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**Fifth North American, Central American and Caribbean Working Group (NACC/WG) Aeronautical Information Management Implementation Task Force Meeting
(AIM/TF/5)**

Mexico City, Mexico, 26 – 28 October 2022

Agenda Item 8: Challenges on Air Navigation Strategy for Regional AIM eANP Vol III and Air Navigation Deficiencies in the AIM Field

AIM STRATEGY FOR REGIONAL eANP VOL III

(Presented by Secretariat)

EXECUTIVE SUMMARY	
This Working Paper presents a summary of the activities carried out by the ICAO and the States for the preparation of Vol. III of the CAR/SAM Regional Air Navigation Plan (CAR/SAM e-ANP)	
Action:	Indicated in Section 4
Strategic Objectives:	<ul style="list-style-type: none">• Strategic Objective 1 – Safety• Strategic Objective 2 – Air Navigation Capacity and Efficiency
References:	<ul style="list-style-type: none">• Twentieth Meeting of the CAR/SAM Planning and Implementation Regional Group (GREPECAS/20)• Follow-up Workshop on the preparation of Vol. III, of the SAM Region, 15 to 17 November 2021• Virtual workshop for the preparation of Vol. III of the CAR/SAM Air Navigation Plan (ANP) for the CAR Region (CAR/SAM/ANP-VOLIII) 14 to 18 February 2022• Industry and International Associations Feedback Workshop/Meeting on the Formulation and Management of Vol. III of the Air Navigation Plan of the CAR/SAM Regions, online, 22 March 2022

1. Introduction

1.1 Regarding the GREPECAS/20 Meeting, Salvador Bahia, Brazil from 16 to 18 November 2022, on Agenda Item “2.4 CAR/SAM Regional Air Navigation Plan Vol. III Work Update and Regional Progress” reviewed the implementation status of Vol. III of the CAR/SAM Regional Air Navigation Plan (CAR/SAM e-ANP) and it describes the work carried out to build the basic knowledge for the formulation of the tables of Vol. III. The main enabler of Vol. III is the management of Key Performance Indicators (KPIs) by the Administrations.

1.2 The ICAO, through the NACC and SAM Regional Offices, has carried out activities, separately, with the purpose of generating capacities in the States for the use and application of the Vol. III Template.

1.3 The ICAO has planned joint activities to be carried out to follow up on the implementation of Vol. III of the e-ANP CAR/SAM.

2. Analysis

2.1 During review of the progress of the implementation of Vol. III of the CAR/SAM eANP, the GREPECAS 20 Meeting issued Conclusion 20/14 “**APPROVAL OF THE INITIAL VERSION (VERSION 0) OF VOLUME III OF THE CAR/SAM ANP, AND FURTHER ACTIONS FOR THE MANAGEMENT AND DEVELOPMENT OF PERFORMANCE-BASED PLANNING**” (see list of Conclusions of the Referenced Meeting and WP 09). This conclusion urge States to participate actively, with the Secretariat, to complete Vol. III by using the "Instructions for the use of the Vol. III Template", which can be found available at following web link:

<https://www.icao.int/NACC/Pages/meetings-2022-grepecas20.aspx>

2.2 It is also important to nominate Focal Points (PoCs) and teams in the States, to accompany the process of preparing Vol. III, in addition to recommending the completion of Vol. III as soon as possible.

2.3 The ICAO has requested, through a State Letter, the ratification of the PoCs and the work team, in charge of preparing the tables for Vol. III, by the States.

2.4 The NACC Region held the “Virtual workshop for the preparation of Volume III of the CAR/SAM Air Navigation Plan (ANP) for the CAR Region (CAR/SAM/ANP-VOLIII) (14 to 18 February 2022)”. The summary of discussions as well as the participants and the Agenda developed can be seen at the following website:

<https://www.icao.int/NACC/Documents/Meetings/2022/VWSVIII/eANPVolIII-SummaryOfDiscussions.pdf>

2.5 The ICAO has planned the execution of the joint activities foreseen in the “Instructions for use of the template of Volume III of the Regional Air Navigation Plan – CAR/SAM eANP”.

3. Conclusions

3.1 The ICAO, the States, the Industry and International Organizations, related to the provision of air navigation services in the CAR/SAM Regions, are working jointly and in a coordinated manner for the preparation of the Tables of Vol. III, applying the Performance-Based Approach process, and considering the Six-Step Method detailed in ICAO Doc 9883.

3.2 Despite of the joint work, the Meeting must be conscious that not all States may be able to complete the process of preparing the Tables and their contributions for Vol. III.

3.3 The Meeting reiterate to the States that they make every effort to complete the preparation of the AIM Tables of Vol. III for their final consolidation as soon as possible in 2023.

4. Suggested actions

4.1 The Meeting is invited to:

- a) Take note of the information contained in this WP and the provided website links;

- b) Encourage States to comply with the established deadlines by Conclusion 20/14 for the completion of the Volume III; and
- c) Recommend any other actions deemed appropriate.

APPENDIX

ANP VOL III DAIM TEMPLATE

PART 0 – INTRODUCTION

1. Introduction

1.1.....

1.2.....

2. Aviation System Block Updates (ASBUs), Modules and Roadmaps

2.1.....

2.2...

PART I – GENERAL PLANNING ASPECTS (GEN)

1. Planning Methodology

1.1....

1.2...

2. Review and Evaluation of Air Navigation Planning

2.1.....

2.2.....

3. Reporting and Monitoring Results

3.1....

3.2....

PART II – AIR NAVIGATION SYSTEM/ASBU IMPLEMENTATION

1. Introduction

1.1....

1.2....

2. ICAO CAR/SAM Region Air Navigation Objectives, Priorities, KPIs and Targets

2.1....

2.2....

3. Monitoring and Reporting on the Status of Implementation of the ASBU Threads /Elements

3.1.....

3.2.

4. Performance Monitoring of CAR/SAM Region Air Navigation System

4.1....

4.2....

5. Identification of ASBU applicable elements to the Region

5.1. Description of the methodology

5.2. ASBU applicable elements in AOP area

5.3. ASBU applicable elements in ATM area

5.4. ASBU applicable elements in SAR area

5.5. ASBU applicable elements in CNS area

5.6. ASBU applicable elements in MET area

5.7. ASBU applicable elements in AIM area

PART III – REPORTING ON ASBU IMPLEMENTATION

1.1. ...

1.2. ...

PART IV - APPENDICES

DAIM Digital Aeronautical Information Management

In order to assist States in the planning for the transition from AIS to AIM in an expeditious manner, the following Tables, should be used.

Table DAIM III-1:

(provide the title) (provide short description of the Table)

Table DAIM III-2:

(provide the title) (provide short description of the Table)

Table DAIM III-3:

(provide the title) (provide short description of the Table)

Table DAIM III-4-1:

(provide the title) (provide short description of the Table)

Table DAIM III-4-2:

(provide the title) (provide short description of the Table)

Table DAIM III-4-3:

(provide the title) (provide short description of the Table)

Table DAIM III.1 - Provision of AIS/AIM products and services based on the Integrated Aeronautical Information Database (IAID)

EXPLANATION OF THE TABLE

Column number	Description
1	Name of the State or territory for which the provision of AIS/AIM products and services based on the IAID is required.
2	Requirement for the implementation and designation of the authoritative IAID, shown by: FI – Fully Implemented PI – Partially Implemented NI – Not Implemented <i>Note 1 — The IAID of a State is a single access point for one or more databases (AIP, Terrain, Obstacles, AMDB, etc.). The minimum set of databases which should be integrated is defined in Annex 15.</i> <i>Note 2 — The information related to the designation of the authoritative IAID should be published in the AIP (GEN 3.1)</i>
3	Requirement for an IAID driven AIP production, shown by: FI – Fully Implemented (eAIP: Text, Tables and Charts) PI – Partially Implemented NI – Not Implemented <i>Note 3 — AIP production includes, production of AIP, AIP Amendments and AIP Supplements</i> <i>Note 4 — Charts’ GIS-based database should be interoperable with AIP database</i>
4	Requirement for an IAID driven NOTAM production, shown by: FC – Fully Compliant NC – Not Compliant
5	Requirement for an IAID driven SNOWTAM processing, shown by: FI – Fully Implemented NI – Not Implemented
6	Requirement for an IAID driven PIB production, shown by: FC – Fully Compliant PC – Partially Compliant NC – Not Compliant
7	Requirement for Procedure design systems to be interoperable with the IAID, shown by: FI – Fully Implemented PI – Partially Implemented NI – Not Implemented <i>Note 5 — full implementation includes the use of the IAID for the design of the procedures and for the storage of the encoded procedures in the IAID</i>
8	Requirement for ATS systems to be interoperable with the IAID, shown by: FI – Fully Implemented PI – Partially Implemented NI – Not Implemented
9	Action Plan — short description of the State’s Action Plan with regard to the provision of AIM products and services based on the IAID, especially for items with a “PC”, “PI”, “NC” or “NI” status, including planned date(s) of full compliance, as appropriate.
10	Remarks — additional information, including detail of “PC”, “NC”, “PI” and “NI”, as appropriate.

Table DAIM III.1: Provision of AIS/AIM products and services based on the Integrated Aeronautical Information Database (IAID)

CAR/SAM States	IAID	AIP	NOTAM	SNOWTAM	PIB	Procedure Design	ATS	Action Plan	Remarks
1	2	3	4	5	6	7	8	9	10
Antigua and Barbuda									
Bahamas									
Barbados									
Belize									
Canada									
Costa Rica									
Cuba									
Dominica									
Dominican Republic									
El Salvador									
Grenada									
Guatemala									
Haiti									
Honduras									
Jamaica									
Mexico									
Nicaragua									
Saint Kitts and Nevis									
Saint Lucia									
Saint Vincent and the Grenadines									
Trinidad and Tobago									
United States									

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Table DAIM III.2 Aeronautical Data Quality

Column number	Description
1	Name of the State or territory
2	Compliance with the requirement for implementation of QMS for Aeronautical Information Services including safety and security objectives, shown by: FC – Fully compliant NC – Not compliant
3	Compliance with the requirement for the establishment of formal arrangements with approved data originators concerning aeronautical data quality, shown by: FC – Fully compliant PC – Partially compliant NC – Not compliant
4	Implementation of digital data exchange with originators, shown by: FI – Implemented PI – Partially Implemented NI – Not implemented <i>Note 1 — Information providing detail of “PI” and “NI” should be given in the Remarks column (percentage of implementation).</i>
5	Compliance with the requirement for metadata, shown by: FC – Fully compliant PC – Partially compliant NC – Not compliant
6	Compliance with the requirements related to aeronautical data quality monitoring (accuracy, resolution, timeliness, completeness), shown by: FC – Fully compliant PC – Partially compliant NC – Not compliant
7	Compliance with the requirements related to aeronautical data integrity monitoring, shown by: FC – Fully compliant PC – Partially compliant NC – Not compliant
8	Compliance with the requirements related to the AIRAC adherence, shown by: FC – Fully compliant NC – Not compliant
9	Action Plan — short description of the State’s Action Plan with regard to aeronautical data quality requirements implementation, especially for items with a “PC”, “PI”, “NC” or “NI” status, including planned date(s) of full compliance, as appropriate..
10	Remarks — additional information, including detail of “PC”, “NC”, “PI” and “NI”, as appropriate

Table DAIM-III-3 World Geodetic System-1984 (WGS-84)**Explanation of the Table**

Column number	Description
1	Name of the State or territory for which implementation of WGS-84 is required
2	Compliance with the requirements for implementation of WGS-84 for FIR and En-route points, shown by: FC – Fully compliant PC – Partially compliant NC – Not compliant
3	Compliance with the requirements for implementation of WGS-84 for Terminal Areas (arrival, departure and instrument approach procedures), shown by: FC – Fully compliant PC – Partially compliant NC – Not compliant
4	Compliance with the requirements for implementation of WGS-84 for Aerodrome, shown by: FC – Fully compliant PC – Partially compliant NC – Not compliant
5	Compliance with the requirements for implementation of Geoid Undulation, shown by: FC – Fully compliant PC – Partially compliant NC – Not compliant
6	Action Plan — short description of the State’s Action Plan with regard to aeronautical data quality requirements implementation, especially for items with a “PC”, “PI”, “NC” or “NI” status, including planned date(s) of full compliance, as appropriate.
7	Remarks — additional information, including detail of “PC”, “NC”, “PI” and “NI”, as appropriate

TABLE DAIM-III-3 World Geodetic System-1984 (WGS-84)

CAR/SAM States	FIR/ENR	Terminal	AD	GUND	Action Plan	Remarks
1	2	3	4	5	9	10
Antigua and Barbuda						
Bahamas						
Barbados						
Belize						
Canada						
Costa Rica						
Cuba						
Dominica						
Dominican Republic						
El Salvador						
Grenada						
Guatemala						
Haiti						
Honduras						
Jamaica						
Mexico						
Nicaragua						
Saint Kitts and Nevis						
Saint Lucia						
Saint Vincent and the Grenadines						
Trinidad and Tobago						
United States						

Table DAIM-III-4-1 Provision of Terrain and Obstacle data sets for Areas 1 and 4 Explanation of the Table**Explanation of the Table**

Column number	Description
1	Name of the State or territory for which Terrain and Obstacle data sets for Areas 1 and 4 are require
2	Compliance with the requirements for implementation of WGS-84 for FIR and En-route points, shown by:: FC – Fully compliant PC – Partially compliant NC – Not compliant
3	Compliance with requirement for the provision of Terrain data sets for Area 4, shown by: FC – Fully compliant PC – Partially compliant NC – Not compliant
4	Compliance with requirement for the provision of Obstacle data sets for Area 1, shown by:: FC – Fully compliant PC – Partially compliant NC – Not compliant
5	Compliance with requirement for the provision of Obstacle data sets for Area 4, shown by: FC – Fully Compliant PC – Partially Compliant NC – Not Compliant N/A – Not Applicable
6	Action Plan — short description of the State’s Action Plan with regard to aeronautical data quality requirements implementation, especially for items with a “PC”, “PI”, “NC” or “NI” status, including planned date(s) of full compliance, as appropriate..
7	Remarks — additional information, including detail of “PC”, “NC”, “PI” and “NI”, as appropriate

**TABLE DAIM-III-4-1a Provision of
Terrain and Obstacle data sets for
Areas 1 and 4**

CAR/SAM States	Terrain data sets		Obstacle data sets		Action Plan	Remarks
	Area 1	Area 4	Area 1	Area 4		
1	2	3	4	5	6	7
Antigua and Barbuda						
Bahamas						
Barbados						
Belize						
Canada						
Costa Rica						
Cuba						
Dominica						
Dominican Republic						
El Salvador						
Grenada						
Guatemala						
Haiti						
Honduras						
Jamaica						
Mexico						
Nicaragua						
Saint Kitts and Nevis						
Saint Lucia						
Saint Vincent and the Grenadines						
Trinidad and Tobago						
United States						

Table DAIM-III-4-2 Provision of Terrain and Obstacle data sets for Area 2, the take-off flight path area (TOFP) and the obstacle limitation surfaces (OLS)

Explanation of the Table

Column number	Description
1	Name of the State or territory for which Terrain and Obstacle data sets for Area 2 are required.
2	Compliance with requirement for the provision of Terrain data sets for Area 2a, shown by: FC – Fully compliant PC – Partially compliant NC – Not compliant
3	Compliance with requirement for the provision of Terrain data sets for Area 4, shown by: FC – Fully compliant PC – Partially compliant NC – Not compliant
4	Compliance with requirement for the provision of Terrain data sets for Area 2b, shown by: FI – Fully Implemented PI – Partially Implemented NI – Not implemented N/A – Not Applicable
5	Compliance with requirement for the provision of Terrain data sets for Area 2d, shown by: FI – Fully Implemented PI – Partially Implemented NI – Not Implemented N/A – Not Applicabl
6	Compliance with requirement for the provision of Terrain data sets for the takeoff flight path area (TOFP), shown by: FI – Fully Implemented PI – Partially Implemented NI – Not Implemented N/A – Not Applicable
7	Compliance with requirement for the provision of Terrain data sets for the obstacle limitation surfaces (OLS) shown by: FI – Fully Implemented PI – Partially Implemented NI – Not Implemented N/A – Not Applicable
8	Compliance with requirement for the provision of Obstacle data sets for Area 2a, shown by: FC – Fully Compliant PC – Partially Compliant NC – Not Compliant
9	Compliance with requirement for the provision of Obstacle data sets for Area 2b, shown by:

	<p>FI – Fully Implemented PI – Partially Implemented NI – Not implemented N/A – Not Applicable</p>
10	<p>Compliance with requirement for the provision of Obstacle data sets for Area 2c, shown by: FI – Fully Implemented PI – Partially Implemented NI – Not Implemented N/A – Not Applicable</p>
11	<p>Compliance with requirement for the provision of Obstacle data sets for Area 2d, shown by: FI – Fully Implemented PI – Partially Implemented NI – Not Implemented N/A – Not Applicable</p>
12	<p>Compliance with requirement for the provision of Obstacle data sets for the takeoff flight path area (TOFP), shown by: FI – Fully Implemented PI – Partially Implemented NI – Not Implemented N/A – Not Applicable</p>
13	<p>Compliance with requirement for the provision of Obstacle data sets for the obstacle limitation surfaces (OLS), shown by: FI – Fully Implemented PI – Partially Implemented NI – Not Implemented N/A – Not Applicable</p>
14	<p>Action Plan — short description of the State’s Action Plan with regard to aeronautical data quality requirements implementation, especially for items with a “PC”, “PI”, “NC” or “NI” status, including planned date(s) of full compliance, as appropriate..</p>
15	<p>Remarks — additional information, including detail of “PC”, “NC”, “PI” and “NI”, as appropriate</p>

Table DAIM-III-4-3 Provision of Terrain and Obstacle data sets for Area 3 and Airport Mapping Databases (AMDB)

Explanation of the Table

Column number	Description
1	Name of the State or territory for which Terrain and Obstacle data sets for Area 3 and AMDB are required.
2	Compliance with requirement for the provision of Terrain data sets for Area 3, shown by: FI – Fully Implemented PI – Partially Implemented NI – Not Implemented N/A – Not Applicable
3	Compliance with requirement for the provision of Obstacle data sets for Area 3, shown by: FI – Fully Implemented PI – Partially Implemented NI – Not Implemented N/A – Not Applicabl
4	Implementation of AMDB, shown by: FI – Fully Implemented PI – Partially Implemented NI – Not implemented N/A – Not Applicable
5	Action Plan — short description of the State’s Action Plan with regard to aeronautical data quality requirements implementation, especially for items with a “PC”, “PI”, “NC” or “NI” status, including planned date(s) of full compliance, as appropriate..
6	Remarks — additional information, including detail of “PC”, “NC”, “PI” and “NI”, as appropriate

TABLE DAIM-III-4-3 Provision of Terrain and Obstacle data sets for Area 3 and Airport Mapping Databases (AMDB)

CAR/SAM States	Terrain data sets (Area 3)	Obstacle data sets (Area 3)	AMDB	Action Plan	Remarks
1	2	3	4	5	6
Antigua and Barbuda					
Bahamas					
Barbados					
Belize					
Canada					
Costa Rica					
Cuba					
Dominica					
Dominican Republic					
El Salvador					
Grenada					
Guatemala					
Haiti					
Honduras					
Jamaica					
Mexico					
Nicaragua					
Saint Kitts and Nevis					
Saint Lucia					
Saint Vincent and the Grenadines					
Trinidad and Tobago					
United States					
