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Mexico City, 29 August - 1 September 2023

Agenda Item 4: **2024 NACC/WG Work Programme**
4.3 **CAR States National Air Navigation Plans (NANP)**

DEVELOPMENT OF THE AIR NAVIGATION PLANS OF THE CAR STATES

(Presented by Secretariat in Coordination with the ASBU/TF)

EXECUTIVE SUMMARY	
This working paper summarizes the strategy proposed by the Secretariat for the development of the States' National Air Navigation plans and thereby strengthen each State's national planning and regional growth.	
Action:	Suggested actions are presented in Section 4.
Strategic Objectives:	• Safety • Air Navigation Capacity and Efficiency • Economic Development of Air Transport • Environmental Protection
References:	• Second Meeting of Rapporteurs of the North American, Central American and Caribbean Working Group (NACC/WG/RAP/2) Mexico City, Mexico, 28 to 31 March 2023. https://www.icao.int/NACC/Pages/meetings-2023-wgrap02.aspx

1.   Introduction

1.1   Through Resolution A41-6: ICAO Global Planning for Safety and Air Navigation, the 41st ICAO Assembly in October 2022 approved the 2023-2025 edition of the Global Aviation Safety Plan (GASP) and the seventh edition of the Global Air Navigation Plan (GANP) to serve as global strategic guidance for the safety and evolution of the air navigation system.

1.2   It recommended that the GASP and GANP documents serve as a framework for the development and implementation of regional, subregional, and national plans, thus ensuring consistency, harmonization, and coordination of efforts to enhance the safety, capacity, and efficiency of international civil aviation.

1.3   The resolution A41-6 invited Member States to demonstrate the political commitment that will need to take the corrective actions required to address safety and air navigation deficiencies, including those identified in the Universal Safety Oversight Audit Programme (USOAP) audits, through the GASP, the GANP and the ICAO regional planning process.

1.4   Urge Member States, industry, and financial institutions to provide the necessary support for a coordinated implementation of the GASP and GANP, as well as regional and national plans, avoiding duplication of efforts.

1.5   The GANP is aligned with ICAO's strategic objectives; safety, capacity and efficiency in aviation operations and is recognized as an operational strategy and as part of the set of measures to achieve ICAO's global CO_2 emission reduction targets; as well as a tool to be used by States and regions to update and/or develop their air navigation plans for their own modernization and transformation.

1.6   The 41st ICAO Assembly urged the regional planning and implementation groups (PIRGs) and the aviation industry to use the guidance provided by the GANP in their planning and implementation activities by setting priorities, targets, and indicators consistent with globally harmonized objectives based on operational needs.

2.   Strategy for the Development of Air Navigation Plans of the CAR States.

2.1   Through the Multi-Regional Civil Aviation Assistance Programme (MCAAP) (RLA09801) Program and following the recommendations of the Report of the second meeting of rapporteurs of the NACC/WG/RAP/02, a pilot strategy has been developed to support States in the development of their National Air Navigation Plan (NANP), which includes the following activities:

   a) perform the assessment of the Basic Building Blocks (BBB) as a first step, with the objective of establishing the baseline of the State in terms of its air navigation implementation.
   b) perform the assessment of the ASBU elements in their "Ready to be implemented" maturity state, this evaluate will provide information about the ANS Status implementation in CAR Region.
   c) perform the assessment of the Key Performance Indicators (KPIs) in the areas of Air Traffic operations and airport operations. States should evaluate which KPIs they can assess.

2.2   In addition to these activities, States should be collecting data that will support them in measuring their KPIs and identifying the data needed to support decision-making about future implementations.

2.3   The GANP defines four levels, (1) Global Strategic, (2) Global Technical, (3) Regional and (4) National, that should be considered in the planning process and that States should integrate into their planning process.

2.4   The global levels have already been clearly identified and the data at the national level is being identified through activities carried out with all the States, with which the MCAAP Program is also working. However, one of the most important challenges is to effectively identify regional needs and objectives.

2.5   The identification of Objectives of the Regional level requires data on the individual needs of the States, the establishment of a clear baseline at the regional level and analysis of this data, in order to make decisions regarding the execution of priority projects that will allow the elimination of deficiencies and the implementation of the mandatory services that every State should have in operation.

2.6   Regional objectives also need to identify the necessary ASBU elements to be implemented in the short and medium term, supported by data to meet regional needs.

2.7   The format of the National Air Navigation Plan (NANP) proposed by ICAO requires the integration of a series of information in three different Volumes, the proposed information is included in the **Appendix** of this working paper.

2.8   Each National Air Navigation Plan reflects the development of the information in the electronic air navigation plans (e-ANP) in Volumes I, II and III.

2.9   In that sense, the development of the NANP requires hard work that can be summarized as follows:

    1.   Updating of e-ANP Volume I and II information.
    2.   Development of the e-ANP Volume III data.

2.10   The National Air Navigation plan proposed by ICAO/HQ is not yet developed, it just proposed its content.

2.11   This work is developed by working on the evaluation of the BBB and ASBU elements, as well as the measurement of the KPIs.

3.   Identification of the Regional Objectives

3.1   It is necessary to identify regional objectives to support States in developing their National Air Navigation Plans. In this regard, the Second Meeting of Rapporteurs of NACC/WG/RAP/02 identified the need to carry out and conclude the following activities:

    a. Evaluation of BBBs.
    b. Evaluation of the ASBU elements in their "ready to be implemented" maturity state.
    c. Once items a. and b. above have been completed, the regional ANS implementation status (baseline) would be established, thus identifying regional deficiencies and the development of "priority" projects.
    d. The updating of the eANP Volume I and II, would be carried out in parallel.
    e. It is necessary to begin to evaluate the KPIs in each State, thereby identifying the available information, the information formats and establishing the minimum requirements for evaluating the KPIs in accordance with the indications of the NAPG.

3.2   In this regard, it is necessary for the NACC/WG as the regional implementation arm to lead these activities through its different Task Forces. Air Navigation is an area of aviation made up of many parts, which must work together in an organized manner to achieve the expected results.

3.3   Considering that CAR States have already developed the first version of their national air navigation plan, they only need to update them according to the new version of GANP, the current national and regional objectives.

https://www.icao.int/NACC/Pages/regional-group-ASBUb.aspx

3.4   In this regard, the recommendation is to maintain the current format used by the CAR region in its National Air Navigation Plans, revise it and integrate the information of the proposed content of the ICAO HQ that is not yet in the format. In this way, all the required information will be integrated without losing the work already developed by the States.

3.5   As a result of the above, it is proposed that:

a. In attention to the outcome of the evaluation of the BBBs and ASBU elements, the NACC/WG defines Regional Objectives that support the development of the States' air navigation plans.
b. That the different NACC/WG Task Groups support and contribute to the work of regional evaluation of these elements, as concluded in the NACC/WG/RAP/02 meeting.
c. That the Task Groups support the measurement of the key performance indicators and, according to the information provided by the States, analyse and establish the regional measurement objectives.
d. To request the NACC/WG/ASBU to integrate into its action plan the development of the format of the "National Air Navigation Plan" to be used by the States in their development process.

4.   Suggested actions

4.1   The NACC/WG members and especially the NACC/WG Task Force are invited to:

a) integrate within their action plan the necessary actions to realize the objectives proposed in section 3.3 of this working paper; and

b) any other action required.

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APPENDIX

Volume I	Volume II	Volume III
Context and scope – Overview of the content/structure of the plan – State commitment to the plan and to its resourcing – Link to the Strategic level (if any and it is not part of the document) – Relationship with other State plans – Objective and purpose – Roles and responsibilities – Management and amendment of the plan – Abbreviations/glossary (if needed) – Others (if needed)	**Vol II, Part I - General** – Homogeneous ATM areas – Major traffic flows/routing areas	**Vol III, Part I - General** Planning method
Vol I, Part I - General – Geographical scope – Traffic Forecast – Specific regional priorities	**Vol II, Part II - Aerodromes** – Introduction – Aerodromes – Name of the city and aerodrome, preceded by the location indicator. – Designation of the aerodrome – Required rescue and firefighting service (RFF) – Aerodrome reference code (RC) – Runway Designation numbers – Visual aids for low visibility aerodrome operations – Non-precision approach aids - Type of each of the runways – Reduced runway declared distances for take-off – Aerodrome capacity management – Aerodrome capacity assessment and requirement – Closure of regular aerodromes – Scheduling aerodrome maintenance – Other –	– **Vol III, Part II – Performance** management planning and ANS implementation (PMP) – **STEP 1:** DEFINE SCOPE, CONTEXT AND SET AMBITIONS – **STEP 2:** KNOW YOUR SYSTEM – SWOT ANALYSIS AND REGIONAL OBJECTIVES – **STEP 3:** QUANTIFY OBJECTIVES, SET TARGETS AND CALCULATE NEEDS – **STEP 4:** SELECT SOLUTIONS – **STEP 5:** IMPLEMENT SOLUTIONS – **STEP 6:** ASSESS ACHIEVEMENTS

Vol I, Part II - Aerodromes
– Introduction
– Aerodromes
– Domestic/international?
– Military?
– Heliports?
– Current traffic/ Traffic forecast?
	Vol II, Part III - CNS
	– Introduction
	– Communications
	– AFS
	   o Systems and applications.
	   o AFTN Stations and Centres
	– ATN
	   o Supporting services
	– AMS
	   o HF/VHF
	   o Supporting services
	– Air-ground data link
	   o VDL2 and/or FANS-1/A
	   o Supporting services
	– Network services
	   o IP
	– Network management
	   o Technical performance
	   o Configuration	

Volume I	Volume II	Volume III

	o Security
	o Contract
	– Required Communication Performance (RCP)
	    o Specific ATM requirements
	    o Specific MET requirements
	    o Specific AIM requirements
	
	– Navigation
	    o Navigation infrastructure
	    o PBN
	    o Use of specific navigation aids
	– Surveillance
	    o Surveillance infrastructure
	    o Use of specific surveillance systems
	– Frequency Management
	    o AMS
	    o Radio navigation aids for Aeronautical Radio Navigation Services	

Vol I, Part III - CNS – Introduction – Communications – AFS – ATN – AMS – Air-ground communications for ATS – Air-ground data link communications – Navigation – PBN – GBAS/SBAS **Surveillance** **Frequency Management**	**Vol II, Part III - CNS** – Introduction – Communications – AFS – Systems and applications. – AFTN Stations and Centres – ATN – Supporting services – AMS – HF/VHF – Supporting services – Air-ground data link – VDL2 and/or FANS-1/A – Supporting services	
Vol I, Part IV - ATM – Introduction – FIRS – List – Charts – ATS Routes and organized track structures – ICARD Global Database – Aircraft Identification –SSR Code Assignments – Flexible use of airspace – RVSM	**Vol II, Part IV - ATM** – Introduction – Optimization of traffic flows – ATS Routes – Designator type – Significant points – Aircraft Identification-SSR Code Management	
Vol I, Part V - METEOROLOGY – Introduction – World area forecast systems and meteorological offices – Volcanic Ash – Tropical Cyclone	**Vol II, Part V - METEOROLOGY** – Introduction – MWO – Name – ICAO Location indicator – Meteorological observations and reports – Forecast – Requirements for and use of communications	

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Volume I	Volume II	Volume III
Vol I, Part VI - SAR – Introduction – Search and Rescue Regions – List – Charts	**Vol II, Part VI - SAR** – Introduction – Rescue Coordination Centres (RCCs) and Rescue Sub-centres (RSCs) – List – Charts	
Vol I, Part VII - AIM – Introduction – Areas of responsibility for the provision of aeronautical information	**Vol II, Part VII - AIM** – Introduction – NOTAM Office (NOF), – Designated State for AIP production – Designated State for aeronautical charts (MAP) production – Designated State for the provision of the authoritative Integrated Aeronautical Information Database (IAID) – Designated State for the provision of the pre-flight information services – Responsibility for sheets of the World Aeronautical Chart (WAC) — ICAO 1: 1 000 000 or Aeronautical Chart — ICAO 1: 500 000 (as an alternative to the World Aeronautical Chart — ICAO 1:1 000 000)	

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