



Organización de Aviación Civil Internacional Grupo Regional de Planificación y Ejecución CAR/SAM (GREPECAS)

NOTA DE INFORMACIÓN

eCRPP/02 — NI/05 23/10/20

SEGUNDA REUNIÓN VIRTUAL DEL COMITÉ DE REVISIÓN DE PROGRAMAS Y PROYECTOS (CRPP) DEL GREPECAS (eCRPP/02)

30 de octubre de 2020

Cuestión 3 del Orden del Día:

Actividades de organización y administración del GREPECAS 3.6 Avances con relación al Vol. III del e-ANP CAR/SAM

AVANCE EN LA PREPARACIÓN DEL VOL. III DEL e-ANP CAR/SAM

(Presentada por Secretaría)

RESUMEN EJECUTIVO

Esta nota informativa describe las actividades desarrolladas por la Secretaría con la finalidad de avanzar en la preparación del Vol. III del Plan electrónico de Navegación Aérea de las Regiones CAR y SAM (e-ANP-CAR/SAM).

Objetivos	Capacidad y eficiencia
Estratégicos:	Seguridad Operacional
	Desarrollo económico del transporte aéreo
	Protección del medio ambiente
Referencias:	 Doc. OACI 9750 – Plan Global de Navegación Aérea – Sexta Edición (GANP/6)
	 Doc OACI 9883 - Manual sobre la actuación mundial del sistema de navegación aérea (Doc. 9883)
	 Reporte de la Décimo Tercera Conferencia de Navegación Aérea (AN/Conf-13)
	 Reporte de las Reuniones Cuarta y Quinta del Comité de revisión de Programas y Proyectos del GREPECAS (CRPP/4) y (CRPP/5)
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1. Introducción

1.1 El 18 de junio de 2014, el Consejo (202º período de sesiones, cuarta reunión) aprobó la nueva plantilla del e-ANP (Volúmenes I, II y III) y el correspondiente procedimiento de enmienda con algunos cambios al Volumen I.

1.2 La Sexta Edición del GANP fue aprobada en el 2019 y refrendada por el 40° período de sesiones de la Asamblea de la OACI. La Décimo Tercera Conferencia de Navegación Aérea propuso la inclusión del proceso de gestión del rendimiento, descrito en el Doc. OACI 9883 en la Plantilla del Vol. III de los Planes Regionales de Navegación Aérea.

2 Análisis

- 2.1 El CRPP/4, mediante la Decisión CRPP/4-3 había postergado el desarrollo del Vol. III del e-ANP CAR/SAM hasta la aprobación de la Sexta Edición del GANP.
- 2.2 La Décimo Tercera Conferencia de Navegación Aérea, mediante la Recomendación 4.3/1, literal d) había alentado a los Grupos Regionales de Planificación y Ejecución (PIRG) a aplicar un enfoque basado en el rendimiento para la implementación y adopción del proceso de gestión del rendimiento de seis pasos descrito en el Doc. OACI 9883, reflejando el proceso en el Volumen III de todos los planes regionales de navegación aérea (RNAP).
- La Asamblea 40 de la OACI refrendó la Sexta Edición del GANP con una estructura de cuatro niveles conformada por el nivel mundial (que comprende el estratégico y el técnico), el nivel regional y el nivel nacional, para ofrecer un marco de armonización de los planes regionales, subregionales y nacionales. Adicionalmente, la OACI preparó el Portal GANP, para permitir acceso fácil a todas las partes interesadas, tanto al material de referencia como a las nuevas herramientas de planificación. El sitio web del Portal GANP es: http://www4.icao.int/ganpportal
- 2.4 EL CRPP/5, mediante la Conclusión CRPP/05-10 encomendó a la Secretaría tramitar la aprobación del Vol. III del e-ANP CAR/SAM no más tarde del tercer trimestre del 2020.
- 2.5 La OACI conformó un Grupo de Trabajo interregional para introducir los cambios necesarios a la plantilla estandarizada del Volumen III de los RNAP de conformidad con el GANP 6ta Ed. La propuesta de la plantilla se encuentra en el **Apéndice A** (disponible solo en idioma inglés) de esta nota informativa. Esta plantilla es una versión en borrador, por lo que está sujeta a modificaciones y oportunidades de mejora.

3. Acciones realizadas por la Secretaría

3.1 La Secretaría desarrolló las siguientes actividades en el marco de la estrategia de implementación para cumplir con el mandato del CRPP/05:

Región CAR

- 3.2 Taller sobre los fundamentos y herramientas del GANP 6ta Ed. para apoyar la formulación de la estrategia de implementación ANS de la Región CAR; Ciudad de México, México, del 27 al 31 de enero del 2020.
- 3.3 Taller de la OACI sobre la nueva versión del Plan Mundial de Navegación Aérea (GANP) Ciudad de México, México, del 17 al 21 de febrero de 2020.

https://www.icao.int/NACC/Pages/meetings-2020-ganp.aspx

- 3.4 La estrategia de implementación ANS de la Región CAR incluyó la revisión gradual de los planes de trabajo de los grupos de tarea del ANIWG para alinearlos con la 6ta Ed. del GANP y considerar las modificaciones al e-ANP. Hasta la fecha se han desarrollado las siguientes reuniones:
 - Tercera Reunión del Grupo de Tarea para la Implementación de la Gestión de la Información Aeronáutica (AIM/TF/3) del Grupo de Trabajo sobre implementación de Navegación Aérea para las Regiones NAM/CAR (ANI/WG).

https://www.icao.int/NACC/Pages/meetings-2020-aimtf3.aspx

 Reunión sobre el seguimiento a la implementación AIDC (Comunicaciones de datos entre instalaciones ATS), Ciudad de México, México, del 25 al 28 de febrero del 2020.

https://www.icao.int/NACC/Pages/meetings-2020-aidc.aspx

Reunión de Optimización del Espacio Aéreo de la Región CAR – Grupo de Tarea Concepto de Navegación Basada en la Performance (PBN) del Grupo de Trabajo sobre implementación de Navegación Aérea para las Regiones NAM/CAR (ANI/WG/PBN/TF/OPT). Reunión en plataforma Zoom, a realizarse a partir del 20 y hasta el 23 de octubre de 2020.

https://www.icao.int/NACC/Pages/meetings-2020-pbntfopt.aspx

Región SAM

- 3.4 La lista de actividades presenciales fue la siguiente:
 - a) Taller sobre la identificación e implantación de indicadores de desempeño (KPI) de los sistemas de navegación aérea en la Región SAM: 5 al 9 de agosto del 2019
 - b) Asistencia técnica al Estado de Panamá: 25 al 28 de noviembre del 2019
 - c) Asistencia técnica al Estado de Perú: 21 al 23 de enero del 2020
- 3.5 Para el 2020, en la planificación inicial, se previó la entrega de tres talleres en formato presencial, pero con la situación de la pandemia, se ha replanteado la misma. La re-planificación se enfocó en talleres virtuales, entregados de la siguiente manera:

Taller sobre aplicación y desarrollo de la Plantilla del Vol. II del e-ANP CAR/SAM incluyendo formulación de KPI para la Región SAM

Fechas	Estados participantes	Cantidad de Participantes
10 al 11 de agosto	Brasil, Chile, Colombia	27
17 al 19 de agosto	Argentina, Bolivia, Ecuador, Perú y Venezuela	36
24 al 26 de agosto	Panamá, Paraguay y Perú	19
15 al 17 de setiembre	Guyana y Surinam	15

4. Planificación Futura

4.1 La Secretaría continuará planificando y desarrollando acciones coordinadas de implementación durante el último bimestre del 2020 y el primer semestre del 2021.

- 4.2 Se contempla la entrega de las actividades planificadas en formato virtual y si las condiciones lo permiten, una reunión presencial a inicios del segundo semestre de 2021.
- 4.3 Se prevé presentar la versión final del Volumen III del e-ANP CAR/SAM a la reunión plenaria del GREPECAS.

APÉNDICE

TEMPLATE APPROVED BY THE COUNCIL on 18 June 2014

(*NAME*) AIR NAVIGATION PLAN

VOLUME III

(NAME) AIR NAVIGATION PLAN

VOLUME III

NAME ANP, Volume III June 2014

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elements / Operational Improvements for the (NAME) Region

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(NAME) 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:
 - <u>Planning</u>: objectives, priorities, targets and needs planned at regional or sub-regional levels;
 - <u>Monitoring and reporting</u>: 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
 - <u>Guidance</u>: providing regional guidance material for the implementation of specific system/procedures in a harmonized manner.

1.4 [name of PIRG] is responsible for managing and updating Volume III on a regular basis.

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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,

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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 though the quantification of objectives. 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.

- 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.

[Type text]

(NAME) 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
 - Table PMP III (NAME Region) 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 (*NAME*) ANP provides short- (*years*) and medium- (*years*) term 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 (*NAME*) 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 (KPAs). 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.

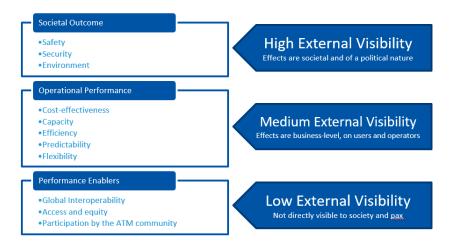


Figure 2 The 11 KPAs of the GANP

- 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 (*NAME*) Region 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 (*NAME*) Region defines, within in 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 (METAS) 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:
 - O 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

o If this is not possible, aim for a different kind of performance improvement, by choosing a different performance objective, as constrained by data availability.

 $\begin{array}{c|c} -\mathbf{S}_{\text{pecific}} & \text{PERFORMANCE} \\ -\mathbf{M}_{\text{easurable}} & \text{INDICATORS} \rightarrow \textit{ICAO KPIs Catalogue} \\ -\mathbf{A}_{\text{chievable}} & \\ -\mathbf{R}_{\text{elevant}} & \\ -\mathbf{T}_{\text{ime-bounded}} & \end{array}$

3.3 In order to facilitate this task, ICAO has defined a series of KPIs link to the catalogue of performance objectives within the 11KPAs. The ICAO KPIs associated to the performance objectives in the (*NAME*) Region are in **Table PMP III- 3**.

<u>Performance baseline in the (NAME) Region</u>

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 (*NAME*) Region 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 (*NAME*) Region.



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

- 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 develop the Air Navigation System Performance Analysis (AN-SPA) tool, available for free at: https://www4.icao.int/ganpportal/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 2nd High-level Safety Conference (HLSC/2015), the Safety Management Implementation (SMI) public website (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:

[Type text]

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

- 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:
 - o 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:
 - o 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

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

EXPLANATION OF THE TABLE

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

State	FIR	CTA/	TMA	Remarks
		Indicator	Name	

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

EXPLANATION OF THE TABLE

Column

- 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.
- 5 List of SWOTs
- 6 Remarks

	List	Remarks
Strengths		
Weakness		
Opportunities		
Threats		

Example for the CAR Region:

	List	Remarks
Strengths		
Weakness		

Opportunities	
Threats	

ACTIONS

Priorities

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

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

KPA	Performance Objective	Remarks
Safety		
Environment		
Interoperability		
Efficiency	 Flight time and distance Enroute distance Optimal Horizontal flight efficiency in the enroute phase Vertical efficiency 	
Capacity		
Cost effectiveness		

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

EXPLANATION OF THE TABLE

- 1 KPAs 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
- Remarks 4

KPA	Performance Objective	KPIs	Remarks
Efficiency	 Flight time and distance Enroute distance Optimal Horizontal flight efficiency in the enroute phase Vertical efficiency	KPI02 KPI08 KPI13	

- seguridad operacional;
- seguridad de la aviación;
- medio ambiente;
- rentabilidad;
- capacidad;
- eficiencia de los vuelos;
- flexibilidad;
- posibilidad de predecir;acceso y equidad;
- participación y colaboración; einterfuncionalidad.

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

EXPLANATION OF THE TABLE

- 1 States in **Table GEN I-1**
- 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 Value for the list of KPIs in **Table PMP III-3.**
- 4 Remarks

STATE	FIR/CTA/TMA /AIRPORT	KPIs							Remarks
		1	2	3					Ttomarks

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

EXPLANATION OF THE TABLE

- 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**.
- 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

STATE	FIR/CTA/TMA/AIRPORT	Targets						Damada	
		1	2	3					Remarks

Table PMP III-6 – Deployment planning: 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 Year when implementation of the selected solution is planned to start.
- 5 Year when implementation of the selected solution is foreseen to be completed.
- 6 Remarks

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

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 form 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	EID /CT A /TM A /A IDDODT	ASBU		KPI	Remarks	
	FIR/CTA /TMA/AIRPORT	Elements/operational improvements	1	2	3	Temarks

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