Doc 10131

Manual on the Development of Regional and National Aviation Safety Plans

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Second Edition (Advance unedited) — 2022

INTERNATIONAL CIVIL AVIATION ORGANIZATION

FOREWORD

In line with the Safety Strategic Objective of the International Civil Aviation Organization (ICAO), the 2023-2025 edition of the *Global Aviation Safety Plan* (GASP, Doc 10004) presents the global strategy for the continuous improvement of aviation safety. The purpose of the GASP is to continually reduce fatalities, and the risk of fatalities, by guiding the development of a harmonized aviation safety strategy. It provides a framework in which regional and national aviation safety plans (RASPs and NASPs) are developed and implemented.

Consistent with the GASP, each region and State should develop a RASP and NASP, respectively, containing its strategic direction for the management of aviation safety for a set period. Each plan should be developed in line with the GASP goals, targets and the global high-risk categories of occurrences (G-HRCs). The RASP and NASP emphasize the commitment of a region and State to aviation safety.

The *Global Aviation Safety Roadmap* (Doc 10161) serves as an action plan to assist the aviation community in developing RASPs and NASPs, in line with the GASP goals, through a structured, common frame of reference for all relevant stakeholders. The global aviation safety roadmap outlines specific safety enhancement initiatives (SEIs) associated with the GASP goals and targets, as well as the G-HRCs.

This second edition aligns with the 2023-2025 edition of the GASP. It addresses different aspects to be considered by a region or State when developing or modifying its aviation safety plan, and in implementing a RASP or NASP consistent with the GASP. The revision incorporates into this document the content of the *Regional and National Aviation Safety Plan Checklists* (Cir 358), which is now obsolete.

This manual should be used in conjunction with the *Global Aviation Safety Plan* (Doc 10004), the *Global Aviation Safety Roadmap* (Doc 10161) and the *Manual on Monitoring Implementation of Regional and National Aviation Safety Plans* (Doc 10162).

The content of this manual was developed with inputs from experts from civil aviation authorities, industry, as well as regional and international organizations, and thereafter submitted for extensive peer review, taking into account feedback from the expert community. ICAO gratefully acknowledges the contributions of the ICAO Global Aviation Safety Plan Study Group (GASP-SG) and individual experts who provided support, advice and input for this manual.

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GLOSSARY

DEFINITIONS

Audit. A systematic, independent and documented process for obtaining evidence and evaluating it objectively to determine the extent to which requirements and audit criteria are fulfilled.

Audit area. One of eight audit areas pertaining to the Universal Safety Oversight Audit Programme (USOAP), i.e. primary aviation legislation and civil aviation regulations (LEG), civil aviation organization (ORG); personnel licensing and training (PEL); aircraft operations (OPS); airworthiness of aircraft (AIR); aircraft accident and incident investigation (AIG); air navigation services (ANS); and aerodromes and ground aids (AGA).

Contributing factors. Actions, omissions, events, conditions, or a combination thereof, which, if eliminated, avoided or absent, would have reduced the probability of the accident or incident occurring, or mitigated the severity of the consequences of the accident or incident. The identification of contributing factors does not imply the assignment of fault or the determination of administrative, civil or criminal liability.

Critical elements (CEs). The critical elements of a safety oversight system encompass the whole spectrum of civil aviation activities. They are the building blocks upon which an effective safety oversight system is based. The level of effective implementation of the CEs is an indication of a State's capability for safety oversight.

Effective implementation (EI). A measure of the State's safety oversight capability, calculated for each critical element, each audit area or as an overall measure. The EI is expressed as a percentage.

Gap analysis. An evaluation that compares an existing situation to the desired one, it identifies specific steps that can be taken to reach a desired goal.

Hazard. A condition or an object with the potential to cause or contribute to an aircraft incident or accident.

Incident. An occurrence, other than an accident, associated with the operation of an aircraft which affects or could affect the safety of operation.

Note.— The types of incidents which are of main interest to the International Civil Aviation Organization for accident prevention studies are listed in Annex 13, Attachment C.

Maximum mass. Maximum certificated take-off mass.

Operator. The person, organization or enterprise engaged in or offering to engage in an aircraft operation.

Safety. The state in which risks associated with aviation activities, related to, or in direct support of the operation of aircraft, are reduced and controlled to an acceptable level.

Safety audit. A USOAP CMA audit that a State requests and pays for (on a cost-recovery basis). The State determines the scope and date of a safety audit. Also see definition of *audit*.

Safety enhancement initiative (SEI). One or more actions to eliminate or mitigate operational safety risks or to address an identified safety issue.

Safety management system (SMS). A systematic approach to managing safety, including the necessary organizational structures, accountability, responsibilities, policies and procedures.

Safety oversight. A function performed by a State to ensure that individuals and organizations performing an aviation activity comply with safety-related national laws and regulations.

Safety performance. A State or a service provider's safety achievement as defined by its safety performance targets and safety performance indicators.

Safety performance indicator. A data-based parameter used for monitoring and assessing safety performance.

***Safety performance target*.** The State or service provider's planned or intended target for a safety performance indicator over a given period that aligns with the safety objectives.

Safety risk. The predicted probability and severity of the consequences or outcomes of a hazard.

State safety programme (SSP). An integrated set of regulations and activities aimed at improving safety.

ABBREVIATIONS AND ACRONYMS

ADREP	Accident/incident data reporting
AIB	Accident investigation board
ATO	Approved training organization
CAA	Civil aviation authority
CAST	Commercial Aviation Safety Team
CICTT	ICAO Common Taxonomy Team
CMA	Continuous monitoring approach
EI	Effective implementation
GANP	Global Air Navigation Plan
GASP	Global Aviation Safety Plan
GASP-SG	Global Aviation Safety Plan Study Group
GASeP	Global Aviation Security Plan
G-HRC	Global high-risk category of occurrence
HRC	High-risk category of occurrence
iSTARS	Integrated Safety Trend Analysis and Reporting System
LOC-I	Loss of control in-flight
NASP	National aviation safety plan
N-HRC	National high-risk category of occurrence
PIRG	Planning and implementation regional group
OLF	Online framework
PQ	Protocol question
RAIO	Regional accident and incident investigation organization
RASG	Regional aviation safety group
RASP	Regional aviation safety plan
R-HRC	Regional high-risk category of occurrence
RSOO	Regional safety oversight organization
SARP	Standards and Recommended Practices
SDCPS	Safety data collection and processing systems
SEI	Safety enhancement initiative
SMI	Safety management implementation
SMS	Safety management system
SSC	Significant Safety Concern
SSP	State safety programme
SSPIA	State safety programme implementation assessment
USOAP	Universal Safety Oversight Audit Programme

Chapter 1

INTRODUCTION

1.1 BACKGROUND

1.1.1 Safety is aviation's top priority, Assembly Resolution A40-1: *ICAO Global planning for safety and air navigation* recognizes the importance of a global framework in support of the Safety Strategic Objective of ICAO. The *Global Aviation Safety Plan* (GASP, Doc 10004), available at www.icao.int/gasp, sets forth ICAO's safety strategy, which supports the prioritization and continuous improvement of aviation safety. Its purpose is to continually reduce fatalities, and the risk of fatalities, by guiding the development of a harmonized safety strategy and the implementation of regional and national aviation safety plans. The GASP promotes coordination and collaboration among international, regional and national initiatives.

1.1.2 Each region and State is encouraged to develop a regional aviation safety plan (RASP) and national aviation safety plan (NASP), respectively, in which the strategic direction for the management of aviation safety for a set time period is presented. Each plan should be developed in line with the GASP goals, targets and global high-risk categories of occurrences (G-HRCs). It should contain an action plan that describes how the region or State implements and monitors a series of safety enhancement initiatives (SEIs) to achieve the regional or national goals, and the associated targets.

1.1.3 The RASP and NASP allow the region and the State to define the strategy for improving safety within a specified timeframe, through defined SEIs. Safety intelligence (for example, data on hazards, safety risk assessments, audit results) is needed to develop a data-driven plan; set goals and targets that address national safety issues; as well as to develop and monitor the effectiveness of the related SEIs.

1.2 PURPOSE

1.2.1 This manual complements the 2023-2025 edition of the GASP. It addresses different aspects to be taken into account by a region or a State when developing or modifying its aviation safety plan, and to implement regional and national aviation safety plans consistent with the GASP. In the context of the GASP, the term "region" refers to a group of States and/or entities working together to enhance aviation safety within a geographic area.

1.2.2 This manual provides guidance that may be used to:

a) establish a development process for the aviation safety plan, including methods to identify SEIs for the RASP and NASP;

b) address the relationship between the NASP and the SSP;

c) monitor the plan's implementation and its effectiveness; and

d) report on safety performance measurement, including reporting methods for individual States to the regional aviation safety groups (RASGs).

1.2.3 ICAO updated the suite of guidance material and tools related to the GASP, which focus on the development and implementation of a NASP, with the same processes applying to a RASP at the regional level. The guidance material and tools assist States to advance through the NASP development process. The GASP presents the suite of guidance

material and tools that complement the plan, and support the development and implementation of RASPs and NASPs. More information on GASP-related guidance material and tools can be found on the ICAO website at www.icao.int/gasp.

1.3 APPLICABILITY

The content of this manual is presented as guidance and should not be considered as the sole means to develop and implement regional and national aviation safety plans. States should consult specific requirements within their region and align their efforts with the RASP, where applicable. States should address Significant Safety Concerns (SSCs), if any, as a priority and comply with ICAO Standards and Recommended Practices (SARPs), as a means to achieve the GASP goals.

Chapter 2

DEVELOPMENT PROCESS

2.1 DEVELOPING REGIONAL AND NATIONAL AVIATION SAFETY PLANS

2.1.1 The development process for regional and national aviation safety plans includes eight steps, as shown in Figure 2-1 below. These steps, which are explained in detail in this chapter, assist the responsible entity to develop a plan that:

a) identifies hazards and safety deficiencies;

b) contains a list of prioritized safety issues, based on the identified hazards and safety deficiencies (in the form of operational safety risks and organizational challenges);

c) sets safety goals and targets (in other words, the strategic direction for the management of aviation safety);

d) presents the specific safety enhancement initiatives (SEIs) (in other words, an action plan); and

e) defines how the responsible entity will measure safety performance to monitor the implementation of the plan and its effectiveness.

2.1.2 This chapter outlines the steps to develop a NASP, the same steps and rationale should be used by regions when developing a RASP.

Note 1.— The NASP should ideally connect with other national plans, some of which may or may not be exclusively focused on civil aviation (for example, air navigation, economic development, environment or security). This connection ensures the integration of the NASP to other areas of aviation and raises the visibility of aviation-related initiatives at the broader national level.

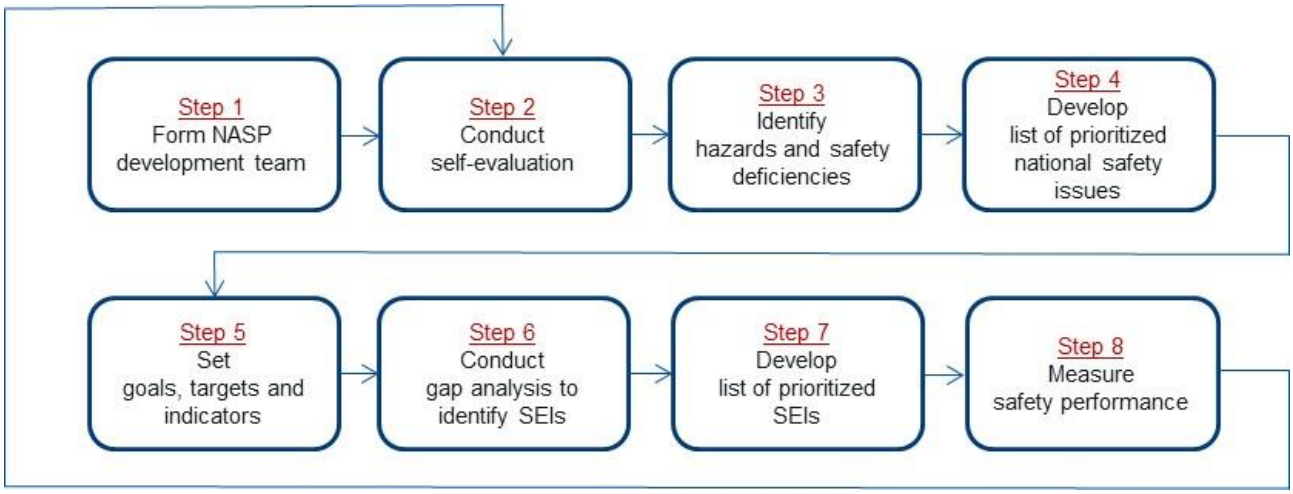

Figure 2-1. NASP development process

2.2 FORM THE NASP DEVELOPMENT TEAM (STEP 1)

2.2.1 The process for developing the NASP begins by assigning a responsible entity (for example, the civil aviation authority (CAA)) to lead the development of the NASP. Once the State has assigned a responsible entity, that entity should form a NASP development team. This team is responsible for completing steps 2 to 8 in Figure 2-1.

2.2.2 The NASP development process requires active engagement with stakeholders to allow for a better understanding of the operational context, the identification of hazards and safety deficiencies, and the development of possible mitigation strategies (in other words, SEIs) from the perspective of each stakeholder. Therefore, the responsible entity should identify stakeholders early in the development process. In addition to the direct stakeholders (for example, the CAA, service providers), any entity which could be involved in financing, implementing or influencing changes, or which is significantly affected by these changes, should be considered (for example, national continuous monitoring coordinators and points of contact responsible for other aviation-related national plans and programmes, such as, the national air navigation plan or the national civil aviation security programme), in order to promote visibility and alignment among them.

2.2.3 Once the stakeholders have been identified, the responsible entity should review the list of participants on the NASP development team to ensure that all appropriate constituents are represented. Successful implementation of the NASP depends on having the appropriate stakeholders actively engaged in its development.

2.2.4 The membership list of the NASP development team is the output from this step.

2.3 CONDUCT A SELF-EVALUATION (STEP 2)

2.3.1 Once the NASP development team is set up, it should begin its work with an evaluation of the current situation in the State to obtain an understanding of its operational context. This activity is referred to as a self-evaluation.

2.3.2 To develop the NASP, the development team should understand the operational context in which the NASP will be implemented. Every State has a collection of factors that may contribute to or otherwise affect the management of aviation safety within it. A key part of the NASP development process is to identify the State's strengths and enablers that can promote change and to build upon these. The self-evaluation helps the development team to understand the State's operational context and should include: the analysis of established capabilities; system size and level of complexity; and available resources, using several sources of information, as presented in 2.3.5 and 2.3.6. Additional information on a State's operational context is presented in Chapter 4, 4.3.1 g).

2.3.3 As shown in Figure 2-1, the self-evaluation should be repeated at regular intervals and according to the results of safety performance measurement and developing trends. Other factors, such as a significant change in the State's operational context or other aviation-related national plans and programmes may also prompt consideration of a new self-evaluation and corresponding updates to the NASP.

2.3.4 Other key aspects the development team should assess are:

a) the effective implementation (EI) of the eight critical elements of a safety oversight system; and

b) the SSP implementation and maintenance, as well as its continuous improvement.

2.3.5 These aspects allow the development team to understand the State's safety oversight capabilities and operational context. At the regional level, these aspects should be assessed for the States that make up the region.

2.3.6 ICAO has provided several tools that can assist the development team to identify specific issues related to safety oversight and SSP implementation. The integrated Safety Trend Analysis and Reporting System (iSTARS) tools are available online at www.icao.int/safety/iStars. They include, but are not limited to the following applications:

a) Protocol Question (PQ) Tester;

b) Safety Audit Information;

c) State Safety Briefing;

d) SSP Gap Analysis; and

e) SSP Foundation.

2.3.7 In addition, the Universal Safety Oversight Audit Programme Continuous Monitoring Approach (USOAP CMA) Online Framework (OLF) is a suite of web-integrated applications and centralized database systems, which enables collection of safety-related information and documentation from different sources, and monitors and reports on safety oversight activities by ICAO and States. Further information about the OLF can be found on the ICAO website at www.icao.int/usoap. A dedicated website provides States with access to the OLF for the:

a) completion or updates of the State aviation activity questionnaire;

b) completion or updates of the compliance checklists through the electronic filing of differences system;

c) completion or updates of the USOAP CMA self-assessment;

d) completion or updates of the State corrective action plan (CAP);

e) response to mandatory information requests; and

f) access to all safety–related information generated by USOAP CMA activities.

2.3.8 In a State working on SSP implementation, the development team should use the USOAP CMA SSP Implementation Assessment (SSPIA) self-assessment (available on the OLF). If a State has already implemented an SSP, the development team can use the established hazard identification and safety risk management process to identify hazards and safety deficiencies. The *Safety Management Manual* (Doc 9859) provides guidance on the State hazard identification and safety risk management process. The ICAO Safety Management Implementation (SMI) website site also provides guidance and tools on this subject and can be found at www.icao.int/SMI.

2.3.9 The RASP may call for States to incorporate and implement a series of regional SEIs into their respective NASPs. However, it is valuable for the development team to understand the State's operational context, which will then enable it to identify hazards and safety deficiencies, and prioritize national safety issues (as part of steps 3 and 4). This is an important part of the NASP development process to ensure the NASP will be tailored appropriately and that it will be meaningful to the individual State's needs. The development team may refer to the GASP and the applicable RASP for information, but it should ensure that any global or regional safety issues, or SEIs to address them, are relevant to the national aviation system before incorporating them into the draft NASP.

2.3.10 The document containing the self-evaluation is the output from this step.

2.4 IDENTIFY HAZARDS AND SAFETY DEFICIENCIES (STEP 3)

2.4.1 Based on the results of the self-evaluation, the development team can identify the hazards and safety deficiencies that need to be addressed in the NASP, as well as the stakeholders who should be involved in addressing them. In the context of the NASP development process, hazards and safety deficiencies include operational safety risks and organizational challenges (for example, lack of effective safety oversight, difficulties in implementing an SSP).

2.4.2 In addition to the State's self-evaluation, the development team should consult the latest edition of the GASP and RASP. These two documents assist in determining operational safety risks and their contributing factors, as well as organizational challenges. The development team may also refer to the RASG for assistance in identifying hazards and safety deficiencies. As noted in step 2, the development team should not just refer to the GASP, RASP or RASG in an attempt to skip this step; it is valuable for the development team to determine the State's operational safety risks and organizational challenges. These other sources provide additional information.

2.4.3 The development team should conduct data-driven analyses (or use existing analyses, or other information) to determine operational safety risks and contributing factors leading to national high-risk categories of occurrences (N-HRCs), as well as any systemic safety deficiency (in other words, organizational challenges).

2.4.4 The development team may identify hazards and safety deficiencies based on analyses from:

a) mandatory reporting systems;

b) voluntary reporting systems, while ensuring the State accords protection to safety data captured by, and safety information derived from, these and related sources[1];

c) accident and incident investigation reports, which may assist in identifying contributing factors to accidents and incidents, as well as lessons learned from the analysis of occurrences;

d) safety oversight activities over a defined period;

e) the SSP (if applicable to the State);

f) USOAP data;

g) regional analysis conducted by entities such as the RASG, regional safety oversight organization (RSOO), planning and implementation regional group (PIRG), and/or regional accident and incident investigation organization (RAIO); and any resulting regional HRCs (R-HRCs) as well as organizational challenges; and

h) G-HRCs, and organizational challenges described in the GASP.

2.4.5 Based on the results of the self-evaluation and the identified hazards and safety deficiencies, the development team may identify additional stakeholders with supporting capabilities, additional resources and other strengths or opportunities that can assist it in addressing the safety issues and enable SEIs. Stakeholder mapping should include all stakeholders that can contribute to the success of the NASP. Therefore, this step may result in additional stakeholders being included in the NASP development team, since they may be involved in developing, implementing and monitoring SEIs in the NASP.

[1] Safety data and safety information contained in voluntary safety reporting systems is established for the sole purpose of maintaining and improving safety, and qualified for protection under Annex 19 – *Safety Management*.

2.4.6 The development team should prepare a list of identified hazards and safety deficiencies. The list should describe a series of national operational safety risks, including the G- and R-HRCs (that may be applicable from the GASP and RASP). The development team should also include in this list a series of organizational challenges that exist in the State. The list of hazards and safety deficiencies will later become the basis for the national safety issues that the NASP will address.

2.4.7 A list of hazards and safety deficiencies is the output from this step.

2.5 DEVELOP LIST OF PRIORITIZED NATIONAL SAFETY ISSUES (STEP 4)

2.5.1 Once the development team has completed the list of hazards and safety deficiencies, it can then proceed to the next step: defining national safety issues that should be given priority in the NASP. The identification of hazards and safety deficiencies enables the development team to define a series of national safety issues, which will later be transformed into national safety goals and targets. During this step of the process, the development team should review the list of hazards and safety deficiencies to be addressed in the NASP and determine which ones should be given priority. The development team should use a quantitative approach (in other words, data-driven) to develop a list of prioritized national safety issues. Where a quantitative approach is not feasible, it may rely on the knowledge and expertise of the NASP development team. Highest priority should be given to issues that have the greatest impact on safety, such as the N-HRCs.

2.5.2 For operational safety risks, the development team may categorize certain types of occurrences such as N-HRCs, in the State's operational context, and consider them of the utmost priority based on the number of fatalities and risk of fatalities associated with such occurrences.

2.5.3 In addition to N-HRCs, the development team may categorize certain organizational challenges as national safety issues and consider them of priority because they impact the effectiveness of safety risk controls.

2.5.4 As a result of step 4, the development team should prepare a list of prioritized national safety issues, to be addressed in the NASP. This list is the output from this step.

Note.— Before finalizing the list, the development team should verify whether the list of prioritized national safety issues included in the NASP interrelates with other national and/or regional civil aviation plans (for example, the national air navigation plan).

2.6 SET GOALS, TARGETS AND INDICATORS (STEP 5)

2.6.1 The development team can use the list of prioritized national safety issues to set the national safety goals and targets. National safety issues that were given priority (in step 4) can be formulated into statements that set goals and targets within the NASP.

2.6.2 The national safety goals are the results toward which the State's efforts in aviation safety are directed. They present the desired outcomes that the State's safety strategy (to be presented in the NASP) aims to produce. The development team should write the national safety goals in a manner that describes high-level outcomes that State aims to achieve (for example, strengthen the State's safety oversight capabilities).

2.6.3 Each of the national safety goals should contains specific targets. Targets are specific desired outcomes from the specific actions taken by the State (and industry, where applicable) to achieve the national safety goals, at a certain point of time. The development team should write the national safety targets in a manner that identifies who the specific actions are directed to (for example, the CAA).

2.6.4 Each target should also include a list of indicators that the State will use to measure progress towards achieving the respective goal. Goals may contain more than one target and each of the targets should be linked to a series of indicators. Indicators are a measurement index used to evaluate if the NASP yields the expected results. The indicators provide evidence about whether the desired outcomes occurred, and measure the progress in the activities related to the national safety targets. The development team should write the indicators in a manner that references quantitative data (for example, number or percentage). Some indicators may refer to occurrences that are deemed an outcome of deficient management of aviation safety (for example, number of accidents). Others may refer to activities conducted by State or other stakeholders, deemed to improve the management of aviation safety (for example, percentage of completed corrective action plans). Some indicators may also be relevant to multiple goals or targets. Ultimately, the State should use a series of indicators to measure the achievement of the national safety goals (and associated targets) presented in the NASP (refer to step 8 in 2.9).

2.6.5 The list of national safety goals, targets and indicators is the output from this step. The development team should be aware of how the national safety goals, targets and indicators may affect other national civil aviation plans and programmes to mitigate any potential contradictions.

2.7 CONDUCT GAP ANALYSIS TO IDENTIFY SEIS (STEP 6)

2.7.1 Once the development team has set the national safety goals and targets, it needs to identify a series of SEIs that will enable their achievement. The next step in the process is to conduct a gap analysis, which helps the development team identify specific steps to take to reach each national safety goal and the associated targets. The development team should not only focus on the weaknesses it needs to address, but also identify the strengths within the State that can facilitate closing the gap, such as existing economic frameworks, access to training, etc. To develop the SEIs for the NASP, the development team should conduct the gap analysis using the *Global Aviation Safety Roadmap* (Doc 10161), commonly referred to as “the roadmap”. The compilation of SEIs will form the action plan that supports the safety strategy presented in the NASP.

2.7.2 The roadmap contains a series of SEIs providing detailed actions to be taken when addressing the identified hazards and safety deficiencies. Using the roadmap, the development team should select which SEIs, and their specific actions, will be implemented and in what order.

2.7.3 To identify SEIs that address organizational challenges, the development team should refer to the Organizational Challenges (ORG) Roadmap portion of the roadmap. Using data from a number of existing sources (for example, USOAP, State’s surveillance activities and industry assessment programmes) or from the knowledge provided by subject matter experts, the development team can identify the appropriate starting point within the ORG Roadmap (for example, Phase 1).

2.7.4 Following the completion of the gap analysis, the development team should select a series of SEIs that are needed to address the identified hazards and safety deficiencies that will help the State achieve the national safety goals (and associated targets) presented in the NASP. By reviewing the identified hazards and safety deficiencies and/or results of the gap analysis in comparison to the selected SEIs, the development team can select a list of potential SEIs. To determine if the State has already completed an SEI, the development team may consider the latest USOAP results or the State’s own data if an internal evaluation was conducted. If it is determined that the State has not completed the SEI, and that it is needed, this would then be listed as a “gap”. The SEI would then be identified as one of the SEIs that should be incorporated into the NASP. The associated actions listed under that SEI (as presented in the roadmap) would need to be listed as actions to complete this SEI. Figure 2-2 presents an example of the relationship between identified hazards and safety deficiencies, the list of prioritized national safety issues, the national safety goals and targets, and the identification of SEIs (steps 3 to 6 in the NASP development process).

2.7.5 In addition, the development team should conduct a similar review of the SEIs presented in the Operational Safety Risks (OPS) Roadmap portion of the roadmap and identify those that have not been implemented to serve as safety risk mitigations for the N-HRCs. A series of SEIs should be implemented to address contributing factors leading to the N-HRCs. Some of these SEIs may be derived from the OPS Roadmap; others may be identified through sources such as accident or incident investigations, or safety risk assessments.

2.7.6 A list of potential SEIs is the output from this step.

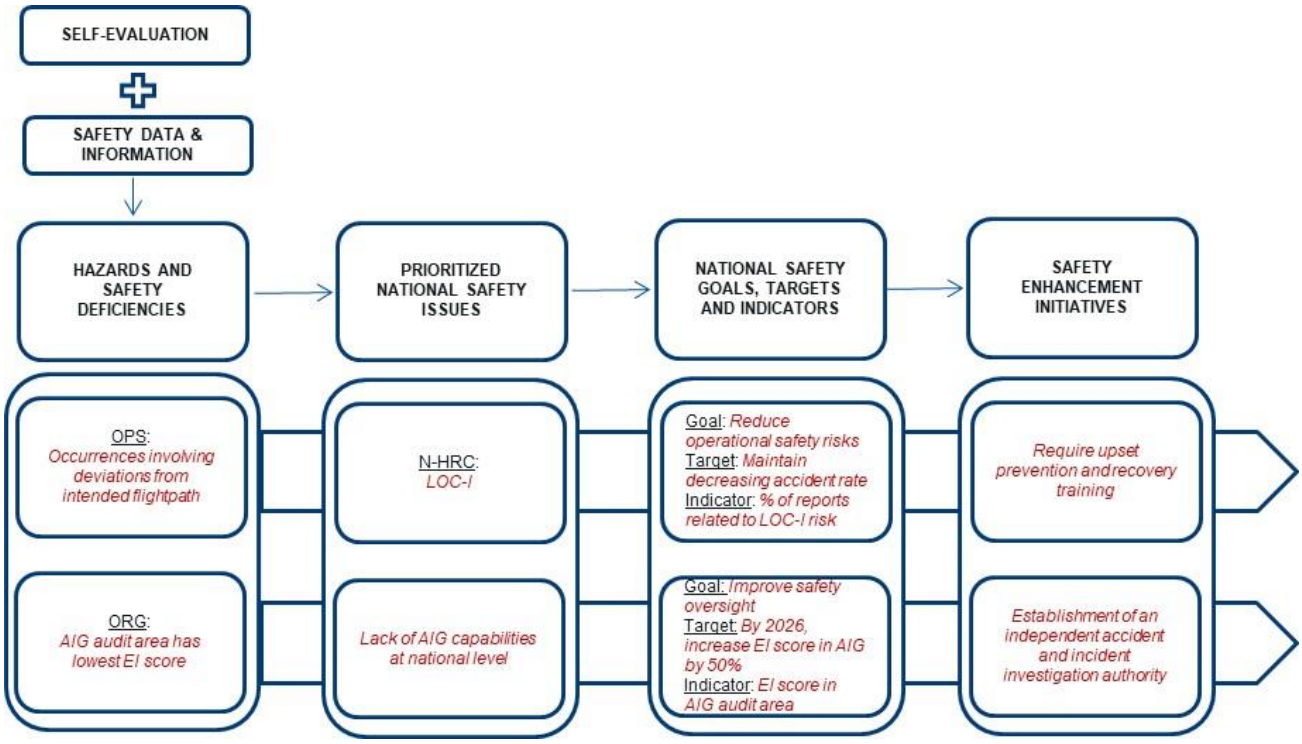

Figure 2-2 Example of the relationship between steps 3 to 6 in the NASP development process

2.8 DEVELOP LIST OF PRIORITIZED SEIS (STEP 7)

2.8.1 The gap analysis enables the development team to identify SEIs that have not been implemented. By reviewing the gaps and the associated SEIs, it can produce a list of potential SEIs. However, it is impractical to attempt to implement a NASP that addresses all SEIs listed in the roadmap. The development team should select the SEIs relevant to the State and its operational context, by listing them in order of priority. The use of performance management tools, such as the specific, measurable, achievable, relevant and timely (SMART) (George T. Doran, 1981) approach to setting goals and targets, can help frame the actions that the State and other stakeholders carry out in the context of SEI implementation. The SMART approach may assist stakeholders in staying focused and motivated, by ensuring a clear direction and by helping to set achievable targets to promote implementation. The SEIs should contribute to an overall SMART package of goals, targets and indicators.

Note.— Information on the use of SMART is found in Doc 9859.

2.8.2 When reviewing the gaps identified, the development team should consider evaluating the safety impact and the ability of (or ease of implementation for) the State to effect the change for each gap.

Safety impact

2.8.3 The development team should evaluate how safety will be enhanced through the elimination of each identified gap and should prioritize SEIs that have the greatest impact on safety. Ideally, a quantitative approach using various methodologies should be applied. However, it may be difficult to apply a quantitative assessment to all the SEIs, as many address the key foundation of aviation safety. With the knowledge of subject matter experts that form part of the NASP development team, it can list potential actions in a manner that will have the greatest impact on safety.

Ease of Implementation

2.8.4 Although the development team should consider the impact on safety as the primary method to prioritize the list of potential SEIs, it should also assess the ability of the stakeholders to make the changes and adapt to a new situation. The evaluation of the ability to effect a change should include:

a) the existence of political will to change; and

b) the availability of resources necessary to implement the change.

2.8.5 Using the list of SEIs, the development team should specify which should be implemented first. The list should include a manageable set of actions that represent the steps necessary to progress towards the achievement of the national safety goals (and associated targets). Reviews of unsuccessful attempts at previous efforts to improve safety have shown that strategic plans should be developed so that they define successive activities that are achievable. The development team should not select SEIs that would require significant transformations of the aviation system in a short time frame. It should identify a step-by-step approach to achieving implementation (following all the steps presented in Figure 2-1).

2.8.6 As a result of step 7, the development team should generate a prioritized list of SEIs. This list forms the action plan to achieve the national safety goals (and associated targets). Once a list of potential prioritized SEIs is developed, the development team is ready to begin drafting the NASP. The NASP is the master document for presenting the national safety strategy and implementing the SEIs at the national level.

2.8.7 The NASP does not have to contain all actions that will support each SEI in detail; some SEIs may be presented in a stand-alone document containing a detailed implementation plan (for example, for the establishment of an independent accident and incident investigation authority or the implementation of an SSP). The NASP should provide a summary of the SEIs, associated actions, the responsible entity assigned to lead the implementation, general timelines, stakeholders involved, metrics to measure implementation, the priority assigned to each SEI and the means to monitor implementation and effectiveness. A link or reference to the detailed implementation plan may be included in the NASP.

2.8.8 A list of prioritized SEIs is the output from this step.

2.9 MEASURE SAFETY PERFORMANCE (STEP 8)

2.9.1 This final step, on the measurement of safety performance, is divided into two separate tasks:

a) the definition of the process to monitor implementation of the NASP and its effectiveness; and

b) the actual measurement of safety performance.

2.9.2 First, the development team should define how the State will measure safety performance to monitor the implementation of the NASP and its effectiveness. At this stage, the development team should determine aspects, such as the processes to:

a) monitor the implementation of the SEIs listed in the NASP;

b) track performance of each national safety target (including the use of the indicators presented in the NASP); and

c) provide stakeholders with relevant up-to-date information on the progress made in achieving the national safety goals, as well as the implementation status of SEIs.

2.9.3 The development team should also define the process for making corrections and adjustments to the NASP and its SEIs; addressing specific situations (for example, actions in the event that national safety goals are not met); and reporting on these points to stakeholders. The development team should include a description of all these processes in a dedicated section on “monitoring implementation” in the NASP (refer to Chapter 4, 4.3.6 for detailed guidance). This description is the output from this step.

2.9.4 Once it has defined the process for monitoring implementation, the development team has all the content necessary to finalise the drafting of the NASP, which covers all the points described in 2.1. The development team may choose to use the NASP template presented in Appendix A to Chapter 4, or develop its own.

2.9.5 The development team’s work does not end once the NASP has been developed and turned over to the organizations or individuals responsible for leading the implementation. This is when the second task of this step begins: the development team should measure safety performance to monitor the implementation of the NASP and assess its actual effectiveness in terms of improving safety at the national level. The development team should periodically monitor the implementation of SEIs to ensure actions are being accomplished, that they are effective and that any difficulties in implementation are dealt with.

2.9.6 When implementation of SEIs is completed, or sooner if warranted by other factors (for example, changes in the State’s operational context resulting from disruption events or developing trends), the development team (or other designated entity) should repeat the steps listed in Figure 2-1 to ensure the hazards and safety deficiencies, safety issues, as well as the goals and targets are still relevant to the State’s operational context; and identify other SEIs the State may need to manage. This promotes a regular update of the NASP to address newly identified hazards and safety deficiencies and ensures continuous improvement.

Note.— The development team may exist for the lifespan of the NASP, and its membership may evolve depending on its needs. The State should establish a maintenance process for the ongoing coordination and monitoring of the updates to the NASP-related SEIs, including responsible persons within the different stakeholder organizations.

2.9.7 Detailed guidance on the development of the RASP and NASP is presented in Chapters 3 and 4, respectively.

2.10 RELATIONSHIP BETWEEN THE NASP AND THE SSP

2.10.1 An SSP is an integrated set of regulations and activities aimed at improving safety. It comprises a range of processes and activities that together provide the State with the means to manage safety and to deliver well-directed safety oversight. The SSP serves as a means by which the State outlines its responsibilities for safety management at the national level. It assists the State to proactively collect and analyse data, conduct safety risk assessments to identify hazards and safety deficiencies, and determine national operational safety risks and organizational challenges at the national level. The SSP is the foundation on which the State builds a proactive approach to national aviation safety. An SSP that has reached a certain implementation and maintenance maturity, with mature safety data analysis (SDA) aspects,

allows the State to gain access to such safety intelligence.

2.10.2 To define the relationship between the NASP and the SSP, and guide the NASP development process, the State needs to consider the SSP implementation and maintenance maturity and its continuous improvement, based on the USOAP CMA SSPIA Self-Assessment in the OLF, focusing on the following aspects:

a) if the State does not have mature SDA aspects of the SSPIA established (as indicated in SSPIA Self-Assessment), it should develop its NASP based on scenario 1 (refer to 2.10.4); or

b) if the State has mature SDA aspects of the SSPIA (as indicated in SSPIA Self-Assessment), it should develop its NASP based on scenario 2 (refer to 2.10.5).

2.10.3 For the purpose of defining the relationship between the NASP and the SSP, mature SDA aspects include the presence of:

a) mandatory and voluntary reporting systems, established and being used by individuals and organizations in the State;

b) hazard identification and safety risk management process;

c) provisions to protect safety data, safety information and related sources; and

d) safety data collection and processing systems (SDCPS) to capture, store, aggregate and enable the analysis of safety data and safety information – this includes mechanisms to prioritize and measure the effectiveness of safety risk mitigations and guide the content of the NASP.

Note.— Regardless of SSP implementation and maintenance maturity, or the maturity level of SDA aspects of the SSPIA, the State should develop and implement a NASP.

2.10.4 Scenario 1 – A State without mature safety data analysis aspects

A State without mature SDA aspects of the SSPIA may not have the data collection, analysis and safety risk management capabilities to identify hazards and safety deficiencies, and to determine national operational safety risks and organizational challenges. If the SDA aspects of the SSPIA for the SSP are not mature, it would impair the State's ability to use the SSP as a source of safety intelligence to identify hazards and safety deficiencies, and determine the national operational safety risks and organizational challenges to include in the NASP. The State would need to rely heavily on other data sources to obtain this information (for example, the GASP and the RASP). In addition, since the State must implement an SSP, as part of its responsibilities for the management of safety, the State should focus in its NASP, with regard to SSP implementation and maintenance. The following applies to a State without mature SDA aspects of the SSPIA:

a) *The NASP is guided primarily by the GASP and the RASP* – These two documents assist the State to identify hazards and safety deficiencies and determine national operational safety risks and organizational challenges.

b) *The NASP focuses primarily on addressing organizational challenges* – In a State that has not reached maturity in its SSP implementation and maintenance, mainly in the SDA aspects of the SSPIA, the NASP should include SEIs to address organizational challenges and enhance organizational capabilities (for example, improve hazard identification and safety risk management at the national level). Once these organizational challenges are addressed, the State will be in a better position to mitigate operational safety risks.

c) *One of the NASP's national safety goals should be to implement an SSP and maintain it* – The NASP

needs to include SEIs that form an action plan necessary to increase the effectiveness of the SSP.

2.10.5 Scenario 2 – A State with mature safety data analysis aspects

A State with mature SDA aspects of the SSPIA has the capability to identify hazards and safety deficiencies, and to determine national operational safety risks and organizational challenges. If the SDA aspects of the SSPIA for the SSP are mature, the State has the ability to use its hazard identification and safety risk management process as a source of safety intelligence to identify hazards and safety deficiencies, and determine the national operational safety risks and organizational challenges to include in the NASP. The following applies to a State with mature SDA aspects of the SSPIA:

a) *The NASP is guided primarily by the SSP* – The SSP assists the State to identify hazards and safety deficiencies, and determine operational safety risks and organizational challenges (while taking into consideration aspects from the GASP and RASP). The SSP allows the State to manage its activities in a coherent and proactive manner, measuring its safety performance, monitoring the implementation of SEIs, and addressing any identified hazards and safety deficiencies.

b) *The NASP is one of the key documents produced as part of the SSP documentation* – The NASP is the means by which a State defines and drives the implementation of SEIs to address national operational safety risks and organizational challenges determined through SSP processes or drawn from the GASP or the RASP. It also allows a State to determine activities to strengthen the SSP or to achieve its safety objectives.

c) *the NASP complements the SSP* – The State can use SEIs to prioritize improvements to SSP processes and activities, and to address national safety issues identified by the SSP (for example, organizational challenges). Safety intelligence gathered through the SSP may also contribute to other national plans, such as the air navigation plan.

Chapter 3

DRAFTING THE REGIONAL AVIATION SAFETY PLAN

3.1 GENERAL

3.1.1 This chapter provides guidance to help regional entities, including RASGs and RSOOs, determine what to include in a RASP. A template of a RASP is presented in Appendix A to this chapter and should be considered solely as an example. The RASP should be developed based on the region's self-evaluation and address the region's specific operational safety risks and organizational challenges.

3.1.2 In the context of the GASP and the RASP, the term "region" refers to a group of States and/or entities working together to enhance aviation safety within a geographic area. The RASG is the regional entity responsible for developing, supporting implementation, and monitoring a RASP consistent with the GASP. The RASP development process should include consultation with States, industry and other key aviation stakeholders. The NASP of each State in the region should be aligned and coordinated with the RASP and with other efforts aimed at enhancing aviation safety. Copies of the current RASPs are available in the GASP Library at www.icao.int/RASP.

3.2 CONTENT OF THE RASP

3.2.1 The RASP should contain the following sections, as a minimum:

a) an introduction;

b) the purpose of the RASP, including links to both the NASPs of States that make up the region and the GASP;

c) the region's strategic direction for the management of aviation safety at the regional level, for a set period, including regional safety goals, targets and indicators;

d) a description of the regional operational safety risks and SEIs to address them;

e) a description of organizational challenges and SEIs to address them; and

f) a description of how the region will measure safety performance to monitor the implementation of the RASP and its effectiveness.

3.3 DETAILED SECTIONS OF THE RASP

Introduction of the RASP

3.3.1 When drafting the introduction (or foreword), the following should be included:

a) an overview of the RASP, including its structure (chapters, sections and their content);

b) the region's commitment to aviation safety and to the resourcing of activities (at the regional level) to enhance aviation safety;

c) the entities responsible for the RASP's development, implementation and monitoring;

d) the regional safety issues;

e) the regional safety goals and targets;

f) the region's operational context (may be presented in table format), including, but not limited to:

1) the traffic volume in the region, as well as anticipated growth or decline;

2) the maturity of aviation systems among the States making up the region (for example, varying levels of implementation of an effective safety oversight system); and

3) common hazards and safety deficiencies, which may be grouped by categories such as environmental, technical, organizational and human.

Note.— The region's operational context may evolve over the duration of an edition of the RASP (for example, as a result of a reduction in traffic volume due to a disruption event, an alteration in the mix of system users due to new entrants in the airspace system, or an emerging industry in the region, such as new equipment manufacturers). Changes in the operational context may affect identified hazards and safety deficiencies and indicate the need to conduct a new self-evaluation and adjust the RASP accordingly (refer to Chapter 2, Figure 2-1).

Purpose of the RASP

3.3.2 When drafting the purpose of the RASP, the following should be included:

a) a description of the region's strategic direction for the management of aviation safety;

b) the duration of the RASP (refer to 3.3.3 a) 1));

c) the relationship between the RASP, the NASP of each State in the region and the most current edition of the GASP;

d) initiatives at the regional level that will support the improvement of aviation safety at the individual State level and the wider international level; and

e) other plans that have been considered in the development of the RASP (for example, the *Global Air Navigation Plan* (GANP, Doc 9750), the regional air navigation plan, the *Global Aviation Security Plan* (GASeP, Doc 10118), as appropriate).

The region's strategic direction for the management of aviation safety

3.3.3 When drafting the region's strategic direction for the management of aviation safety at the regional level, the following should be included:

a) how the RASP is developed and endorsed, including any collaboration with stakeholders (for example, States, industry, international organizations, etc.);

1) describe the governance of the RASP; this includes how frequently it is reviewed and updated (for example, reviewed every year and updated at least every three years) – the alignment with the GASP revision cycle should be considered;

2) explain that a collaborative approach is needed to identify regional safety issues and implement SEIs to address them;

3) describe the process used to determine regional operational safety risks and organizational challenges;

b) the regional safety goals, targets and indicators (may be presented in table format);

1) explain how the regional safety goals, targets and indicators are linked to the GASP (this may be accomplished by referencing the GASP goals, targets and indicators);

2) list any specific regional safety goals, targets and indicators over and above those of the GASP, if applicable;

c) how the SEIs help to achieve the regional safety goals;

1) explain the link between the regional safety goals, and targets with the SEIs that the region will undertake to improve safety;

2) explain how regional safety goals and targets are linked to States' individual SEIs (within the region) or overarching initiatives at the international level; and

d) the emerging issues that may require further analysis.

Regional operational safety risks

3.3.4 When drafting the regional operational safety risks, the following should be included:

a) a summary of accidents and serious incidents that have occurred in the region during a set time period and those which involved aircraft registered in States in the region, particularly for aircraft of a maximum mass of over 5 700 kg during scheduled commercial operations (statistics and data on accidents and serious incidents may be gathered from the accident and incident databases of States or can be found using the ICAO Accident/Incident Data Reporting (ADREP) system application available via iSTARS at www.icao.int/safety/iStars);

b) the regional HRCs (R-HRCs), including the reason they were given priority (for example, data-driven approach) – the RASP should include all HRCs in the GASP (G-HRCs);

c) other regional operational safety risks identified, including the reason they were given priority. This identification may:

1) be done by individual States in the region (for example, through their SDCPS);

2) derive from a regional analysis (for example, by the RASG, RSOO, PIRG, and/or RAIO); and/or

3) other sources of information – the regional operational safety risks should encompass different sectors of aviation (such as aerodromes, commercial air transport, general aviation, helicopter operations);

d) the main contributing factors leading to the R-HRCs identified in the region;

e) a description of a set of SEIs to mitigate the risks associated with the R-HRCs and any other regional operational safety risks the region wishes to mitigate through the RASP;

1) list SEIs that the region plans to implement, or is in the process of implementing, to address all the identified R-HRCs and other regional operational safety risks (this list may be presented in an appendix);

2) identify those SEIs derived from the global aviation safety roadmap (mainly taken from the operational safety risks (OPS) roadmap), where applicable; and

f) the taxonomy used in the process of determining regional operational safety risks – it is recommended to use the aviation occurrence categories from the CAST/ICAO Common Taxonomy Team (CICTT).

Note.— Additional information on G-HRCs is provided in Chapter 3 of the GASP. Information on the CICTT Taxonomy is found on the ICAO website at https://www.icao.int/safety/airnavigation/AIG/Pages/Taxonomy.aspx.

Organizational challenges

3.3.5 When drafting organizational challenges addressed in the RASP, the following should be included:

a) a summary of the States' effective safety oversight capabilities for States in the region. This may be accomplished by presenting the results of the States' latest activities conducted under the ICAO USOAP CMA. Information related to USOAP CMA is available on the USOAP CMA OLF at www.icao.int/usoap.

b) a list and description of organizational challenges selected for the RASP, including the reason they were given priority;

c) how they were identified, including, but not limited to, a data-driven approach. This identification may:

1) be done by individual States in the region (for example, through their SDCPS);

2) derive from regional analysis (for example, by the RASG, RSOOs, PIRGs, and/or RAIOs);

3) be based on the organizational challenges described in the GASP; and/or

4) be based on regional overview of USOAP and individual State's oversight data;

d) a description of a set of SEIs to address the organizational challenges identified;

1) list SEIs the region plans to implement, or is in the process of implementing, to address all organizational challenges identified (this list may be presented in an appendix); and

2) identify those SEIs derived from the global aviation safety roadmap (mainly taken from the organizational challenges (ORG) roadmap), where applicable.

Monitoring implementation

3.3.6 When drafting the section on monitoring and measuring the implementation of the RASP and its effectiveness, the following should be included:

a) how the region will monitor the implementation of the SEIs listed in the RASP and how it will measure safety performance of the regional civil aviation system to ensure the intended results are achieved;

b) how corrections and adjustments to the RASP and its SEIs will be made and reported;

c) how each regional safety target will be monitored to track performance – indicators being used to measure safety performance should, in principle, be consistent with (or linked to) those in the GASP;

d) how stakeholders will be provided with relevant up-to-date information on the progress made in achieving the regional safety goals , as well as the implementation status of SEIs (for example, a dashboard);

e) an explanatory text addressing the following situations:

1) if the regional safety goals are not met, the root causes should be presented;

2) if the region identifies critical operational safety risks, reasonable measures will be taken to mitigate them as soon as practicable, possibly leading to an unscheduled revision of the RASP;

f) explain that States have adopted a standardized approach, as outlined by the RASG or other relevant regional entity, to provide information at the regional level (for example, for individual States to report to the RASG). This allows the region to receive information and assess operational safety risks using common methodologies; and

g) contact information for inquiries or further information.

3.4 RASP TEMPLATE

Appendix A to this chapter presents a RASP template, which aims to promote international harmonization of RASPs. Use of this template is not mandatory and is not intended to replace existing ICAO provisions. The template provides an example that promotes a uniform development of a RASP and addresses the minimum content proposed in this manual, while remaining flexible enough to accommodate any region-specific requirements. Regions that adopt the RASP template should work in collaboration with States in the region, regional entities and ICAO Regional Office(s) to ensure consistency of the RASP with the NASPs from States in the region and the current edition of the GASP. Regions may also collaborate with RASGs from other regions, as applicable.

3.5 RASP CHECKLIST

Appendix B to this chapter presents a checklist of a RASP. Use of this checklist is not mandatory and is not intended to replace existing ICAO provisions. The checklist is a tool that promotes a uniform development of a RASP and addresses the minimum content proposed in this manual, in line with the RASP template presented in Appendix A to this chapter. The checklist provides a means to ensure completeness of a RASP, whether it is based on the RASP template or not, and helps identify any missing content. In line with the minimum content of a RASP, the checklist includes:

a) the reference to the section in Chapter 3 of this manual where the minimum content is described;

b) the aspect to be analysed or question to be answered to assess the completeness of the RASP content related to that section;

c) a column for the user to check whether or not the specified content is found in the RASP; and

d) a column where the user may indicate where the specific content is found in the RASP, should it not be in the same section as the RASP template (for example, a particular topic may be covered in the section describing the purpose of the RASP, rather than the introduction).

Appendix A to Chapter 3

REGIONAL AVIATION SAFETY PLAN TEMPLATE

SECTION 1. INTRODUCTION

1.1 Overview of the RASP[2]

[Region] is committed to enhancing aviation safety, to the resourcing of supporting activities and to increasing collaboration at the regional level. The purpose of this regional aviation safety plan (RASP) is to continually reduce fatalities, and the risk of fatalities, through the development and implementation of a regional aviation safety strategy. A safe, resilient and sustainable aviation system contributes to the economic development of [Region], the States which comprise it, and their industries. The RASP promotes the effective implementation of safety oversight systems of States in [Region], a risk-based approach to managing safety at the regional level, as well as a coordinated approach to collaboration between States in the region, [list names of entities] and industry. All stakeholders are encouraged to support and implement the RASP as the regional strategy for the continuous improvement of aviation safety.

The RASP of [Region] is in alignment with the International Civil Aviation Organization (ICAO) *Global Aviation Safety Plan* (GASP, Doc 10004) and the national aviation safety plans of States in the region.

1.2 Structure of the RASP

This RASP presents the regional direction for the management of aviation safety at the regional level, for a period of [number] years. It comprises six sections. In addition to the introduction, sections include: the purpose of the RASP, [Region]'s strategic direction for the management of aviation safety at the regional level, the regional operational safety risks identified for the [date interval — *Example, 2023-2025*] RASP, organizational challenges addressed in the RASP, and a description of how the implementation of the safety enhancement initiatives (SEIs) listed in the RASP is going to be monitored.

1.3 Responsibility for the RASP Development, Implementation and Monitoring

The [name of responsible entity — *Example, the regional aviation safety group (RASG)*] is responsible for developing, supporting implementation and monitoring the RASP, in collaboration with [list names of entities — *Example, the ICAO Regional Office*] and with the aviation industry. The RASP was developed in consultation with States, operators and other key aviation stakeholders in the region, and in alignment with the [current edition] of the GASP.

2. Section 1.1. may also be presented as a stand-alone Foreword.

1.4 Regional Safety Issues, Goals and Targets

The RASP addresses the following regional safety issues:

1) [list operational safety risks and organizational challenges — *Example, Loss of control in-flight (LOC-I) occurrences, the lack of aircraft accident and incident investigation capabilities at the regional level*]

2) [...]

3) […]

To address the issues listed above and enhance aviation safety at the regional level, the [date interval] RASP contains the following goals and targets:

1) [list goals and targets — *Example, Goal 1: Achieve a continuous reduction of operational safety risks and Target 1.1: Maintain a decreasing trend of the regional accident rate*]

2) […]

3) […]

1.5 Operational Context

There were [number] movements in [Region] over the period of [year-year]. Traffic in the region is expected to [increase/decrease] by [number] per cent over the next [x] years.

There were [number] States in [Region] with a score below [number] per cent for the effective implementation (EI) of the critical elements (CEs) of the State's safety oversight system by the end of [year]. As of [year], [number] States had implemented the foundation of a State safety programme (SSP), and [number] States had implemented an effective SSP, as appropriate to their aviation system complexity.

Common hazards and safety deficiencies in [Region] include: [list hazards and safety deficiencies — *Example, Topography, meteorology, infrastructure,* and *socio-political issues*].

SECTION 2. PURPOSE OF [REGION]'S REGIONAL AVIATION SAFETY PLAN

The RASP is the master planning document containing the strategic direction of [Region] for the management of aviation safety for a period of [number] years ([year] to [year]). This plan lists regional safety issues, sets regional safety goals and targets, and presents a series of safety enhancement initiatives (SEIs) to achieve those goals.

Other plans were considered in the development of the RASP, including the following: [name of plans, where established].

The RASP has been developed using the goals and targets and global high-risk categories of occurrences (G-HRCs) from the ICAO GASP (www.icao.int/gasp). These are highlighted in the text, where applicable. The SEIs listed in the RASP support the improvement of safety at the individual State level, for States in the region, and contribute to the enhancement of safety at the wider international level. The RASP includes several actions to address specific safety issues and recommended SEIs for individual States in the region. It is expected that States in the region adopt these SEIs and include them in their respective national aviation safety plans.

SECTION 3. [REGION]'S STRATEGIC DIRECTION FOR THE MANAGEMENT OF AVIATION SAFETY

The RASP presents the SEIs that were developed based on the organizational challenges (ORG) and operational safety risks (OPS) roadmaps, as presented in the ICAO *Global Aviation Safety Roadmap* (Doc 10161), as well as region-specific issues identified by [list methods — *Example, a safety risk assessment, RASG activities, etc.*]. This plan is developed and maintained by [name of responsible entity — *Example, the RASG*], in coordination with key aviation stakeholders and is updated at least every [number] years.

The RASP includes the following regional safety goals and targets, for the management of aviation safety, as well as a series of indicators to monitor the progress made towards their achievement. They are tied to the goals, targets and indicators listed in the GASP and include additional regional safety goals, targets and indicators.

Goal	*Targets*	*Indicators*	*Link to GASP*
[list goals]	[list targets]	[list indicators]	[describe link]
1. *Example, Achieve a continuous reduction of operational safety risks*	1.1 *Maintain a decreasing trend of the regional accident rate.* 1. *n*	1.1.1 *Number of accidents occurring in the region per million departures.* 1.1.2 *Number of accidents occurring in the region to aircraft over 5 700 kg involved in scheduled commercial operations.* 1.2. *n*	*This goal is directly linked to Goal 1 and Target 1.1 of the GASP.*
2.	2.1 2. *n*		
3.	3.1 3. *n*		
4. *Example, Increase collaboration at the regional level*	4.1 *By 2023, States that do not expect to meet RASP Goals to seek assistance to strengthen their safety oversight capabilities* 4. *n*	4.1.1 *Number of champion States offering assistance* 4.1.2 *Number of States that received assistance* 4.1.3 *Number of capacity-building missions on accident and incident investigations completed in the region* 4.2.*n*	*This goal is directly linked to Goal 4 and Target 4.1 of the GASP*

5.	5.1 5. *n*		
6.	6.1 6. *n*		

The SEIs in this plan are implemented through the working arrangements of the regional aviation safety group (RASG), activities conducted by [list names of entities], as well as the existing safety oversight capabilities and service providers' safety management systems (SMS) at the individual States' level. SEIs derived from the ICAO *Global Aviation Safety Roadmap* (Doc 10161) were identified to achieve the regional safety goals presented in the RASP. Some of the regional SEIs are linked to overarching SEIs at the international level and help to enhance aviation safety at regional and international levels. The full list of the SEIs is presented in the appendix to the RASP.

The RASP also addresses emerging issues. Emerging issues include concepts of operations, technologies, public policies, business models or ideas that might impact safety in the future, for which insufficient data exists to complete typical data-driven analysis. Due to the lack of data, emerging issues cannot automatically be considered as operational safety risks. It is important that [Region] remain vigilant on emerging issues to identify hazards and safety deficiencies, collect relevant data and proactively develop mitigations to address any associated risks. The RASP addresses the following emerging issues, which were identified by [describe the process — *Example, an analysis conducted by the RASG*] for further analysis:

1) [list emerging issues — *Example, small drones operating in the vicinity of aerodromes*]

2) […]

3) […]

SECTION 4. REGIONAL OPERATIONAL SAFETY RISKS

The RASP includes SEIs that address regional operational safety risks, derived from lessons learned from occurrences and from a data-driven approach. These SEIs include actions such as: policy development, targeted safety activities, safety data analysis, safety risk assessments, and safety promotion. Separate sections are provided to address commercial air transport and general aviation to make the information more accessible to stakeholders.

[Name of responsible entity — *Example, the RASG*] publishes an Annual Safety Report, available on the [name of responsible entity] website [insert link to website, if available]. The summary of accidents and serious incidents that occurred in [Region], and those for aircraft registered in States located in [Region] involved in commercial air transport and aircraft involved in general aviation, is shown in the tables below.

Year	*Fatal accidents*	*Non-fatal accidents*	*Serious incidents*
Commercial air transport occurrences in [Region]			
[year to year, average]			
[current year]			
General aviation aircraft occurrences in [Region]			
[year to year, average]			
[current year]			

Year	*Fatal accidents*	*Non-fatal accidents*	*Serious incidents*
Occurrences involving commercial air transport aircraft registered in [Region]			
[year to year, average]			
[current year]			
Occurrences involving general aviation aircraft registered in [Region]			
[year to year, average]			
[current year]			

The following [number] regional high-risk categories of occurrences (R-HRCs) in the [Regional] context were considered of the utmost priority because of the number of fatalities and risk of fatalities associated with such occurrences. They were identified based on analysis from mandatory and voluntary reporting systems, accident and incident investigation reports, safety oversight activities conducted by States in the region over the past [number] years and their respective SSP, as well as on the basis of regional analysis conducted by [list names of entities — *Example, the RASG, RSOO, PIRG, and/or RAIO*] and on the operational safety risks described in the GASP.

These R-HRCs are in line with the G-HRCs listed in the [current edition] of the GASP:

1) [list R-HRCs and briefly explain why they were given priority — *Example, LOC-I. Operators experienced occurrences involving deviations from intended flightpath, reported to States in the region via their SDCPS*]

2) […]

3) […]

In addition to the R-HRCs listed above, the following regional operational safety risks have been identified:

1) [list other regional operational safety risks and briefly explain why they were given priority — *Example, Bird strikes. Operators experienced occurrences involving bird strikes at aerodromes in the region, reported to States via their SDCPS*]

2) […]

3) […]

The aviation occurrence categories from the Commercial Aviation Safety Team (CAST)/ICAO Common Taxonomy Team (CICTT) were used to assess risk categories in the process of determining regional operational safety risks. The CICTT Taxonomy is found on the ICAO website at https://www.icao.int/safety/airnavigation/AIG/Pages/Taxonomy.aspx

To address the regional operational safety risks listed above, [name of responsible entity — *Example, the RASG*] identified the following contributing factors leading to R-HRCs and [list names of entities] will implement a series of SEIs, some of which are derived from the ICAO OPS roadmap, contained in the ICAO *Global Aviation Safety Roadmap* (Doc 10161):

R-HRC 1: [name of occurrence category — *Example, LOC-I*]

1) [list contributing factors — *Example, Inadequate procedures for effective flight management*]

2) […]

3) […]

R-HRC 2: [name of occurrence category]

1) [list contributing factors]

2) […]

3) […]

R-HRC [*n*]: [name of occurrence category]

1) [list contributing factors]

2) […]

3) […]

The full list of the SEIs is presented in the appendix to the RASP.

SECTION 5. ORGANIZATIONAL CHALLENGES

In addition to the regional operational safety risks listed in the RASP, [name of responsible entity] has identified organizational challenges and a series of SEIs, selected for the RASP, to address them. These are given priority in the RASP since they are aimed at enhancing and strengthening the management of aviation safety at the regional level.

The eight critical elements (CEs) of a safety oversight system are defined by ICAO. [Region] is committed to the effective implementation of these eight CEs among all States in the region, as part of overall safety oversight responsibilities, which emphasize [Region]'s commitment to safety in respect of its aviation activities. The eight CEs are presented in Figure 1.

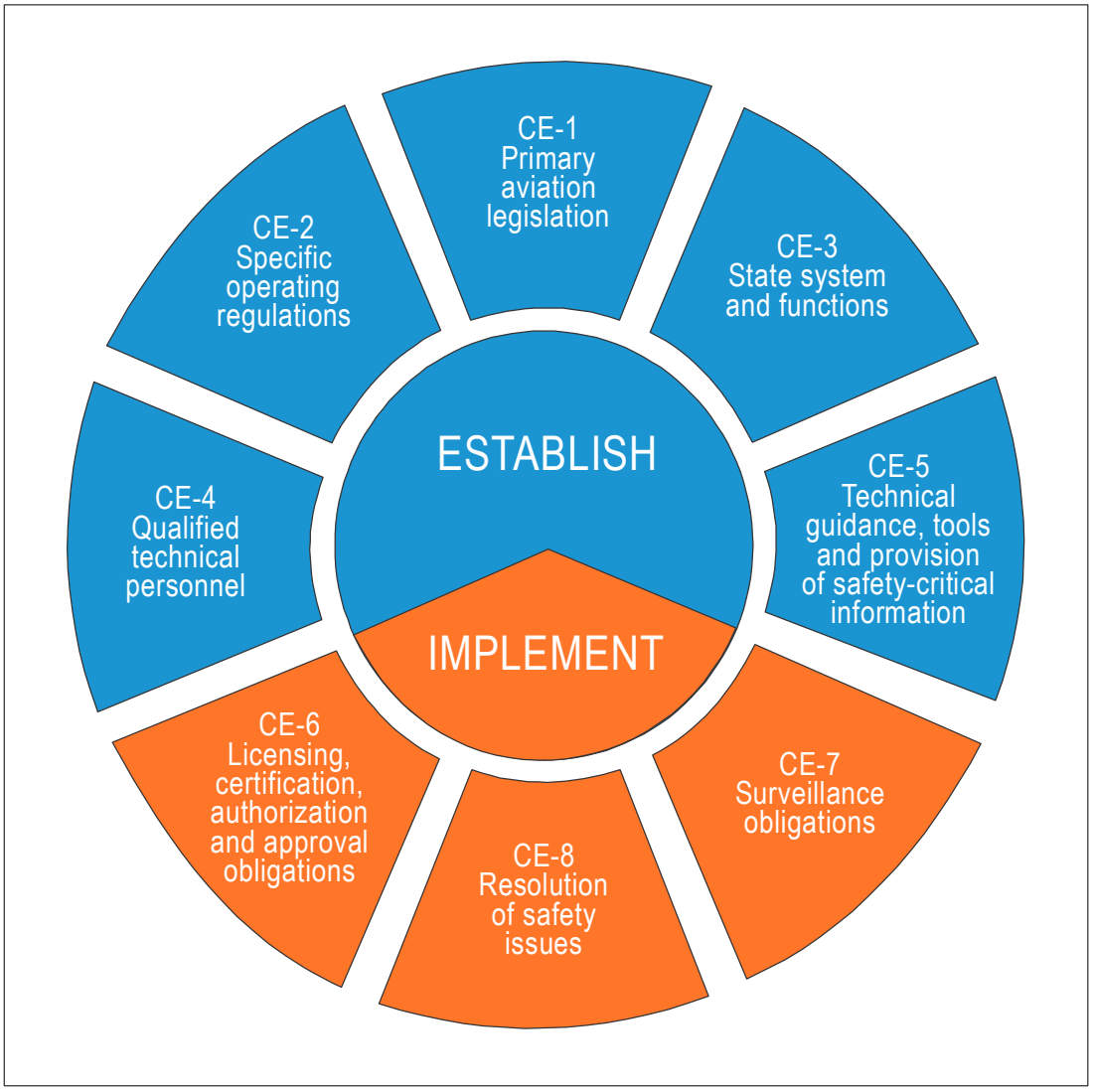

Figure 1. Critical elements of a State's safety oversight system

Certain deficiencies in a specific CE of a safety oversight system are common to the majority of States in the region and considered a top concern. These deficiencies are addressed as a regional safety issue in the RASP because of their impact on the ability of States to fulfil their safety oversight responsibilities, which impacts the region as a whole.

The latest ICAO activities, which aim to measure the effective implementation of the eight CEs of States' individual safety oversight systems, as part of the ICAO Universal Safety Oversight Audit Programme (USOAP), have resulted in the following scores, compiled as an average for the region of [Region] as a whole:

Overall EI score for [Region]							
[X]%							
EI score by CE for [Region]							
CE-1	**CE-2**	**CE-3**	**CE-4**	**CE-5**	**CE-6**	**CE-7**	**CE-8**
[X]%	[X]%	[X]%	[X]%	[X]%	[X]%	[X]%	[X]%
EI score by audit area[3] for [Region]							
LEG	**ORG**	**PEL**	**OPS**	**AIR**	**AIG**	**ANS**	**AGA**
[X]%	[X]%	[X]%	[X]%	[X]%	[X]%	[X]%	[X]%

The following [number] organizational challenges in the [Regional] context were considered of the utmost priority because they impact the effectiveness of safety risk controls. They were identified based on analysis from USOAP data, accident and incident investigation reports, safety oversight activities over the past [number] years from States in the region, their SSPs, as well as on the basis of regional analysis conducted by [list names of entities — *Example, the RASG, RSOO, PIRG, and/or RAIO*]. These issues are typically systemic in nature and relate to challenges associated with the conduct of States' safety oversight functions, implementation of SSP at the regional level, and the level of SMS implementation by industry in the region. They take into consideration organizational culture, policies and procedures within [list names of entities] and those of service providers. These organizational challenges are in line with those listed in the [current edition] of the GASP:

1) [list organizational challenges and briefly explain why they were given priority — *Example, lack of aircraft accident and incident investigation capabilities at the regional level. This was the area where States in the region received the lowest EI score during the most recent ICAO USOAP audits and was therefore placed as a high priority issue to resolve.*]

2) […]

3) […]

To address the organizational challenges listed above, [list names of entities] will implement a series of SEIs, some of which are derived from the ICAO ORG roadmap, contained in the ICAO *Global Aviation Safety Roadmap* (Doc 10161). The full list of the SEIs is presented in the appendix to the RASP.

3. Eight audit areas pertaining to USOAP, i.e. primary aviation legislation and civil aviation regulations (LEG), civil aviation organization (ORG); personnel licensing and training (PEL); aircraft operations (OPS); airworthiness of aircraft (AIR); aircraft accident and incident investigation (AIG); air navigation services (ANS); and aerodromes and ground aids (AGA).

SECTION 6. MONITORING IMPLEMENTATION

[Name of responsible entity — *Example, the RASG*] will continuously monitor the implementation of the SEIs listed in the RASP and measure safety performance of the regional civil aviation system, to ensure the intended results are achieved, using the mechanisms presented in the appendix to this plan.

In addition to the above, [name of responsible entity] will review the RASP every [number] years or earlier, if required, to keep the identified operational safety risks, organizational challenges and selected SEIs updated and relevant. The [name of responsible entity] will periodically review the safety performance of the initiatives listed in the RASP to ensure the achievement of regional safety goals. If required, [name of responsible entity] will seek the support of [list names of entities] to ensure the timely implementation of SEIs to address regional safety issues. Through close monitoring of the SEIs, [name of responsible entity] will make adjustments to the RASP and its initiatives, if needed, and update the RASP accordingly.

In addition, [name of responsible entity] will use the indicators listed in Section 3 of this plan to measure safety performance of the regional civil aviation system and monitor each regional safety target. A periodic [*annual, triennial, etc.*] safety report will be published to provide stakeholders with relevant up-to-date information on the progress made in achieving the regional safety goals, as well as the implementation status of the SEIs.

In the event that the regional safety goals are not met, the causes will be addressed and presented to stakeholders. If [name of responsible entity] identifies critical operational safety risks, reasonable measures will be taken to mitigate them as soon as practicable, possibly leading to an earlier revision of the RASP.

[Name of responsible entity] adopted a standardized approach to facilitate reporting of information from individual States and other stakeholders at the regional level, and to improve the provision of information to the RASG [describe methodologies used by the region]. This allows the region to receive information and assess operational safety risks using common methodologies.

Any questions regarding the RASP and its initiatives, and further requests for information, may be addressed to the following:

[Name of responsible entity]
[Mailing address]
[Telephone number]
[Fax number]
[Email]
[Website]

———————

Appendix to the RASP

DETAILED SEIS: REGIONAL OPERATIONAL SAFETY RISKS

R-HRC x: [name of R-HRC — *Example, LOC-I*]							
Goal x: [name — *Example, Goal 1: Achieve a continuous reduction of operational safety risks*] **Target x.x:** [description — *Example, Target 1.1: Maintain a decreasing trend of the regional accident rate*]							
Safety enhancement initiative	*Action*	*Timeline*	*Responsible entity*	*Stakeholders*	*Metrics*	*Priority*	*Monitoring Activity*
[name of SEI and ICAO SEI number, if applicable]	[describe action(s)]	[insert time frame for completion]	[name]	[list stakeholders]	[list metrics]	[Low/ Medium/ High]	[list mechanisms for verifying SEI implementation]
Example, *ICAO OPS SEI on LOC-I (Region) — Mitigate contributing factors to LOC-I accidents and incidents*	*Organize safety seminars or workshops*	*Q1 2023 to Q4 2025*	*RASG*	• *CAAs* • *Operators* • *Approved training organizations* • *Accident investigation boards (AIBs)* • *Manufacturers* • *Regional organizations*	• *Number of workshops held* • *Attendance at workshops* • *Change in States' training requirements in the region*	*High*	• *Include in regional survey/dashboard* • *CMA self-assessment question*

DETAILED SEIS: ORGANIZATIONAL CHALLENGES

Organizational challenge x[4]: [name of challenge — *Example, Lack of aircraft accident and incident investigation capabilities at the regional level*]							
Goal x: [name — *Example, Goal 4: Increase collaboration at the regional level*] **Target x.x:** [description — *Example, Target 4.1: By 2023, States that do not expect to meet RASP Goals to seek assistance to strengthen their safety oversight capabilities*]							
Safety enhancement initiative	*Action*	*Timeline*	*Responsible entity*	*Stakeholders*	*Metrics*	*Priority*	*Monitoring Activity*
[name of SEI and ICAO SEI number, if applicable]	[describe action(s)]	[insert time frame for completion]	[name]	[list stakeholders]	[list metrics]	[Low/ Medium/ High]	[list mechanisms for verifying SEI implementation]
Example, ICAO ORG SEI-3 (Region) — Establishment of an independent accident and incident investigation authority, consistent with Annex 13 — Aircraft Accident and Incident Investigation	*Identify champion States, via the RASG, to assist in building the accident and incident investigation capabilities of States which require assistance*	*Q1 2023 to Q4 2025*	*RASG*	• *AIBs* • *CAAs* • *Aircraft manufacturers* • *RAIO*	• *Number of champion States offering assistance* • *Number of States that received assistance* • *Number of capacity-building missions on accident and incident investigations completed in the region*	*High*	*USOAP/CMA results following next audits in the region*

4. One organizational challenge may be associated with multiple goals and/or targets.

Appendix B to Chapter 3

REGIONAL AVIATION SAFETY PLAN CHECKLIST

Doc 10131, Chapter 3, 3.3, Detailed Sections of the RASP (reference)	*Regional aviation safety plan (RASP) content (aspect to be analysed or question to be answered)*	*Answer (Yes/No or N/A[5])*	*Reference in RASP (if different from template)*
3.3.1 Introduction of the RASP			
3.3.1 a)	Does it provide an overview of the RASP, including its structure (chapters, sections and their content)?	☐Yes ☐No	
3.3.1 b)	Does it note the region's commitment to aviation safety and to the resourcing of activities (at the regional level) to enhance aviation safety?	☐Yes ☐No	
3.3.1 c)	Does it describe the entities responsible for the RASP's development, implementation and monitoring?	☐Yes ☐No	
3.3.1 d)	Does it describe the regional safety issues?	☐Yes ☐No	
3.3.1 e)	Does it describe the regional safety goals and targets?	☐Yes ☐No	
3.3.1 f)	Does it describe the region's operational context?	☐Yes ☐No	
3.3.2 Purpose of the RASP			
3.3.2 a)	Does it include a description of the region's strategic direction for the management of aviation safety?	☐Yes ☐No	
3.3.2 b)	Does it establish the duration of the RASP?	☐Yes ☐No	

5. Not applicable (N/A)

Doc 10131, Chapter 3, 3.3, Detailed Sections of the RASP (reference)	*Regional aviation safety plan (RASP) content (aspect to be analysed or question to be answered)*	*Answer (Yes/No or N/A[6])*	*Reference in RASP (if different from template)*
3.3.2 c)	Does it note the relationship between the RASP, the NASP of each State in the region and the most current edition of the GASP?	☐Yes ☐No	
3.3.2 d)	Does it include initiatives at the regional level that will support the improvement of aviation safety at the individual State level and the wider international level?	☐Yes ☐No	
3.3.2 e)	Does it identify other plans that have been considered in the development of the RASP?	☐Yes ☐No	
3.3.3 The region's strategic direction for the management of aviation safety			
3.3.3 a)	Does it describe how the RASP is developed and endorsed, including any collaboration with stakeholders?	☐Yes ☐No	
3.3.3 a) 1)	Does it describe the governance of the RASP, this includes how frequently it is reviewed and updated?	☐Yes ☐No	
3.3.3 a) 2)	Does it explain that a collaborative approach is needed to identify regional safety issues and implement safety enhancement initiatives (SEIs) to address them?	☐Yes ☐No	
3.3.3 a) 3)	Does it describe the process used to determine regional operational safety risks and organizational challenges?	☐Yes ☐No	
3.3.3 b)	Does it list the regional safety goals, targets and indicators?	☐Yes ☐No	
3.3.3 b) 1)	Does it explain how the regional safety goals, targets and indicators are linked to the GASP?	☐ Yes ☐No	
3.3.3 b) 2)	Does it list any specific regional safety goals, targets and indicators over and above those of the GASP, if applicable?	☐Yes ☐No ☐N/A	
3.3.3 c)	Does it describe how the SEIs help to achieve the regional safety goals?	☐Yes ☐No	

6. Not applicable (N/A)

Doc 10131, Chapter 3, 3.3, Detailed Sections of the RASP (reference)	*Regional aviation safety plan (RASP) content (aspect to be analysed or question to be answered)*	*Answer (Yes/No or N/A[7])*	*Reference in RASP (if different from template)*
3.3.3 c) 1)	Does it explain the link between the regional safety goals, and targets with the SEIs that the region will undertake to improve safety?	☐Yes ☐No	
3.3.3 c) 2)	Does it explain how the regional safety goals and targets are linked to States' individual SEIs (within the region) or overarching initiatives at the international level?	☐Yes ☐No	
3.3.3 d)	Does it list the emerging issues that may require further analysis?	☐Yes ☐No	
3.3.4 Regional operational safety risks			
3.3.4 a)	Does it provide a summary of accidents and serious incidents that have occurred in the region during a set time period and those which involved aircraft registered in States in the region, particularly for aircraft of a maximum mass of over 5 700 kg during scheduled commercial operations?	☐Yes ☐No	
3.3.4 b)	Does it list and describe the regional HRCs (R-HRCs), including the reason they were given priority?	☐Yes ☐No	
3.3.4 c)	Does it explain how other regional operational safety risks are identified, including the reason they were given priority?	☐Yes ☐No	
3.3.4 d)	Does it list the main contributing factors leading to the R-HRCs identified in the region?	☐Yes ☐No	
3.3.4 e)	Does it include a description of a set of SEIs to mitigate the risks associated with the R-HRCs and any other regional operational safety risks the region wishes to mitigate through the RASP?	☐Yes ☐No	
3.3.4 e) 1)	Does it list SEIs that the region plans to implement, or is in the process of implementing, to address all the identified R-HRCs and the other regional operational safety risks?	☐Yes ☐No	
3.3.4 e) 2)	Does it identify those SEIs derived from the global aviation safety roadmap, where applicable?	☐Yes ☐No ☐N/A	

7. Not applicable (N/A)

Doc 10131, Chapter 3, 3.3, Detailed Sections of the RASP (reference)	*Regional aviation safety plan (RASP) content (aspect to be analysed or question to be answered)*	*Answer (Yes/No or N/A[8])*	*Reference in RASP (if different from template)*
3.3.4 f)	Does it describe the taxonomy used in the process of determining regional operational safety risks?	☐Yes ☐No	
3.3.5 Organizational challenges			
3.3.5 a)	Does it provide a summary of the States' effective safety oversight capabilities for States in the region?	☐Yes ☐No	
3.3.5 b)	Does it include a list and description of organizational challenges selected for the RASP, including the reason they were given priority?	☐Yes ☐No	
3.3.5 c)	Does it explain how they were identified, including, but not limited to, a data-driven approach?	☐Yes ☐No	
3.3.5 d)	Does it include a description of a set of SEIs to address the organizational challenges identified?	☐Yes ☐No	
3.3.5 d) 1)	Does it list SEIs the region plans to implement, or is in the process of implementing, to address all organizational challenges identified?	☐Yes ☐No	
3.3.5 d) 2)	Does it identify those SEIs that were derived from the global aviation safety roadmap, where applicable?	☐Yes ☐No ☐N/A	
3.3.6 Monitoring implementation			
3.3.6 a)	Does it describe how the region will monitor the implementation of the SEIs listed in the RASP and how it will measure safety performance of the regional civil aviation system to ensure the intended results are achieved?	☐Yes ☐No	
3.3.6 b)	Does it explain how corrections and adjustments to the RASP and its SEIs will be made and reported?	☐Yes ☐No	
3.3.6 c)	Does it explain how each regional safety target will be monitored to track performance?	☐Yes ☐No	

8. Not applicable (N/A)

Doc 10131, Chapter 3, 3.3, Detailed Sections of the RASP (reference)	*Regional aviation safety plan (RASP) content (aspect to be analysed or question to be answered)*	*Answer (Yes/No or N/A[9])*	*Reference in RASP (if different from template)*
3.3.6 d)	Does it describe how stakeholders will be provided with relevant up-to-date information on the progress made in achieving the regional safety goals, as well as the implementation status of SEIs?	☐Yes ☐No	
3.3.6 e) 1)	Does it include an explanatory text addressing the following situation: “If the regional safety goals are not met, the root causes should be presented”?	☐Yes ☐No	
3.3.6 e) 2)	Does it include an explanatory text addressing the following situation: “If the region identifies critical operational safety risks, reasonable measures will be taken to mitigate them as soon as practicable, possibly leading to an unscheduled revision of the RASP”?	☐Yes ☐No	
3.3.6 f)	Does it explain that States have adopted a standardized approach, as outlined by the RASG or other relevant regional entity, to provide information at the regional level?	☐Yes ☐No	
3.3.6 g)	Does it include contact information for inquiries or further information?	☐Yes ☐No	

9. Not applicable (N/A)

Chapter 4

DRAFTING THE NATIONAL AVIATION SAFETY PLAN

4.1 GENERAL

This chapter provides guidance to help a State determine what to include in its NASP. A template of a NASP is presented in Appendix A to this chapter and should be considered solely as an example. The NASP should be developed based on the State's self-evaluation and address the State's specific operational safety risks and organizational challenges. The State should link its NASP to its SSP, if implemented, when creating the plan.

Note.— Guidance on the relationship between the NASP and the SSP is provided in Chapter 2.

4.2 CONTENT OF THE NASP

The NASP should contain the following sections, as a minimum:

a) an introduction;

b) the purpose of the NASP, including links to both the RASP and the GASP;

c) the State's strategic direction for the management of aviation safety at the national level, for a set period, including national safety goals, targets and indicators;

d) a description of the national operational safety risks and SEIs to address them;

e) a description of organizational challenges and SEIs to address them; and

f) a description of how the State will measure safety performance to monitor the implementation of the NASP and its effectiveness.

4.3 DETAILED SECTIONS OF THE NASP

Introduction of the NASP

4.3.1 When drafting the introduction (or foreword), the following should be included:

a) an overview of the NASP, including its structure (chapters, sections and their content);

b) the State's commitment to aviation safety and to the resourcing of activities at the national level to enhance aviation safety, by issuing a statement signed by a senior aviation ministerial or government agency representative. If a statement already exists in another document (for example, the State safety

policy), it should be referenced in this section of the NASP;

c) how the NASP is linked to the SSP, where applicable (refer to 2.10);

d) the entities responsible for the NASP's development, implementation and monitoring;

e) the national safety issues (if a description already exists in another document, it should be referenced in this section of the NASP);

f) the national safety goals and targets;

g) the State's operational context (may be presented in table format), including, but not limited to:

1) the traffic volume in the State, as well as anticipated growth or decline;

2) the maturity of different sectors, such as aerodromes, commercial air transport, general aviation, helicopter operations; and

3) common hazards and safety deficiencies, which may be grouped by categories such as environmental, technical, organizational and human.

Note.— The State's operational context may evolve over the duration of an edition of the NASP (for example, as a result of a reduction in traffic volume due to a disruption event, an alteration in the mix of system users due to new entrants in the airspace system, or an emerging national industry, such as a new equipment manufacturer). Changes in the operational context may affect identified hazards and safety deficiencies, and indicate the need to conduct a new self-evaluation and adjust the NASP accordingly (refer to Chapter 2, Figure 2-1).

Purpose of the NASP

4.3.2 When drafting the purpose of the NASP, the following should be included:

a) a description of the State's strategic direction for the management of aviation safety;

b) the duration of the NASP (refer to 4.3.3 a) 1));

c) the relationship between the NASP, the RASP and the most current edition of the GASP; and

d) other national plans that have been considered in the development of the NASP (*for example, air navigation, economic development, environment or security*), where applicable.

The State's strategic direction for the management of aviation safety

4.3.3 When drafting the State's strategic direction for the management of aviation safety at the national level, the following should be included:

a) how the NASP is developed and endorsed, including any collaboration with internal and external stakeholders (for example, industry, international organizations, other government agencies, etc.);

1) describe the governance of the NASP (which may already be covered in the SSP documentation), this includes how frequently it is reviewed and updated (for example, reviewed every year and updated at least every three years) – the alignment with the GASP and RASP revision cycle should be considered;

2) explain that a collaborative approach is needed to identify national safety issues and implement SEIs to address them;

3) describe the process used to determine national operational safety risks and organizational challenges – if this process is part of the SSP, it should be referenced in this section of the NASP;

b) the national safety goals, targets and indicators (may be presented in table format);

1) explain how the national safety goals, targets and indicators are linked to the GASP and RASP (this may be accomplished by referencing both documents);

2) list any specific national safety goals, targets and indicators over and above those of the GASP, if applicable;

c) how the SEIs help to achieve the national safety goals;

1) explain the link between the national safety goals and targets with the SEIs that the State will undertake to improve safety;

2) explain how national safety goals and targets are linked to overarching SEIs at the regional or international levels; and

d) the emerging issues that may require further analysis.

National operational safety risks

4.3.4 When drafting the national operational safety risks, the following should be included:

a) a summary of accidents and serious incidents that have occurred in the State during a set time period and those which involved aircraft registered in the State, particularly for aircraft of a maximum mass of over 5 700 kg during scheduled commercial operations (statistics and data on accidents and serious incidents may be gathered from the State's accident and incident database or can be found using the ICAO ADREP system application available via iSTARS at www.icao.int/safety/iStars);

b) the national HRCs (N-HRCs), including the reason they were given priority (for example, data-driven approach) – the NASP should include all HRCs in the RASP (R-HRCs) and the GASP (G-HRCs);

c) other national operational safety risks identified, including the reason they were given priority. This identification may:

1) be done as part of the State's analysis (for example, through their SDCPS);

2) derive from a regional analysis (for example, by the RASG, RSOOs, PIRGs, and/or RAIOs); and/or

3) other sources of information – the national operational safety risks should encompass different sectors of aviation (such as aerodromes, commercial air transport, general aviation, helicopter operations);

d) the main contributing factors leading to the N-HRCs identified by the State;

e) a description of a set of SEIs to mitigate the risks associated with the N-HRCs and any other national

operational safety risks the State wishes to mitigate through the NASP;

1) list SEIs that the State plans to implement, or is in the process of implementing, to address all the identified N-HRCs and other national operational safety risks (this list may be presented in an appendix);

2) identify those SEIs derived from the global aviation safety roadmap (mainly taken from the operational safety risks (OPS) roadmap), where applicable;

3) provide references to corresponding SEIs in the RASP, where applicable; and

f) the taxonomy used in the process of determining national operational safety risks – it is recommended to use the aviation occurrence categories from the CAST/ICAO Common Taxonomy Team (CICTT).

Note.— Additional information on G-HRCs is provided in the GASP, Chapter 3. Information on the CICTT Taxonomy is found on the ICAO website at https://www.icao.int/safety/airnavigation/AIG/Pages/Taxonomy.aspx.

Organizational challenges

4.3.5 When drafting organizational challenges addressed in the NASP, the following should be included:

a) a summary of the State's effective safety oversight capabilities. This may be accomplished by presenting the results of the State's latest activities conducted under the ICAO USOAP CMA. Information related to USOAP CMA is available on the USOAP CMA Online Framework (OLF) at www.icao.int/usoap;

b) a list and description of organizational challenges selected for the NASP, including the reason they were given priority;

c) how they were identified, including, but not limited to, a data-driven approach. This identification may:

1) be done as part of the State's analysis (for example, through their SDCPS);

2) derive from regional analysis (for example, by the RASG, RSOOs, PIRGs, and/or RAIOs);

3) be based on the organizational challenges described in the GASP; and/or

4) be based on USOAP results and the State's own oversight data;

d) a description of a set of SEIs to address the organizational challenges identified;

1) list SEIs the State plans to implement, or is in the process of implementing, to address all organizational challenges identified (this list may be presented in an appendix);

2) identify those SEIs derived from the global aviation safety roadmap (mainly taken from the organizational challenges (ORG) roadmap), where applicable; and

3) provide references to corresponding SEIs in the RASP, where applicable.

Monitoring implementation

4.3.6 When drafting the section on monitoring and measuring the implementation of the NASP and its effectiveness, the following should be included:

a) how the State will monitor the implementation of the SEIs listed in the NASP and how it will measure safety performance of the national civil aviation system to ensure the intended results are achieved;

b) how corrections and adjustments to the NASP and its SEIs will be made and reported;

c) how each national safety target will be monitored to track performance – indicators being used to measure safety performance should, in principle, be consistent with (or linked to) those in the GASP and the RASP;

d) how stakeholders will be provided with relevant up-to-date information on the progress made in achieving the national safety goals, as well as the implementation status of SEIs (for example, a dashboard);

e) an explanatory text addressing the following situations:

1) if the national safety goals are not met, the root causes should be presented;

2) if the State identifies critical operational safety risks, reasonable measures will be taken to mitigate them as soon as practicable, possibly leading to an unscheduled revision of the NASP;

f) explain that the State has adopted a standardized approach, as outlined by the RASG or other relevant regional entity, to provide information at the regional level (for example, for reporting to the RASGs). This allows the region to receive information and assess operational safety risks using common methodologies; and

g) contact information for inquiries or further information.

4.4 NASP TEMPLATE

Appendix A to this chapter presents a NASP template, which aims to promote international harmonization of NASPs. Use of this template is not mandatory and is not intended to replace existing ICAO provisions. The template provides an example that promotes a uniform development of a NASP and addresses the minimum content proposed in this manual, while remaining flexible enough to accommodate any State-specific requirements. States that adopt the NASP template should work in collaboration with other States in the region, as well as their RASG and ICAO Regional Office, to ensure consistency of the NASP with the RASP and the current edition of the GASP.

4.5 NASP CHECKLIST

Appendix B to this chapter presents a checklist of a NASP. Use of this checklist is not mandatory and is not intended to replace existing ICAO provisions. The checklist is a tool that promotes a uniform development of a NASP and addresses the minimum content proposed in this manual, in line with the NASP template presented in Appendix A to this chapter. The checklist provides a means to ensure completeness of a NASP, whether it is based on the NASP template or not, and helps identify any missing content. In line with the minimum content of a NASP, the checklist includes:

a) the reference to the section in Chapter 4 of this manual where the minimum content is described;

b) the aspect to be analysed or question to be answered to assess the completeness of the NASP content related to that section;

c) a column for the user to check whether or not the specified content is found in the NASP; and

d) a column where the user may indicate where the specific content is found in the NASP should it not be in the same section as the NASP template (for example, a particular topic may be covered in the section describing the purpose of the NASP, rather than the introduction).

Appendix A to Chapter 4

NATIONAL AVIATION SAFETY PLAN TEMPLATE

SECTION 1. INTRODUCTION

1.1 Overview of the NASP[10]

[State] is committed to enhancing aviation safety and to the resourcing of supporting activities. The purpose of this national aviation safety plan (NASP) is to continually reduce fatalities, and the risk of fatalities, through the development and implementation of a national aviation safety strategy. A safe, resilient and sustainable aviation system contributes to the economic development of [State] and its industries. The NASP promotes the effective implementation of [State's] safety oversight system, a risk-based approach to managing safety, as well as a coordinated approach to collaboration between [State] and other States, regions and industry. All stakeholders are encouraged to support and implement the NASP as the strategy for the continuous improvement of aviation safety.

The NASP of [State] is in alignment with the International Civil Aviation Organization (ICAO) *Global Aviation Safety Plan* (GASP, Doc 10004) and the [name of the regional aviation safety plan (RASP)].

[Signature]
[Name]
[Title — *Example, Director General of Civil Aviation or Minister of Transport*]

1.2 Structure of the NASP

This NASP presents the strategic direction for the management of aviation safety at the national level, for a period of [number] years. It comprises six sections. In addition to the introduction, sections include: the purpose of the NASP, [State's] strategic direction for the management of aviation safety, the national operational safety risks identified for the [date interval — *Example, 2023-2025*] NASP, organizational challenges addressed in the NASP, and a description of how the implementation of the safety enhancement initiatives (SEIs) listed in the NASP is going to be monitored.

1.3 Relationship between the NASP and the State safety programme (SSP)

[Paragraph below only applies to States without mature safety data analysis (SDA) aspects of the SSPIA]

This NASP addresses operational safety risks presented in the ICAO GASP and the [name of the RASP], in the absence of mature safety data analysis (SDA) aspects, as described in the ICAO State Safety Programme Implementation Assessment (SSPIA), in [State]. Initiatives listed in this NASP address organizational challenges and aim to enhance organizational capabilities related to effective safety oversight.

or

10. Section 1.1. may also be presented as a stand-alone foreword.

[Paragraph below only applies to States with mature SDA aspects of the SSPIA]

Through the safety data analysis (SDA) aspects of the State safety programme (SSP), as described in the ICAO SSP Implementation Assessment (SSPIA), [State] has the ability to use its hazard identification and safety risk management process as a source of safety intelligence to identify hazards and safety deficiencies, and determine national operational safety risks and organizational challenges for inclusion in the NASP. The SSP provides safety information to the NASP. The SSP allows [State] to manage its aviation activities in a coherent and proactive manner, measure the safety performance of its civil aviation system, monitor the implementation of the NASP's SEIs and address national safety issues. The NASP is one of the key documents produced as part of [State]'s SSP documentation. It is the means by which [State] defines and drives the implementation of SEIs determined through SSP processes and drawn from the ICAO *Global Aviation Safety Roadmap* (Doc 10161) and the [name of the RASP]. It also allows [State] to determine initiatives to strengthen the SSP or otherwise needed to achieve its safety objectives. Safety intelligence gathered through the SSP also contributes to other national plans. Further information on [State]'s SSP can be found at [insert link to website].

1.4 Responsibility for the NASP development, implementation and monitoring

The [name of responsible entity — *Example, CAA*] is responsible for the development, implementation and monitoring of the NASP, in collaboration with [list names of entities] and with the national aviation industry. The NASP was developed in consultation with national operators and other key aviation stakeholders, and in alignment with the [current edition] of the GASP and the [name of the RASP].

1.5 National safety issues, goals and targets

The NASP addresses the following national safety issues:

1) [list operational safety risks and organizational challenges — *Example, LOC-I occurrences, the lack of aircraft accident and incident investigation capabilities at the national level*];

2) […];

3) […].

To address the issues listed above and enhance aviation safety at the national level, the [date interval] NASP contains the following goals and targets:

1) [list goals and targets — *Example, Goal 1: Achieve a continuous reduction of operational safety risks and Target 1.1: Maintain a decreasing trend of the national accident rate*];

2) […];

3) […].

1.6 Operational Context

There are [number] certified aerodromes in [State], including [number] international aerodromes. The airspace of [State] is classified into Class [list all airspace classes]. There were [number] movements in [State] over the period of [year] to [year]. There are currently [number] air operator certificates (AOCs) issued by [State], and of those there are [number] issued to operators conducting international commercial air transport operations. [State] also has [number] operators, which operate domestic air taxi services, primarily on turboprop aircraft, as well as [number] helicopter operators. There are [number] heliports in [State]. Common hazards and safety deficiencies in [State] include: [list hazards and safety deficiencies — *Example, topography, meteorology, infrastructure, and socio-political issues*].

SECTION 2. PURPOSE OF [STATE]'S NATIONAL AVIATION SAFETY PLAN

The NASP is the master planning document containing the strategic direction of [State] for the management of aviation safety for a period of [number] years ([year] to [year]). This plan lists national safety issues, sets national safety goals and targets, and presents a series of safety enhancement initiatives (SEIs) to achieve those goals.

Other national plans were considered in the development of the NASP, including the following: [name of plans, where applicable].

The NASP has been developed using the safety goals and targets and high-risk categories of occurrences (HRCs) from both the GASP (www.icao.int/gasp) and the [name of the RASP]. These are highlighted in the text, where applicable. The SEIs listed in the NASP support the improvement of safety at the wider regional and international levels. The NASP includes several actions to address specific safety issues and recommended SEIs for individual States set out in the [name of the RASP (insert link to website, if available)]. [State] has adopted these SEIs and has included them in this plan. Cross-references are provided to the [name of the RASP] for individual SEIs where relevant.

SECTION 3. [STATE]'S STRATEGIC DIRECTION FOR THE MANAGEMENT OF AVIATION SAFETY

[Paragraph below only applies to States without mature SDA aspects of the SSPIA]

The NASP presents the SEIs that were developed based on the organizational challenges (ORG) and operational safety risks (OPS) roadmaps, as presented in the ICAO *Global Aviation Safety Roadmap* (Doc 10161), as well as State-specific issues identified by [list methods — *Example, legislation, directive, etc.*]. This plan is developed and maintained by [name of responsible entity — *Example, CAA*], in coordination with key aviation stakeholders and is updated at least every [number] years.

or

[Paragraph below only applies to States with mature SDA aspects of the SSPIA]

The NASP presents the SEIs mainly determined through SSP processes, including [State]'s hazard identification and safety risk management process and its SDCPS, as well as the work undertaken by service providers in the development and implementation of their safety management systems (SMS). This plan is developed and maintained by [name of responsible entity — *Example, CAA*], in coordination with key aviation stakeholders and is updated at least every [number] years.

The NASP includes the following national safety goals and targets, for the management of aviation safety, as well as a series of indicators to monitor the progress made towards their achievement. They are tied to the goals, targets and indicators listed in the GASP and the [name of the RASP] and include additional national safety goals, targets and indicators.

Goal	*Target*	*Indicators*	*Link to GASP and RASP*
[list goals]	[list targets]	[list indicators]	[describe link]
1. *Example, Achieve a continuous reduction of operational safety risks*	1.1 *Maintain a decreasing trend of the national accident rate.* 1. *n*	1.1.1 *Number of accidents occurring in the State per 10 000 departures.* 1.1.2 *Number of accidents occurring in the State to aircraft over 5 700 kg involved in scheduled commercial operations.* 1.2. *n*	*This goal is directly linked to Goal 1 and Target 1.1 of the GASP and linked to Goal 1 and Target 1.1 of the RASP.*
2. *Example, Strengthen the State's safety oversight capabilities*	2.1 *By 2026, reach an effective implementation score of 85%.* 2. *n*	2.1.1 *Overall EI score for the State.* 2.1.2 *Number of priority PQs implemented.* 2.1.3 *Percentage of completed corrective action plans (CAPs) completed.* 2.2. *n*	*This goal is directly linked to Goal 2 and Target 2.1 of the GASP and linked to Goal 2 and Target 2.1 of the RASP.*
3.	3.1 3. *n*		
4.	4.1 4. *n*		
5.	5.1 5. *n*		
6.	6.1 6. *n*		

The SEIs in this plan are implemented through [State]'s existing safety oversight capabilities and the service providers' SMS. SEIs derived from the ICAO *Global Aviation Safety Roadmap* (Doc 10161) were identified to achieve the national safety goals presented in the NASP. Some of the national SEIs are linked to overarching SEIs at the regional and international levels and help to enhance aviation safety globally. The full list of the SEIs is presented in the appendix to the NASP.

The NASP also addresses emerging issues. Emerging issues include concepts of operations, technologies, public policies, business models or ideas that might impact safety in the future, for which insufficient data exists to complete typical data-driven analysis. Due to the lack of data, emerging issues cannot automatically be considered as operational safety risks. It is important that [State] remain vigilant on emerging issues to identify hazards and safety deficiencies, collect relevant data and proactively develop mitigations to address any associated risks. The NASP addresses the following emerging issues, which were identified by [describe the process — *Example, an analysis conducted by service providers*] for further analysis:

1) [list emerging issues — *Example, small drones operating in the vicinity of aerodromes*]

2) […]

3) […]

SECTION 4. NATIONAL OPERATIONAL SAFETY RISKS

The NASP includes SEIs that address national operational safety risks, derived from lessons learned from occurrences and from a data-driven approach. These SEI may include actions such as: rule-making; policy development; targeted safety oversight activities; safety data analysis; and safety promotion. Separate sections are provided to address commercial air transport and general aviation to make the information more accessible to stakeholders.

[State] publishes an Annual Safety Report, available on the [State] website [insert link to website, if available]. The summary of accidents and serious incidents that occurred in [State], and those for aircraft registered in [State] involved in commercial air transport and aircraft involved in general aviation, is shown in the tables below.

Year	*Fatal accidents*	*Non-fatal accidents*	*Serious incidents*
Commercial air transport occurrences in [State]			
[year to year, average]			
[current year]			
General aviation aircraft occurrences in [State]			
[year to year, average]			
[current year]			

Year	*Fatal accidents*	*Non-fatal accidents*	*Serious incidents*
Occurrences involving commercial air transport aircraft registered in [State]			
[year to year, average]			
[current year]			
Occurrences involving general aviation aircraft registered in [State]			
[year to year, average]			
[current year]			

The following [number] national high-risk categories of occurrences (N-HRCs) in the [State] context were considered of the utmost priority because of the number of fatalities and risk of fatalities associated with such occurrences. They were identified based on analyses from mandatory and voluntary reporting systems, accident and incident investigation reports, safety oversight activities over the past [number] years, the SSP, as well as on the basis of regional analysis conducted by [list names of entities — *Example, RASG, RSOO, PIRG, and/or RAIO*] and on the operational safety risks described in the GASP.

These N-HRCs are in line with those listed in the [current edition] of the GASP, as well as the [name of the RASP]:

1) [list N-HRCs and briefly explain why they were given priority — *Example, LOC-I. Operators experienced occurrences involving deviations from intended flightpath, reported to the State via its SDCPS.*]

2) […]

3) […]

In addition to the N-HRCs listed above, the following national operational safety risks have been identified:

1) [list other national operational safety risks and briefly explain why they were given priority — *Example, Bird strikes. Operators experienced occurrences involving bird strikes, reported to the State via its SDCPS.*]

2) […]

3) […]

The aviation occurrence categories from the Commercial Aviation Safety Team (CAST)/ICAO Common Taxonomy Team (CICTT) were used to assess risk categories in the process of determining national operational safety risks. The CICTT Taxonomy is found on the ICAO website at https://www.icao.int/safety/airnavigation/AIG/Pages/Taxonomy.aspx.

To address the national operational safety risks listed above, [State] identified the following contributing factors leading to N-HRCs and [list names of entities] will implement a series of SEIs, some of which are derived from the ICAO OPS roadmap, contained in the ICAO *Global Aviation Safety Roadmap* (Doc 10161):

N-HRC 1: [name of occurrence category, — *Example, LOC-I*]

1) [list contributing factors — *Example, Inadequate procedures for effective flight management*]
2) […]
3) […]

N-HRC 2: [name of occurrence category]

1) [list contributing factors]
2) […]
3) […]

N-HRC *n*: [name of occurrence category]

1) [list contributing factors]
2) […]
3) […]

The full list of the SEIs is presented in the appendix to the NASP.

SECTION 5. ORGANIZATIONAL CHALLENGES

In addition to the national operational safety risks listed in the NASP, [State] has identified organizational challenges and a series of SEIs, selected for the NASP, to address them. These are given priority in the NASP since they are aimed at enhancing and strengthening [State]'s safety oversight capabilities and the management of aviation safety at the national level.

The eight critical elements (CEs) of a safety oversight system are defined by ICAO. [State] is committed to the effective implementation of these eight CEs, as part of its overall safety oversight responsibilities, which emphasize [State]'s commitment to safety in respect of its aviation activities. The eight CEs are presented in Figure 1 below.

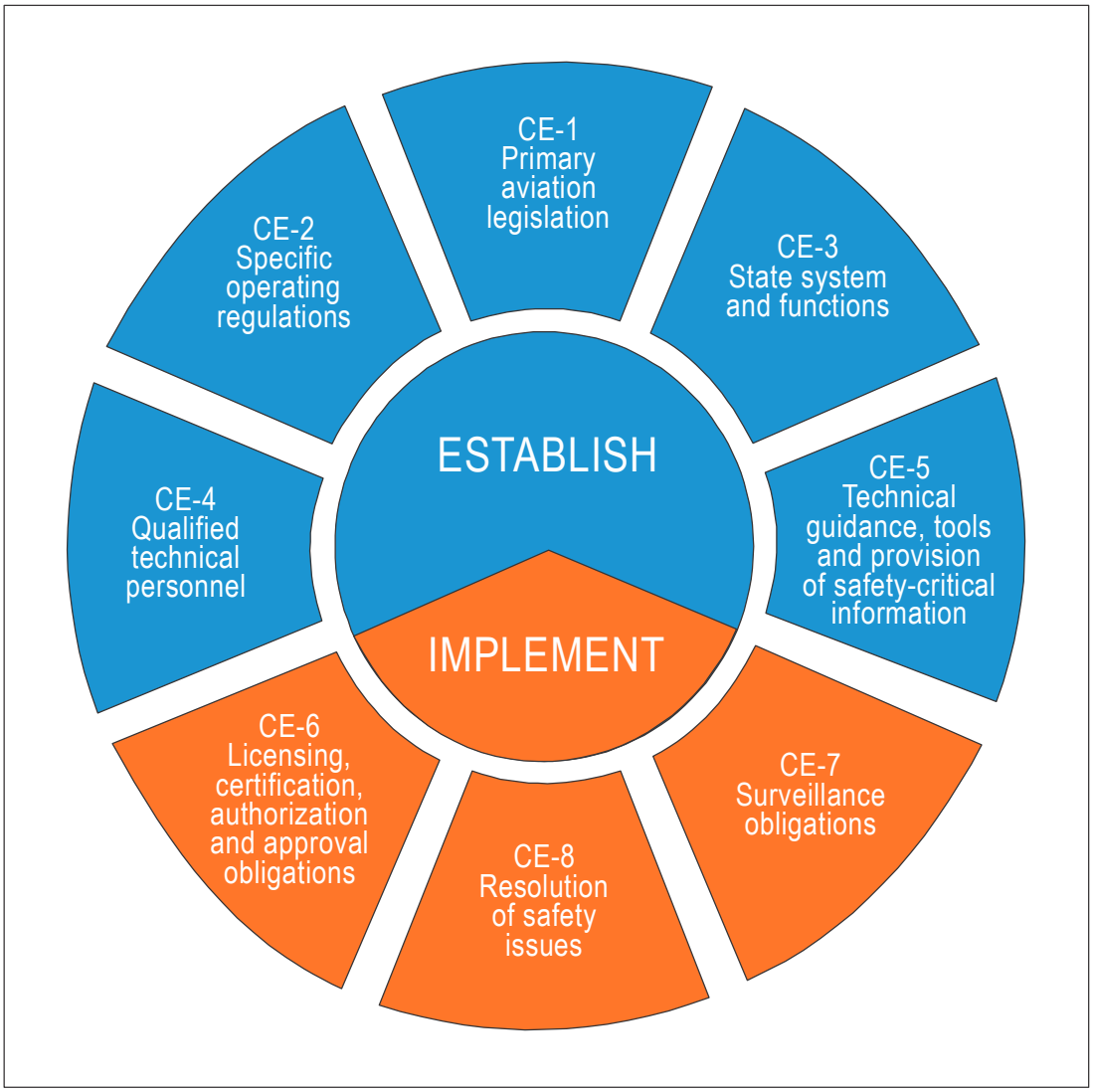

Figure 1. Critical elements of a State's safety oversight system

The latest ICAO activities, which aim to measure the effective implementation of the eight CEs of [State]'s safety oversight system, as part of the ICAO Universal Safety Oversight Audit Programme (USOAP), have resulted in the following scores:

Overall EI score							
[X]%							
EI score by CE							
CE-1	**CE-2**	**CE-3**	**CE-4**	**CE-5**	**CE-6**	**CE-7**	**CE-8**
[X]%	[X]%	[X]%	[X]%	[X]%	[X]%	[X]%	[X]%
EI score by audit area[11]							
LEG	**ORG**	**PEL**	**OPS**	**AIR**	**AIG**	**ANS**	**AGA**
[X]%	[X]%	[X]%	[X]%	[X]%	[X]%	[X]%	[X]%

The following [number] organizational challenges in the [State] context were considered of the utmost priority because they impact the effectiveness of safety risk controls. They were identified based on analysis from USOAP data, accident and incident investigation reports, safety oversight activities over the past [number] years, the SSP, as well as on the basis of regional analysis conducted by [list names of entities — *Example, RASG, RSOO, PIRG, and/or RAIO*]. These issues are typically systemic in nature and relate to challenges associated with the conduct of States' safety oversight functions, implementation of SSP at the national level and the level of SMS implementation by national service providers. They take into consideration organizational culture, policies and procedures within [list names of the State's entities] and those of service providers. These organizational challenges are in line with those listed in the [current edition] of the GASP, as well as the [name of the RASP]:

1) [list organizational challenges and briefly explain why they were given priority — *Example, Lack of aircraft accident and incident investigation capabilities at the national level. This was the area where the State received the lowest EI score during the most recent ICAO USOAP audit and was therefore placed as a high priority issue to resolve*]

2) […]

3) […]

To address the organizational challenges listed above, [list names of entities] will implement a series of SEIs, some of which are derived from the ICAO ORG roadmap, contained in the ICAO *Global Aviation Safety Roadmap* (Doc 10161). The full list of the SEIs is presented in the appendix to the NASP.

11. Eight audit areas pertaining to USOAP, i.e. primary aviation legislation and civil aviation regulations (LEG), civil aviation organization (ORG); personnel licensing and training (PEL); aircraft operations (OPS); airworthiness of aircraft (AIR); aircraft accident and incident investigation (AIG); air navigation services (ANS); and aerodromes and ground aids (AGA).

SECTION 6. MONITORING IMPLEMENTATION

[State] will continuously monitor the implementation of the SEIs listed in the NASP and measure safety performance of the national civil aviation system, to ensure the intended results are achieved, using the mechanisms presented in the appendix to this plan.

In addition to the above, [State] will review the NASP every [number] years or earlier, if required, to keep the identified operational safety risks, organizational challenges and selected SEIs updated and relevant. The [name of responsible entity — *Example,* CAA] will periodically review the safety performance of the initiatives listed in the NASP to ensure the achievement of national safety goals. If required, [State] will seek the support of [list names of entities — *Example,* RASG, industry] to ensure the timely implementation of SEIs to address national safety issues. Through close monitoring of the SEIs, [State] will make adjustments to the NASP and its initiatives, if needed, and update the NASP accordingly.

[State] will use the indicators listed in Section 3 of this plan to measure safety performance of the national civil aviation system and monitor each national safety target. A periodic [*Example,* annual, every three years, etc.] safety report will be published to provide stakeholders with relevant up-to-date information on the progress made in achieving the national safety goals, as well as the implementation status of the SEIs.

In the event that the national safety goals are not met, the root causes will be presented. If [State] identifies critical operational safety risks, reasonable measures will be taken to mitigate them as soon as practicable, possibly leading to an unscheduled revision of the NASP.

[State] adopted a standardized approach to provide information at the regional level, for reporting to the regional aviation safety group (RASG) [describe methodologies used by the region]. This allows the region to receive information and assess operational safety risks using common methodologies.

Any questions regarding the NASP and its initiatives, and further requests for information, may be addressed to the following:

[Name of responsible entity]
[Mailing address]
[Telephone number]
[Fax number]
[Email]
[Website]

Appendix to the NASP

DETAILED SEIS: NATIONAL OPERATIONAL SAFETY RISKS

N-HRC x: [name of N-HRC — *Example, LOC-I*]							
Goal x: [name — *Example, Goal 1: Achieve a continuous reduction of operational safety risks*] **Target x.x:** [description — *Example, Target 1.1: Maintain a decreasing trend of the national accident rate*]							
Safety enhancement initiative	*Action*	*Timeline*	*Responsible entity*	*Stakeholders*	*Metrics*	*Priority*	*Monitoring Activity*
[name of SEI and ICAO SEI number, as well as RASP SEI number, if applicable]	[describe action(s)]	[insert time frame for completion]	[name]	[list stakeholders]	[list metrics]	[Low/ Medium/ High]	[list mechanisms for verifying SEI implementation]
Example, ICAO OPS SEI on LOC-I (State) — Mitigate contributing factors to LOC-I accidents and incidents	*Require upset prevention and recovery training in all full flight simulator type conversion and recurrent training programmes*	*Q1 2023 to Q4 2025*	*CAA*	• *Operators* • *Approved training organizations (ATO)* • *Flight simulator product and service providers* • *Pilots' associations* • *CAA inspectors*	• *Training programmes updated with upset prevention and recovery* • *Number/percentage of pilots completing upset prevention and recovery training* • *Upset occurrence rates in voluntary reporting* • *Stick-shaker activation events in FDA data* • *LOC-I occurrence rates*	*High*	*Surveillance of operator and ATO training activities*

DETAILED SEIS: ORGANIZATIONAL CHALLENGES

Organizational challenge x[12]: [name of challenge — *Example, Lack of aircraft accident and incident investigation capabilities at the national level*]							
Goal x: [name — *Example, Goal 2: Strengthen the State's safety oversight capabilities*] **Target x.x:** [description — *Example, Target 2.1: By 2026, reach an effective implementation score of 85%*]							
Safety enhancement initiative	*Action*	*Timeline*	*Responsible entity*	*Stakeholders*	*Metrics*	*Priority*	*Monitoring Activity*
[name of SEI and ICAO SEI number as well as RASP SEI number, if applicable]	[describe action(s)]	[insert time frame for completion]	[name]	[list stakeholders]	[list metrics]	[Low/ Medium/ High]	[list mechanisms for verifying SEI implementation]
Example, ICAO ORG SEI-3 (State) — Establishment of an independent accident and incident investigation authority, consistent with Annex 13 — Aircraft Accident and Incident Investigation	*Establish an effective system to attract, recruit, train and retain qualified and sufficient technical personnel to support accident and incident investigations*	*Q1 2023 to Q4 2025*	*AIB*	• *AIB* • *CAA* • *Aircraft manufacturers* • *RAIO*	• *Recruitment system updated with new recruitment package* • *Number of training sessions on accident and incident investigations* • *Number/percentage of personnel completing accident and incident investigator training* • *Number/percentage of investigators retained more than 12 months after recruitment*	*High*	*USOAP/CMA results following next audit*

12. One organizational challenge may be associated with multiple goals and/or targets.

Appendix B to Chapter 4

NATIONAL AVIATION SAFETY PLAN CHECKLIST

Doc 10131, Chapter 4, 4.3, Detailed Sections of the NASP (reference)	*National aviation safety plan (NASP) content (aspect to be analysed or question to be answered)*	*Answer (Yes/No or N/A[13])*	*Reference in State's NASP (if different from template)*
4.3.1 Introduction of the NASP			
4.3.1 a)	Does it provide an overview of the NASP, including its structure (chapters, sections and their content)?	☐Yes ☐No	
4.3.1 b)	Does it note the State's commitment to aviation safety and to the resourcing of activities at the national level to enhance aviation safety, by issuing a statement signed by a senior aviation ministerial or government agency representative?	☐Yes ☐No	
4.3.1 c)	Does it describe how the NASP is linked to the SSP, where applicable?	☐Yes ☐No ☐N/A	
4.3.1 d)	Does it list the entities responsible for the NASP's development, implementation and monitoring?	☐Yes ☐No	
4.3.1 e)	Does it describe the national safety issues?	☐Yes ☐No	
4.3.1 f)	Does it describe the national safety goals and targets?	☐Yes ☐No	
4.3.1 g)	Does it describe the State's operational context?	☐Yes ☐No	
4.3.2 Purpose of the NASP			
4.3.2 a)	Does it include a description of the State's strategic direction for the management of aviation safety?	☐Yes ☐No	

13. Not applicable (N/A)

Doc 10131, Chapter 4, 4.3, Detailed Sections of the NASP (reference)	*National aviation safety plan (NASP) content (aspect to be analysed or question to be answered)*	*Answer (Yes/No or N/A[14])*	*Reference in State's NASP (if different from template)*
4.3.2 b)	Does it establish the duration of the NASP?	☐Yes ☐No	
4.3.2 c)	Does it note the relationship between the NASP, the RASP and the most current edition of the GASP?	☐Yes ☐No	
4.3.2 d)	Does it identify other national plans that have been considered in the development of the NASP, where applicable?	☐Yes ☐No ☐N/A	
4.3.3 The State's strategic direction for the management of aviation safety			
4.3.3 a)	Does it describe how the NASP is developed and endorsed, including any collaboration with internal and external stakeholders?	☐Yes ☐No	
4.3.3 a) 1)	Does it describe the governance of the NASP, this includes how frequently it is reviewed and updated?	☐Yes ☐No	
4.3.3 a) 2)	Does it explain that a collaborative approach is needed to identify national safety issues and implement SEIs to address them?	☐Yes ☐No	
4.3.3 a) 3)	Does it describe the process used to determine national operational safety risks and organizational challenges?	☐Yes ☐No	
4.3.3 b)	Does it list the national safety goals, targets and indicators?	☐Yes ☐No	
4.3.3 b) 1)	Does it explain how the national safety goals, targets and indicators are linked to the GASP and RASP?	☐Yes ☐No	
4.3.3 b) 2)	Does it list any specific national safety goals, targets and indicators over and above those of the GASP, if applicable?	☐Yes ☐No ☐N/A	
4.3.3 c)	Does it describe how the SEIs help to achieve the national safety goals?	☐Yes ☐No	
4.3.3 c) 1)	Does it explain the link between the national safety goals, and targets with the SEIs that the State will undertake to improve safety?	☐Yes ☐No	

14. Not applicable (N/A)

Doc 10131, Chapter 4, 4.3, Detailed Sections of the NASP (reference)	*National aviation safety plan (NASP) content (aspect to be analysed or question to be answered)*	*Answer (Yes/No or N/A[15])*	*Reference in State's NASP (if different from template)*
4.3.3 c) 2)	Does it explain how national safety goals and targets are linked to overarching SEIs at the regional or international levels?	☐Yes ☐No	
4.3.3 d)	Does it list the emerging issues that may require further analysis?	☐Yes ☐No	
4.3.4 National operational safety risks			
4.3.4 a)	Does it provide a summary of accidents and serious incidents that have occurred in the State during a set time period and those which involved aircraft registered in the State, particularly for aircraft of a maximum mass of over 5 700 kg during scheduled commercial operations?	☐Yes ☐No	
4.3.4 b)	Does it list and describe the national HRCs (N-HRCs), including the reason they were given priority?	☐Yes ☐No	
4.3.4 c)	Does it explain how other national operational safety risks are identified, including the reason they were given priority?	☐Yes ☐No	
4.3.4 d)	Does it list the main contributing factors leading to the N-HRCs identified by the State?	☐Yes ☐No	
4.3.4 e)	Does it include a description of a set of SEIs to mitigate the risks associated with the N-HRCs and any other national operational safety risks the State wishes to mitigate through the NASP?	☐Yes ☐No	
4.3.4 e) 1)	Does it list SEIs that the State plans to implement, or is in the process of implementing, to address all the identified N-HRCs and other national operational safety risks?	☐Yes ☐No	
4.3.4 e) 2)	Does it identify those SEIs which were derived from the global aviation safety roadmap, where applicable?	☐Yes ☐No ☐N/A	
4.3.4 e) 3)	Does it provide references to corresponding SEIs in the RASP, where applicable?	☐Yes ☐No ☐N/A	

15. Not applicable (N/A)

Doc 10131, Chapter 4, 4.3, Detailed Sections of the NASP (reference)	*National aviation safety plan (NASP) content (aspect to be analysed or question to be answered)*	*Answer (Yes/No or N/A[16])*	*Reference in State's NASP (if different from template)*
4.3.4 f)	Does it describe the taxonomy used in the process of determining national operational safety risks?	☐Yes ☐No	
4.3.5 Organizational challenges			
4.3.5 a)	Does it provide a summary of the State's effective safety oversight capabilities?	☐Yes ☐No	
4.3.5 b)	Does it include a list and description of organizational challenges selected for the NASP, including the reason they were given priority?	☐Yes ☐No	
4.3.5 c)	Does it explain how they were identified, including, but not limited to, a data-driven approach?	☐Yes ☐No	
4.3.5 d)	Does it include a description of a set of SEIs to address the organizational challenges identified?	☐Yes ☐No	
4.3.5 d) 1)	Does it list SEIs the State plans to implement, or is in the process of implementing, to address all organizational challenges identified?	☐Yes ☐No	
4.3.5 d) 2)	Does it identify those SEIs which were derived from the global aviation safety roadmap, where applicable?	☐Yes ☐No ☐N/A	
4.3.5 d) 3)	Does it provide references to corresponding SEIs in the RASP, where applicable?	☐Yes ☐No ☐N/A	
4.3.6 Monitoring implementation			
4.3.6 a)	Does it describe how the State will monitor the implementation of the SEIs listed in the NASP and how it will measure safety performance of the national civil aviation system to ensure the intended results are achieved?	☐Yes ☐No	
4.3.6 b)	Does it explain how corrections and adjustments to the NASP and its SEIs will be made and reported?	☐Yes ☐No	
4.3.6 c)	Does it explain how each national safety target will be monitored to track performance?	☐Yes ☐No	

16. Not applicable (N/A)

Doc 10131, Chapter 4, 4.3, Detailed Sections of the NASP (reference)	*National aviation safety plan (NASP) content (aspect to be analysed or question to be answered)*	*Answer (Yes/No or N/A[17])*	*Reference in State's NASP (if different from template)*
4.3.6 d)	Does it describe how stakeholders will be provided with relevant up-to-date information on the progress made in achieving the national safety goals, as well as the implementation status of SEIs?	☐Yes ☐No	
4.3.6 e) 1)	Does it include an explanatory text addressing the following situation: "If the national safety goals are not met, the root causes should be presented"?	☐Yes ☐No	
4.3.6 e) 2)	Does it include an explanatory text addressing the following situation: "If the State identifies critical operational safety risks, reasonable measures will be taken to mitigate them as soon as practicable, possibly leading to an unscheduled revision of the NASP"?	☐Yes ☐No	
4.3.6 f)	Does it explain that the State has adopted a standardized approach, as outlined by the RASG or other relevant regional entity, to provide information at the regional level?	☐Yes ☐No	
4.3.6 g)	Does it include contact information for inquiries or further information?	☐Yes ☐No	

17. Not applicable (N/A)

Chapter 5

REPORTING ON REGIONAL AND NATIONAL AVIATION SAFETY PLANS

5.1 MEASURING SAFETY PERFORMANCE RELATED TO THE PLAN

5.1.1 The safety performance of the GASP is measured by a series of metrics as defined by the GASP indicators. Elements used to measure safety performance related to the GASP include, but are not limited to: number of fatalities; accident rate; priority Protocol Questions (PQs) for a safety oversight system; and SSP foundation PQs.

5.1.2 Similarly, regions and individual States should define a series of metrics to measure the safety performance and effectiveness of the RASP and NASP respectively, in alignment with the GASP.

Note.— The Manual on Monitoring Implementation of Regional and National Aviation Safety Plans *(Doc 10162) contains guidance on data sources for indicators used to measure the achievement of the RASP and NASP goals, respectively, based on the examples of indicators presented in the GASP.*

5.2 REPORTING FROM THE STATE TO THE RASG

5.2.1 Safety information-sharing and exchange is at the centre of safety performance measurement. At the regional level, the RASG is an appropriate forum to facilitate the sharing and exchange of safety information within the region due to the composition of its membership, which encompasses representation from States, regional entities and industry, including but not limited to aircraft operators, air navigation services providers, operators of aerodromes and aircraft manufacturers. All these stakeholders bring valuable information of hazards, safety deficiencies and emerging issues that can feed into the regional hazard identification and safety risk management process. Stakeholders, such as individual States and international organizations, may also provide information that can assist the region to determine whether specific SEIs are fully implemented.

5.2.2 The RASG is responsible for monitoring and measuring the implementation of the RASP and its effectiveness, in close collaboration with the respective ICAO Regional Office(s). Each RASG is also responsible for continuously evaluating and reporting on the progress of the regional safety goals and targets, as presented in the RASP, to determine if these were met within the allotted time frame.

5.2.3 In some regions, a RSOO, or another regional entity, may coordinate the reporting from individual States in the region to the RASG to avoid duplication of efforts.

5.3 REPORTING FROM THE STATE AND THE RASG TO ICAO

5.3.1 The timely and accurate reporting of safety information at the international, regional and national levels is critical to verify whether the GASP goals are being achieved and to monitor the implementation of the SEIs derived from the *Global Aviation Safety Roadmap* (Doc 10161).

5.3.2 Each State is responsible for submitting pertinent information from the NASP to the RASG to enable the compilation of regional results. This primarily involves sharing of information on specific regional SEIs, such as SSP implementation, which require improvements at the individual State level. States should provide the required information following the standardized approach as outlined by each individual RASG or other relevant regional entity. As noted in 5.2.3, this may be coordinated by an RSOO or another regional entity to avoid duplication of efforts.

5.4 USE OF DASHBOARDS FOR MONITORING

5.4.1 ICAO has developed the *GASP Dashboard* that States should use to report on their progress towards the achievement of the GASP goals. This dashboard is publicly available on the ICAO website at www.icao.int/gasp.

5.4.2 Each State is responsible for providing the necessary information to populate the dashboard on a regular basis and to keep it current. Information from individual States is collated by ICAO to produce regional dashboards, per ICAO region, as well as per each RASG. Dashboards are available to the public for reference, and they are also used to provide updates to different stakeholders on the progress towards achieving the GASP goals, including the Council of ICAO and the ICAO Assembly. ICAO reports on the progress towards achieving the GASP targets once per year. This information can also be found on the ICAO website at www.icao.int/gasp.

5.5 SECURE PORTAL ON OPERATIONAL SAFETY RISKS AND EMERGING ISSUES

5.5.1 ICAO has developed a dedicated site on its secure portal for the collection of information on operational safety risks and emerging issues by the RASGs. Additional information on the dedicated site is found on the ICAO website at www.icao.int/gasp.

5.5.2 Each State is responsible for updating their information on the *Secure Portal on Operational Safety Risks and Emerging Issues* on a regular basis. Information from individual States is collected by each RASG and used to identify hazards, safety deficiencies and emerging issues, and to conduct regional safety risk assessments. Safety information gathered is useful for the RASGs to update the RASPs. It is also useful for ICAO to consider when developing future editions of the GASP. States can choose to provide information anonymously. The purpose of this site is not to identify State-specific safety issues but rather to provide a platform where States can communicate operational safety risks and emerging issues to the RASGs and ICAO. This site is not available to the public for reference and is only accessible through approved login credentials.

5.5.3 For consistency of reporting, States and regions are encouraged to use the aviation occurrence categories from the CAST/ICAO CICTT when completing forms in the secure portal site.

Note.— Additional information on the CICTT is found on the ICAO website at www.icao.int/safety/airnavigation/AIG/Pages/Taxonomy.aspx.

5.6 TRANSPARENCY

There is a need for transparency with regard to regional and national aviation safety planning. It is recommended that RASPs and NASPs are made publicly available (for example, on a public website) to enable other entities within the region or State, and the travelling public as a whole, to be well informed on the several initiatives being undertaken to enhance aviation safety, in addition to the progress made towards achieving established goals.

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