



**Twentieth Meeting of the CAR/SAM Regional Planning and Implementation Group  
 (GREPECAS/20)**

Salvador, Brazil, 16 - 18 November 2022

- Agenda Item 2: Global and regional developments**  
 2.4 CAR/SAM Regional Air Navigation Plan Vol. III work update and regional progress

**UPDATE OF THE REGIONAL AIR NAVIGATION PLAN AND FORMULATION OF VOL. III**

(Presented by the Secretariat)

<b>SUMMARY</b>	
<p>This working paper outlines the activities undertaken in the CAR/SAM Regions to review and update Vol. I and Vol. II of the CAR/SAM e-ANP in order to establish a solid foundation for the formulation of Vol. III. 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 KPIs by the Administrations. The skills developed and the validation conducted in the CAR/SAM Regions of the use of the template approved by the Council in 2014 help define the next processes and tools for the development of the CAR/SAM ANP Vol. III. Based on the activities carried out by the Secretariat, an initial version of Vol. III (version 0) has been developed.</p>	
<b>Action:</b>	Suggested actions are presented in Section 4.
<i>Strategic objectives:</i>	<ul style="list-style-type: none"> <li>• Air navigation capacity and efficiency</li> <li>• Safety</li> <li>• Environmental protection</li> </ul>
<i>References:</i>	<ul style="list-style-type: none"> <li>• Nineteenth meeting of the CAR/SAM Regional Planning and Implementation Group (GREPECAS/19)</li> <li>• Fifth meeting of the GREPECAS Programmes and Projects Review Committee (PPRC/5);</li> <li>• Thirteenth Air Navigation Conference (AN/Conf-13)</li> <li>• Doc 9750 - Global air navigation plan (GANP) – Sixth edition; and</li> <li>• Second and Third virtual meeting of the PPRC (ePPRC/2 and 3)</li> </ul>

## **1. Introduction**

1.1 The Nineteenth Meeting of the CAR/SAM Regional Planning and Implementation Group (GREPECAS/19) followed up on the CAR/SAM Regional Air Navigation Plan (CAR/SAM ANP) review and update project.

1.2 The Fifth Meeting of the Programmes and Projects Review Committee (PPRC/5) reviewed the status of Decision PPRC/4-03 and decided to replace it with Decision PPRC/05-10.

1.3 The 40th ICAO Assembly endorsed the Sixth edition of the Global Air Navigation Plan (GANP).

1.4 The Thirteenth Air Navigation Conference issued recommendations related to the development of Vol. III of the Regional Air Navigation Plans.

1.5 The template for Volume III was approved by the ICAO Council in June 2014.

## **2 Analysis**

2.1 The Thirteenth Air Navigation Conference, in Recommendation 4.3/1, paragraph d) encouraged the regional planning and implementation groups (PIRGs) to apply a performance-based approach (PBA) to implement and adopt the six-step performance management process described in the Manual on global performance of the air navigation system (Doc 9883) by incorporating the process in Volume III of all regional air navigation plans (RANPs).

2.2 PPRC/5, through Conclusion PPRC/05-10, entrusted the Secretariat with processing the approval of Vol. III of the CAR/SAM e-ANP by the third quarter of 2020.

2.3 In early 2020, ICAO formed an interregional working group for the implementation of a standard template for Volume III of the RANPs with a performance-based approach. As a result, a pilot project was established in the CAR/SAM Regions in order to expedite the implementation of this document in all ICAO Regions.

2.4 During the 2019-2022 period, the GREPECAS Secretariat has carried out activities with States/Territories and organisations to disseminate the ICAO proposed template and reinforce the performance-based planning concepts, with the purpose of developing Volume III of the CAR/SAM Regional Air Navigation Plan (CAR/SAM e-ANP). In this process, the following was observed:

- a) The implementation of the basic building blocks (BBB), as set out in the GANP and the GASP, needs to be strengthened in several CAR/SAM States;
- b) Difficulty in standardising performance-based planning criteria;
- c) Marked difference in States' capacity to collect, keep and integrate input data, and to manage KPIs;
- d) Different interpretations of the application of the proposed template, and different key performance area (KPA) prioritisation approaches;

- e) Need to review and update Volumes I and II;

2.5 In view of the abovementioned, it was decided to create a Project to review Vol. I and II of the e-ANP and the CAR/SAM e-ANP development and management processes, in order to have a solid basis on which to build Vol. III of the Regional Air Navigation Plan.

2.6 The project prepared by the Secretariat contains the following points:

- a) Project planning;
- b) Management of the CAR/SAM Regional Air Navigation Master Plan;
- c) Analysis of the ANP with other documents;
- d) Review of Vol. I;
- e) Review of Vol. II;
- f) Assistance for the formulation and management of Vol. III of the CAR/SAM ANP
  - i) Part 1: Analysis and comparison of the CAR/SAM ANP with the GANP, Sixth edition.
  - ii) Part 2: Proposal, review and approval of template.

2.7 Accordingly, the Secretariat assisted with a set of activities, as summarised in **Appendix A** to this working paper.

2.8 The set of activities with States/Territories and organisations has enabled the Secretariat to receive valuable feedback regarding the understanding of the six-step method contained in Doc 9883 and the management of KPIs, as well as the use of the template as a tool for managing Volume III.

2.9 Opportunities for improvement have been identified in the text of the template and the planning tables, including proposals for new columns and explanatory notes, so that they can be associated with the concepts in the GANP, as well as for facilitating the interaction between planners and the tools (tutorials, catalogues, dashboard, AN-SPA, etc.) provided on the GANP website. In the SAM Region, the need for the GANP and the CAR/SAM ANP in Spanish has been emphasised and restated.

2.10 In order to demonstrate the PBA planning sequence through the template tables, highlight the contribution of the improvement proposals to the understanding of the process, as well as present the process that CAR/SAM States will follow to enter (populate) their data in these tables, initial data from four States are included (for reference only).

2.11 The first version of Volume III of the CAR/SAM ANP is presented in **Appendix B** to this paper (English language only), including the aforementioned proposals for improvement highlighted in grey and tables with initial reference data, which allows to start the process of further filling in the tables with planning data from the CAR/SAM States/Territories, as well as to strengthen the management of Volume III.

2.12 The need to guide the activities of States regarding national air navigation plans has been identified. This issue is presented in WP/21 - GREPECAS work proposal for the triennium 2022-2025.

### 3 Conclusion

3.1 The basic knowledge for the formulation of the tables in Vol. III has been developed. It has been identified that the main enabler of Vol. III is KPI management by administrations. This should be a scalable process that can start with the simple collection of air traffic data, including take-off/landing time versus estimated time, off-block and in-block times, compared taxi-in and taxi-out times, flow of operations at an airport, comparison between planned flight and actual flight, etc.

3.2 The ICAO GANP has continued to improve and expand its contents. The seventh edition of the GANP addresses the “safety” KPA and the new KPIs associated with it. The assistance provided has also facilitated the forthcoming adoption of these subjects.

3.3 The skills developed with CAR/SAM planning experts, as well as the validation carried out on the use of the template approved by the Council in 2014, have made it possible to define the next processes and tools for the management of Vol. III of the CAR/SAM ANP.

3.4 GREPECAS shall address the procedure for amendment of this document in order to comply with item 7.5 of *PART C - AIR NAVIGATION PLANS, VOLUME III - Procedure for amendment of Volume III*. See WP/10.

3.5 The Secretariat and the States have worked together to review and update Vol. I and Vol. II of the CAR/SAM e-ANP in order to establish a solid foundation for the development of Vol. III. The project created by the Secretariat to assist CAR/SAM States has met the objectives set for the alignment of the CAR/SAM ANP with the GANP. Assistance activities for the development and management of Volume III of the CAR/SAM ANP have been completed, and it is recommended that work to continue the implementation of Volume III of the CAR/SAM ANP be included in the regular activities of GREPECAS.

3.6 Consequently, the following draft conclusion is submitted for consideration:

<b>DRAFT CONCLUSION</b>	
<b>GREPECAS/20/xx</b>	<b>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</b>
<b>That:</b> GREPECAS; a) Adopt the initial version (version 0) of Volume III of the CAR/SAM ANP (Appendix B to the report), formulated on the basis of the ICAO Council template and aligned	<b>Expected impact:</b> <input type="checkbox"/> Political / Global <input checked="" type="checkbox"/> Interregional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental

<p>with Recommendation 4.3/1, subparagraph d), of AN-Conf 13; and</p> <p>b) Approve the CAR/SAM ANP Vol III management programme that allows for the sustainable implementation of performance-based planning.</p> <p>States:</p> <p>a) Establish work teams to carry out data collection and GANP KPI management activities as the basis for entering data in Vol. III planning tables, with the assistance of the Secretariat.</p>	<input checked="" type="checkbox"/> Technical/Operational
<p><b>Why:</b></p> <p>To implement the six-step approach to performance-based planning in the CAR/SAM Regions and start the process of entering data of States/Territories and thus managing Volume III.</p>	
<p><b>When:</b></p> <p>a) immediately b) report to PPRC/XX</p>	<p><b>Status:</b> <input checked="" type="checkbox"/> Valid / <input type="checkbox"/> Superseded / <input type="checkbox"/> Completed</p>
<p><b>Who:</b> <input checked="" type="checkbox"/> States <input checked="" type="checkbox"/> ICAO <input type="checkbox"/> Other:</p>	

#### 4 Suggested actions

4.1 The Meeting is invited to:

- a) take note of the information presented herein;
- b) review and, if appropriate, approve the draft conclusion presented in 3.6; and
- c) take any other action it may deem appropriate.

-----

## Appendix A

**The assistance activities of the Secretariat have been developed as described below:**

- a) The project was planned and approved by the Regional Offices;
- b) Procedures have been established for managing and updating the Master of the Regional Air Navigation Plan. For this procedure, a dashboard for the management of the Master has been created;
- c) Vol. I has been completely revised, taking into account amendments to the ICAO Annexes and documents on which this Volume is based. Final assessments are underway in order to submit several opportunities for improvement to the consideration of the Air Navigation Bureau. Furthermore, proposals for amendment have been processed in the areas of Air Traffic Management (ATM) and Airdromes and Ground Aids (AGA);
- d) Vol. II has been reviewed. Proposals for amendments in the areas of ATM, AGA and Meteorology (MET) have been processed. Other proposals in the areas of AGA, AIM, MET, CNS and SAR are being assessed;
- e) Also for Vol. II, the SAM/IG/26 meeting (virtual, September 2021) approved Conclusion SAM/IG/26-3 - Review of CNS tables of Vol. II of the CAR/SAM Air Navigation Plan and support for the development of Vol. III of the CAR/SAM ANP. A letter has been sent to the States advising them of the approval of the conclusion and requesting SAM States to designate personnel to carry out the cited tasks;
- f) The GREPECAS Programmes and Projects Committee (PPRC) Third Virtual Meeting (ePPRC/03) approved the Instructions on the use of the template of Volume III of the Regional Air Navigation Plan - CAR/SAM ANP, to facilitate the work of States in the development of the cited volume. These instructions were also presented at GREPECAS/19;
- g) The Secretariat conducted several workshops in the SAM and CAR Regions on the preparation of Vol. III. The CAR/SAM Regional Workshop for the Preparation of Vol. III of the Regional Air Navigation Plan (9-12 May 2022) achieved the following:
  - Review and agreement on Table PMP III- CAR/SAM - 1 - *List of CTAs/TMAs in the CAR/SAM Regions*;
  - Review and agreement on Table PMP III-1 – *Strengths, weaknesses, opportunities and threats (SWOT) in the CAR/SAM Regions*;
  - Analysis and understanding of Table PMP III-2 – *List of performance objectives by KPA for the CAR/SAM Regions*, verification of the feasibility of addressing the efficiency, capacity, predictability KPAs, and status of ICAO provisions on the safety KPA (addressed in the GANP, seventh edition);
  - Analysis and understanding of Table PMP III-3 – *List of KPIs by performance objective and KPA for the CAR/SAM Regions*, which associates KPAs, focal area, performance goals and KPIs;
  - Analysis and understanding of Tables PMP III-4 and PMP III-5, understanding of KPI management requirements, formulation of baselines and improvement targets, **with initial data provided by various States**. It is recognised that the aforementioned management is the main enabler of Vol. III;

- Analysis and understanding of Table PMP III-6 – *Deployment planning: selected ASBU Elements / Operational Improvements for the CAR/SAM Region*. Recognition of ASBU elements related to KPIs in the GANP, and analysis of non-related KPIs. The formulation of Volume III contemplates the implementation of ASBU modules that are currently in process (APTA, NOPS, FRTO, etc.), according to GREPECAS programmes. Therefore, the start of Volume III management takes into account the transition from the cited programmes;
  - The workshop agreed that Tables PMP III-7 and PMP III-8 were linked to steps 5 and 6 of the method. Therefore, the tables had to be applied when Volume III management started for the implementation of the identified ASBU solutions, in order to check the status of implementation and assess the expected performance achievements of the process.
- h) The Secretariat held a feedback meeting with IATA and the industry. The CAR and SAM air navigation implementation groups have been involved in studies and tasks scheduled for the CAR/SAM ANP.
- i) Through State letter (NACC94344 - SA362 of 26 August 2022), the NACC and SAM Offices presented a summary of the progress made in the assistance project, and requested the designation of representatives to support the development of amendment procedures for Vol. III of the CAR/SAM e-ANP. States were also requested to provide their data for the tables in Vol. III. Data collected have been included in the initial version (version 0) of the Volume.
-

**APPENDIX B / APÉNDICE B**

***TEMPLATE APPROVED BY THE COUNCIL  
on 18 June 2014***

**CAR/SAM AIR NAVIGATION PLAN**

**VOLUME III**

**INITIAL VERSION (VERSION 0)**



**CAR/SAM AIR NAVIGATION PLAN**

**VOLUME III**

**TABLE OF CONTENTS**

PART 0 — Introduction .....

PART I — General Planning Aspects (GEN) .....

PART II – Performance Management Planning and ANS Implementation (PMP) .....

    Table PMP III-1 – Strengths, weakness, opportunities and threads in the (NAME) Region

    Table PMP III-2 – List of performance objectives by KPA for the (NAME) Region

    Table PMP III-3 – List of KPIs by performance objective and KPA for the (NAME) Region

    Table PMP III-4 – Performance baseline within the (NAME) Region

    Table PMP III-5 – Performance targets and needs within the (NAME) Region

    Table PMP III-6 – Selected ASBU Elements / Operational Improvements for the (NAME) Region

    Table PMP III-7 – Status of deployment of the selected operational improvements of the ASBU elements / Operational Improvements for the (NAME) Region

    Table PMP III-8 – Performance benefits accrued form the implementation of the selected ASBU elements / Operational Improvements for the (NAME) Region

    Table PMP III- (NAME Region) - 1 – List of CTA/TMA in the (NAME) Region

**CAR/SAM ANP, VOLUME III**  
**PART 0 – INTRODUCTION**

**1. INTRODUCTION**

1.1 The background to the publication of ANPs in three volumes is explained in the Introduction in Volume I. The procedure for amendment of Volume III is also described in Volume I. Volume III contains dynamic/flexible plan elements related to the application of a performance-based approach for a cost-effective and benefit-driven modernization of the air navigation system in line with the Global Air Navigation Plan (GANP).

1.2 Collaborative decision-making is key for a cost-effective modernization of the air navigation system and ensures that all concerned aviation stakeholders are involved and given the opportunity to influence decisions in order to reach defined performance objectives. Volume III guides the aviation community in the application of performance management process and identification of relevant and timely operational improvements to a given region's air navigation system including some within the Aviation System Block Upgrade (ASBU) framework.

1.3 The information contained in Volume III is, therefore, related to:

- Planning: objectives, priorities, targets and needs planned at regional or sub-regional levels;
- Monitoring and reporting: performance and implementation monitoring of the agreed targets. 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.

1.4 GREPECAS is responsible for managing and updating Volume III on a regular basis.

---

**CAR/SAM ANP, VOLUME III**  
**PART I - GENERAL PLANNING ASPECTS (GEN)**

## 1. PLANNING METHOD

1.1 A performance-based approach is results-oriented, helping decision makers set priorities and determine appropriate trade-offs that support optimum resource allocation while maintaining an acceptable level of safety performance and promoting transparency and accountability among stakeholders.

1.2 The Thirteenth Air Navigation Conference recommended the ICAO encourage the planning and implementation regional groups (PIRGs) to embrace a performance-based approach for implementation and adopt the six-step performance management process, as described in the Manual on Global Performance of the Air Navigation System (Doc 9883), by reflecting the process in Volume III of all regional air navigation plans. Recommendation 4.3/1 — Improving the performance of the air navigation system refers.

1.3 Although there are several ways to apply a performance-based approach, ICAO advocates for a globally harmonized performance management process based on six well-defined steps. The goal of this cyclic six-steps method is to identify optimum solutions based on operational requirements and performance needs so that the expectations of the aviation community can be met by enhancing the performance of the air navigation system and optimizing allocation and use of the available resources.

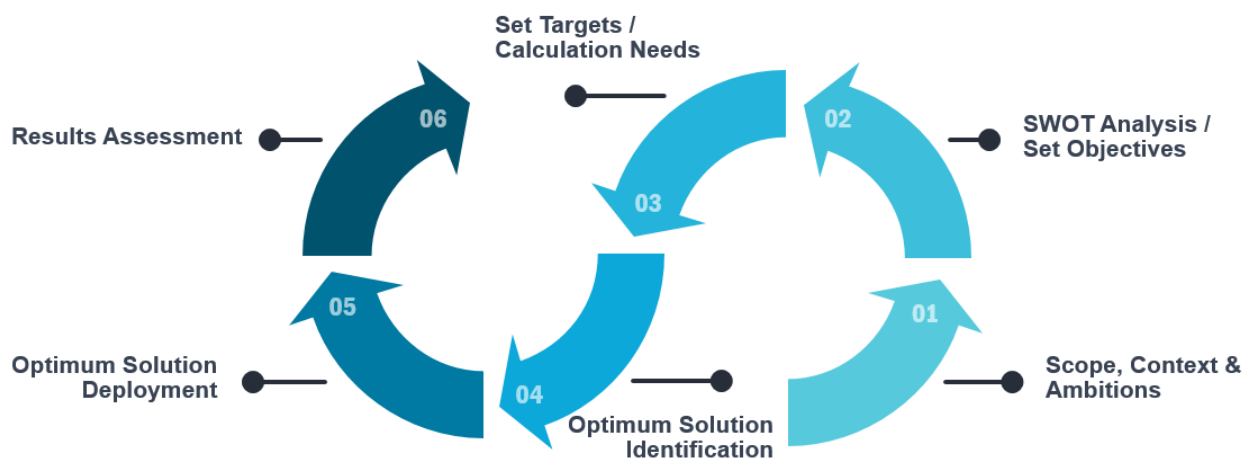


Figure 1 Six-step performance management process

1.4 Steps 1 and 2 serve to know your system, its strengths, weakness, opportunities and threats as well as how it is performing in order to set objectives. The catalogue of performance objectives that is part of the GANP global performance framework facilitates the definition of objectives.

1.5 Based on these objectives, targets can be set in step 3. An analysis of this data leads to the identification of potential solutions, in step 4, to achieve the targets by addressing the weakness and threats of the system. Once a set of potential solutions have been identified, a cost-benefits analysis, environmental impact assessment, safety assessment and human factor assessment should be performed to identify the optimum solution. In the GANP performance framework, a list of KPIs, linked to the relevant objectives in the performance objectives catalogue, is provided to set targets through the quantification of objectives (See list below). A list of potential solutions to be consider as part of step 4 is the ASBU framework with its functional description of the operational improvements and their associated performance benefits.

KPI01	Departure punctuality	KPI11	Airport throughput efficiency
KPI02	Taxi-out additional time	KPI12	Airport/Terminal ATFM delay
KPI03	ATFM Slot adherence	KPI13	Taxi-in additional time
KPI04	Filed flight plan en-route extension	KPI14	Arrival punctuality
KPI05	Actual en-route extension	KPI15	Flight time variability
KPI06	En-route airspace capacity	KPI16	Additional fuel burn
KPI07	En-route ATFM delay	KPI17	Level-off during climb
KPI08	Additional time in terminal airspace	KPI18	Level capping during cruise
KPI09	Airport peak capacity	KPI19	Level-off during descent
KPI10	Airport peak throughput		

1.6 Step 5 manages a coordinated deployment of the agreed solution by all stakeholders based on the previous steps. Regional plans might need to be developed for the deployment of solutions by drawing on supporting technology requirements.

1.7 Finally, step 6 consists of monitoring and reporting the performance of the system after the full deployment of the solution.

1.8 This is an iterative planning process, which may require repeating several steps until a final plan with specific regional targets is in place. This planning method requires full involvement of States, service providers, airspace users and other stakeholders, thus ensuring commitment by all for implementation.

#### *Review and evaluation of air navigation planning*

2.1. The progress and effectiveness against the priorities set out in the regional air navigation plans should be annually reported, using a consistent reporting format, to ICAO.

2.2. Performance monitoring requires a measurement strategy. Data collection, processing, storage and reporting activities supporting the identified global/regional performance metrics are fundamental to the success of performance-based approaches.

2.3. The air navigation planning and implementation performance framework prescribes reporting, monitoring, analysis and review activities being conducted on a cyclical, annual basis.

#### *Reporting and monitoring results*

2.4. Reporting and monitoring results will be analyzed by the PIRGs, States and ICAO Secretariat to steer the air navigation improvements, take corrective actions and review the allocated objectives, priorities and targets if needed. The results will also be used by ICAO and aviation partner stakeholders to develop the annual Global Air Navigation Report. The report results will provide an opportunity for the international civil aviation community to compare progress across different ICAO regions in the establishment of air navigation infrastructure and performance-based procedures.

2.5. The reports will also provide the ICAO Council with detailed annual results on the quality of service provided worldwide as well as the performance areas which require more attention. This will serve as input for the triennial policy adjustments to the GANP and its priorities.

## CAR/SAM ANP, VOLUME III

### PART II – PERFORMANCE MANAGEMENT PLANNING AND ANS IMPLEMENTATION (PMP)

#### 1. STEP 1: DEFINE SCOPE, CONTEXT AND SET AMBITIONS

##### *General*

1.1 The purpose of Step 1 is to reach a common agreement on the scope and (assumed) context of the regional air navigation system on which the performance management process will be applied, as well as a common view on the general nature of the expected performance improvements.

##### *Geographical scope*

1.2 The geographical scope is defined in Volume I and in particular in the following tables:

- Table GEN I-1 — List of Flight Information Regions (FIR)/Upper Information Regions (UIR) in the Region
- Table ATM I-1 — Flight Information Regions (FIR)/Upper Flight Information Regions (UIR) of the Region
- Table SAR I-1 — Search and Rescue Regions (SRR) of the Region
- Table AOP I-1 — International aerodromes required in the Region (**main City Pairs?**)
- Table PMP III CAR/SAM - 1 – List of CTA/TMA in the Region

(Optional. Please note that, if it is decided that this level of granularity is required in the Region, the rest of the performance management process will be applied at this level of granularity for consistency purposes. If this table is not developed, the PMP will be applied at an FIR level)

##### *Homogeneous areas and/or major traffic flows*

1.3 The homogeneous ATM areas and major traffic flows/routing areas identified are given in:

- Table GEN II-1 — Homogeneous areas and major traffic flows identified in the Region

##### *Time Horizon*

1.4 Volume III of the CAR/SAM ANP provides **short term (5 years) and medium term (10 years)** implementation planning.

##### *Traffic forecast*

1.5 A uniform strategy has been adopted by ICAO for the purpose of preparing traffic forecasts and other planning parameters in support of the regional planning process.

- ***(include traffic forecast for the Region from ATB)***

1.6 In the CAR/SAM Region, in addition to the ICAO forecast, the following forecast from ***(source)*** is used for planning purposes. ***(if applicable)***

##### *Political (high level) ambitions*

1.7 The expectations of the global aviation community are defined in 11 Key Performance Areas (KPA's). The GANP considers all these areas through the performance ambitions. Although all these areas are equally important, as they are interrelated and cannot be considered in isolation, some areas are more visible to society than others.

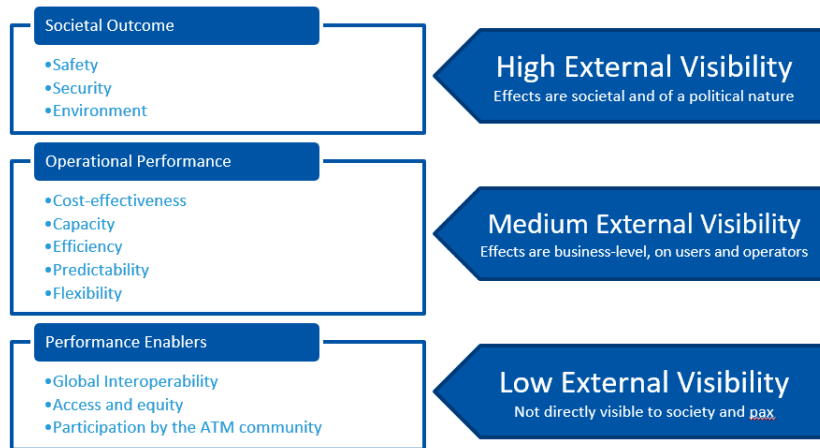


Figure 2 The 11 KPAs of the GANP

1.8 The regional air navigation plan public's perception of safe air travel is key to the prosperity of the aviation sector, which is why, safety is critical when planning the implementation of air navigation operational improvements. To determine if these improvements can be implemented in a safe manner, a safety risk assessment provides information to identify hazards that may arise from, for example:

- a) any planned modifications in airspace usage;
- b) the introduction of new technologies or procedures; or
- c) the decommissioning of older navigational aids.

1.9 A safety risk assessment also enables the assessment of potential consequences. Based on the results of a safety risk assessment, mitigation strategies may be implemented to ensure that an acceptable level of safety performance is maintained. Any operational improvement should be implemented only on the basis of a documented safety risk assessment.

1.10 Fatalities resulting from acts of unlawful interference also affect the public's perception of aviation safety. The cumulative improvements to aviation security globally enhance the safety, facilitation and operational aspects of the international civil aviation system.

1.11 Some safety and environment considerations can be found in Volume I.

1.12 After political consultation the following set of performance ambitions have been prioritized within the (*NAME*) Region, (*DECLARATION*) refers.

- (*include the set of ambitions in a set of KPAs*)

## 2. STEP 2: KNOW YOUR SYSTEM – SWOT ANALYSIS AND REGIONAL OBJECTIVES

### General

2.1 The purpose of Step 2 is to develop a detailed understanding of the performance behaviour of the system (this includes producing a list of opportunities and issues), and to decide which specific performance aspects are essential for meeting the general expectations. The essential performance aspects are those which need to be actively managed (and perhaps improved) by setting performance objectives.

### SWOT analysis

2.2 A SWOT analysis allows the development of an inventory of present and future opportunities and issues (weaknesses, threats) that may require performance management attention.

2.3 A SWOT analysis, requires the identification of:

- Strengths: internal attributes of a system or an organization that can help in the realization of ambitions or in meeting expectations.

- Weaknesses: internal attributes of a system or an organization that are a detriment to realizing ambitions or meeting expectations.
- Opportunities: are external conditions that help in the realization of ambitions or in meeting expectations.
- Threats: external conditions that are a detriment or harmful to realizing ambitions or meeting expectations.

2.4 Once the strengths, weakness, opportunities and threats are identified, action can be taken to target and exploit or remove these factors. The SWOTs in the CAR/SAM Regions can be found in **Table PMP III-1**.

*Regional objectives*

2.5 The performance framework of the GANP includes a catalogue of performance objectives to facilitate the definition of objectives. Considering the objectives defined in the catalogue and based on the SWOT analysis, the CAR/SAM Regions defines, within the key performance areas prioritize in step 1, the objectives within **Table PMP III-2** to be pursued by the States within the Region.

**3. STEP 3: QUANTIFY OBJECTIVES, SET TARGETS AND CALCULATE NEEDS**

*General*

3.1 The purpose of Step 3 is to ensure that objectives are specific, measurable, achievable, relevant and time-bound (SMART) so that targets can be set and needs calculated.

*List of regional indicators*

3.2 The way to ensure that objectives are specific and measurable is by defining indicators. Indicators are the means to quantitatively express performance as well as actual progress in achieving performance objectives. Indicators need to be defined carefully:

- Since indicators support objectives, they should not be defined without having a specific performance objective in mind.
- Indicators are not often directly measures. They are calculated from supporting metrics according to clearly defined formulas. This leads to a requirement for cost data collection and flight data collection. If there is a problem with data availability to calculate these supporting metrics:
  - Set up the appropriate data reporting flows and/ or modelling activities, to ensure all supporting metrics are populated with data as required to calculate the indicator(s) associated with the objective; or
  - If this is not possible, aim for a different kind of performance improvement, by choosing a different performance objective, as constrained by data availability.



3.3 In order to facilitate this task, ICAO has defined a series of KPIs link to the catalogue of performance objectives within the 11KPA. The ICAO KPIs associated to the performance objectives in the CAR/SAM Regions are in **Table PMP III- 3**.



### Performance baseline in the CAR/SAM Regions

3.4 The only way of knowing an operational environment and identifying the existence of a problem is by collecting, processing and analysing data. The value of these indicators would be your performance baseline. The performance baseline for the CAR/SAM Regions can be found in **Table PMP III-4**.

### Regional targets and calculation of needs

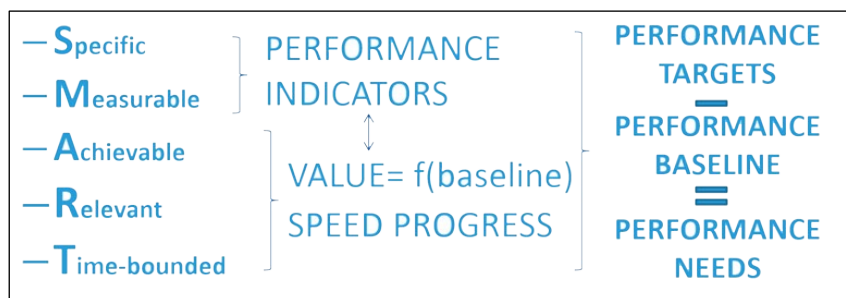
3.5 Performance targets are closely associated with performance indicators, they represent the values of performance indicators that need to be reached or exceeded to consider a performance objective as being fully achieved.

3.6 To understand how challenging it is to reach your target, you should know your performance baseline. The difference between the baseline and the target is called the needs/performance gap.

3.7 The time available to achieve performance objectives is always limited. Therefore, targets should always be time-bounded.

3.8 The target and the time available to reach the target determine the required speed of progress for the performance objective. Care should be taken to set target so that the required speed of progress is realistic.

3.9 Based on the information submitted and after consideration by all stakeholders, the targets and needs in **Table PMP III-5** have been agreed for the CAR/SAM Regions.



## 4. STEP 4: SELECT SOLUTIONS

### General

4.1 The purpose of this step is to combine the knowledge of baseline performance, opportunities and issues with the performance objectives and targets, in order to make decisions in terms of priorities, trade-offs, selection of solutions and resource allocation. The aim is to optimize the decisions to maximize the achievement of the desired/required (performance) results.

### Select solutions

4.2 Based on the agreed targets, States should perform a SWOT analysis at each operational environment to develop an inventory of present and future opportunities and issues that may require attention. The list then needs to be analyzed in a performance oriented way, to assess/ quantify the impact of drivers, constraints, impediments, etc. on the objectives under consideration. To what extent, when and under which conditions do these contribute to or prevent the required performance improvements.

4.3 States should consider the operational improvements (ASBU elements) within the ASBU framework as potential solutions to improve the selected objectives/KPIs in the operational environment under analysis. In order to help States with this task, ICAO has developed the Air Navigation System Performance Analysis (AN-SPA) tool, available for free at: <https://www4.icao.int/ganportal/ANSPA/Reports>

4.4 Please note that the ASBUs are a list of potential solutions and therefore it might happen that the optimum solution for the operational environment under analysis is not within this list.

4.5 Once a list of potential solutions has been developed, it is important to do a safety assessment and an environmental impact assessment to analyze the feasibility of implementing that specific solution in the operational environment under analysis. ICAO has developed the following guidance to assist States to perform a safety assessment and an environmental impact assessment:

4.5.1 Safety assessment:

4.5.1.1 The 4th edition of the Safety Management Manual (SMM), was updated and published in October 2018 to provide supporting guidance for Amendment 1 to Annex 19 – Safety Management, including:

- Upgraded provisions for the protection of safety data, safety information and related sources;
- Integration of the 8 critical elements into the State Safety Programme (SSP) components; and
- Enhanced provisions for Safety Management System (SMS).

4.5.1.2 It also provides expanded guidance on the scope of Annex 19 its applicability, including discretionary SMS applicability, as well as the development of safety intelligence. In addition, to address the needs of the diverse aviation community implementing safety management and following a recommendation stemming from the 2<sup>nd</sup> High-level Safety Conference (HLSC/2015), the Safety Management Implementation (SMI) public website ([www.icao.int/SMI](http://www.icao.int/SMI)) has been launched to complement the SMM. The SMI website serves as a repository for the sharing of practical examples, tools and educational material, which are being collected, validated and posted on an ongoing basis to support the effective implementation of SSP and SMS. An e-book version of the SMM in all ICAO languages is also available on the website.

4.5.2 Environmental impact assessment guidance:

4.5.2.1 This guidance identifies high-level principles that facilitate the robust definition and application of specific assessment approaches, methodologies and their respective metrics. The focus of these principles is on changes that relate to aircraft and ATM operational initiatives and may involve all phases of flight (e.g. Gate-to-Gate). The general principles of this guidance can be applicable to air navigation aspects arising from infrastructure proposals and major changes to airspace capacity or throughput, as well as operational changes. While the boundaries of an air navigation services environmental analysis are based on the needs of the study, for the purposes of this guidance material “air navigation services environmental assessment” is to be interpreted in the broadest possible sense and refers to impacts arising from changes to where, when, and how aircraft are operated.

[https://store.icao.int/catalogsearch/result/?category\\_id=2&q=10031](https://store.icao.int/catalogsearch/result/?category_id=2&q=10031)

4.5.2.2 Once the feasibility study has been done, we will still need to do a cost-benefit analysis to identify the optimum solution/s. ICAO has developed some guidance and a tool to assist you on this task:

4.5.3 Cost-benefit analysis:

<https://data.icao.int/cba>

4.5.3.1 Once the optimum solution(s) has(ve) been identified, States should report them to ICAO and they are reflected in **Table PMP III-6**.

## 5. STEP 5: IMPLEMENT SOLUTIONS

### *General*

5.1 Step 5 is the execution phase of the performance management process. This is where the changes and improvements that were decided upon during the previous step are organized into detailed plans, implemented, and begin delivering benefits.

### *Select solutions*

5.2 Once the optimum solution/s has/have been identified, it is the moment to start the execution phase of the performance management process. This is where the changes and improvements that you decided were the optimum solution for your problem during the previous steps are organized into plans, implemented and begin delivering services to achieve the expected performance. During this execution phase, it is important to keep track of the project deployments (time, budget, ...).

5.3 Depending on the mature and magnitude of the change, this could mean:

- In the case of small-scale changes or day-to-day management:
  - Assigning management responsibility for the implementation to an individual;
  - Assigning responsibility and accountability for reaching a performance target to an individual or organization
- In the case of major or multi-year changes:
  - Refining the roadmap of selected solutions into a detailed implementation plan, followed by the launching of implementation projects
  - Ensure that each individual implementation project is operated in accordance with the performance-based approach. This means launching and executing the performance management process at the level of individual projects. Each project derives its scope, context and expectations (see Step 1 of the process) from the overall implementation plan.

5.4 This can imply to overcome high-level political challenges, find funding and resources or look for external technical support.

5.5 In this step, States are expected to report on the status on the implementation by updating **Table PMP III-7**.

## **6. STEP 6: ASSESS ACHIEVEMENTS**

### *General*

6.1 The purpose of Step 6 is to continuously keep track of performance and monitor whether performance gaps are being closed as planned and expected.

### *Assess achievements*

6.2 Once the project is implemented, it is time to assess the benefits from the implementation. This means measuring the performance of the operational environment under analysis once the solution/s has/have been deployed.

6.3 The purpose of this step is to continuously keep track of performance and monitor whether performance gaps are being closed as planned and expected.

6.4 First and foremost, this implies data collection to populate the supporting metrics with the data needed to calculate the performance indicators. The indicators are then compared with the targets defined during Step 3 to draw conclusions on the speed of progress in achieving the objectives.

6.5 This step also includes monitoring progress of the implementation projects, particularly in those cases where the implementation of solutions takes several years, as well as checking periodically whether all assumptions are still valid and the planned performance of the solutions is still meeting the (perhaps changed) requirements.

6.6 With regard to the review of actually achieved performance, the output of this step is simply an updated list of performance gaps and their causes. In practice, the scope of the activity is often interpreted as being much wider and includes recommendations to mitigate the gaps.

6.7 This is then called performance monitoring and review, which in addition to this step, includes step 1, 2 and 3.

6.8 For the purpose of organizing performance monitoring and review, the task can be broken down into five separate activities:

- Data collection
- Data publication
- Data analysis
- Formulation of conclusions; and
- Formulation of recommendations.

6.9 States should report on the benefits accrued from the implementation of the solutions in **Table PMP III-8**. This would constitute the baseline for the next iteration of the performance management process.

Table PMP III-CAR/SAM-1 – List of CTA/TMA in the CAR/SAM Region

## EXPLANATION OF THE TABLE

## Column

- 1 States in **Table GEN I-1**
- 2 List of FIRs by State within **Table ATM I-1**.
- 3 CTAs/TMAs
- 4 Remarks

Column		
1	STATE	Name of State
2	FIR/UIR	Name of FIR/UIR
3	CTA/TMA	Name of CTA/TMA
4	Remarks	Remarks, notes

STATE	FIR/UIR	UTA/CTA/TMA	Remarks
1	2	3	4
France – French Antilles (St Barthelemy)	San Juan FIR		
France – French Antilles (St Martin)			
Netherlands (Saba)			
Netherlands (Sint Eustatius)			
Sint Maarten (Kingdom of the Netherlands)			
United Kingdom (Anguilla)			
United Kingdom (British Virgin Islands)			
United States (Puerto Rico)			
United States (Virgin Islands)			
Antigua and Barbuda	Piarco FIR		
Barbados			
Dominica			
France – French Antilles (Guadeloupe)			
France – French Antilles (Martinique)			
Grenada			
Saint Kitts and Nevis			
Saint Lucia			
1. Saint Vincent and the Grenadines			
Trinidad and Tobago			
United Kingdom (British Virgin Islands)			
United Kingdom (Montserrat)			

STATE	FIR/UIR	UTA/CTA/TMA	Remarks
1	2	3	4
Argentina	<b>Comodoro Rivadavia FIR</b>	Comodoro Rivadavia North CTA	
		Comodoro Rivadavia South CTA	
		Comodoro Rivadavia TMA	
		Rio Gallegos TMA	
		Ushuaia TMA	
	<b>Córdoba FIR</b>	Córdoba North CTA	
		Córdoba South CTA	
		Cordoba TMA	
		Salta TMA	
	<b>Ezeiza FIR</b>	Ezeiza CTA I	
		Ezeiza CTA II	
		Ezeiza CTA III	
		Ezeiza CTA IV	
		Baires TMA	
		Mar del Plata TMA	
		Neuquen TMA	
		Rosario TMA	
	<b>Mendoza FIR</b>	San Carlos de Bariloche TMA	
		Mendoza CTA	
	<b>Resistencia FIR</b>	Mendoza TMA	
Resistencia CTA			
Resistencia TMA			
		Foz TMA	Tripartite Argentina-Brazil - Paraguay
Aruba (Kingdom of the Netherlands)	Curaçao FIR		
Curaçao (Kingdom of the Netherlands)			
Netherlands (Bonaire)			
Bahamas	Nassau FIR		
Belize	Central American FIR		
Costa Rica			
El Salvador			
Guatemala			
Honduras			
Nicaragua			
United Kingdom (Bermuda)	New York Oceanic West FIR		

STATE	FIR/UIR	UTA/CTA/TMA	Remarks
1	2	3	4
Bolivia	<b>La Paz FIR</b>	La Paz CTA	
		Cochabamba TMA	
		La Paz TMA	
		Santa Cruz TMA	
Brazil	<b>Amazonica FIR</b>	Amazonica CTA	
		Amazonica UTA	
		Rio Branco TMA	
		Porto Velho TMA	
		Boa Vista TMA	
		Manaus TMA	
		Belem TMA	
		Macapa TMA	
		Santarem TMA	
		Cuiabá TMA	
		Sao Luis TMA	
		Amazonica TMA	Bipartite Brazil - Colombia
		<b>Atlantico FIR</b>	Atlantico UTA
	<b>Brasilia FIR</b>	Brasilia CTA	
		Brasilia UTA	
		Brasilia TMA	
		Belo Horizonte TMA	
	<b>Curitiba FIR</b>	Curitiba CTA	
		Curitiba UTA	
		Porto Alegre TMA	
		Foz TMA	Tripartite Argentina- Brazil - Paraguay
		Curitiba TMA	
		Florianópolis TMA	
		Campo Grande TMA	
		Rio de Janeiro TMA	
		Sao Paulo TMA	
	<b>Recife FIR</b>	Recife CTA	
		Recife UTA	
		Fortaleza TMA	
		Natal TMA	
		Recife TMA	
		Maceio TMA	
Aracaju TMA			
Salvador TMA			
Porto Seguro TMA			
Vitoria TMA			
Jamaica	Kingston FIR		
United Kingdom (Cayman Islands)			

STATE	FIR/UIR	UTA/CTA/TMA	Remarks
1	2	3	4
Chile	Antofagasta FIR	Santiago Oceanic OCA*	*Oceanic ACC delivers ATC in Oceanic Control Area (OCA). see AIP-Chile Vol I
		Iquique UTA	
		Antofagasta TMA	
		Arica TMA	
		Iquique TMA	
		Calama TMA	
		Atacama TMA	
	Isla de Pascua FIR	Santiago Oceanic OCA*	
		Isla de Pascua TMA	
	Puerto Montt FIR	Santiago Oceanic OCA*	
		Puerto Montt UTA	
		Puerto Montt TMA	
		Temuco TMA	
	Punta Arenas FIR	Balmaceda TMA	
		Santiago Oceanic OCA*	
		Punta Arenas UTA	
		Punta Arenas TMA	
	Santiago FIR	Puerto Williams TMA	
		Isla Rey Jorge TMA	
		Santiago Oceanic OCA*	
Santiago UTA			
Santiago TMA			
Colombia	Barranquilla FIR	Concepcion TMA	
		La Serena TMA	
		Barranquilla UTA	
		Barranquilla CTA	
	Bogota FIR	Barranquilla TMA sector NORTE	
		Barranquilla TMA sector SUR	
		San Andrés TMA	To be analyzed
		Bogota UTA	
		Bogota TMA sector OESTE	
		Bogota TMA sector NORTE	
		Bogota TMA sector SUR	
		Cali CTA	
		Medellin CTA	
		Amazonica TMA	Bipartite Brazil - Colombia
Bucaramanga TMA			
Cali TMA			



STATE	FIR/UIR	UTA/CTA/TMA	Remarks
1	2	3	4
		Cucuta TMA sector Sur Cucuta TMA sector Norte	
		Medellin TMA	
		Pereira TMA	
		Villavicencio TMA	
		Andes TMA	
		El Yopal TMA	
Cuba	Habana FIR		
Dominican Republic	Santo Domingo FIR		
Ecuador	<b>Guayaquil FIR</b>	Guayaquil UTA Guayaquil CTA Guayaquil TMA Manta TMA Quito TMA	
French Guiana	<b>Cayenne FIR</b>	Cayenne CTA Cayenne TMA	
Guyana	<b>Georgetown FIR/UIR</b>	Georgetown UTA Georgetown CTA Timehri TMA	
Haiti	Port Au Prince FIR		
Mexico	Mazatlán Oceanic FIR Mexico FIR		
Panama	<b>Panama FIR</b>	Panama CTA Panama TMA San Andres TMA*	*Under Colombia responsibility. TMA is within FIR/CTA Panama. To be analyzed
Paraguay	<b>Asunción FIR/UIR</b>	Asuncion TMA Foz TMA	Tripartite Argentina-Brazil - Paraguay
Peru	<b>Lima FIR</b>	Lima UTA Lima CTA Arequipa TMA Chiclayo TMA	

STATE	FIR/UIR	UTA/CTA/TMA	Remarks
1	2	3	4
		Cusco TMA	
		Iquitos TMA	
		Juliaca TMA	
		Lima TMA	
		Pisco TMA	
		Pucallpa TMA	
		Tacna TMA	
		Trujillo TMA	
Suriname	<b>Paramaribo FIR</b>	Paramaribo CTA	
		Pengel TMA	
United Kingdom (Turks and Caicos Islands)	Miami Oceanic FIR		
United States			
Uruguay	<b>Montevideo FIR</b>	Montevideo CTA	
		Carrasco TMA	
United States	Houston FIR		
	Houston Oceanic FIR		
	Miami FIR		
Venezuela	<b>Maiquetia FIR</b>	Maiquetia CTA	
		Barcelona TMA	
		Maiquetia TMA	
		Maracaibo TMA	
		Margarita TMA	

Table PMP III-1 – Strengths, weakness, opportunities and threads in the CAR/SAM Region

## EXPLANATION OF THE TABLE

*Item*

- 1 Strengths: internal attributes of a system or an organization that can help in the realization of ambitions or in meeting expectations.
- 2 Weaknesses: internal attributes of a system or an organization that are a detriment to realizing ambitions or meeting expectations.
- 3 Opportunities: are external conditions that help in the realization of ambitions or in meeting expectations.
- 4 Threats: external conditions that are a detriment or harmful to realizing ambitions or meeting expectations.
- 5 Relationship of the SWOT attributes and conditions with the eleven Key performance area - KPAs.

( 1 ) STRENGTHS	Remarks
<ul style="list-style-type: none"> <li>• National Plans aligned with global plans and supporting regional implementation</li> <li>• Industry maturity and operating models (airlines, airports)</li> <li>• Potential human resources available</li> <li>• Robust regional infrastructure, implementation experience and harmonized services</li> <li>• Regional Integration and Harmonization with Horizontal Cooperation Mechanisms</li> </ul>	
( 2 ) WEAKNESS	Remarks
<ul style="list-style-type: none"> <li>• Gaps in plan implementation (ANS, CNS, Technology, Training, budgets)</li> <li>• Limited human talent management policies (hiring, training and retention of sufficient and competent human resources)</li> <li>• Difficulty in institutional communication, collaboration and alignment between CAR and SAM.</li> <li>• Different levels of maturity in the implementation of ANS and airport management models.</li> <li>• Weak alignment and little communication between global plans (GANP, GASP, GASEP).</li> <li>• Language and cultural barriers between regions. Lack of timely publication of ICAO Documents in all official languages</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>

<b>( 3 ) OPPORTUNITIES</b>	<b>Remarks</b>
<ul style="list-style-type: none"> <li>• Greater collaboration in Technology, ICAO Technical Cooperation, innovation-research-development (I+R+D), multilateral financing, training/joint virtual meetings.</li> <li>• Trend towards the automation of processes and services with a focus on innovation, sustainability and harmonization</li> <li>• The low transitory demand allows improving activities, focusing on innovation and better preparation to generate resilience (administration, procedures, ATM, etc.).</li> <li>• Timely availability of ICAO technical documentation in the official languages. New GANP - ASBU four layers and indicators.</li> <li>• Put civil aviation as a development engine on the State and Regional agenda.</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>
<b>( 4 ) THREADS</b>	<b>Remarks</b>
<ul style="list-style-type: none"> <li>• Slow industry/airline recovery (&gt; 2024). Reorganization of the aeronautical market, competition for markets.</li> <li>• Changes in passenger behavior</li> <li>• Negative impact on aviation due to political, environmental or economic changes (fuel, etc.)</li> <li>• New disruptions that may negatively affect aviation (natural disasters, climate change, outbreaks, war/conflict, cyber attacks, economic downturn)</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>

**( 5 ) Relationship of the SWOT attributes and conditions with the eleven Key performance areas**

<b>11 Key Performance Areas</b>	<b>STRENGTHS</b>	<b>WEAKNESS</b>	<b>OPPORTUNITIES</b>	<b>THREADS</b>
<b>Capacity</b>	<ul style="list-style-type: none"> <li>○ Robust regional infrastructure, implementation experience and harmonized services</li> <li>○</li> </ul>	<ul style="list-style-type: none"> <li>○ Gaps in plan implementation (ANS, CNS, Technology, Training, budgets)</li> <li>○ Limited human talent management policies (hiring, training and retention of sufficient and competent human resources)</li> <li>○</li> </ul>	<ul style="list-style-type: none"> <li>○ Greater collaboration in Technology, ICAO Technical Cooperation, innovation-research-development (I+R+D), multilateral financing, training/joint virtual meetings.</li> <li>○ Trend towards the automation of processes and services with a focus on innovation, sustainability and harmonization</li> <li>○ The low transitory demand allows improving activities, focusing on innovation and better preparation to generate resilience (administration, procedures, ATM, etc.).</li> <li>○ Timely availability of ICAO technical documentation in the official languages. New GANP - ASBU four layers and indicators.</li> <li>○ Put civil aviation as a development engine on the State and Regional agenda.</li> </ul>	<ul style="list-style-type: none"> <li>○ Negative impact on aviation due to political, environmental or economic changes (fuel, etc.)</li> <li>○ New disruptions that may negatively affect aviation (natural disasters, climate change, outbreaks, war/conflict, cyber attacks, economic downturn)</li> </ul>

<b>11 Key Performance Areas</b>	<b>STRENGTHS</b>	<b>WEAKNESS</b>	<b>OPPORTUNITIES</b>	<b>THREATS</b>
<b>Efficiency</b>	<ul style="list-style-type: none"> <li>○ National Plans aligned with global plans and supporting regional implementation</li> <li>○ Industry maturity and operating models (airlines, airports)</li> <li>○ Potential human resources available</li> <li>○ Robust regional infrastructure, implementation experience and harmonized services</li> <li>○ Regional Integration and Harmonization with Horizontal Cooperation Mechanisms</li> </ul>	<ul style="list-style-type: none"> <li>○ Gaps in plan implementation (ANS, CNS, Technology, Training, budgets)</li> <li>○ Limited human talent management policies (hiring, training and retention of sufficient and competent human resources)</li> <li>○ Difficulty in institutional communication, collaboration and alignment between CAR and SAM.</li> <li>○ Different levels of maturity in the implementation of ANS and airport management models.</li> </ul>	<ul style="list-style-type: none"> <li>○ Greater collaboration in Technology, ICAO Technical Cooperation, innovation-research-development (I+R+D), multilateral financing, training/joint virtual meetings.</li> <li>○ Trend towards the automation of processes and services with a focus on innovation, sustainability and harmonization</li> <li>○ Timely availability of ICAO technical documentation in the official languages. New GANP - ASBU four layers and indicators.</li> <li>○ Put civil aviation as a development engine on the State and Regional agenda</li> </ul>	<ul style="list-style-type: none"> <li>○ Slow industry/airline recovery (&gt; 2024). Reorganization of the aeronautical market, competition for markets.</li> <li>○ Negative impact on aviation due to political, environmental or economic changes (fuel, etc.)</li> <li>○ New disruptions that may negatively affect aviation (natural disasters, climate change, outbreaks, war/conflict, cyber attacks, economic downturn)</li> </ul>
<b>Predictability</b>	<ul style="list-style-type: none"> <li>○ Industry maturity and operating models (airlines, airports)</li> </ul>	<ul style="list-style-type: none"> <li>○ Gaps in plan implementation (ANS, CNS, Technology, Training, budgets)</li> </ul>	<ul style="list-style-type: none"> <li>○ Greater collaboration in Technology, ICAO Technical Cooperation, innovation-research-development (I+R+D), multilateral financing, training/joint virtual meetings.</li> <li>○ Timely availability of ICAO technical documentation in the official languages. New</li> </ul>	<ul style="list-style-type: none"> <li>○ Negative impact on aviation due to political, environmental or economic changes (fuel, etc.)</li> <li>○ New disruptions that may negatively affect aviation (natural disasters, climate change, outbreaks, war/conflict, cyber attacks, economic downturn)</li> </ul>

<b>11 Key Performance Areas</b>	<b>STRENGTHS</b>	<b>WEAKNESS</b>	<b>OPPORTUNITIES</b>	<b>THREADS</b>
			GANP - ASBU four layers and indicators. <ul style="list-style-type: none"> <li>○ Put civil aviation as a development engine on the State and Regional agenda</li> </ul>	
<b>Safety</b>	<ul style="list-style-type: none"> <li>○ National Plans aligned with global plans and supporting regional implementation</li> <li>○ Regional Integration and Harmonization with Horizontal Cooperation Mechanisms</li> </ul>	<ul style="list-style-type: none"> <li>○ Gaps in plan implementation (ANS, CNS, Technology, Training, budgets)</li> <li>○ Weak alignment and little communication between global plans (GANP, GASP, GASEP).</li> <li>○</li> </ul>	<ul style="list-style-type: none"> <li>○ Greater collaboration in Technology, ICAO Technical Cooperation, innovation-research-development (I+R+D), multilateral financing, training/joint virtual meetings.</li> <li>○ Timely availability of ICAO technical documentation in the official languages. New GANP - ASBU four layers and indicators.</li> <li>○ Put civil aviation as a development engine on the State and Regional agenda</li> </ul>	<ul style="list-style-type: none"> <li>○ New disruptions that may negatively affect aviation (natural disasters, climate change, outbreaks, war/conflict, cyber attacks, economic downturn)</li> </ul>
<b>Security</b>	<ul style="list-style-type: none"> <li>○ National Plans aligned with global plans and supporting regional implementation</li> <li>○ Regional Integration and Harmonization with Horizontal Cooperation Mechanisms</li> </ul>	<ul style="list-style-type: none"> <li>○ Gaps in plan implementation (ANS, CNS, Technology, Training, budgets)</li> <li>○ Weak alignment and little communication between global plans (GANP, GASP, GASEP).</li> <li>○</li> </ul>	<ul style="list-style-type: none"> <li>○ Greater collaboration in Technology, ICAO Technical Cooperation, innovation-research-development (I+R+D), multilateral financing, training/joint virtual meetings.</li> <li>○ Timely availability of ICAO technical documentation in the official languages. New GANP - ASBU four layers and indicators.</li> </ul>	<ul style="list-style-type: none"> <li>○ New disruptions that may negatively affect aviation (natural disasters, climate change, outbreaks, war/conflict, cyber attacks, economic downturn)</li> </ul>

<b>11 Key Performance Areas</b>	<b>STRENGTHS</b>	<b>WEAKNESS</b>	<b>OPPORTUNITIES</b>	<b>THREADS</b>
			<ul style="list-style-type: none"> <li>○ Put civil aviation as a development engine on the State and Regional agenda</li> </ul>	
<b>Enviroment</b>	<ul style="list-style-type: none"> <li>○</li> </ul>	<ul style="list-style-type: none"> <li>○</li> </ul>	<ul style="list-style-type: none"> <li>○ Greater collaboration in Technology, ICAO Technical Cooperation, innovation-research-development (I+R+D), multilateral financing, training/joint virtual meetings.</li> <li>○ Timely availability of ICAO technical documentation in the official languages. New GANP - ASBU four layers and indicators.</li> <li>○ Put civil aviation as a development engine on the State and Regional agenda</li> </ul>	<ul style="list-style-type: none"> <li>○ Negative impact on aviation due to political, environmental or economic changes (fuel, etc.)</li> <li>○</li> </ul>
<b>Cost effectiveness</b>	<ul style="list-style-type: none"> <li>○ Industry maturity and operating models (airlines, airports)</li> <li>○</li> </ul>	<ul style="list-style-type: none"> <li>○</li> </ul>	<ul style="list-style-type: none"> <li>○ Greater collaboration in Technology, ICAO Technical Cooperation, innovation-research-development (I+R+D), multilateral financing, training/joint virtual meetings.</li> <li>○ Timely availability of ICAO technical documentation in the official languages. New GANP - ASBU four layers and indicators.</li> <li>○ Put civil aviation as a development engine on the State and Regional agenda</li> </ul>	<ul style="list-style-type: none"> <li>○ Negative impact on aviation due to political, environmental or economic changes (fuel, etc.)</li> <li>○</li> </ul>



<b>11 Key Performance Areas</b>	<b>STRENGTHS</b>	<b>WEAKNESS</b>	<b>OPPORTUNITIES</b>	<b>THREADS</b>
<b>Interoperability</b>	<ul style="list-style-type: none"> <li>○ National Plans aligned with global plans and supporting regional implementation</li> <li>○ Robust regional infrastructure, implementation experience and harmonized services</li> <li>○ Regional Integration and Harmonization with Horizontal Cooperation Mechanisms</li> </ul>	<ul style="list-style-type: none"> <li>○ Gaps in plan implementation (ANS, CNS, Technology, Training, budgets)</li> <li>○ Difficulty in institutional communication, collaboration and alignment between CAR and SAM.</li> <li>○ Different levels of maturity in the implementation of ANS and airport management models.</li> <li>○ Weak alignment and little communication between global plans (GANP, GASP, GASEP).</li> <li>○</li> </ul>	<ul style="list-style-type: none"> <li>○ Greater collaboration in Technology, ICAO Technical Cooperation, innovation-research-development (I+R+D), multilateral financing, training/joint virtual meetings.</li> <li>○ Trend towards the automation of processes and services with a focus on innovation, sustainability and harmonization</li> <li>○ Timely availability of ICAO technical documentation in the official languages. New GANP - ASBU four layers and indicators.</li> <li>○ Put civil aviation as a development engine on the State and Regional agenda</li> </ul>	<ul style="list-style-type: none"> <li>○ Negative impact on aviation due to political, environmental or economic changes (fuel, etc.)</li> <li>○</li> </ul>
<b>Access and equity</b>	<ul style="list-style-type: none"> <li>○</li> </ul>	<ul style="list-style-type: none"> <li>○</li> </ul>	<ul style="list-style-type: none"> <li>○ Timely availability of ICAO technical documentation in the official languages. New GANP - ASBU four layers and indicators.</li> <li>○ Put civil aviation as a development engine on the State and Regional agenda</li> </ul>	<ul style="list-style-type: none"> <li>○</li> </ul>

<b>11 Key Performance Areas</b>	<b>STRENGTHS</b>	<b>WEAKNESS</b>	<b>OPPORTUNITIES</b>	<b>THREADS</b>
<b>Participation by the ATM community</b>	○	○	<ul style="list-style-type: none"> <li>○ Timely availability of ICAO technical documentation in the official languages. New GANP - ASBU four layers and indicators.</li> <li>○ Put civil aviation as a development engine on the State and Regional agenda</li> </ul>	○
<b>Flexibility</b>	○	○	<ul style="list-style-type: none"> <li>○ Timely availability of ICAO technical documentation in the official languages. New GANP - ASBU four layers and indicators.</li> <li>○ Put civil aviation as a development engine on the State and Regional agenda</li> </ul>	○

Table PMP III-2 – List of performance objectives by KPA for the **CAR/SAM** Region

## EXPLANATION OF THE TABLE

## Column

- (1) ICAO defined 11 Key Performance Areas. *Include the list of KPAs and its definition.*
- (2) Focus Areas. These focus areas have been selected from the catalogue of performance objectives.
- (3) Performance Objectives. These objectives have been selected from the catalogue of performance objectives.
- (4) Remarks

(1) KPA s	(2) Focus Areas	(3) Performance Objectives	(4) Remarks
Efficiency	Flight time & distance	Apply en-route speed reduction if traffic is already airborne	
Efficiency	Flight time & distance	Avoid taxi-out additional time resulting from adverse conditions	
Efficiency	Flight time & distance	Avoid taxi-in additional time resulting from adverse conditions	
Efficiency	Flight time & distance	Overcome route selection inefficiencies associated with route network design	
Efficiency	Flight time & distance	Facilitate direct routing of portions of the flight (if this does not cause network problems)	
Capacity	Capacity, throughput & utilization	Improve what's needed to reduce longitudinal separation minima	<b><i>PBN implementation in progress. PBCS when required</i></b>

<b>(1)</b> <b>KPA s</b>	<b>(2)</b> <b>Focus Areas</b>	<b>(3)</b> <b>Performance Objectives</b>	<b>(4)</b> <b>Remarks</b>
<b>Capacity</b>	Capacity, throughput & utilization	Overcome capacity limitations attributable to route network design	<i>PBN implementation in progress</i>
<b>Capacity</b>	Capacity, throughput & utilization	Take advantage of increased navigation precision (airspace with PBN operations) to implement route networks and airspace structures with smaller lateral and vertical safety buffers	<i>PBN implementation in progress</i>
<b>Capacity</b>	Capacity, throughput & utilization	Increase airport peak arrival capacity	<i>ACDM implementation project (to be analyzed)</i>
<b>Capacity</b>	Capacity, throughput & utilization	Equip additional RWY ends with instrument approaches	<i>PBN implementation in progress</i>
<b>Capacity</b>	Capacity, throughput & utilization	Reduce approach minima (ceiling & visibility)	<i>PBN implementation in progress</i>
<b>Capacity</b>	Capacity, throughput & utilization	Increase airport arrival rate	<i>PBN implementation in progress</i>
<b>Capacity</b>	Capacity, throughput & utilization	Apply merging & synchronisation of arrival flows	<i>Point merge implemented (Brazil, Colombia)</i>
<b>Predictability</b>	Punctuality	Increase the number (%) of flights adhering to the planned take-off time	
<b>Predictability</b>	Punctuality	Increase the number (%) of scheduled flights adhering to the scheduled ON-block time	
<b>Predictability</b>	Variability	Reduce gate-to-gate flight time variability of frequent scheduled flights	

<b>(1)</b> <b>KPA s</b>	<b>(2)</b> <b>Focus Areas</b>	<b>(3)</b> <b>Performance Objectives</b>	<b>(4)</b> <b>Remarks</b>
Safety	<i>To be incorporated</i>		
Security	<i>To be incorporated</i>		
Enviroment	<i>To be incorporated</i>		
Cost effectiveness	<i>To be incorporated</i>		
Interoperability	<i>To be incorporated</i>		
Access and equity	<i>To be incorporated</i>		
Participation by the ATM community	<i>To be incorporated</i>		
Flexibility	<i>To be incorporated</i>		

Table PMP III-3 – List of KPIs by performance objective and KPA for the **CAR/SAM** Region

## EXPLANATION OF THE TABLE

## Column

- 1 KPAs and Focus Areas from Table PMP III-2.
- 2 Performance Objectives from Table PMP III-2.
- 3 KPIs based on the ICAO list of KPIs. *If there is a KPI you would like to introduce, please submit it for coordination with the global performance expert group*
- 4 Remarks

<b>(1)</b> <b>KPA &amp; Focus area</b>	<b>(2)</b> <b>Performance objectives</b>	<b>(3)</b> <b>KPI s</b>	<b>(4)</b> <b>Remarks</b>
<b>Efficiency</b> Flight time & distance	Apply en-route speed reduction if traffic is already airborne	KPI08	
<b>Efficiency</b> Flight time & distance	Avoid taxi-out additional time resulting from adverse conditions	KPI02	
<b>Efficiency</b> Flight time & distance	Avoid taxi-in additional time resulting from adverse conditions	KPI13	
<b>Efficiency</b> Flight time & distance	Overcome route selection inefficiencies associated with route network design	KPI04	
<b>Efficiency</b> Flight time & distance	Facilitate direct routing of portions of the flight (if this does not cause network problems)	KPI05	
<b>Capacity</b> Capacity, throughput & utilization	Improve what's needed to reduce longitudinal separation minima	KPI06	
<b>Capacity</b>	Overcome capacity limitations attributable to route network design	KPI06	

<b>(1)</b> <b>KPA &amp; Focus area</b>	<b>(2)</b> <b>Performance objectives</b>	<b>(3)</b> <b>KPI s</b>	<b>(4)</b> <b>Remarks</b>
Capacity, throughput & utilization			
<b>Capacity</b> Capacity, throughput & utilization	Take advantage of increased navigation precision (airspace with PBN operations) to implement route networks and airspace structures with smaller lateral and vertical safety buffers	KPI06	
<b>Capacity</b> Capacity, throughput & utilization	Increase airport peak arrival capacity	KPI09	ASBU element impact non defined in GANP6
<b>Capacity</b> Capacity, throughput & utilization	Equip additional RWY ends with instrument approaches	KPI10	
<b>Capacity</b> Capacity, throughput & utilization	Reduce approach minima (ceiling & visibility)	KPI10	
<b>Capacity</b> Capacity, throughput & utilization	Increase airport arrival rate	KPI10	
<b>Capacity</b> Capacity, throughput & utilization	Apply merging & synchronisation of arrival flows	KPI10	
<b>Predictability</b> (Punctuality)	Increase the number (%) of flights adhering to the planned take-off time	KPI01	ASBU element impact non defined in GANP6
<b>Predictability</b> (Punctuality)	Increase the number (%) of scheduled flights adhering to the scheduled ON-block time	KPI14	ASBU element impact non defined in GANP6
<b>Predictability</b> (Variability)	Reduce gate-to-gate flight time variability of frequent scheduled flights	KPI15	ASBU element impact non defined in GANP6

Table PMP III-4 – Performance baseline within the CAR/SAM Region

## EXPLANATION OF THE TABLE

## Column

- 1 States in **Table GEN I-1**
- 2 List of FIRs/ CTAs/TMAs/Airports by State within **Table ATM I-1** or **Table PMP III-CAR/SAM-1** and **Table AOP I-1**.
- 3 Value for the list of KPIs in **Table PMP III-3**.
- 4 Remarks

*Legend:* -- KPI calculation is in progress

++ KPI is not yet developed

(1) STATE	(2) FIR/CTA/TMA /AIRPORT	(3) KPIs											(4) Remarks
		KPI01 (Var 2A)	KPI02	KPI04	KPI05	KPI06	KPI08	KPI09	KPI10	KPI13	KPI14	KPI15 (Var 1)	
BRAZIL	SBGR	83,8%	3,7					34	26	1,8	54,6%	5,9	BASELINE 2021 (average all flights > DEP+ARR in SBGR)
	SBBR	90,5%	3,1					48	26	1,6	65,0%	5,5	BASELINE 2021 (average all flights > DEP+ARR in SBBR)
	SBGL	80,0%	3,0					30	6	1,5	64,1%	5,9	BASELINE 2021
	TMA SAO PAULO			++	++	--	3,9						BASELINE 2021 (SBGR, SBKP, SBSP)
	TMA BRASILIA			++	++	--	3,6						BASELINE 2021 (SBBR)



	TMA Rio de JANEIRO			++	++	--	2,9							BASELINE 2021 (SBRJ, SBGL)
--	--------------------	--	--	----	----	----	-----	--	--	--	--	--	--	----------------------------

&gt;&gt;&gt;&gt;

(1) STATE	(2) FIR/CTA/TMA /AIRPORT	(3) KPIs											(4) Remarks
		KPI01 (2A)	KPI02	KPI04	KPI05	KPI06	KPI08	KPI09	KPI10	KPI13	KPI14	KPI15	
PERU	SPJC	87%	3.57					35	23	1.68	61%	++	
	SPZO	72.09%	3.78					6	5	0.85	69.65%	++	
	TMA LIMA			++	++	--	++						
	TMA CUSCO			++	++	11 (CHS)	++						CHS= hourly sector capacity
	FIR LIMA			++	++	++							

&lt;&lt;&lt;&lt;

(1) STATE	(2) FIR/CTA/TMA /AIRPORT	(3) KPIs											(4) Remarks
		KPI01 (2A)	KPI02	KPI04	KPI05	KPI06	KPI08	KPI09	KPI10	KPI13	KPI14	KPI15	
CHILE	SCCEL	31.7%	++					++	++	++	++	++	
	SCIE	32.9%	++					+	++	++	++	++	
	SCFA	31.5%	++					++	++	++	++	++	
	TMA SANTIAGO			++	++	++	++						
	TMA CONCEPCION			++	++	++	++						
	TMA ANTOFAGASTA			++	++	++	++						

	FIR ++			++	++	++							
--	--------	--	--	----	----	----	--	--	--	--	--	--	--

<<<

(1) STATE	(2) FIR/CTA/TMA /AIRPORT	(3) KPIs											(4) Remarks
		KPI01	KPI02	KPI04	KPI05	KPI06	KPI08	KPI09	KPI10	KPI13	KPI14	KPI15	
ARGENTINA	SABE	73.7%	2.4					39	14	2.0	92.2%	5.7	2019 BASELINE
	SAEZ	57.9%	3.5					29	10	3.1	81.1%	5.7	2019 BASELINE
	TMA BAIRES			++	++	--	--						
	FIR TODAS			0.6%	0.84%	++						5.4	2019 BASELINE

Table PMP III-5 – Performance targets and needs within CAR/SAM Region

## EXPLANATION OF THE TABLE

## Column

- 1 States in **Table GEN I-1**
- 2 List of FIRs/CTAs/TMAs/Airports by State within **Table ATM I-1** or **Table PMP III-CAR/SAM- 1** and **Table AOP I-1**.
- 3 Targets for the list of KPIs in **Table PMP III-3**. *(include the value of the regional targets/needs for the different operational environments identified in step 1)*
- 4 Remarks

(1) STATE	(2) FIR/CTA/TMA /AIRPORT	(3) KPIs TARGETS											(4) Remarks
		KPI01 (Var 2A)	KPI02	KPI04	KPI05	KPI06	KPI08	KPI09	KPI10	KPI13	KPI14	KPI15 (Var 1)	
BRAZIL	SBGR	≥ 80%	≤3 min					--	--	≤3 min	--	≤ 10 min	
	SBBR	≥ 80%	≤3 min					--	--	≤3 min	--	≤ 10 min	
	SBGL	≥ 80%	≤3 min					--	--	≤3 min	--	≤ 10 min	
	TMA SAO PAULO			++	++	--	≤ 4 min						
	TMA BRASILIA			++	++	--	≤ 4 min						
	TMA Rio de JANEIRO			++	++	--	≤ 4 min						

&gt;&gt;&gt;&gt;

(1) STATE	(2) FIR/CTA/TMA /AIRPORT	(3) KPIs TARGETS											(4) Remarks
		KPI01 (2A)	KPI02	KPI04	KPI05	KPI06	KPI08	KPI09	KPI10	KPI13	KPI14	KPI15	
PERÚ	SPJC	≥ 80%	≤4 min					--	--	≤3 min	≥ 80%	++	
	SPZO	≥ 80%	≤4 min					--	--	≤3 min	≥ 80%	++	
	TMA LIMA			++	++	--	++						
	TMA CUSCO			++	++	--	++						
	FIR LIMA			++	++	++							

&lt;&lt;&lt;&lt;&lt;

(1) STATE	(2) FIR/CTA/TMA /AIRPORT	(3) KPIs TARGETS											(4) Remarks
		KPI01 (2A)	KPI02	KPI04	KPI05	KPI06	KPI08	KPI09	KPI10	KPI13	KPI14	KPI15	
CHILE	SCEL	≥ 32%	++					++	++	++	++	++	
	SCIE	≥ 33%	++					+	++	++	++	++	
	SCFA	≥ 32%	++					++	++	++	++	++	
	TMA SANTIAGO			++	++	++	++						
	TMA CONCEPCION			++	++	++	++						
	TMA ANTOFAGASTA			++	++	++	++						
	FIR ++			++	++	++							

&lt;&lt;&lt;

(1) STATE	(2) FIR/CTA/TMA /AIRPORT	(3) KPIs TARGETS											(4) Remarks
		KPI01	KPI02	KPI04	KPI05	KPI06	KPI08	KPI09	KPI10	KPI13	KPI14	KPI15	
ARGENTINA	SABE												
	SAEZ												
	TMA BAIRES												
	FIR TODAS												

<<<

**Table PMP III-6 – Deployment planning: selected ASBU Elements / Operational Improvements for the CAR/SAM Region****EXPLANATION OF THE TABLE***Column*

- 1 States in **Table GEN I-1**
- 2 List of FIRs/ CTAs/TMAs/Airports by State within **Table ATM I-1** or **Table PMP III-CAR/SAM - 1** and **Table AOP I-1**.
- 3 Selected ASBU elements /operational improvements for each operational environment.

*Please note that the ASBU elements are a set of operational improvements, however, there could be other improvements outside of the ASBU framework that might address identified issues and opportunities and therefore contribute to achieve the pursued level of performance.*

- 4 Dependencies and relations: see type description for each element in GANP Layer 2**
- 5 Year when implementation of the selected solution is planned to start.
- 6 Year when implementation of the selected solution is foreseen to be completed.
- 7 Remarks

(1) STATE	(2) FIR/CTA /TMA/AIRPORT	(3) ASBU Elements / Operational Improvements	(4) Dependencies and relations	(5) Start Year	(6) End Year	(7) Remarks
BRAZIL	SBGR SBBR SBGL	SURF-B0/1	---			KPI02, KPI13
	SBGR SBBR SBGL	APTA-B0/1	AMET-B0/1 AMET-B0/2 NAVS-B0/3			KPI10
	SBGR SBBR SBGL	APTA-B0/2	AMET-B0/1 AMET-B0/2			KPI10
	SBGR SBBR SBGL	TBD	TBD			KPI09
	SBGR SBBR SBGL	TBD	TBD			KPI01
	SBGR SBBR SBGL	TBD	TBD			KPI14
	SBGR SBBR SBGL	TBD	TBD			KPI15
	TMA <sub>s</sub> SAO PAULO, BRASILIA, RIO DE JANEIRO	RSEQ-B0/1	AMET-B0/1 AMET-B0/2 ACDM-B0/1 ACDM-B0/2			KPI08
	TMA <sub>s</sub> SAO PAULO, BRASILIA, RIO DE JANEIRO	FRTO-B1/2	APTA-B0/1 APTA-B1/1 SNET-B0/1			KPI06
	TMA SAO PAULO	RSEQ-B0/3	AMET-B0/1			KPI10
	FIR ATLANTICO	CSEP-B1/3	COMI-B0/3 COMI-B0/4 COMS-B0/1 COMS-B0/2 NAVS-B0/3			KPI06

&lt;&lt;&lt;

(1) STATE	(2) FIR/CTA /TMA/AIRPORT	(3) ASBU Elements / Operational Improvements	(4) Dependencies and relations	(5) Start Year	(6) End Year	(7) Remarks
PERÚ	SPJC SPZO	SURF-B0/1	-----			KPI02, KPI13
	SPJC SPZO	TBD	TBD			KPI09
	SPJC SPZO	TBD	TBD			KPI01 KPI14
	TMA LIMA, CUSCO	FRTO-B1/2	APTA-B0/1 APTA-B1/1 SNET-B0/1			KPI06
	FIR LIMA	FRTO-B1/2	APTA-B0/1 APTA-B1/1 SNET-B0/1			KPI06

&lt;&lt;&lt;

STATE	FIR /TMA/AIRPORT	ASBU Elements / Operational Improvements	Dependencies and relations	Start	End	KPI
CHILE	SCEL	RSEQ-B0/2 = Departure Management	AMET-B0/1 AMET-B0/2 ACDM-B0/1 ACDM-B0/2 SURF-B1/4 WAKE-B2/1 WAKE-B2/4 WAKE-B2/8 SURF-B0/2 APTA-B0/2 NOPS-B0/5	2022	2025	KPI02 - Taxi-out additional time
	SCEL	RSEQ-B0/1 = Arrival Management	AMET-B0/1 AMET-B0/2 WAKE-B2/1 WAKE-B2/4 WAKE-B2/7 SURF-B0/2 SURF-B1/4 ACDM-B0/1 ACDM-B0/2	2022	2025	KPI10: Airport peak throughput



STATE	FIR /TMA/AIRPORT	ASBU Elements / Operational Improvements	Dependencies and relations	Start	End	KPI
		APTA-B1/1 = PBN Approaches (with advanced capabilities)	APTA-B0/1 AMET-B0/1 AMET-B0/2	2023	2026	KPI10 - Airport peak throughput.
	SCEL	APTA-B1/2 = PBN SID and STAR procedures (with advanced capabilities)	APTA-B0/1 AMET-B0/1 AMET-B0/2	2023	2026	KPI11: Airport throughput efficiency
	SCEL	ACDM-B0/1 = Airport CDM Information Sharing (ACIS)	AMET-B0/1 AMET-B0/2 SURF-B0/2	2025	2027	No specific KPI available in GANP 6 <sup>o</sup> Ed for intended performance
	SANTIAGO	FRTO-B0/1= Direct routing (DCT)	NOPS-B0/1 FRTO-B0/2 FRTO-B0/4 FICE-B0/1	2023	2027	KPI04: Filed flight plan en-route extension
	SANTIAGO	FRTO-B0/2 = Airspace planning and Flexible Use of Airspace (FUA)	FRTO-B0/1 NOPS-B0/1	2024	2027	KPI04: Filed flight plan en-route extension
	SCEL	NOPS-B0/1 = Initial integration of collaborative airspace management with air traffic flow management	AMET-B0/1 FRTO-B0/2	2024	2027	KPI05 - Actual en-route extension
	SCEZ/OCA	CSEP-B1/3 = Performance Based Longitudinal Separation Minima	COMI-B0/3 COMI-B0/4 COMS-B0/1 COMS-B1/1 COMS-B0/2 COMS-B1/2 NAVS-B0/3	2023	2026	KPI06: En-route airspace capacity
	SCEZ/OCA	CSEP-B1/4 = Performance Based Lateral Separation Minima	COMI-B0/3 COMI-B0/4 COMS-B0/1 COMS-B1/1 COMS-B0/2 COMS-B1/2 NAVS-B0/3	2023	2026	KPI06: En-route airspace capacity
	SCEZ/SANTIAGO/SC EL	TBD	TBD	2023	2025	KPI01: Departure punctuality

STATE	FIR /TMA/AIRPORT	ASBU Elements / Operational Improvements	Dependencies and relations	Start	End	KPI
CHILE	SCIE	APTA-B1/1 = PBN Approaches (with advanced capabilities)	APTA-B0/1 AMET-B0/1 AMET-B0/2	2023	2026	KPI10 - Airport peak throughput.
	SCIE	APTA-B1/2 = PBN SID and STAR procedures (with advanced capabilities)	APTA-B0/1 AMET-B0/1 AMET-B0/2	2023	2026	KPI11: Airport throughput efficiency
	SCEZ/CONCEPCIÓN	FRTO-B0/1= Direct routing (DCT)	NOPS-B0/1 FRTO-B0/2 FRTO-B0/4 FICE-B0/1	2023	2027	KPI04: Filed flight plan en-route extension
	SCEZ/CONCEPCIÓN	FRTO-B0/2 = Airspace planning and Flexible Use of Airspace (FUA)	FRTO-B0/1 NOPS-B0/1	2024	2027	KPI04: Filed flight plan en-route extension
	SCIE	NOPS-B0/1 = Initial integration of collaborative airspace management with air traffic flow management	AMET-B0/1 FRTO-B0/2	2024	2027	KPI05 - Actual en-route extension
	SCIE	TBD	TBD	2023	2025	KPI01: Departure punctuality
CHILE	SCFA	APTA-B1/1 = PBN Approaches (with advanced capabilities)	APTA-B0/1 AMET-B0/1 AMET-B0/2	2023	2026	KPI10 - Airport peak throughput.
	SCFA	APTA-B1/2 = PBN SID and STAR procedures (with advanced capabilities)	APTA-B0/1 AMET-B0/1 AMET-B0/2	2023	2026	KPI11: Airport throughput efficiency
	SCFZ/ANTOFAGAST A	FRTO-B0/1= Direct routing (DCT)	NOPS-B0/1 FRTO-B0/2 FRTO-B0/4 FICE-B0/1	2023	2027	KPI04: Filed flight plan en-route extension
	SCFZ/ANTOFAGAST A	FRTO-B0/2 = Airspace planning and Flexible Use of Airspace (FUA)	FRTO-B0/1 NOPS-B0/1	2024	2027	KPI04: Filed flight plan en-route extension

STATE	FIR /TMA/AIRPORT	ASBU Elements / Operational Improvements	Dependencies and relations	Start	End	KPI
	SCFA	NOPS-B0/1 = Initial integration of collaborative airspace management with air traffic flow management	AMET-B0/1 FRTO-B0/2	2024	2027	KPI05 - Actual en-route extension
	SCFA	TBD	TBD	2023	2025	KPI01: Departure punctuality

**Table PMP III-7 – Implementation progress on the selected operational improvements of the ASBU elements / Operational Improvements for the (NAME) Region**

**EXPLANATION OF THE TABLE**

*Column*

- 1 States in **Table GEN I-1**
- 2 List of FIRs/CTAs/TMAs/Airports by State within **Table ATM I-1** or **Table PMP III-(NAME Region) - 1** and **Table AOP I-1**.
- 3 Selected ASBU elements/operational improvement for each operational environment.

*Please note that the ASBU elements are a set of operational improvements, however, there could be other improvements outside of the ASBU framework that might address identified issues and opportunities and therefore contribute to achieve the pursued level of performance.*

- 4 Year when implementation of the selected solution is planned to start **PMP III-6**.
- 5 Year when implementation of the selected solution is foreseen to be completed **PMP III-6**.
- 6 Implementation progress:
  - Completed (100%): the development or improvement is reportedly fulfilled (it is either in operational use or there is reported on-going compliance)
  - Ongoing (1-99%): implementation is reported on-going, however not yet fully completed
  - Planned (0%): a planned schedule and proper (approved and committed budgeted) actions are specified within the agreed data for completion but implementation has not yet kicked off
  - Late (0-99%): part or all of the actions leading to completion are “planned” to be achieved after the end year date; or the implementation is ongoing but will be achieved later than that data or the end year date is already exceeded.
- 7 Remarks

STATE	FIR/CTA /TMA /AIRPORT	ASBU Elements / Operational Improvements	Start Year	End Year	Implementation progress	Remarks

**Table PMP III-8 – Performance benefits accrued from the implementation of the selected ASBU elements / Operational Improvements for the (NAME) Region**

**EXPLANATION OF THE TABLE**

*Column*

- 1 States in **Table GEN I-1**
- 2 List of FIRs/ CTAs/ TMAs/Airports by State within **Table ATM I-1** or **Table PMP III-(NAME Region) - 1** and **Table AOP I-1**.
- 3 Selected ASBU elements/operational improvements for each operational environment.

*Please note that the ASBU elements are a set of operational improvements, however, there could be other improvements outside of the ASBU framework that might address identified issues and opportunities and therefore contribute to achieve the pursued level of performance.*

- 4 Value after implementation for the list of KPIs in **Table PMP III-3**.
- 5 Remarks

STATE	FIR/CTA /TMA/AIRPORT	ASBU Elements/operational improvements	KPI s						Remarks

— END —