM measures where required

c)   Aeronautical Information Management (AIM)(Regional data)
   • Status of implementation of selective steps

d)   Ground-Ground Digital Coordination/Transfer (Regional data)
   • Percentage of FIRs within which all applicable ACCs have implemented at least one interface to use ATS Interfacility Data Communication (AIDC)/On-Line Data Interchange (OLDI) with neighbouring ACCs

e)   Environmental Benefit (HQ data)
   • Percentage of fuel burn reduction

2.5   Review and agreement on safety and air navigation NAM/CAR Regional targets will be carried out at the Safety and Air Navigation Directors Meeting to be held in Mexico City, Mexico, from 18 to 19 February 2014.

2.6   To achieve these goals/targets, the ICAO NACC Regional Office will continue to assist NAM/CAR Member States/Territories/International Organizations through different mechanisms such as: implementation working groups, regular work programme, technical assistance and technical cooperation assistance.

3.   Summary

3.1   ICAO forecasts a significant growth rate in the air transport sector for the CAR Region; therefore, safety and air navigation improvements are required in concert with the anticipated growth. Commitment at the highest level on Regional air navigation and safety targets is required in order to meet the challenges involved in maintaining steady rates of growth in the sector.

4.   Suggested Action

4.1   The Meeting is invited to:

a)   take note of the information provided in this working paper;

b)   support regional efforts in the NAM/CAR Regions for the safe and well-ordered development of civil aviation by setting goals for the upcoming years in the areas of safety, environment and air navigation as presented in this working paper; and

c)   urge E/CAR States to send their DGAC Safety and Air Navigation Directors to the NACC Safety and Air Navigation Directors Meeting to be held in Mexico City, Mexico, from 18 to 19 February 2014.

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APPENDIX
NAM/CAR AIR NAVIGATION TARGETS

AIR NAVIGATION TARGETS (from RPBANIP)

1. PBN implementation
    •   80% of international aerodromes to have PBN Standard Terminal Arrivals (STARs) implemented by December 2016
    •   60% of international aerodromes to have PBN optimized Standard Instrument Departures (SIDs) implemented by Dec.2016
    •   50% of CAR PBN routes implemented by December 2018

2. Continuous Descent Operations (CDOs)
    •   50 % of international aerodromes to have CDOs implemented by December 2016

3. Continuous Climb Operations (CCOs)
    •   60 % of international aerodromes to have CCOs implemented by December 2016

4. ATFM
    •   100 % Flow Management Unit (FMUs) implemented in ACCs by December 2018

5. ATFM Information Message (AIM) Transition
    •   85 % of States with Quality Management System (QMS) certification by December 2016
    •   10 % of States with Electronic Terrain Obstacle Database (e-TOD) implemented by December 2018
    •   40 % of States with Aeronautical Information Exchange Model (AIXM) implemented by December 2018
    •   45 % of States with Electronic Aeronautical Information Publication (e-AIP) implemented by December 2018
    •   35 % of States with Digital NOTAM implemented by December 2018

6. ATS Message Handling Systems (AMHS) implementation interconnection
    •   6 States with AMHS interconnected with other AMHS by December 2014

7. ATS Interfacility Data Communications (AIDC) exchange
    •   5 ATS units with AIDC communications by December 2014

8. Implementation of Aeronautical Telecommunication Network (ATN) infrastructure
    •   70% of ATN router structure implemented by June 2016
    •   100% implementation of MEVA III IP Network by August 2015

Other Air Navigation Metrics from RPBANIP:

Element	Target from RPBANIP
1. Airspace Planning	100% PBN Airspace planning by December 2018
2. Flexible Use Airspace	50% of segregated airspaces available for civil operations by December 2016
3. Abrupt Manoeuver (AMAN) and Time-Based Metering	10% of international aerodromes with AMAN and time based metering by Dec. 2016
4. Departure Management (DMAN)	10% of international aerodromes with DMAN by December 2016
5. Movement Area Capacity Optimization	20% of international aerodromes with Airport-capacity calculated by December 2016
6. Automatic Dependent Surveillance – Contract (ADS-C) over oceanic and remote areas	80% of the Flight Information Region (FIRs) with ADS-C implemented by December 2016 -
7. Controller-Pilot Data Link Communications (CPDLC)	80% of CPDLC implemented at Oceanic/remote area FIRs by June 2018
8. Approach Procedure with Vertical Guidance (APV) with Barometric Vertical Navigation (Baro VNAV)	80 % of international aerodromes having instrument runways provided with APV with Baro VNAV procedure implemented by December 2016
9. APV with SBAS (WAAS)	20% of international aerodromes with instrument runways to have APV with SBAS/WAAS procedures implemented by December 2018 –
10. APV with Ground-Based Augmentation System GBAS	20% of international aerodromes with instrument runways to have APV GBAS procedures implemented by December 2018
11. Lateral Navigation (LNAV)	60% of international aerodromes with instrument runways with LNAV procedures implemented by December 2016 –
12. Surveillance System For Ground Surface Movement (PSR, SSR, ADS B or Multilateration)	30% of international aerodromes with SMR/SSR Mode S/ADS-B Multilateration for ground surface movement by June 2018
13. On-Board Surveillance System (SSR transponder, ADS-B capacity)	20% of aircraft operators to have on-board surveillance systems (SSR transponder, ADS-B capacity) by June 2018
14. Vehicle Surveillance Systems	20% of vehicles at international aerodromes to have cooperative transponder systems at selected airports by June 2018 - vehicle operators
15. Visual Aids for Navigation	70% of international aerodromes complying with visual aid requirements as per Annex 14 by December 2015 - States/airport operators
16. Aerodrome Bird/Wildlife Organization and Control Programme	70% of international airports to have an aerodrome bird/wildlife organization and control programme by December 2018
17. Airport – Collaborative Decision- Making (CDM)	60% of international aerodromes to have airport-CDM by December 2018
18. Aerodrome Certification	40% of international aerodromes certified by Dec 2018
19. Heliport Operations	30% of heliports to have operational approval by December 2018
20. Implementation of Automatic Dependent Surveillance-Broadcast ADS-B	30% of selected international aerodromes to have ADS-B implemented by December 2018
21. Implementation of Multilateration	80% of selected airports with multilateration system implemented by June 2018
22. Automation System (Presentation)	70% of ACCs to have ATS automation systems implemented by Dec 2017
23. ACAS II (TCAS Version 7.1)	10% of aircraft equipped by December 2018
24. Short Term Conflict Alert Implementation (STCA)	80% of ATS units with ground-based safety nets (STCA) implemented by December 2014

Element	Target from RPBANIP
25. Area Proximity Warning (APW)/ Minimum Safe Altitude Warning (MSAW)	70% of ATS units with ground-based safety nets (APW) implemented / Percentage of ATS units with ground-based safety nets (MSAW) implemented by December 2015
26. Medium Term Conflict Alert (MTCA)	80% of ATS units with ground-based safety nets (MTCA) implemented by December 2016
27. World Area Forecast System (WAFS)	100% of States implementation of WAFS Internet File Service (WIFS) by December 2014
28. International Airways Volcano Watch (IAVW)	70% of MWOs with IAVW procedures implemented by December 2014 Volcanic Ash Advisory Centre, Washington, USA
29. Tropical Cyclone Watch	100% of MWOs with Tropical Cyclone Watch procedures implemented by December 2014 - Tropical Cyclone Advisory Centre, Miami, USA
30. Aerodrome Warnings	50% of international aerodromes/AMOs with aerodrome warnings implemented by December 2014
31. Wind Shear Warnings and Alerts	20% of international aerodromes/AMOs with wind shear warning procedures implemented (MET service providers) by December 2015
32. SIGMET	90% of international aerodromes/MWOs with SIGMET procedures implemented (MET service providers) by December 2014

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