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WORKING PAPER

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Seventh North American, Central American and Caribbean Working Group Meeting (NACC/WG/7)

ICAO NACC Regional Office, Mexico City, 29 August - 1 September 2022

Agenda Item 3: Follow-up of the Activities of the NACC/WG Task Forces

- 3.1 Progress of the NACC/WG on Aeronautical Information Management (AIM), Air Traffic Management (ATM) and Communications, Navigation and Surveillance (CNS)

PREPARATION FOR THE SEVENTH EDITION OF GANP/ASBU

(Presented by the ASBU Task Force Rapporteur)

EXECUTIVE SUMMARY

This working paper presents the status of Global Air Navigation Plan (GANP)/ Aviation System Block Upgrade (ASBU) related activities and recommends the revision of National Air Navigation Plans (NANP). Three specific areas discussed in this paper are: (1) the Expected release of the 7th edition of GANP/ASBU after the ICAO 41st Assembly; (2) 7th edition changes to the 6th edition of ASBU; (3) Status of NANP in the ICAO NACC region; (4) Changes between the 5th edition of ASBU and the 6th edition of ASBU; and (5) Plans to revise NANP.

Action:	Suggested actions are presented in Section 4.
<i>Strategic Objectives:</i>	<ul style="list-style-type: none">• Safety• Air Navigation Capacity and Efficiency• Economic Development of Air Transport
<i>References:</i>	<ul style="list-style-type: none">• Global Air Navigation Plan https://www4.icao.int/ganpportal/• Aviation System Block Upgrade (ASBU) Framework https://www4.icao.int/ganpportal/ASBU• Aviation System Block Upgrade (ASBU) Performance Framework https://www4.icao.int/ganpportal/ASBU/KPI

1. Introduction

1.1. The Global Air Navigation Plan (GANP, Doc 9750) is the ICAO's highest air navigation strategic document and should drive the evolution of the global air navigation system, in alignment with the Global Air Traffic Management Operational Concept (GATMOC, Doc 9854) and the Manual on Air Traffic Management System Requirements (Doc 9882). The GANP supports planning for local and regional implementation.

1.2. To support the planning of local level ASBU implementation, ICAO NACC Regional Office (RO) and ASBU Task Force (TF) organized three National Air Navigation Plan (NANP) Development Workshops. The 1st workshop was hosted by the NACC RO in Mexico City, Mexico, in March 2018, the 2nd workshop was hosted by COCESNA in Tegucigalpa, Honduras, in August 2018, and the 3rd workshop was hosted by Barbados Civil Aviation Department in Barbados in November 2018. All participating State/Territories/Organization successfully developed their draft NANPs.

1.3. The ICAO NACC RO determined 22 State/Territory/Organization in the CAR region need to have NANPs. The NAM region needs two NANPs: the NAV CANADA’s “The Air Navigation System Plan (ANAP)” and FAA’s “The NextGen Implementation Plan”. The status of NANP in CAR region is shown in Figure 1.3.



Figure 1.3: NANP Availability in CAR Region
<https://www.icao.int/NACC/Pages/regional-group-ASBUb.aspx>

2. Next Edition of ASBU

2.1. The ICAO GANP Study Group will prepare the 7th edition of ASBU supported by the ASBU Panel Project Team (ASBU PPT) and GANP Performance Expert Group and will submit the plan for approval at the 41th ICAO Assembly scheduled for 27 September - 7 October 2022.

2.2. The 7th edition is a mid-cycle edition and will bring small adjustments to the ASBU contents. Usually, ASBU editions coincide with the 6-year ASBU Block cycle (e.g., the 4th edition in 2013 accompanied Block 0, the 6th edition in 2019 accompanied Block 1, and the 8th edition in 2025 that will accompany Block 2) and bring bigger changes to the ASBU contents.

2.3. The main update themes of the 7th edition of ASBU campaign is shown below:

- Development of the link between the GANP Strategic Level and the ASBU Framework;
- Integrate innovation opportunities in the ASBU Framework;
- Alignment between Global Strategic Plans;
- Improvement of performance perspective;
- Development of evolution scenarios; and
- Update of information.

2.4. The ASBU PPT produced the document titled “GANP ASBU Framework Campaign Report seventh edition of the GANP” dated 15 April 2021 (typo in the report regarding the year and it should be 2022). The report described the detailed process to manage change requests to the 6th edition of ASBU and identified outcomes change requests. After review by the ASBU PPT, change requests resulted in:

- 125 change requests (116 to existing ASBU threads and elements, 6 for new ASBU elements, 2 from the Secretariat, and 1 to the BBBs) for the final assessment.
- Of these 125 change requests:
 - 115 change requests were accepted; and
 - 10 change requests were rejected.

2.5. The preliminary analysis of the above report indicates only a few changes will affect Block 0 and Block 1. They are:

- APTA Block-1/Element-3 (B1/3) moved to APTA B2/3;
- ACDM B1/1 moved to ACDM B2/1; and
- ACDM B1/2 moved to ACDM B2/2.

Editorial changes applied to:

- GADS B1/2;
- DAIM B1/1 and B1/7; and
- COMI B1/1 and B1/3.

2.6. For the 7th edition of GANP/ASBU, it worth noting the Remote Aerodrome Air Traffic Services (RATS) will be renamed as Digital Aerodrome Air Traffic Services (DATS).

2.7. Four Key Performance Indicators (KPI) are proposed to be added to the ASBU Performance Framework alongside of the 7th edition of ASBU. They are:

- KPI20 Number of aircraft accidents;
- KPI21 Number of runway incursions
- KPI22 Number of runway excursions; and
- KPI23 Number of Aircraft proximity (AIRPROX)/TCAS alert/loss of separation/near midair collisions/midair collisions.

3. Updating National Air Navigation Plans

3.1. The current CAR NANP availability status was shown in Figure 1.3. These NANPs are based on the 5th edition of ASBU definitions. The efforts to update NANP aligned with the 6th edition of ASBU were postponed by the COVID pandemic.

3.2. The approval of the 7th edition of ASBU is expected at the 41st ICAO Assembly scheduled for 27 September - 7 October 2022. Due to the release timing of the 7th edition of ASBU, the ASBU TF recommends the NANP update efforts begin after the 7th edition of ASBU is released.

3.3. Although the changes between the 6th and the 7th editions of ASBU were small as described in section 2.5, changes between the 5th and the 6th editions of ASBU were significant. Major changes between the 5th and the 6th editions of ASBU are:

- ASBU Framework Structure Change: Performance Improvement Areas (PIA) were removed and three groups (Operation, Information, and CNS Technologies and Services) were introduced;
- ASBU Threads Changes: four new threads (COMI, COMS, NAVS, and GADS) were introduced, three threads (CCO, CDO, and RPAS) were removed; and one thread was renamed from ASEP to CSEP;
- ASBU Module/Element Changes: Many Modules and Elements were redefined and/or assigned to different Blocks; and
- Air Navigation Report Form (ANRF): ANRFs are no longer required.

3.4. The Table 3.4.a shows the number of Element changes in Blocks. Column 1 shows Threads acronyms. Columns 2 and 3 show the number of Element defined in the 5th edition of ASBU Block 0 and Block 1, respectively. Columns 4 and 5 show the 6th edition of ASBU Block 0 and Block 1, respectively. PIA information is indicated by colours as shown Table 3.4.b.

3.5. The ASBU TF Rapporteur will prepare the NANP template and supporting materials aligned with the 7th edition of ASBU to support ANSPs/States to revise their NANP. The ASBU TF Coordinator will plan the ASBU and NANP workshops in 2023/2024 while ANSPs/States are encouraged to update their NANPs on their own when it is necessary to do so.

	5 th B0	5 th B1	6 th B0	6 th B1
Operation				
1-ACAS	3	0	0	1
2-ACDM	5	6	2	2
3-APTA	4	5	8	5
4-ASEP/CSEP	2	4	0	4
5-FRTO	4	6	4	7
6-GADS	-	-	0	2
7-NOPS	2	6	5	10
8-OPFL	1	0	1	1
9-RATS	0	5	0	1
10-RSEQ	4	4	3	1
11-SNET	4	1	4	2
12-SURF	5	2	3	5
13-TBO	4	7	1	1
14-WAKE	5	4	0	0
Information				
1-AMET	8	6	4	4
2-DAIM	6	4	0	7
3-FICE	4	5	1	0
4-SWIM	0	1	0	0
CNS Technology and Services				
1-ASUR	2	0	3	1
2-COMI	-	-	7	4
3-COMS	-	-	2	3
4-NAVS	-	-	4	1
Deleted Threads from the 6th Edition				
CCO	3	0	-	-
CDO	3	1	-	-
RPAS	0	7	-	-
Total	69	74	52	62

Table 3.4.a: Number of Element Changes in Blocks of the 5th and the 6th Edition of ASBU

PIA 1 - the 5th edition
PIA 2 - the 5th edition
PIA 3 - the 5th edition
PIA 4 - the 5th edition
New - the 6th edition

Table 3.4.b: PIA Information Indicated by Colours

3.6. The performance-based approach is the ICAO focus to guide the implementation of new and old technologies. The usage of KPIs defined in the ASBU Performance Framework section of GANP Portal web site, (<https://www4.icao.int/ganpportal/ASBU/KPI>), play an essential role. The ASBU TF plans to switch the NANP template offered by the ICAO HQ when it became available.

4. Suggested actions

4.1. The Meetings is invited to:

- a) take note of the information provided in the working paper; and
- b) align the NANP with the 7th edition of ASBU.