ICAO

الهيئة العامة للطيران المدني
GENERAL CIVIL AVIATION AUTHORITY

ATM SG/11 & CNS SG/14 MEETINGS

19-23 Oct. 2025 Abu Dhabi, UAE

ATM SG/11 Meeting & CNS SG/14

Agenda Item 4: MID Air Navigation Priorities and Targets related to CNS/ATM/SAR

Regional Air Navigation Plan New Framework

ANP Volume I:

contains **stable** plan **elements** such as the **assignment** of **responsibilities** to **States** for the **provision** of **aerodrome** and **air navigation facilities** and **services** in accordance with **Article 28**.

ANP Volume II:

contains **dynamic** plan **elements** material related to the **assignment** of **responsibilities** to **States** for the **provision** of aerodrome and **air navigation facilities** and **services** and the **current** to **medium** term **mandatory** regional **requirements** in accordance with regional **agreements** through **PIRG**.

ANP Volume III:

Contains **dynamic/flexible** plan elements providing implementation **planning guidance** for **ANS** and **modernization** considering **ASBUs** and associated technology roadmaps described in **GANP**. It would include **additional guidance**, **regarding** implementation of **requirements** in **ANP** Vol **I** & **II**.

The information contained in Volume III is related to:

- **Planning**;
- **Monitoring** and **reporting**; and/or
- **Guidance**

*ANP Volume III content-**Current version***:

Part 0: Introduction

Part 1: General Planning Aspects (GEN)

Part 2: Performance Management Planning (PMP) and ANS Implementation

Part 0: Introduction *(Current)*

Related to the **application** of a **PBA** for a **cost-effective** and **benefit-driven modernization** of the **ANS** in line with **GANP.**

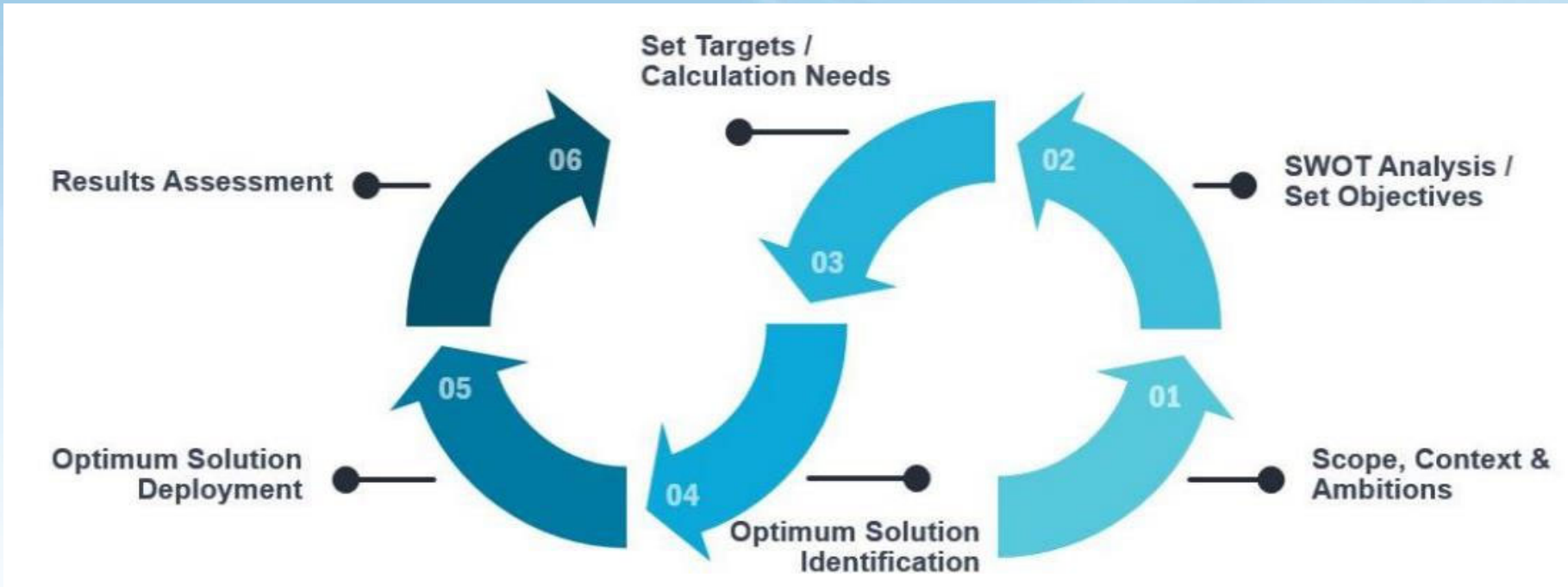
Volume III **guides** the **aviation community** in the application of **PMP** and **identification** of **relevant** and **timely operational improvements** to a given region's **ANS** including **some within** the **ASBU** framework.

Part I: General Planning Aspects (Current)

Planning Method

- Planning for the modernization of the ANS must begin thorough **understanding** of **user system requirements**, **traffic density** and **complexity**, and the **level** of **sophistication** required for the provision of necessary services, etc.

- **ICAO encourage PIRGs** to embrace a **PBA** for implementation and adopt the **six-step PMP.**


Set Targets /
Calculation Needs
02
SWOT Analysis /
Set Objectives
03
01
Scope, Context &
Ambitions
04
Optimum Solution
Identification
05
Optimum Solution
Deployment
06
Results Assessment

Part I: General Planning Aspects *(Current)*

Review and evaluation of air navigation planning, reporting and monitoring results

Performance **monitoring** requires a **measurement strategy**. **Data collection**, **processing**, **storage** and **reporting** activities supporting the identified **regional**/**national**/**local performance metrics** are **fundamental** to the success of **PBA**.

Part II: PMP and ANS Implementation *(Current)*

STEP 1: DEFINE SCOPE, CONTEXT AND SET AMBITIONS/EXPECTATIONS

STEP 2: KNOW YOUR SYSTEM – IDENTIFY OPPORTUNITIES, ISSUES AND SET OBJECTIVES

STEP 3: QUANTIFY OBJECTIVES AND SET TARGETS

STEP 4: SELECT SOLUTIONS

STEP 5: IMPLEMENT SOLUTIONS

STEP 6: ASSESS ACHIEVEMENTS

(1) Scope of Performance Improvement
(2) KPA (from the ICAO defined 11 Key Performance Areas (KPAs))
(3) Performance Objectives (ambition/expectations)
(4) KPIs based on the ICAO list of KPIs and associated variant
(5) The Baseline of each KPI
(6) The target of the KPI
(7) Selected ASBU element(s) /Enabler(s) and/or Non ASBU solution(s) for each operational improvement
(8) Target Implementation date
(9) Remarks/Progress

Note: The following is just a Sample

Scope/ Applicability	KPA & Focus Area	Performance Objective	KPI/ Variant	KPI Baseline	KPI Target	Operational Improvements (ASBU Elements/Enablers & Non ASBU)	Target Date
1	2	3	4	5	6	7	8
Aerodrome	Predictability (Punctuality)	Maximize departure punctuality	**KPI 01** (Departure punctuality) **Variant X**	TBD for each Airport	TBD for each Airport	TBD by each State/Airport	TBD for each Airport
Aerodrome	Efficiency (Flight time/ distance)	Minimize Taxi-out time	**KPI 02** (Taxi-out additional time) **Variant X**	TBD for each Airport	TBD for each Airport	TBD by each State/Airport	TBD for each Airport
Aerodrome	Capacity (Capacity, throughput & utilization)	Increase airport peak arrival capacity	**KPI 09** (Airport peak capacity) **Variant X**	TBD for each Airport	TBD for each Airport	TBD by each State/Airport	TBD for each Airport
Aerodrome	Efficiency (Flight time/ distance)	Minimize Taxi-in time	**KPI 13** (Taxi-in additional time) **Variant X**	TBD for each Airport	TBD for each Airport	TBD by each State/Airport	TBD for each Airport
Aerodrome	Predictability (Punctuality)	Maximize Arrival punctuality	**KPI 14** (Arrival punctuality) **Variant X**	TBD for each Airport	TBD for each Airport	TBD by each State/Airport	TBD for each Airport

PART 0 – Introduction (new)

- Big picture
- GANP objectives and Technical Frameworks
- Need for continuous improvement and modernization of the air navigation infrastructure and ANS 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.

PART I – General Planning Aspects *(new-almost same as current)*

1. PLANNING METHODOLOGY
   - Principles of the Performance-Based Approach (PBA)
   - PMP for planning and decision-making

2. AIR NAVIGATION PLANNING, REPORTING AND MONITORING

PART II – ANS Performance Framework (new)

1. PERFORMANCE **AMBITIONS**
2. **REGIONAL PRIORITIES** AND PERFORMANCE **OBJECTIVES** (Table ANS PF1)
3. **STATES RESPONSIBILITIES** AND **NATIONAL PLANNING**
   - States **Priorities** and Performance **Objectives** (to develop NANP)
   - 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 **ANS Performance** using ICAO **KPIs** (Table ANS PF 3-1 and ANS PF 3-2)

1. Global Performance Ambitions *(PIRG)*

1. **PBN** implementation
2. **CDO** and **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 **MAC**
7. Enhance **ASM**
8. Enhance **CMC** and **FUA**
9. Integrated **traffic flow** and **demand management**
10. Implementation of **FF-ICE** and **TBO**
11. Advance **CDM**
12. Modernize **CNS infrastructure** and ensure resilience
13. Enable seamless and **interoperable** global operations
14. Enable **digital meteorological** information exchange
15. Transition from **AIS to AIM**
16. Implementation **SWIM**
17. **AAM Integration**
18. **etc**.

2. Regional Performance Objectives

To support the **achievement** of the **Regional Priorities**, **PIRG** is **responsible** for defining Regional **Performance Objectives**, linked to the **KPA** and **Focus area**, to **operating environment** (**Airports**, **TMAs** and **En-route**); to the **ASBU elements** (possible solutions) and GANP **KPIs**.

The MID Performance Objectives are listed in the **Table ANS PF1** (TBD by MIDANPIRG).

Table ANS PF1: Regional Performance Objectives

Operating environment	KPA/ Focus Area	Regional Performance Objective Nr.	Regional Performance Objective RPO text	Possible Solutions/ (ASBU)	Performance Benefits	KPI	KPI Impact	Remarks
1	2	3	4	5	6	7	8	9
TMA	Efficiency/ Vertical flight efficiency		Reduce fuel burn by not requiring power during descent	APTA B0/4 (CDO Basic) APTA B1/4 (CDO advanced)	1-Reduction of fuel burn; 2-Reduction in noise footprint; 3-Reduce descent inefficiency attributable to altitude constraints imposed by ATM	KPI 19: Level-off during descent	KPI 19 ++	

2. Regional Performance Objectives

States should **report**, at least on **annual** basis, the status of **implementation** of the different **ASBU elements** (**block 0, 1 and 2**) on **Global Dashboard**. For each ASBU element the **status could be** 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);

As well as:
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).

Status of implementation of ASBU Elements

State: X

ASBU Thread	ASBU Block	ASBU Element	ASBU Element Name	Status of Implementation								Comments
				N/A	N/P	F/I	N/I	P/O	Start Date	End Date	M/D	
1	2	3	4	5								6
ACAS	B1	ACAS-B1/1	ACAS Improvements			X			MM/YY	MM/YY		
ACAS	B2	ACAS-B2/1	New collision avoidance system		X							
ACAS	B2	ACAS-B2/2	New collision avoidance capability as part of an overall detect and avoid system for RPAS		X							
ASUR	B0	ASUR-B0/1	Automatic Dependent Surveillance – Broadcast (ADS-B)					X	MM/YY	MM/YY		
ASUR	B0	ASUR-B0/2	Multilateration cooperative surveillance systems (MLAT)					X	MM/YY	MM/YY		
ASUR	B0	ASUR-B0/3	Cooperative Surveillance Radar Downlink of Aircraft Parameters (SSR-DAPS)		X							
ASUR	B1	ASUR-B1/1	Reception of aircraft ADS-B signals from space (SB ADS-B)		X							
ASUR	B1	ASUR-B2/1	Evolution of ADS-B and Mode S		X							
ASUR	B1	ASUR-B3/1	New non-cooperative surveillance system for airborne aircraft (medium altitudes)		X							
ASUR	B1	ASUR-B4/1	Further evolution of ADS-B and MLAT		X							
COMI	B0	COMI-B0/4	VHF Data Link (VDL) Mode 2 Basic		X							
COMI	B0	COMI-B0/7	ATS Message Handling System (AMHS)			X			MM/YY	MM/YY		

3. *Reporting implementation of performance objectives*

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** by using **Template** **ANS PF2**.

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) **KPI Baseline** (measurement of the current performance, if available)
6) **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.)

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	
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	

3. *Measure & Report ANS Performance using KPIs*

States should select KPIs that best reflect their ANS priorities and challenges; this indicators should be available, reliable data sources; and use the results to inform continuous improvement, investment planning, and operational enhancements by using **Templates ANS PF3-1 and 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 20 (Number of Aircraft Accidents) Variant X	Number of accidents - Last year	Number of accidents - Current year	Number of accidents - Current year	

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THANK YOU