MID ANP Volume III - New Template

Content of Vol III (current Template of 2014)

Volume III should contain dynamic/flexible plan elements providing implementation planning guidance for air navigation systems and their modernization taking into consideration emerging programmes such as the ASBUs and associated technology roadmaps described in the GANP. The ANP Volume III would also include appropriate additional guidance, particularly with regard to implementation, to complement the material contained in the ANP Volumes I and II. The amendment of Volume III would not require approval by the Council (approval of Part II is under the responsibility of the relevant PIRG).

Content of Vol III (current Template of 2014)

The information contained in Volume III is related mainly to:

- **Planning**: objectives set, priorities and targets planned at regional or sub-regional levels;
- **Implementation monitoring and reporting**: monitoring of the progress of implementation towards targets planned. This information should be used as the basis for reporting purposes (i.e.: global and regional air navigation reports and performance dashboards); and/or
- **Guidance**: providing regional guidance material for the implementation of specific system/procedures in a harmonized manner.

Content of Vol III (New Template)

Proposal to add the following paragraphs to define better what is Vol III about:

- The ANP Volume III provides a strategic framework for the planning and implementation of air navigation systems and services within ICAO regions. It supports the application of a performance-based approach to enable cost-effective, benefit-driven modernization of the air navigation system, in line with the Global Air Navigation Plan (GANP). As part of this approach, Planning and Implementation Regional Groups (PIRGs) define regional priorities and performance objectives that are aligned with the key performance areas (KPAs) and key performance indicators (KPIs) of the GANP. These objectives are also linked to operational improvements under the Aviation System Block Upgrades (ASBU) framework and are intended to be implemented by States based on identified needs at the local and national levels.

- Volume III plays a critical role in bridging the GANP with national air navigation plans and initiatives, thereby facilitating the alignment of global, regional, and national efforts. In doing so, it supports the coordinated and performance-driven evolution of air navigation systems. It also reinforces the structured, modular approach of the ASBU framework, which enables harmonized, scalable enhancements to the global air navigation infrastructure.

Content of Vol III (New Template)

- More guidance about PBA and Performance management process for planning and decision making
- Guidance on national air navigation planning and NANP, including link between NANP, RANP and GANP and also between NANP and other national aviation plans—such as those related to safety, environment, security, and facilitation—within a broader, integrated National Civil Aviation Master Plan (CAMP); and even to the State's overarching national development plan.

(3.6) The NANP serves as a strategic roadmap for the evolution of a State's air navigation system. It outlines specific performance objectives, timelines, and investment priorities. It enables national stakeholders—including regulators, air navigation service providers (ANSPs), and airport operators—to prioritize initiatives with the highest operational, economic, and environmental returns. Moreover, the NANP supports strategic decision-making by identifying key areas for improvement, setting measurable targets, and ensuring resources are allocated where they will have the greatest impact. It plays a critical role in justifying investments, attracting funding, and engaging with international partners, while promoting coordination among national institutions to support high-impact, non-duplicative projects. In this sense, the NANP is not only a technical planning document but a strategic enabler—a tool to influence decision-making, align stakeholders, and enhance a State's international credibility. For long-term success and global interoperability, the NANP must remain aligned with ICAO's GANP and relevant RANP, ensuring that the national air navigation system remains scalable, resilient, and fully integrated into the global aviation ecosystem.

Content of Vol III (New Template)

PART 0 - The INTRODUCTION:

- Big picture
- GANP objectives and GANP Technical Frameworks
- Need for continuous improvement and modernization of the air navigation infrastructure and air navigation system performance
- Planning the implementation of operational improvements in a scalable and cost-effective manner and according to specific operational and performance needs, while ensuring interoperability of systems and harmonization of procedures
- Collaborative decision-making is essential for cost-effective modernization
- Additional text about the objectives and content of the ANP Vol III

Content of Vol III (New Template)

PART I - GENERAL PLANNING ASPECTS (GEN) :

1. PLANNING METHODOLOGY
   - Principles of the Performance-Based Approach (PBA)
   - Performance management process for planning and decision-making
2. AIR NAVIGATION PLANNING, REPORTING AND MONITORING

Content of Vol III (New Template)

PART II - ANS PERFORMANCE FRAMEWORK :

1. PERFORMANCE AMBITIONS AND GLOBAL PRIORITIES
2. REGIONAL PRIORITIES AND PERFORMANCE OBJECTIVES
   - Regional Priorities
   - Regional Performance Objectives (Table ANS PF1)
3. STATES RESPONSIBILITIES AND NATIONAL PLANNING
   - States Priorities and Performance Objectives (providing a better idea about the NANP objectives)
   - Requirements for Performance Monitoring and Reporting
   - Reporting on ASBU implementation status (ICAO Global dashboard)
   - Reporting on the implementation of performance objectives (Table ANS PF2)
   - Measurement of and Reporting on Air Navigation System Performance using ICAO KPIs (Table ANS PF 3-1 and ANS PF 3-2)

Content of Vol III (New Template)

APPENDICES:

[PIRG name] subsidiary bodies may need to go into more detailed technical level related to the implementation of some ASBU elements (enablers, interdependencies, etc.) and collect associated data in specific format/Tables (to be added, if necessary, as Appendices to the ANP, Volume III) to ensure harmonized implementation.

Content of Vol III (New Template)

PERFORMANCE AMBITIONS AND GLOBAL PRIORITIES

- ICAO Vision, Strategic Goals
- Three Aspirations, drawn from the ICAO LTAG, GASP and GANP, crystallize this vision:
  - ✓ The long term global aspirational goal of Net-zero carbon emissions by 2050 for international civil aviation operations;
  - ✓ Achieve Zero fatalities in international aviation from accidents and acts of unlawful interference; and
  - ✓ Serve as an integral part of a thriving, connected, accessible, inclusive and affordable transport system for people and goods, contributing to socio-economic development, while ensuring no Country is Left Behind.

(Para. 1.3) In support of the global ICAO aspirations and strategic goals, States and global air navigation community should endeavor to:

1) further increase safety levels as traffic becomes more complex to manage;
2) further improve ATM operations efficiency to avoid any negative impact on environment;
3) scale air navigation capacity to safely and efficiently accommodate growing air traffic;
4) enhance the efficiency of air navigation services by optimizing flight trajectories, reducing delays and minimizing fuel burn;
5) enhance the capacity and efficiency of airport infrastructure and operations to safely accommodate future growth in air traffic;
6) ensure that data flows effectively and securely across trusted users; and
7) address evolving security and defense needs, providing flexibility within a civil-military ATM environment.

To achieve optimal performance, improvements should also be made in the following areas:

8) predictability: ensure that flights follow expected patterns and schedules;
9) punctuality: relates to on-time departures and arrivals; and
10) cost-efficiency: refers to optimum resource allocation, productivity, and effective use of technologies and rationalization (e.g. infrastructure).

Content of Vol III (New Template)

REGIONAL PRIORITIES AND PERFORMANCE OBJECTIVES

The [Region name] **priorities** are (to be determined/updated by each PIRG, the following is just a **sample**):

1. Performance-Based Navigation (PBN) implementation
2. Continuous Descent Operations (CDO) and Continuous Climb Operations (CCO)
3. Improve safety of aerodrome operations
4. Enhance efficiency and punctuality of aerodrome operations
5. Scale Aerodrome/RWY capacity to safely and efficiently accommodate growing air traffic
6. Prevent loss of separation and mid-air collisions
7. Enhance Airspace Management
8. Enhance civil-military cooperation and flexible use of airspace
9. Integrated traffic flow and demand management
10. Enhance the interoperability and efficiency of ATM systems by enabling the seamless, automated, and secure exchange of flight data between ATS units (FICE)
11. Advance Collaborative Decision-Making (CDM)
12. Modernize CNS infrastructure and ensure resilience
13. Enable seamless and interoperable global operations
14. Enable digital meteorological information exchange
15. Foster the transition from AIS to AIM
16. Support System-Wide Information Management (SWIM) implementation
17. Support Advance Air Mobility (AAM) Integration

Regional Performance Objectives

Table ANS PF1: Regional Performance Objectives (Sample)

Operating environment	KPA/ Focus Area	Regional Performance Objective Nr.	RPO text	Possible Solutions/ (ASBU)	Performance Benefits	KPI	KPI Impact	Remarks
1	2	3	4	5	6	7	8	9
En-route, TMA and Airport			Use of automation and digitalization for the provision of quality-assured aeronautical dat and information	DAIM B1/1	Aeronautical data and information comply with quality standards in order to meet the needs of airspace users and support the safety of flight operations			
En-route, TMA and Airport			Availability of quality-assured electronic terrain and obstacle data	DAIM B1/3 DAIM and Instrument ProcedurB1/4	Improve situational awareness with respect to terrain or obstacle hazards, separation assurance and the visualization of approaches in challenging terrain environments. It will thereby contribute to increased safety levels and performance in airborne and ground-based systems (e.g., EGPWS, MSAW, APM, SVS, A-SMGCS e Design).			

(Para. 2.5) The [Region name] may agree also on timelines for the implementation of specific Performance Objectives. This could be reflected in the Remarks Column of the [Region] Table ANS PF1.

National Planning

(Para. 3.1) Each State should develop a National Air Navigation Plan (NANP) tailored to its specific needs, in coordination with regional and global stakeholders.

(Para. 3.3) As a fundamental obligation under the Convention on International Civil Aviation (Doc 7300), States shall ensure the provision of essential air navigation services, as outlined in the Basic Building Blocks (BBBs) framework. However, these obligations are not limited to the BBBs. They also encompass all Standards and Recommended Practices (SARPs) established under the Convention, as well as the requirements set forth in Air Navigation Plan (ANP) Volumes I and II. Together, these frameworks constitute the foundation of a robust air navigation system, enabling the safe and orderly conduct of international civil aviation and providing the baseline for future advancements.

(Para. 3.4) Beyond meeting these essential requirements, States should pursue the progressive modernization of their air navigation systems, guided by local operational needs and aligned with regional priorities. This modernization should be detailed in the National Air Navigation Plan (NANP) and coordinated with other national aviation plans—such as those related to safety, environment, security, and facilitation—within a broader, integrated National Civil Aviation Master Plan (CAMP). Such a master plan provides a strategic vision for the future development of the entire civil aviation sector—addressing policy, legislation, infrastructure, technology, human resources, and institutional development. The National CAMP should also recognize the importance of air transport as a driver of national economic development. It should be also linked to the State's overarching national development plan, enabling access to public and private investment and fostering public-private partnerships to support implementation.

(Para. 3.6)

(Para. 2.5) The [Region name] may agree also on timelines for the implementation of specific Performance Objectives. This could be reflected in the Remarks Column of the [Region] Table ANS PF1.

Requirements for Performance Monitoring and Reporting

(**Para. 3.8**) States are required to monitor the performance of their air navigation systems on a continuous basis and to submit an annual report on the progress achieved to the ICAO MID Regional Office and the MIDANPIRG. This requirement supports the implementation of a performance-based approach (PBA) and ensures that national efforts are aligned with regional and global air navigation priorities, objectives, and targets.

(**Para. 3.9**) The report should include the results of the application of performance management process and identification of relevant and timely operational improvements including the identified Aviation System Block Upgrade (ASBU) elements that have been implemented/planned for implementation.

Reporting on ASBU implementation status

(**Para. 3.10**) States should report, at least on annual basis, the status of implementation of the different ASBU elements (block 0, 1 and 2); this will be reflected on the Regional/Global ICAO ASBU Implementation Dashboard [insert link (TBD)] and in the Annual MID Region Air Navigation Report, as appropriate. The reports by States are reviewed and validated by the MID Regional Office and displayed on the Dashboard. For each ASBU element the status of implementation will be shown as follows:

- **N/A**: Not Applicable;
- **N/P**: Not identified as a Priority;
- **F/I**: Fully Implemented;
- **N/I**: Not Implemented;
- **P/O**: Planned/Ongoing: (Identified as a priority and implementation is planned or ongoing);
- **Start date**: date implementation started or will start (as appropriate) in MM/YY format;
- **End date**: date implementation will be completed in MM/YY format; and
- **M/D**: Missing Data (no report received from State).

(**Para. 3.11**) The Dashboard includes two (2) levels of granularity:

- the ASBU elements related to State/ANSP; and
- the ASBU elements related to Airport/TMA.

(**Para. 3.12**) The Dashboard provides different kind of filtering, by State, Aerodrome, Group of States/Sub-Region, Region, ASBU Element, Thread, Block, etc.

Monitoring and Reporting on status of ASBU Implementation

Elements	Titles	Blocks	Geographical Scope State/FIR	Geographical Scope Aerodrome	Applicability (State/FIR/Aerodrome)	Status
DAIM B1/1	Provision of quality-assured aeronautical data and information	1	Bahrain/FIR		Yes	Fully Implemented
DAIM B1/1	Provision of quality-assured aeronautical data and information	1	Egypt/FIR		Yes	Fully Implemented
DAIM B1/1	Provision of quality-assured aeronautical data and information	1	Iran/FIR		Yes	Planned/Ongoing
DAIM B1/1	Provision of quality-assured aeronautical data and information	1	Iraq/FIR		Yes	Not implemented
DAIM B1/1	Provision of quality-assured aeronautical data and information	1	Jordan/FIR		Yes	Fully Implemented
DAIM B1/1	Provision of quality-assured aeronautical data and information	1	Kuwait/FIR		Yes	Planned/Ongoing
DAIM B1/1	Provision of quality-assured aeronautical data and information	1	Lebanon/FIR		Yes	Planned/Ongoing
DAIM B1/1	Provision of quality-assured aeronautical data and information	1	Libya/FIR		Yes	Planned/Ongoing
DAIM B1/1	Provision of quality-assured aeronautical data and information	1	Oman/FIR		Yes	Fully Implemented
DAIM B1/1	Provision of quality-assured aeronautical data and information	1	Qatar/FIR		Yes	Fully Implemented
DAIM B1/1	Provision of quality-assured aeronautical data and information	1	Saudi Arabia/FIR		Yes	Fully Implemented
DAIM B1/1	Provision of quality-assured aeronautical data and information	1	Sudan/FIR		Yes	Fully Implemented
DAIM B1/1	Provision of quality-assured aeronautical data and information	1	Syria/FIR		Yes	Planned/Ongoing
DAIM B1/1	Provision of quality-assured aeronautical data and information	1	Emirates/FIR		Yes	Fully Implemented
DAIM B1/1	Provision of quality-assured aeronautical data and information	1	Yemen/FIR		Yes	Not implemented
DAIM B1/1	Provision of quality-assured aeronautical data and information	1		Bahrain-OBBI	No	Not Applicable
DAIM B1/1	Provision of quality-assured aeronautical data and information	1		Egypt-HEBA	No	Not Applicable
DAIM B1/1	Provision of quality-assured aeronautical data and information	1		Egypt-HESN	No	Not Applicable
DAIM B1/1	Provision of quality-assured aeronautical data and information	1		Egypt-HECA	No	Not Applicable
DAIM B1/1	Provision of quality-assured aeronautical data and information	1		Egypt-HEGN	No	Not Applicable
DAIM B1/1	Provision of quality-assured aeronautical data and information	1		Egypt-HELX	No	Not Applicable
DAIM B1/1	Provision of quality-assured aeronautical data and information	1		Egypt-HEMA	No	Not Applicable
DAIM B1/1	Provision of quality-assured aeronautical data and information	1		Egypt-HESH	No	Not Applicable
DAIM B1/1	Provision of quality-assured aeronautical data and information	1		Iran-OIKB	No	Not Applicable
DAIM B1/1	Provision of quality-assured aeronautical data and information	1		Iran-OIFM	No	Not Applicable
DAIM B1/1	Provision of quality-assured aeronautical data and information	1		Iran-OIMM	No	Not Applicable
DAIM B1/1	Provision of quality-assured aeronautical data and information	1		Iran-OISS	No	Not Applicable
DAIM B1/1	Provision of quality-assured aeronautical data and information	1		Iran-OITT	No	Not Applicable
DAIM B1/1	Provision of quality-assured aeronautical data and information	1		Iran-OIIE	No	Not Applicable
DAIM B1/1	Provision of quality-assured aeronautical data and information	1		Iran-OIII	No	Not Applicable
DAIM B1/1	Provision of quality-assured aeronautical data and information	1		Iran-OIYY	No	Not Applicable
DAIM B1/1	Provision of quality-assured aeronautical data and information	1		Iran-OIZH	No	Not Applicable
DAIM B1/1	Provision of quality-assured aeronautical data and information	1		Iraq-ORNI	No	Not Applicable
DAIM B1/1	Provision of quality-assured aeronautical data and information	1		Iraq-ORBI	No	Not Applicable
DAIM B1/1	Provision of quality-assured aeronautical data and information	1		Iraq-ORMM	No	Not Applicable
DAIM B1/1	Provision of quality-assured aeronautical data and information	1		Iraq-ORER	No	Not Applicable

(**Para. 3.14**) States should report, on annual basis, on the implementation of their performance objectives to ensure transparency, accountability, and alignment with regional and global air navigation goals.

(**Para. 3.15**) States should report on the implementation of Performance Objectives using the Template at **Table MID Region ANS PF2**:

Table MID Region ANS PF2: Reporting on Performance Objectives and Operational Improvements implemented by States

Column

(1) Operating Environment/Operations: Aerodrome, TMA, En-route (provide more specific details e.g. Aerodrome name or ACC Sector, etc.; and the concerned type(s) of operation)
(2) KPA (from the ICAO defined 11 Key Performance Areas (KPAs)) and Focus Area from the GANP Portal
(3) Performance Objectives (Ambitions/Expectations)
(4) KPIs based on the ICAO list of KPIs and associated variant
(5) The KPI Baseline (measurement of the current performance, if available)
(6) The KPI Target (measurement of the target performance, if available (at least qualitative measurement))
(7) Selected ASBU element(s) /Enabler(s) and/or Non ASBU solution(s) for each operational improvement
(8) Target Implementation date
(9) Remarks/Progress (this column could contain additional information about the data source(s), progress achieved, etc.)

Note: The following is just a Sample

Table MID Region ANS PF2: Reporting on Performance Objectives and Operational Improvements implemented by States

Operating Environment/ Operations	KPA & Focus Area	Performance Objective	KPI/ Variant	KPI Baseline	KPI Target	Operational Improvements (ASBU Elements/Enablers & Non ASBU)	Target Date	Remarks/ Progress
1	2	3	4	5	6	7	8	9
Aerodrome XXXX (Departure)	Predictability (Punctuality)	Maximize departure punctuality	**KPI 01** (Departure punctuality) **Variant X**	TBD for the concerned Aerodrome	TBD for the concerned Aerodrome	TBD by each State/Airport Operator	TBD for the concerned Aerodrome	
Aerodrome XXXX (Taxi-out)	Efficiency (Flight time/ distance)	Minimize Taxi-out time	**KPI 02** (Taxi-out additional time) **Variant X**	TBD for the concerned Aerodrome	TBD for the concerned Aerodrome	TBD by each State/Airport Operator	TBD for the concerned Aerodrome	
Aerodrome XXXX	Safety	Minimize Number of RWY Excursions Incidents & Accidents	**KPI 22** (Nr. of RWY Excursions)	TBD for the concerned Aerodrome	TBD for the concerned Aerodrome	TBD by each State/Airport Operator	TBD for the concerned Aerodrome	
State/FIR (En-route)	Efficiency (Flight time/ distance)	Overcome route selection inefficiencies associated with route network design	**KPI 04** (Filed flight plan en-route extension) **Variant X**	TBD for each State/FIR	TBD for each State/FIR	TBD for each State/FIR	TBD for each State/FIR	
State/FIR (En-route)	Efficiency (Flight time/ distance)	Ensure that the right airspace is available at the right time for the mission	**KPI 04** (Filed flight plan en-route extension) **Variant X** **KPI 05** (Actual en-route extension) **Variant X**	TBD for each State/FIR	TBD for each State/FIR	TBD for each State/FIR	TBD for each State/FIR	

(Para. 3.19) ….. Given limited resources, States should focus on the causal indicators that are feasible to quantify as priority indicators for implementation in a performance-based system.

(Para. 3.20) In assessing the value of investing in the data, tools and personnel to track a particular KPI, States/stakeholders should consider the following criteria:

- What is the specific purpose and audience of the KPI?
- Does the KPI lead to informed decision making?
- Does the KPI add value distinct from other KPIs? Can it be shown that management and stakeholders will find inefficiencies from this KPI that would not have been found from existing KPIs?
- Can the KPI be monetised? Monetisation can be used in the cost/benefit process for program acquisition and to communicate priorities to stakeholders.

(Para. 3.21) To support this, States should:

- select KPIs that best reflect their air navigation system's priorities and challenges;
- ensure that chosen indicators have available, reliable data sources; and
- use the results to inform continuous improvement, investment planning, and operational enhancements.

(Para. 3.22) This targeted and context-driven use of KPIs helps maintain a sustainable performance management system while contributing to the global objectives of interoperability, safety, efficiency, and environmental responsibility in air navigation.

(Para. 3.24) States should report on the implementation of Performance Objectives using the Template at **Table [Region] ANS PF3-1 and ANS PF3-2** (KPIs measured at the State/ANSP level and KPIs measured at the TMA/Aerodrome level):

Table [Region] ANS PF3-1

State/FIR: [name]					
KPA	**KPI/ Variant**	**KPI Value – (Last year)**	**KPI Value – (Current year)**	**KPI Target**	**Remarks**
Safety	**KPI 20** (Number of Aircraft Accidents) **Variant X**	Number of accidents - Last year	Number of accidents - Current year	Number of accidents - Current year	
Safety	**KPI 23** (Number of Airprox/TCAS Alert/Loss of separation/Near mid Air Collisions/Mid Air Collisions) **Variant X**	Number of airprox/TCAS alert/loss of separation/near midair collisions/midair collisions (MAC)	Number of airprox/TCAS alert/loss of separation/near midair collisions/midair collisions (MAC)	Number of airprox/TCAS alert/loss of separation/near midair collisions/midair collisions (MAC)	
Capacity	**KPI 06** (En-route airspace capacity)	Nr. of Movements/ per hour	Nr. of Movements/ per hour	Nr. of Movements/ per hour	
Efficiency/ Environment	**KPI 04** (Filed flight plan en-route extension) **Variant X**	% excess distance	% excess distance	% excess distance	

Table MID Region ANS PF3-2

TMA/Aerodrome: [name]					
KPA	**KPI/ Variant**	**KPI Value – (Last year)**	**KPI Value – (Current year)**	**KPI Target**	**Remarks**
Safety	**KPI 21** (RWY Incursions)	Number of runway incursions	Number of runway incursions	Number of runway incursions	
Safety	**KPI 22** (RWY Excursions)	Number of runway excursions	Number of runway excursions	Number of runway excursions	
Efficiency/ Environment	**KPI 02** (Taxi-out additional time) **Variant X**	Excess taxi-out time in Minutes/flight	Excess taxi-out time in Minutes/flight	Excess taxi-out time in Minutes/flight	

TMA/Aerodrome: [name]					
KPA	**KPI/ Variant**	**KPI Value – (Last year)**	**KPI Value – (Current year)**	**KPI Target**	**Remarks**

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THANK YOU