**Fourth North American, Central American and Caribbean Working Group Meeting
(NACC/WG/4)**
Ottawa, Canada, 24 to 27 March 2014

Agenda Item 3: **Follow-up on the NAM/CAR Regional Performance-Based Air Navigation Implementation Plan (NAM/CAR RPBANIP) Progress**
3.3   ANI/WG and other regional group progress reports

AGA PROGRESS REPORT

(Presented by the Secretariat)

EXECUTIVE SUMMARY
This working paper presents to the meeting the tasks and activities that the NACC Regional Office performs in the aerodromes field (AGA) in relation to the regional objectives of the NAM/CAR Regional Performance-Based Air Navigation Implementation Plan (RPBANIP), furthermore provides information on the goals and performance indicators to be accomplished in aerodrome certification in the CAR Region.

Action:	Action is presented in Section 5
Strategic Objectives:	• Safety • Capacity
References:	• ICAO Annex 14 – *Aerodromes*, Vol. I – *Design and aerodrome operations, sixth edition,* July 2013 • Second Meeting of the Programme and Projects Review Committee (PPRC/2) • First edition of the revised ICAO *Global Aviation Safety Plan* (GASP) (Doc 10004; 2013) • CAR Region Safety and Air Navigation Directors Meeting (CAR/DCA/OPSAN), from 18 to19 February 2014.

1. Introduction

1.1   According to NAM/CAR Regional Performance Objectives (RPOs) of the NAM/CAR Regional Performance-Based Air Navigation Implementation Plan (RPBANIP), the objective for the aerodromes field is RPO 5: Enhance Capacity and Efficiency in the Aerodrome Operations which includes 7 tasks as general strategy with the objective to increase the number of aerodromes certified in the region, enhance safety, efficient use of aerodrome resources and the reduction on the number of aerodrome deficiencies.

1.2   For the aerodrome certification process, several main tasks are required by the States: the promulgation of national regulations including the certification process, procedures for handling non-compliant established requirements, training to personnel in charge of aerodrome certification, acceptance/approval of the SMS service provider manual and follow-up in its implementation, and the implementation of measures to reduce wildlife/birds related risks..

1.3   As the meeting is aware of, the requirement for ICAO aerodrome certification was promulgated on November 2001, which included the establishment of a Safety Management System (SMS) as a requirement for certified aerodromes. Since then, few States have certified or are in the process of aerodrome certification, which requires the establishment of a regulatory framework that includes the establishment of criteria and procedures for aerodrome certification.

1.4   The status of aerodrome certification in the CAR Region shows that of a total of 153 international aerodromes listed in Doc 8733 - *Air Navigation Plan for the CAR/SAM Regions*, only 43 aerodromes have been certified, representing only 28% of CAR Region international aerodromes. However, a number of CAR Region aerodromes have either started the certification process or plan to initiate the process in the short-term.

1.5   Many of the difficulties currently faced at aerodromes are operational in nature, particularly where it is necessary to accommodate larger aircraft and/or development of an aerodrome is constrained. In this sense and for better orientation of personnel in charge of aerodrome certification in the States as well as aerodrome operators, ICAO recognized the need to develop the *Procedures for Air Navigation Services - Airports (PANS-AGA)* document with procedures for operational management of aerodromes. It is anticipated that the document will be published on 12 November 2015.

1.6   The proposed PANS-AGA document is basically oriented towards the procedures for all phases of aerodrome certification; content of the aerodrome manual; critical conditions of aerodrome certificates and change management; and creating a new section on aerodrome operations to conduct an assessment of aerodrome compatibility for type of traffic and type of operation for which they are intended.

2.   **Progress on AGA matters**

Progress in the certification of aerodromes

2.1   The following Seminars and Workshops were undertaken by ICAO in relation with the aerodrome certification process within the training tasks for the personnel in charge of certification:

- Regional Workshop on Overcoming the Challenges with Aerodrome Certification, ICAO NACC Regional Office, from 20 to 23 September 2011.
- ICAO/FAA Aerodrome Certification Inspector Workshop for the Caribbean Region, Sint Maarten, 11 - 15 June 2012.
- ICAO NAM/CAR Regional Workshop on the use of Aeronautical Studies in the Aerodrome Certification Process, ICAO NACC Regional Office, from 21 to 24 August 2012.
- ICAO Regional Workshop on Aerodrome Certification and Inspection, ICAO NACC Regional Office, 6 to 8 November 2012.
- Regional Workshop on GREPECAS Project F1 - Aerodrome Certification Improvements, ICAO NACC Regional Office, 14 to 18 October 2013.
- Aerodrome Safety Management System (SMS) Implementation Workshop – Activity of GREPECAS Project F1, ICAO NACC Regional Office, 18 to 21 March 2014.

2.2   Proposed events for second semester 2014:

- Aerodrome Inspection Procedures and Oversight Workshop, Trinidad and Tobago, 9 to 13 June 2014.
- ICAO Regional Workshop on Aerodrome Runway and Taxiway Geometric Design and Visual Aids to Improve Runway Safety, ICAO NACC Regional Office, 11 to 14 November 2014.

Aerodrome pavement maintenance and management and control of birds/ wildlife in aerodromes

2.3   As additional activities to the aerodrome certification process, each year two CAR/SAM events are carried out related to aerodrome runway maintenance and management and control of birds and wildlife in aerodromes. For the first one the Latin American and Caribbean Airport Pavements Association has been established (ALACPA) and for the second The Regional CAR/SAM Committee for the Prevention of Bird and Wildlife Hazards (CARSAMPAF). This year it is foreseen to carry out the following two events:

- XI ALACPA Seminar on Airport Pavements (ALACPA/11)/IX, FAA Workshop on Pavements/IV Short Course on Pavement´s maintenance, Santiago de Chile, 1 to 5 September 2014.
- XII Conference of the Regional Committee on Bird and Wildlife Hazards for North, Central and South America Regions (CARSAMPAF/12), México, 13 to 17 October 2014.

2.4   The benefits obtained with these regional initiatives are significant in both areas. The improvements of aerodrome pavement´s maintenance, the resolution of related deficiencies and thus contributing to maintain the safety of airports in the Region are the most relevant contributions of these ALACPA events. The management and control of bird/wildlife activities created awareness in the Region, increased the number of National Committees with the participation of all national entities involved, bird/wildlife hazard assessments and the use of dispersal methods to prevent wildlife strikes, are the contributing factors of CARSAMPAF.

Aerodrome Collaborative Decision Making (ACDM) and the Advance Surface Movement and Ground Control System implementation (A-SMGCS)

2.5   The Aerodrome Collaborative Decision Making (ACDM) and the Advance Surface Movement and Ground Control System implementation will support safety operations at aerodromes and its implementation will be considered from 2016 and beyond.

3.   Challenges in Aerodrome Certification

3.1   In accordance with the information received from States and the various events organized by the ICAO NACC Regional Office related to aerodromes, CAR Region States continue to have problems with the certification of aerodromes related to:

o Aerodromes built long ago do not comply with the Standards and Recommended Practices (SARPs) of ICAO Annex 14, Volume I
o Lack of SMS implementation
o Lack of aerodrome regulations
o Lack of expertise in the aerodromes area
o Lack of guideline material for staff in charge of aerodrome certification
o Lack of training for aerodrome staff to comply with continuous monitoring mainly due to inspectors fulfilling two roles - Air Traffic Management (ATM) and Aerodromes and Ground Aids (AGA)
o Lack of training in highly specialized areas: aerodrome operations; rescue and fire-fighting; bird/wildlife management; aeronautical studies; risk assessment; visual aids; marking and lighting; obstacle evaluation; and acceptance of the SMS Manual provided by the airport operator.

4.   Goals and performance indicators to be achieved in the certification of aerodromes

4.1   The goals and performance indicators to be accomplished in aerodrome certification in the CAR Region are the following:

• Increase the number of international certified aerodromes based on information provided by States of selected aerodromes

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- Provide training to personnel in charge of the aerodrome certification process and continuous monitoring tasks
- Develop and implement guidelines including checklists for aerodrome inspectors to conduct internal audits and aerodrome inspections

5.   **Proposed solutions for Short, Medium, and Long-Term**

5.1   As a strategy to increase and support the process of aerodrome certification in the CAR Region, the aerodrome certification process has been split into the following 5 phases for its implementation: diagnosis and staff training with the related documentation; preparation of certification documentation; implementation of SMS at aerodromes; aerodrome certification inspection by the aviation authority; and issuance of aerodrome certificate.

5.2   In the short-term, it is foreseen the certification of aerodromes which meet most of Annex 14, Volume I, SARPs but requires alternatives or mitigation measures after completing the 5 phases mentioned above as part of the certification requirement. For the medium and long-term, the project will focus on those aerodromes that do not meet a number of Annex 14, Volume I, SARPs and require further evaluation and analysis for implementation of restrictive operational alternative measures without neglecting safety, after also completing the 5 mentioned phases. The aerodromes to be considered for its certification in the short, medium and long-term will be determined based on the information provided by States in the CAR Regional Aerodrome Certification Implementation Plan as mentioned in paragraph 6.3 and the web link where is available.

5.3   For effective implementation of the proposed solutions for short, medium and long-term, the following deadlines have been established:

- Short-term - now to 31 December 2016
- Medium-term - 1 January 2017 to 31 December 2019
- Long-term - 1 January 2020 to 31 December 2022

6.   **Performance Indicators, Proposed Goals, and Action Plans**

Aerodrome certification

6.1   The performance indicator to be used is the percentage of certified aerodromes based on the selection and information provided by States (CAR Regional Aerodrome Certification Implementation Plan (CRACIP)). In the short term, certification of aerodromes is expected to increase to 48%, in the medium-term to 60% and in the long-term to 80% or more of aerodromes certified by civil aviation authorities in the CAR Region.

6.2   The project will focus primarily on training staff responsible for the certification of aerodromes as well as the aerodrome operator in all phases of the certification process. In relation to the additional mentioned activities supporting the aerodrome certification, coming from ALACPA and CARSAMPAF the training of personnel in charge of aerodrome maintenance as well as control and management of bird/wildlife hazard are of most importance. It is expected from States to increase the number of aerodromes with pavement maintenance programmes, share experiences and exchange of friction testing equipment in order to provide good friction characteristics at all times in their aerodromes. From the CARSAMPAF activities it is expected to increase the number of States reporting wildlife occurrences in their aerodromes decrease the number of related incidents/accidents and support the SMS implementation.

CAR Regional Aerodrome Certification Implementation Plan

6.3   To facilitate States in the implementation and follow up of the aerodrome certification process, the CAR Regional Aerodrome Certification Implementation Plan has been developed which includes: a) the name of each international aerodrome, b) the certification status according to its 5 phases and c) the aerodrome traffic density. This Plan is available at http://www.icao.int/NACC/Pages/ES/edocs-aga_ES.aspx. As a reference the 5 phases of the aerodrome certification process and the aerodrome traffic density definitions are described as follows:

Aerodrome certification process:

Phase 1: Dealing with the expression of interest by an intending applicant for the aerodrome certificate;
Phase 2: Assessing the formal application, including evaluation of the aerodrome manual;
Phase 3: Assessing the aerodrome facilities and equipment;
Phase 4: Issuing or refusing an aerodrome certificate;
Phase 5: Promulgating the certified status of an aerodrome and the required details in the AIP

Aerodrome traffic density

a)   Light: Where the number of movements in the mean busy hour is not greater than 15 per runway or typically less than 20 total aerodrome movements

b)   Medium: Where the number of movements in the mean busy hour is of the order of 16 to 25 per runway or typically between 20 to 35 total aerodrome movements

c)   Heavy: Where the number of movements in the mean busy hour is of the order of 26 or more per runway or typically more than 35 total aerodrome movements

6.4   In this regard, to support the implementation of the mentioned Regional Plan and complete the information required in the Plan the following draft conclusion is proposed:

DRAFT CONCLUSION
NACC/WG/4/XX: CAR Regional Aerodrome Certification Implementation Plan (CRACIP)

That, in order to support and facilitate the completion of the CAR Regional Aerodrome Certification Implementation Plan with the required information, the CAR States/Territories should report the aerodrome´s certification status and aerodrome traffic density contained in the Plan (CRACIP) in the web link: 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.

7.   Suggested Actions

7.1   The Meeting is invited to:

a)   take note of the information presented in this working paper;
b)   review and approve the draft conclusion presented in paragraph 6.4;
c)   support the initiative of the aerodrome certification tasks and activities with the participation of AGA experts in ICAO events.

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