

Doc 10131 Manual on the Development of Regional and National Aviation Safety Plans

Third Edition (Advance unedited) – 2025

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INTERNATIONAL CIVIL AVIATION ORGANIZATION

FOREWORD

In line with the Strategic Goal of the International Civil Aviation Organization (ICAO) that every flight is safe and secure, 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 aviation safety plans (RASPs) and national aviation safety plans (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. The RASP and NASP emphasize the commitment of a region and State to aviation safety.

This third edition 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 a series of standardized frameworks to facilitate the development of aviation safety plans and the reordering of RASP and NASP templates so they are aligned with the GASP (which presents operational safety risks and organizational challenges before the section on the strategic direction for the management of aviation safety).

The *Global Aviation Safety Roadmap* (Doc 10161), which should be used in conjunction with this manual, 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. This manual should also be used in conjunction with the *Global Aviation Safety Plan* (GASP, Doc 10004) and the *Manual on Monitoring Implementation of Regional and National Aviation Safety Plans* (Doc 10162) – the content related to the reporting on RASPs and NASPs has been migrated to the Doc 10162, which addresses this topic widely, to avoid duplication.

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 and individual experts who provided support, advice and input for this manual.

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GLOSSARY

- 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.
- **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 enhancement initiative (SEI).** One or more actions to eliminate or mitigate operational safety risks or to address organizational challenges.
- **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 measurable effect on safety achievement.
- State safety programme (SSP). An integrated set of laws, regulations, policies, objectives, processes, procedures and activities aimed at managing safety, at the State level.

ABBREVIATIONS AND ACRONYMS

AA Audit area

ADREP Accident/incident data reporting
AIB Accident investigation board
ATO Approved training organization

CAA Civil aviation authority

CAST Commercial Aviation Safety Team

CE Critical Element

CICTT CAST/ICAO Common Taxonomy Team

CMA Continuous monitoring approach

EI Effective implementation
GANP Global Air Navigation Plan
GASP Global Aviation Safety Plan
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

OLF Online framework
ORG Organizational

PIRG Planning and implementation regional group

PQ Protocol question

PPQ Priority 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
SDCPS Safety data collection and processing system

SEI Safety enhancement initiative SMS Safety management system

SRGC Safety recommendations of global concerns

SSC Significant Safety Concern SSP State safety programme

USOAP Universal Safety Oversight Audit Programme

Chapter 1

INTRODUCTION

1.1 BACKGROUND

- 1.1.1 Safety is aviation's top priority and Assembly Resolution A41-6: *ICAO global planning for safety and air navigation* recognizes the importance of a global framework in support of the ICAO Strategic Goal for safety ("ensure every flight is safe and secure"). 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 should 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 period is presented. Each plan should be developed in line with the GASP. 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 a series of SEIs. Safety information (for example, data on hazards, safety risk assessments and 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 GASP. It addresses different aspects to be considered 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 State safety programme (SSP);
 - c) monitor the plan's implementation and its effectiveness; and

- report on safety performance measurement, including reporting methods for individual States to the regional aviation safety groups (RASGs)¹.
- 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 corresponding RASP. States should address Significant Safety Concerns (SSCs), if any, as a priority and comply with ICAO Standards and Recommended Practices, as a means to achieve the GASP goals.

¹ A RASG may also be referred to as an Aviation System Planning Group or an Aviation System Planning and Implementation Group, depending on the region, when combined with a Planning and Implementation Regional Group.

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);
 - 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 a region when developing a RASP.

Note.— The NASP should 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.

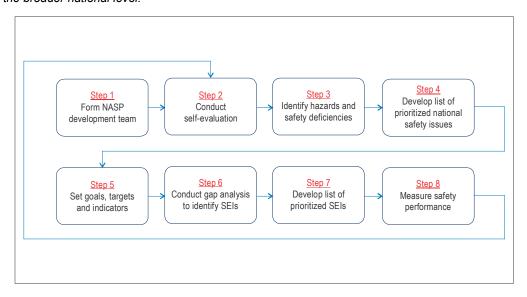


Figure 2-1. NASP development process

2.2 FORM THE NASP DEVELOPMENT TEAM (STEP 1)

- 2.2.1 The process for developing the NASP begins by assigning a responsible entity such as, 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. With regard to involvement of industry in the NASP development process (including service providers), the NASP development team should consider including these stakeholders, as appropriate to the national aviation system. This is because several of the SEIs, developed as part of the NASP to address national safety issues (particularly those related to operational safety risks), will likely require active industry involvement to ensure successful completion.
- 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 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.
- 2.3.2 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. 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.
- 2.3.3 ICAO provides a tool that can assist the NASP development team in conducting the self-evaluation. The Standardized Framework for the Identification of Organizational (ORG) Challenges (presented in Appendix A to this chapter) was developed to identify systemic safety issues and guide the analysis of existing data sources in a transparent and repeatable manner. It defines the following:
 - a) criteria (aspects or areas to analyse);
 - b) specifics (detailed elements to analyse); and
 - c) methodology (a set of methods to apply for the analysis, including available ICAO tools and applications).

Although its main purpose (as its title indicates) is to help with the identification of organizational challenges at the national level, the NASP development team may refer to the "operational context description" criterion in this framework, and the

related specifics and methodology, to assist in the conduct of the self-evaluation.

- 2.3.4 The NASP development team should 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.
- 2.3.5 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. Factors, such as a significant change in national operations or the State's other aviation-related national plans and programmes, may also prompt consideration of a new self-evaluation and corresponding updates to the NASP.
- 2.3.6 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 NASP development team can begin the process of identifying 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.
- 2.4.2 The NASP development team should conduct data-driven analyses (or use existing analyses, or other information) to determine national 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, national organizational challenges). During this step, the development team seeks to identify specific hazards and safety deficiencies. The analysis completes the self-evaluation conducted during the previous step, which provides a general understanding of the State's current capabilities and operational context.
- 2.4.3 The NASP 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 sources²;
 - 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) Universal Safety Oversight Audit Programme (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);

² 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.

- h) global high-risk categories of occurrences (G-HRCs) and other global risk categories of occurrences, as well as global organizational challenges described in the most current edition of the GASP; and
- regional high-risk categories of occurrences (R-HRCs) and other regional risk categories of occurrences, as well as regional organizational challenges described in the most current edition of the corresponding RASP.

Operational safety risks

2.4.4 Operational safety risks are those which arise during aviation activities (for example, the operation of an aircraft or an airport, or the provision of air traffic services). They need to be identified and addressed to prevent accidents and enhance safety. ICAO provides a tool that can assist the NASP development team in selecting operational safety risks, which may be deemed as N-HRCs. The *Standardized Framework for the Identification of High-risk Categories of Occurrences* (presented in Appendix B to this chapter) was developed to provide guidance for the inclusion and removal of occurrences from the HRC list and guide the analysis of existing data sources in a transparent and repeatable manner. It is structured in the same manner as the *Standardized Framework for the Identification of ORG Challenges* and lists criteria, specifics and methodology to help the NASP development team with the identification of N-HRCs.

Organizational challenges

- 2.4.5 Organizational challenges are systemic issues, which take into consideration the impact of organizational aspects (such as organizational culture; policies and procedures; employee selection and training; and allocation of resources) on a State's safety oversight and safety management capabilities. In the context of the RASP and the NASP an "organization" primarily refers to a State's aviation-related entities, such as the CAA and the accident investigation authority. However, organizations may also include service providers, such as aircraft operators, air traffic services providers, approved aviation training organizations, approved maintenance organizations and operators of aerodromes. Organizational challenges need to be identified and addressed to improve a State's safety oversight and safety management capabilities, and ultimately enhance safety overall. The NASP development team may use the *Standardized Framework for the Identification of ORG Challenges* (as described in 2.3.3 and presented in Appendix A to this chapter) to identify organizational challenges at the national level.
- 2.4.6 As described in the standardized frameworks, the NASP development team should consult the most current edition of the GASP and corresponding 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. However, the NASP 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 national operational safety risks and organizational challenges. These other sources provide additional information. The development team should ensure that any global or regional safety issues are relevant to the State before incorporating them into the draft NASP.
- 2.4.7 Based on the results of the self-evaluation and the identified hazards and safety deficiencies, the NASP 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.
- 2.4.8 The NASP 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). As part of the list, the development team may identify other risk categories of occurrences that the State needs to monitor (that may also be applicable from the GASP and RASP). These categories of occurrences may

not have a high fatality risk, such as the N-HRCs, but may figure prominently in the most frequent types of accidents and serious incidents in the State or region. Therefore, their identification in the NASP may lead the State to take action to address them, potentially through SEIs in the NASP. 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.

2.4.9 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 NASP 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 NASP 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 members 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 NASP development team may categorize certain types of occurrences (such as, the N-HRCs) as national safety issues and consider them of the utmost priority based on the number of fatalities or the risk of fatalities associated with them.
- 2.5.3 In addition to N-HRCs, the NASP development team may categorize certain organizational challenges as national safety issues and consider them of priority because they impact the effectiveness of existing safety risk controls.
- 2.5.4 As a result of step 4, the NASP 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 NASP 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 NASP development team should 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 NASP 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 contain 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 whether 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 NASP 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). 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 ICAO provides a tool that can assist the NASP development team in drafting goals, targets and indicators in the context of the NASP. The *Standardized Framework for the Development of Goals, Targets and Indicators in Aviation Safety Plans* (presented in Appendix C to this chapter) was developed to provide drafting criteria, specific points for consideration (including points to avoid), as well as examples and rationale for what constitutes a favourable goal, target or indicator. This framework promotes the drafting of goals, targets and indicators that serve to monitor implementation of the NASP and its effectiveness. Additionally, 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 indicators presented in the GASP.
- 2.6.6 During the drafting process, the NASP 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.
- 2.6.7 The list of national safety goals, targets and indicators is the output from this step.

2.7 CONDUCT GAP ANALYSIS TO IDENTIFY SEIS (STEP 6)

- 2.7.1 Once the NASP 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 target, and ultimately the national safety goals. The gap analysis provides the NASP development team with a structured methodology to evaluate discrepancies (in other words, "the gap") between what State has in place to address its national safety issues (such as, established organizational capabilities, regulations, programmes, resources) and what it needs to implement to achieve each of the national safety targets (in other words, the desired outcomes). Based on the results of the gap analysis, the NASP development team should create a series of SEIs, to close the gap through specific actions, such as new or revised policies, procedures or training requirements.
- 2.7.2 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 roadmap contains a series of SEIs providing detailed actions to be taken when addressing the identified hazards and safety deficiencies (which form the basis for the list of prioritized safety issues). Using the roadmap, the NASP development team should select which SEIs, and their specific actions, will be implemented and in what order. The compilation of SEIs will form the action plan that supports the safety strategy presented in the NASP.
- 2.7.3 To identify SEIs that address organizational challenges, the NASP development team should refer to the Organizational Challenges (ORG) roadmap portion of the roadmap. Using the output from Step 5 (the list of national safety goals, targets and indicators), as well as those from Steps 3 and 4 (the list of prioritized safety issues, based on the identified hazards and safety deficiencies), the development team should review the SEIs presented in the ORG roadmap. Based on the list of prioritized national safety issues and the national safety goals, targets and indicators, the NASP development team should select a series of SEIs, and their specific actions, that will enable the achievement of the national

safety targets. If the development team determines that the State has not completed an SEI listed in the roadmap, and that it is needed to achieve a national safety target, it would list that SEI as an initiative needed to "close the gap". The development team would then identify that SEI as one that should be incorporated into the NASP. The development team should also select which of the associated actions, presented in that SEI, would need to be listed as specific actions to complete the SEI once it is added to the NASP. Although the NASP development team may select an SEI, it does not need to select every action listed in it; only those considered relevant. During the gap analysis, 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 and access to training.

- 2.7.4 In addition, the NASP 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 and any other national risk categories of occurrences listed in the NASP. A series of SEIs should be implemented to address contributing factors leading to the N-HRCs and other national risk categories of occurrences. 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.
- 2.7.5 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).
- 2.7.6 Following the completion of the gap analysis, the development team should select the series of SEIs needed to address the identified hazards and safety deficiencies that will help the State achieve the national safety targets (and ultimately the national safety goals) presented in the NASP.
- 2.7.7 A list of potential SEIs is the output from this step.

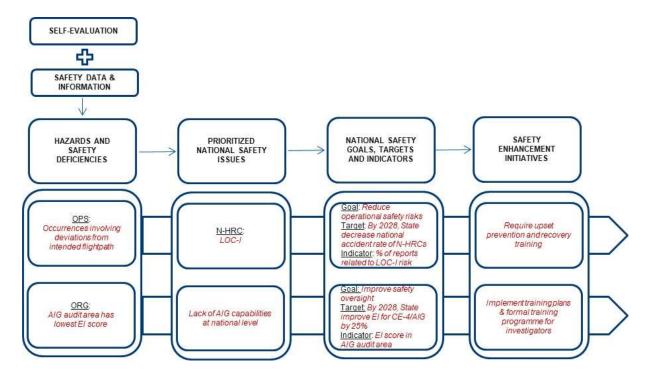


Figure 2-2. Example of the relationship between steps 3 to 6 in the NASP development process

2.8 DEVELOP LIST OF PRIORITIZED SEIS (STEP 7)

- 2.8.1 The gap analysis enables the NASP 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, by listing them in order of priority.
- 2.8.2 When reviewing the gaps identified, the NASP 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.
- 2.8.3 The NASP 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 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, potential actions should be listed in a manner that will have the greatest impact on safety.
- 2.8.4 Although the NASP 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 stakeholders to make the changes and adapt to a new situation (in other words, the ease of implementation). The evaluation of the ability to effect a change should include the existence of political will to change and the availability of resources necessary to implement the change.
- 2.8.5 The list of SEIs should include a manageable set of actions that represent the steps necessary to progress towards the achievement of the national safety targets (and ultimately the national safety goals). Reviews of unsuccessful attempts at previous efforts to improve safety have shown that plans should be developed so that they define successive activities that are achievable. The NASP 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. When developing the first edition of the NASP, the development team should limit the number of SEIs to a manageable number; with a view to expand them in subsequent editions.
- 2.8.6 The roadmap only provides SEIs and associated actions. Using the list of SEIs, the NASP development team should produce a series of detailed SEI templates for each action associated with an SEI, which address the following:
 - a) the link between the SEI and the specific NASP goal and target that it supports;
 - b) the associated (specific) action from the SEI that the template addresses;
 - c) timelines for completion of each action listed in the SEI;
 - the responsible entity assigned to lead the implementation of the specific action;
 - e) stakeholders who do not bare the ultimate responsibility or the implementation of the SEI but whose involvement is needed, to a certain degree;
 - f) metrics to measure implementation of the specific action (these differ from the NASP indicators because they are used to monitor specific actions, not the national safety targets);
 - g) the priority assigned to the specific action (this may be accomplished with a numerical scale, such as one to five, or a qualitative ranking, such as high/medium/low); and
 - h) the monitoring activity, as the means to monitor implementation and effectiveness of the action (and by the sum of actions, the implementation and effectiveness of the overall SEI).

Note.— A sample "detailed SEI" template is presented in Appendix A to Chapter 4.

- 2.8.7 As a result of Step 7, the NASP development team should generate a prioritized list of SEIs. This list forms the action plan to achieve the national safety targets (and ultimately the national safety goals). Once a list of potential prioritized SEIs is developed, the development team is ready to begin drafting the NASP.
- 2.8.8 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 an SSP). In such instances, the NASP may provide a summary of the SEIs, and a link or reference to the detailed implementation plan(s) may be included in the document.
- 2.8.9 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 NASP 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;
 - 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 NASP 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. 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. Further guidance on the role of the development team, post NASP publication, as well as the revision of a NASP for subsequent editions, is presented in the *Manual on Monitoring Implementation of Regional and National Aviation Safety Plans* (Doc 10162).

2.9.6 When the 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 NASP 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. The NASP development team should also identify other SEIs the State may need, to manage national safety issues. This promotes a regular update of the NASP to address newly identified hazards and safety deficiencies, and ensures continuous improvement.

2.10 TRANSPARENCY

There is a need for transparency regarding 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, to be well informed on the initiatives being undertaken to enhance aviation safety, in addition to the progress made towards achieving established goals.

2.11 RELATIONSHIP BETWEEN THE NASP AND THE SSP

- 2.11.1 An SSP is an integrated set of laws, regulations, policies, objectives, processes, procedures and activities aimed at managing safety, at the State level. 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. The SSP is the foundation on which the State builds a proactive approach to national aviation safety.
- 2.11.2 An established SSP allows the State to gain access to safety information, through safety data analysis capabilities that include the following:
 - a) a safety data collection and processing system (SDCPS) to capture, store, aggregate, process and enable the analysis of safety data and safety information – including mandatory and voluntary reporting systems, established and being used by individuals and organizations in the State;
 - b) processes to analyse safety data and safety information from the SDCPS;
 - c) provisions for safety data and safety information protection; and
 - d) means for timely safety information sharing or exchange.
- 2.11.3 To define the relationship between the NASP and the SSP, and guide the NASP development process, the State needs to consider whether it has mature safety data analysis capabilities in other words, it has implemented all the elements listed in 2.11.2.

Note.— Regardless of SSP establishment or the maturity level of its safety data analysis capabilities, the State should develop and implement a NASP.

2.11.4 A State without mature safety data analysis capabilities

A State without mature safety data analysis capabilities 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 – this scenario is likely in a State which has not established an SSP. The lack of safety data analysis capabilities impairs the State's ability to use the safety information (typically generated through the SSP) as a source 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 establish an SSP as part of its responsibilities for the management of safety, part of its NASP should focus on SSP establishment and management. The following applies to a State without mature safety data analysis capabilities, or one which has not established an SSP:

- 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 without mature safety data analysis capabilities, or one which has not established an SSP, the NASP should include SEIs to address organizational challenges and enhance organizational capabilities (for example, improve safety data analysis capabilities 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 establish an SSP and manage it. The NASP needs to include SEIs that form an action plan necessary to establish and manage the SSP, including developing the State's safety data analysis capabilities.

2.11.5 A State with mature safety data analysis capabilities

A State with mature safety data analysis capabilities has the ability, typically through its SSP, to use its hazard identification and safety risk management process as a source of safety information 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 safety data analysis capabilities, or one which has established an SSP:

- 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 information gathered through the SSP may also contribute to other national plans, such as the air navigation plan.

Appendix A to Chapter 2

STANDARDIZED FRAMEWORK FOR THE IDENTIFICATION OF ORGANIZATIONAL CHALLENGES

Note.— The framework presents a set of specific criteria for the development of RASPs and another for the development of NASPs.

	For use at the regional level			
Criteria	Specifics	Methodology		
Aggregated status of States' safety oversight systems and capabilities at the regional level.	The effective implementation (EI) of the eight critical elements (CEs) of a safety oversight system by States in the region.	 Analyse information generated by USOAP Continuous Monitoring Approach (CMA) activities (via the online framework (OLF)) at the regional level: a) Significant Safety Concerns (SSCs); b) the five lowest scoring Priority Protocol Question (PPQ) El scores by audit area (AA) and CE combination – based on the region's consolidated "Heat Map"; c) lowest scoring PPQ; and d) other relevant information on the States' dashboards. 2) Assess the civil aviation organization and State system and functions (ORG/CE-3) using information generated by USOAP CMA activities (via OLF) at the regional level: a) PQ 2.051 Establishment and implementation of a mechanism to ensure that each safety oversight authority has sufficient financial resources to meet its national and international obligations. b) PQ 2.053 Establishment of a mechanism by the State to ensure that each safety oversight authority has sufficient personnel to meet its national and international obligations. c) PQ 2.103 Ability of each safety oversight entity/investigation authority to attract, recruit and retain sufficiently qualified/experienced technical personnel. Use reports and records from industry and other organizations at the regional level. 		

For use at the regional level			
Criteria	Specifics	Methodology	
		Review ICAO <u>safety recommendations of global concerns (SRGC)</u> . Consider impact of cooperation with other entities that support States' safety oversight systems and capabilities at the regional level.	
Aggregated status of States' SSP establishment and management at the regional level.	Status of SSP establishment and management by States in the region, through various sources.	Analyse information generated by USOAP CMA activities (via OLF): consolidated results of SSP PQ self-assessment (SSP-related PQs).	
Consideration of global and national organizational (ORG) challenges in setting regional ones.	Commonality of ORG challenges as per the GASP and in NASPs of multiple States in the region.	 Analyse the GASP to identify common global ORG challenges: if the GASP calls for regions to address a specific global ORG challenge in RASPs, consider it a potential regional ORG challenge; and reference the GASP public website: www.icao.int/gasp. Analyse NASPs of States in the region to identify common national ORG challenges: if the same national ORG challenge is included in several plans, consider it a potential regional ORG challenge; and reference the NASP library: www.icao.int/nasplibrary. 	
Rationale for decision- making.	Additional points for consideration when selecting regional ORG challenges.	Consider constraints from limited resources, and the need to focus on a shorter list of items: limit the number of regional ORG challenges listed in the plan.	

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For use at the national level			
Criteria	Specifics	Methodology	
Operational context description.	 Traffic volume, as well as anticipated growth or decline. Complexity of operations (for example, topography, meteorology, climate, etc.), as well as anticipated changes to operations (for example, drones, artificial intelligence, advance air mobility, commercial space). 	 Analyse available data sources: traffic volume data (in other words, movements, seasonality); number and types of aerodromes and heliports; airspace classifications; and types of operations (by sectors such as, commercial, general aviation). Analyse information using ICAO tools and applications: State Safety Briefing on the integrated Safety Trend Analysis and Reporting System (iSTARS); safety indexes; performance-based navigation implementation; State aviation activity overview; airport briefing on iSTARS; and State dashboard on the OLF. Consider the impact of current and anticipated socio-political issues affecting traffic volume and the complexity of operations. 	
State's safety oversight system and capabilities.	 The effective implementation (EI) of the eight critical elements (CEs) of a safety oversight system. The stakeholders external to the State that impact or support system and capabilities. Current and anticipated organizational structure as applicable to and/or that affect State safety oversight (in other words, separation of State functions from the role as service provider, independence of the accident investigation authority, health, customs/immigration, security, cybersecurity, civil-military interface and delegation or designation). 	 Analyse information generated by USOAP CMA activities (via OLF): State aviation activity questionnaire; USOAP CMA self-assessment; SSCs; the five lowest scoring PPQ effective implementation EI scores by audit area (AA) and CE combination – based on the State's "Heat Map"; and other relevant information on the State dashboard. Assess the civil aviation organization and State system and functions (ORG/CE-3) using information generated by USOAP CMA activities (via OLF) at the national level: PQ 2.051 Establishment and implementation of a mechanism to ensure that each safety oversight authority has sufficient financial resources to meet its national and international obligations. PQ 2.053 Establishment of a mechanism by the State to ensure that each safety oversight authority has sufficient personnel to meet its national and international obligations. PQ 2.103 Ability of each safety oversight entity/investigation authority to attract, recruit and retain sufficiently qualified/experienced technical personnel. Use internal and external reports and audits (for example, internal/external audits, accident reports, regional reports). 	

For use at the national level			
Criteria	Specifics	Methodology	
		 Consider impact of cooperation with other entities that support States' safety oversight system and capabilities. Consider system description (ICAO Doc 9859, Safety Management Manual and State aviation activity questionnaire, and compare with ICAO Doc 9734, Safety Oversight Manual, Part A — The Establishment and Management of a State Safety Oversight System in relation to safety oversight obligations. 	
State safety programme (SSP) establishment and management.	Status of SSP establishment and management, through various sources.	 Analyse information generated by USOAP CMA activities (via OLF): refer to SSP-related Protocol Questions (PQs). Use guidance from the Safety Management International Collaboration Group, mainly the SM ICG, SSP Assessment Tool. Use internal and external reports and audits (for example, internal audits, accident reports, external audits). 	
Consideration of global and regional organizational (ORG) challenges in setting national ones.	Commonality of ORG challenges for the region as per the GASP and the corresponding RASP.	1) Analyse the GASP to identify common global ORG challenges: a) if the GASP calls for States to address a specific global ORG challenge in NASPs, consider it a potential national ORG challenge; and b) reference the GASP public website: www.icao.int/gasp . 2) Analyse the RASP to identify common regional ORG challenges: a) if the RASP calls for States in the region to address a specific regional ORG challenge in NASPs in the region, consider it a potential national ORG challenge; and b) reference the RASP library: www.icao.int/rasp	
Rationale for decision- making	Additional points for consideration when selecting ORG challenges	Consider constraints from limited resources, and the need to focus on a shorter list of items: limit the number of national ORG challenges listed in the plan.	

Appendix B to Chapter 2

STANDARDIZED FRAMEWORK FOR THE IDENTIFICATION OF REGIONAL AND NATIONAL HIGH-RISK CATEGORIES OF OCCURRENCES

Note.— The criteria below may be used for inclusion and removal of occurrences from high-risk categories of occurrences (HRC) list.

Criteria	Specifics	Methodology
Number of fatalities	Fatalities by accident occurrence categories (as per CICTT)	Analyse the classification of occurrences. Identify categories that resulted in the highest number of fatalities.
		Analyse the classification of occurrences. Identify events that are linked to occurrence categories with the highest number of fatalities (in terms of severity) associated with the potential outcome.
Fatality risk	Fatality risk by accident or serious incident occurrence categories (as per CICTT)	For example, a serious incident which did not result in any fatalities but involved air proximity issues, traffic collision avoidance system (TCAS)/airborne collision avoidance system (ACAS) alerts, loss of separation or near collisions between aircraft in flight would be coded as "mid-air collision" (as per CICTT occurrence categories) due to the fatality rate associated with a potential mid-air collision (in other words, if the mid-air collision occurred, as the outcome of the occurrence there would be multiple fatalities).
Number of accidents and serious incidents	Number of accidents or serious incidents by occurrence categories (as per CICTT)	Analyse the classification of occurrences. Identify categories that resulted in the highest number of accidents and serious incidents.

Criteria	Specifics	Methodology		
	Frequency of occurrences	 Use a 5-year rolling average. Consider including use of rate-based data (for example, sectors flown). 		
Breakdown (based on a minimum of 5-year data set)	Commonality of occurrence across the region	If an occurrence category appears in multiple States in the region, consider it potentially a regional occurrence (in the RASP) or a national one (in the NASP).		
	Use of information from accidents	Focus on pre-cursors and contributing factors. Use different sources, such as ICAO and industry. Develop and monitor associated safety performance indicators.		
Consideration of global and national HRCs in setting R-HRCs	Commonality of HRCs and other risk categories of occurrences as per the Global Aviation Safety Plan (GASP) and in NASPs of multiple States in the region	1) Analyse the GASP to identify G-HRCs: a) the GASP calls for RASPs of regions to address the G-HRCs, consider them as potential R-HRCs; and b) reference the GASP public website: www.icao.int/gasp . 2) Analyse NASPs of States in the region to identify common N-HRCs: a) if the same N-HRC is included in several plans, consider it a potential R-HRC; and b) reference the NASP library: www.icao.int/nasplibrary . 3) Consider other risk categories of occurrences listed in the GASP or in NASPs of multiple States in the region.		
Consideration of global and regional HRCs in setting N-HRCs	Commonality of HRCs and other risk categories of occurrences as per the GASP and the corresponding RASP	1) Analyse the GASP to identify G-HRCs: a) the GASP calls for NASPs of States to address the G-HRCs, consider them as potential N-HRCs; and b) reference the GASP public website: www.icao.int/gasp. 2) Analyse the corresponding RASP to identify R-HRCs: a) the RASP calls for NASPs of States in the region to address R-HRCs, consider them as potential N-HRCs; and b) reference the RASP library: www.icao.int/rasp. 3) Consider other risk categories of occurrences listed in the GASP and the RASP.		

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Criteria	Specifics		Methodology	
Rationale for decision-making	Additional points for consideration when selecting HRCs	1)	Consider constraints from limited resources, and the need to focus on a shorter list of high-risk items: limit the number of HRCs included in the plan. Although the process of selecting HRCs prioritizes fatalities and risk of fatalities and injuries: consider inclusion of serious incidents with low fatality risk but high frequency of occurrence.	

Appendix C to Chapter 2

STANDARDIZED FRAMEWORK FOR THE DEVELOPMENT OF GOALS, TARGETS AND INDICATORS IN AVIATION SAFETY PLANS

Note.— The criteria below may be used for drafting goals, targets and indicators in the context of aviation safety plans.

Item	Drafting criteria	Specific points for consideration	Example and rationale
Goal	 Write a goal in a manner that describes a high-level outcome that the plan aims to achieve. Describe the desired outcomes that the strategy aims to produce. Write a goal in a qualitative manner (for example, using terms such as "strengthen" or "enhance"). Write a goal in a general manner, without citing specifics (for example, "strengthen safety oversight", not "recruit inspectors") 	 Use the list of safety issues to set goals (this list points to the topics the plan addresses through the strategy). Consider the results toward which efforts in safety are directed (for example, what is the reason for wanting to hire more inspectors or modifying an existing regulation?). A goal should identify what the plan wants to achieve, in terms of the management of safety (for example, better collaboration with stakeholders; improved oversight capabilities). A goal should be expressed through qualitative action 	Example and rationale Example of a goal: "Increase effective safety oversight capabilities" Rationale: ✓ Presents high-level outcome ✓ Qualitative and general ✓ Does not identify who actions are directed to ✓ Easily understood
	 this enables the goal to remain highlevel and linked to more than one target. Write a goal in a manner that can be understood as a standalone statement (avoid including a reference to a document or anything that would require the reader to crosscheck other sources to understand what the goal is referring to). 	 statements on selected high-level or high-consequence outcomes (for example, reduce operational safety risks). A goal should not include quantification (a number or percentage increase/decrease, or trend – for example, improve by 25 per cent) A goal should not identify who actions are directed to (for example, the CAA). Each goal should contain at least one target. 	

Item	Drafting criteria	Specific points for consideration	Example and rationale
Target	 Write a target in a manner that describes a specific desired outcome from specific actions taken to achieve goals, at a certain point in time. Write a target in a manner that identifies who the specific outcome is directed to (for example, the CAA). Write a target primarily in a quantitative manner (for example, using numerical values or percentage of defined values – "achieve a 75 per cent score") or that references completed actions (for example, "complete the recruitment process of all new inspectors as defined in the hiring strategy" – this is equivalent to 100 per cent). Write a date by which the outcome needs to be completed (for example, by 2030). Write a target in a manner that can be understood as a standalone statement (avoid including a reference to a document or anything that would require the reader to crosscheck other sources to understand what the goal is referring to). 	 Use the list of safety issues to set targets (at this level, the list can be used to address specific items – versus general ones at the level of a goal). A target should provide a measurable way of ensuring and demonstrating the effectiveness of actions (in other words, SEI) linked to the plan. A target is a quantifiable benchmark to be reached, to meet a goal. A target should be expressed in numerical terms. Each target should be linked to a goal (from which it is derived). A target should be realistic and achievable, yet ambitious, with incremental increases towards a long-term goal. A target should be acceptable to stakeholders – otherwise it may be difficult to track. Avoid writing a target to the level of a task (for example, holding a meeting, completing a document) – tasks contributing to an outcome may be captured at the level of the indicators. For completeness, ensure each target includes: an outcome; who the outcome is directed to (or who will be responsible for related actions to achieve the outcome); a quantifiable benchmark (in other words, is measurable); and a completion date. Ideally, include more than one target per goal, to enable data collection from more than one source or activity. Each target should also include a list of indicators to measure its progress. Note.— The use of performance management tools, such as the specific, measurable, achievable, relevant and timely (SMART) approach to setting goals and targets, can help frame the actions that stakeholders carry out in the context of SEI implementation. 	Example of a target: "By 2028, the CAA to increase workforce with 10 new inspectors." Rationale: ✓ Describes outcome ✓ Defines who outcome is directed to ✓ Quantifiable ✓ Sets completion date ✓ Is tied to a goal

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³ As described in the Manual on Monitoring Implementation of Regional and National Aviation Safety Plans (Doc 10162).

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) a description of the regional operational safety risks;
 - d) a description of the regional organizational challenges;
 - e) 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, as well as the action plan that supports the safety strategy presented in the RASP (in other words, the compilation of prioritized SEIs); 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 (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 process for the RASP's development, implementation and monitoring;
 - 1) describe how the RASP is developed and endorsed, including the responsible entities and any collaboration with stakeholders (for example, States, industry, international organizations, etc.);
 - 2) explain that a collaborative approach is needed to achieve the strategy presented in the RASP; and
 - 3) describe the governance of the RASP; this includes how frequently it is reviewed and updated (for example, reviewed yearly and updated at least every triennial) the alignment with the GASP revision cycle should be considered;
 - d) the regional safety issues; and
 - e) the regional safety goals and targets.

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:
 - 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 and the *Global Aviation Security Plan* (GASeP, Doc 10118), as appropriate).

Regional operational safety risks

- 3.3.3 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;
- b) the taxonomy used in the process of determining regional operational safety risks it is recommended to use the aviation occurrence categories from the CICTT;
- c) the regional HRCs (R-HRCs), including the reason they were given priority (for example, a data-driven approach) the RASP should include all relevant HRCs in the GASP (G-HRCs);
- d) the main contributing factors leading to the R-HRCs identified in the region; and
- e) other regional risk categories of occurrences 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
 - 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.

Note.— Additional information on G-HRCs is provided in Section 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.

Regional organizational challenges

- 3.3.4 When drafting the regional organizational challenges, the following should be included:
 - 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 Online Framework
 (OLF) at https://soa.icao.int;
 - b) a list and description of the regional organizational challenges selected for the RASP, including the reason they were given priority; and
 - 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) derived from regional analysis (for example, by the RASG, RSOO, PIRG, and/or RAIO);
 - 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.

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

- 3.3.5 When drafting the region's strategic direction for the management of aviation safety at the regional level, the following should be included:
 - a) the regional safety goals, targets and indicators (may be presented in table format);
 - 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); and
 - list any specific regional safety goals, targets and indicators over and above those of the GASP, if applicable;
 - b) the action plan that supports the safety strategy presented in the RASP;
 - explain how the list of prioritized SEIs will help to achieve the regional safety goals (in other words, the link between the regional safety goals and targets and the SEIs that the region will undertake to improve safety);
 - 2) explain how SEIs are linked to States' individual SEIs (within the region) or overarching initiatives at the international level;
 - 3) list the SEIs that the region plans to implement, or is in the process of implementing, to address all the identified R-HRCs and other regional risk categories of occurrences, and which are needed to achieve the regional safety goals (this list may be presented in an appendix or a link/reference to another document);
 - 4) identify those SEIs derived from the global aviation safety roadmap (mainly taken from the operational safety risks (OPS) roadmap), where applicable;
 - 5) list the SEIs that the region plans to implement, or is in the process of implementing, to address all regional organizational challenges identified, and which are needed to achieve the regional safety goals (this list may be presented in an appendix or a link/reference to another document);
 - 6) identify those SEIs derived from the global aviation safety roadmap (mainly taken from the organizational challenges (ORG) roadmap), where applicable; and
 - c) the emerging issues that may require further analysis.

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;
 - 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 contributing factors should be presented; and
 - 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 safety issues 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 most 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 RASP4

[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 – [date interval — For example, 2026–2028]. It comprises six sections. In addition to the introduction, sections include: the purpose of the RASP, the regional operational safety risks, the regional organizational challenges, [Region]'s strategic direction for the management of aviation safety at the regional level, and a description of how the implementation of the safety enhancement initiatives (SEIs) listed in the RASP is going to be monitored.

1.3 Process for the RASP development, implementation and monitoring

[Name of responsible entity — For example, the regional aviation safety group (RASG)] is responsible for developing, supporting implementation and monitoring the RASP, in collaboration with [list names of entities — For 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. Its implementation requires a collaborative approach to achieve the regional safety strategy. To ensure its relevance, this plan is maintained by [name of responsible entity — For example, the RASG], in coordination with key aviation stakeholders and is updated at least every [number] years.

⁴ 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 — For example, loss of control in-flight (LOC-loccurrences, 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 — For example, Goal 1: Achieve a continuous reduction of operational safety risks and Target 1.1: By 2028, the region, its States and industry to decrease the accident rate, within the ICAO region (using a 5-year rolling average and year 2025 as a baseline)]

2) [...]

3) [...]

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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, the global high-risk categories of occurrences (G-HRCs), and the global organizational challenges from the ICAO GASP (www.icao.int/gasp). These are highlighted in the text, where applicable. The SEIs listed in the RASP form the action plan that supports the regional safety strategy. Ultimately, they 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.

Non-fatal accidents

Serious incidents

Year

[current year]

SECTION 3. REGIONAL OPERATIONAL SAFETY RISKS

The vision of the GASP is to achieve and maintain the goal of zero fatalities in commercial operations by 2030 and beyond. To do so, operational safety risks need to be identified and addressed. In line with the vision of the GASP, regional operational safety risks are listed in this section of the RASP. They are addressed through the action plan presented in Section 5 of this document.

[Name of responsible entity — For example, the RASG] publishes an Annual Safety Report, available on [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.

Fatal accidents

Commercial all transport of	[g]		
[year to year, average]			
[current year]			
General aviation aircraft o	ccurrences in [Region]		
[year to year, average]			
[current year]			
Year	Fatal accidents	Non-fatal accidents	Serious incidents
	Fatal accidents		Serious incidents
			Serious incidents
Occurrences involving cor			Serious incidents
Occurrences involving cor [year to year, average] [current year]		ft registered in [Region]	Serious incidents
Occurrences involving cor [year to year, average] [current year]	nmercial air transport aircra	ft registered in [Region]	Serious incidents

The aviation occurrence categories from the Commercial Aviation Safety Team (CAST)/ICAO Common Taxonomy Team (CICTT) were used 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.

The following [number] regional high-risk categories of occurrences (R-HRCs) in the [Regional] context are considered of the utmost priority because they have historically resulted or could result in a high number of fatalities, or because they pose a risk since they comprise the largest number of accidents (or serious incidents) in comparison to the overall number

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of occurrences. They were identified based on data 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 State safety programmes (SSP), as well as on the basis of regional analysis conducted by [list names of entities - For example, the RASG, RSOO, PIRG and/or RAIO] and on the global operational safety risks described in

described in the	GASP.
These R-HRCs a	re in line with all the relevant G-HRCs listed in the [current edition] of the GASP:
1)	[list R-HRCs and briefly explain why they were given priority — For example, LOC-I. Operators experienced occurrences involving deviations from intended flightpath, reported to States in the region via their safety data collection and processing systems (SDCPS).]
2)	
3)	
For each of the R	-HRCs identified in the RASP, the following main contributing factors were identified:
R-HRC 1: [name	of occurrence category — For example, LOC-I
1)	[list contributing factors — For 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]: [nam	e of occurrence category]
1)	[list contributing factors]
2)	
3)	
In addition to the	R-HRCs listed above, other regional risk categories of occurrences have been identified:

[list other regional risk categories of occurrences and briefly explain why they were given priority — For example, bird strikes. Operators experienced occurrences involving bird strikes at aerodromes in the region, reported to States via their SDCPS.]

- 2) [...]
- 3) [...]

SECTION 4. REGIONAL ORGANIZATIONAL CHALLENGES

In addition to the regional operational safety risks listed in the RASP, [name of responsible entity] has identified regional organizational challenges, selected for the RASP. 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 below.

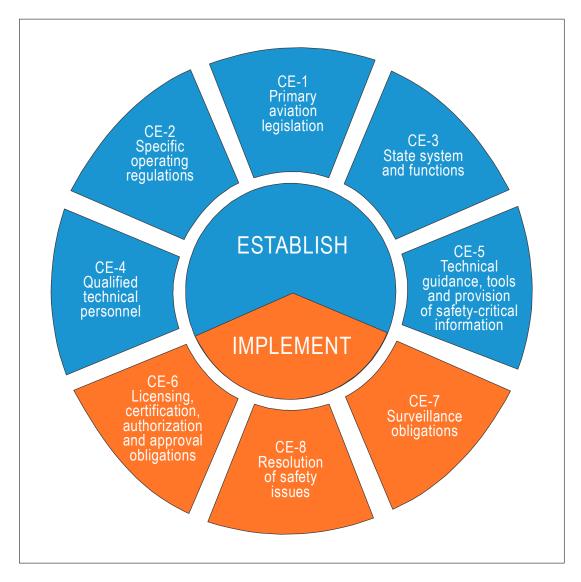


Figure 1. Critical elements of a State's safety oversight system

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The RASP also encompasses the civil aviation areas, addressed through the audit areas (AAs)⁵ defined by ICAO in the *Universal Safety Oversight Audit Programme Continuous Monitoring Manual* (Doc 9735). The latest ICAO activities, which aim to measure the effectiveness and sustainability of States' individual safety oversight systems, as part of the Universal Safety Oversight Audit Programme (USOAP), have resulted in the following scores, consolidated in a regional "Heat Map":

CE-1	[X]%							
CE-2	[X]%							
CE-3	[X]%							
CE-4	[X]%							
CE-5	[X]%							
CE-6	[X]%							
CE-7	[X]%							
CE-8	[X]%							
	LEG	ORG	PEL	OPS	AIR	AIG	ANS	AGA

The following [number] organizational challenges in the [Regional] context are considered of the utmost priority because they are common to most States in the region and impact States' safety oversight and safety management capabilities and, consequently, aviation safety at the regional level. 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 — *For 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 safety management systems (SMS) implementation by industry in the region. They take into consideration the impact of organizational aspects (such as organizational culture; policies and procedures; employee selection and training; and allocation of resources) on the safety oversight and safety management capabilities 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 For 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 scoring AA and CE combination (as per the regional "Heat Map") during the most recent ICAO USOAP audits and was therefore placed as a high priority issue to resolve.]
- 2) [...]
- 3) [...]

⁵ Eight audit areas pertaining to USOAP, that is, 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 5. [REGION]'S STRATEGIC DIRECTION FOR THE MANAGEMENT OF AVIATION SAFETY

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]
For example, achieve a continuous reduction of operational safety risks	1.1 By 2028, the region, its States and industry to decrease the accident rate, within the ICAO region (using a 5-year rolling average and year 2025 as a baseline) 1.2 n	 1.1.1 Number of accidents in the region per million departures 1.1.2 Number of fatal accidents in the region per million departures 1.2. n 	This goal is directly linked to Goal 1 and Target 1.1 of the GASP
2. For example, strengthen collaboration at the regional and national levels to address safety issues	2.1 By 2026, the region to identify States that need assistance to address safety issues 2.2 n	2.1.1 Percentage of States in the region that need assistance to address a low level of SSP implementation 2.1.2 Percentage of States in the region that need assistance to address the resolution of safety issues, primarily related to aerodrome operations 2.2. n	This goal is directly linked to Goal 4 and Target 4.1 of the GASP
3.	3.1 3.2 n		
4.	4.1		
	4.2 n		
5.	5.1		
	5.2 n		
6.	6.1		
	6.2 n		

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The RASP includes an action plan, composed of a list of prioritized SEIs, that support the regional safety strategy. The list of prioritized SEIs will help to achieve the regional safety goals by addressing the regional safety issues identified in this plan, with specific actions for each of the regional operational safety risks and organizational challenges identified in Sections 3 and 4, respectively. These SEIs include actions such as policy development, capacity building activities, safety data analysis, safety risk assessments and safety promotion. Some of the SEIs 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 — *For example, a safety risk assessment, RASG activities, etc.*]. 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 SEIs in this plan are implemented through the working arrangements of [name of responsible entity – For example, the RASG] activities conducted by [list names of entities], as well as the existing safety oversight capabilities and service providers' SMS at the individual States' level.

The RASP also addresses emerging issues, which may stem from new concepts of operations, new technologies, changes to public policies, new business models or ideas that might impact safety in the future, for which insufficient data exists to complete a 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, collect and share 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 – For example, an analysis conducted by the RASG] for further analysis:

- 1) [list emerging issues For example, small drones operating in the vicinity of aerodromes.]
- 2) [...]
- 3) [...]

SECTION 6. MONITORING IMPLEMENTATION

[Name of responsible entity — For 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. [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 5 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 contributing factors will be 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 [name of responsible entity – For example, the RASG] by [describe methodologies used by the region]. This allows the region to receive information and assess safety issues 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 — For example, LOC-I]

Goal x: [name — For example, Goal 1: Achieve a continuous reduction of operational safety risks]

Target x.x: [description — For example, Target 1.1: By 2028, the region, its States and industry to decrease the accident rate, within the ICAO region]

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]
For example, ICAO OPS SEI-7 Mitigate contributing factors to LOC-I accidents and incidents at the regional level	Organize upset prevention and recovery training (UPRT) workshops	Q1 2026 to Q4 2028	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: REGIONAL ORGANIZATIONAL CHALLENGES

Organizational challenge x⁶: [name of challenge — For example, lack of aircraft accident and incident investigation capabilities at the regional level]

Goal x: [name — For example, Goal 4: Strengthen collaboration at the regional and national levels to address safety issues]

Target x.x: [description — For example, Target 4.1: By 2026, the region to identify States that need assistance to address safety issues]

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]
For example, ICAO ORG SEI-21 – Establishment of an independent regional accident and incident investigation process, 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 2026 to Q4 2028	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

-

 $^{^{\}rm 6}$ 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 ⁷)	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 (sections and their content)?	□ Yes	
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 process for the RASP's development, implementation and monitoring?	□ Yes	
3.3.1 c) 1)	Does it describe how the RASP is developed and endorsed, including the responsible entities?	□ Yes	
3.3.1 c) 2)	Does it explain that a collaborative approach is needed to achieve the strategy presented in the RASP?	□ Yes	
3.3.1 c) 3)	Does it describe the governance of the RASP, including how frequently it is reviewed and updated?	□ Yes	
3.3.1 d)	Does it describe the regional safety issues?	□ Yes	
3.3.1 e)	Does it describe the regional safety goals and targets?	□ Yes	
	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	
3.3.2 b)	Does it establish the duration of the RASP?	□ Yes □ No	

⁷ Not applicable (N/A)

	1		
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)
3.3.2 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	
	3.3.3 Regional operational safety risks		
3.3.3 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	
3.3.3 b)	Does it describe the taxonomy used in the process of determining regional operational safety risks?	□ Yes	
3.3.3 c)	Does it list the regional HRCs (R-HRCs), including the reason they were given priority?	□ Yes	
3.3.3 d)	Does it list the main contributing factors leading to the R-HRCs identified in the region?	□ Yes	
3.3.3 e)	Does it list other regional risk categories of occurrences, including the reason they were given priority?	□ Yes	
	3.3.4 Regional organizational challenges	3	
3.3.4 a)	Does it provide a summary of the States' effective safety oversight capabilities for States in the region?	□ Yes	
3.3.4 b)	Does it include a list and description of the regional organizational challenges selected for the RASP, including the reason they were given priority?	□ Yes □ No	
3.3.4 c)	Does it explain how they were identified, including, but not limited to, a data-driven approach?	□ Yes	
3.3.5	The region's strategic direction for the management	of aviation s	afety
3.3.5 a)	Does it list the regional safety goals, targets and indicators?	□ Yes □ No	

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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)
3.3.5 a) 1)	Does it explain how the regional safety goals, targets and indicators are linked to the GASP?	□ Yes □ No	
3.3.5 a) 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	
3.3.5 b)	Does it describe the action plan that supports the safety strategy presented in the RASP?	□ Yes □ No	
3.3.5 b) 1)	Does it explain how the list of prioritized SEIs will help to achieve the regional safety goals?	□ Yes □ No	
3.3.5 b) 2)	Does it explain how SEIs are linked to States' individual SEIs (within the region) or overarching initiatives at the international level?	□ Yes □ No	
3.3.5 b) 3)	Does it list the SEIs that the region plans to implement, or is in the process of implementing, to address all the identified R-HRCs and other regional risk categories of occurrences, and which are needed to achieve the regional safety goals?	□ Yes □ No	
3.3.5 b) 4)	Does it identify those SEIs derived from the global aviation safety roadmap (mainly taken from the operational safety risks (OPS) roadmap), where applicable?	☐ Yes ☐ No ☐ N/A	
3.3.5 b) 5)	Does it list the SEIs that the region plans to implement, or is in the process of implementing, to address all regional organizational challenges identified, and which are needed to achieve the regional safety goals?	□ Yes □ No	
3.3.5 b) 6)	Does it identify those SEIs derived from the global aviation safety roadmap (mainly taken from the organizational challenges (ORG) roadmap), where applicable?	□ Yes □ No □ N/A	
3.3.5 c)	Does it list the emerging issues that may require further analysis?	□ Yes	
	3.3.6 Monitoring implementation	1	1
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	

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)
3.3.6 b)	Does it explain how corrections and adjustments to the RASP and its SEIs will be made and reported?	□ Yes	
3.3.6 c)	Does it explain how each regional safety target will be monitored to track performance?	□ Yes □ No	
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 contributing factors 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	

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) a description of the national operational safety risks;
- d) a description of the national organizational challenges;
- e) 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, as well as the action plan that supports the safety strategy presented in the NASP (in other words, the compilation of prioritized SEIs); 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 (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 2.11);
- d) the process for the NASP's development, implementation and monitoring;
 - 1) describe how the NASP is developed and endorsed, including the responsible entities and any collaboration with internal and external stakeholders (for example, industry, international organizations, other government agencies, etc.);
 - 2) explain that a collaborative approach is needed to achieve the strategy presented in the NASP; and
 - 3) 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 yearly and updated at least every triennial) the alignment with the GASP and RASP revision cycle should be considered;
- 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; and
- g) the State's operational context (may be presented in table format) refer to the "operational context description" criterion in the *Standardized Framework for the Identification of Organizational (ORG)*Challenges (presented in Appendix A to Chapter 2) for detailed guidance.

Note.— The State's operational context may evolve over the duration of an edition of the NASP (for example, because 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;
 - the relationship between the NASP, the most current edition of the GASP and the corresponding RASP;
 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.

National operational safety risks

- 4.3.3 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);

- the taxonomy used in the process of determining national operational safety risks it is recommended to use the aviation occurrence categories from the Commercial Aviation Safety Team (CAST)/ICAO Common Taxonomy Team (CICTT).
- the national HRCs (N-HRCs), including the reason they were given priority (for example, a data-driven approach) – the NASP should include all relevant HRCs in the RASP (R-HRCs) and the GASP (G-HRCs);
- d) the main contributing factors leading to the N-HRCs identified by the State;
- e) other national risk categories of occurrences identified, including the reason they were given priority. This identification may:
 - 1) be done as part of the State's analysis (for example, through its 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 national operational safety risks should encompass different sectors of aviation, such as aerodromes, commercial air transport, general aviation, helicopter operations.

Note.— Additional information on G-HRCs is provided in Section 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.

National organizational challenges

- 4.3.4 When drafting the national organizational challenges, 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 https://soa.icao.int;
 - b) a list and description of the national organizational challenges selected for the NASP, including the reason they were given priority; and
 - 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 its SDCPS);
 - 2) derived from regional analysis (for example, by the RASG, RSOO, PIRG and/or RAIO);
 - 3) be based on the organizational challenges described in the RASP and the GASP; and/or
 - 4) be based on USOAP results and the State's own oversight data.

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

- 4.3.5 When drafting the State's strategic direction for the management of aviation safety at the national level, the following should be included:
 - a) the national safety goals, targets and indicators (may be presented in table format);
 - explain how the national safety goals, targets and indicators are linked to the GASP and the RASP (this may be accomplished by referencing both documents); and
 - 2) list any specific national safety goals, targets and indicators over and above those of the GASP and the RASP, if applicable;
 - b) the action plan that supports the safety strategy presented in the NASP;
 - explain how the list of prioritized SEIs will help to achieve the national safety goals (in other words, the link between the national safety goals and targets and the SEIs that the State will undertake to improve safety);
 - 2) explain how SEIs are linked to overarching initiatives at the regional or international levels;
 - 3) list the SEIs that the State plans to implement, or is in the process of implementing, to address all the identified N-HRCs and other national risk categories of occurrences, and which are needed to achieve the national safety goals (this list may be presented in an appendix or a link/reference to another document);
 - 4) identify those SEIs derived from the global aviation safety roadmap (mainly taken from the operational safety risks (OPS) roadmap), where applicable;
 - 5) list the SEIs that the State plans to implement, or is in the process of implementing, to address all national organizational challenges identified, and which are needed to achieve the national safety goals (this list may be presented in an appendix or a link/reference to another document);
 - 6) identify those SEIs derived from the global aviation safety roadmap (mainly taken from the organizational challenges (ORG) roadmap), where applicable;
 - 7) provide references to corresponding SEIs in the RASP, where applicable; and
 - c) the emerging issues that may require further analysis.

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;

- 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 contributing factors should be presented; and
 - 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 RASG). This allows the region to receive information and assess safety issues 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 most current edition of the GASP and the corresponding RASP.

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 NASP8

[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 — For 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 – [date interval — For example, 2026–2028]. It comprises six sections. In addition to the introduction, sections include: the purpose of the NASP, the national operational safety risks, the national organizational challenges, [State's] strategic direction for the management of aviation safety, and a description of how the implementation of the safety enhancement initiatives (SEIs) listed in the NASP is going to be monitored.

⁸ Section 1.1 may also be presented as a stand-alone foreword.

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

[The paragraph below only applies to States without mature safety data analysis capabilities]

This NASP addresses operational safety risks presented in the ICAO GASP and the [name of the RASP], in the absence of an established State safety programme (SSP), and mature safety data analysis capabilities in [State]. Initiatives listed in this NASP also address organizational challenges and aim to enhance organizational capabilities related to effective safety oversight, including those related to safety data analysis.

10

[The paragraph below only applies to States with mature safety data analysis capabilities]

Through the safety data analysis capabilities of the SSP, [State] has the ability to use its hazard identification and safety risk management process as a source of safety information 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 information 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 Process for the NASP development, implementation and monitoring

[Name of responsible entity — For 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]. Its implementation requires a collaborative approach to achieve the national safety strategy. To ensure its relevance, this plan is maintained by [name of responsible entity — For example, CAA], in coordination with key aviation stakeholders and is updated at least every [number] years.

1.5 National safety issues, goals and targets

The NASP addresses the following national safety issues:

- [list operational safety risks and organizational challenges For example, loss of control in-flight (LOC- I) occurrences, the lack of aircraft accident and incident investigation capabilities at the national level];
- 2) [...]
- 3) [...]

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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 — For example, Goal 1: Achieve a continuous reduction of operational safety risks and Target 1.1: By 2028, the State and its industry to decrease the national accident rate (using a 5-year rolling average and year 2025 as a baseline)];

- 2) [...]
- 3) [...]

1.6 Operational context

There are [number] 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].

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, the high-risk categories of occurrences (HRCs), and the organizational challenges 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 form the action plan that supports the national safety strategy. Ultimately, they 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.

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SECTION 3. NATIONAL OPERATIONAL SAFETY RISKS

The vision of the GASP is to achieve and maintain the goal of zero fatalities in commercial operations by 2030 and beyond. To do so, operational safety risks need to be identified and addressed. In line with the vision of the GASP, national operational safety risks are listed in this section of the NASP. They addressed through the action plan presented in Section 5 of this document.

[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 or	ccurrences 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 ger	Occurrences involving general aviation aircraft registered in [State]						
[year to year, average]							
[current year]							

The aviation occurrence categories from the Commercial Aviation Safety Team (CAST)/ICAO Common Taxonomy Team (CICTT) were used 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.

The following [number] national high-risk categories of occurrences (N-HRCs) in the [State] context are considered of the utmost priority because they have historically resulted or could result in a high number of fatalities, or because they pose a risk since they comprise the largest number of accidents (or serious incidents) in comparison to the overall number of occurrences. They were identified based on data analysis from mandatory and voluntary reporting systems, accident and

incident investigation reports, safety oversight activities over the past [number] years, as well as on the basis of regional analysis conducted by [list names of entities - For example, RASG, RSOO, PIRG and/or RAIO] and on the global operational safety risks described in the GASP.

These N-HRCs at the RASP]:	re in line with all the relevant HRCs listed in the [current edition] of the GASP, as well as the [name of
1)	[list N-HRCs and briefly explain why they were given priority – For example, LOC-I. Operators experienced occurrences involving deviations from intended flightpath, reported to the State via its safety data collection and processing system (SDCPS).]
2)	
3)	
For each of the N	I-HRCs identified in the NASP, the following main contributing factors were identified:
N-HRC 1: [name	of occurrence category — For example, LOC-I]
1)	[list contributing factors — For 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)	
lm = alaliti = m t = th = .	N LIDCs listed above other national risk sategories of accurrences have been identified.

In addition to the N-HRCs listed above, other national risk categories of occurrences have been identified:

1) [list other national risk categories of occurrences and briefly explain why they were given priority — For example, bird strikes. Operators experienced occurrences involving bird strikes, reported to the State via its SDCPS.]

- 2) [...]
- 3) [...]

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SECTION 4. NATIONAL ORGANIZATIONAL CHALLENGES

In addition to the national operational safety risks listed in the NASP, [State] has identified national organizational challenges, selected for the NASP. 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.

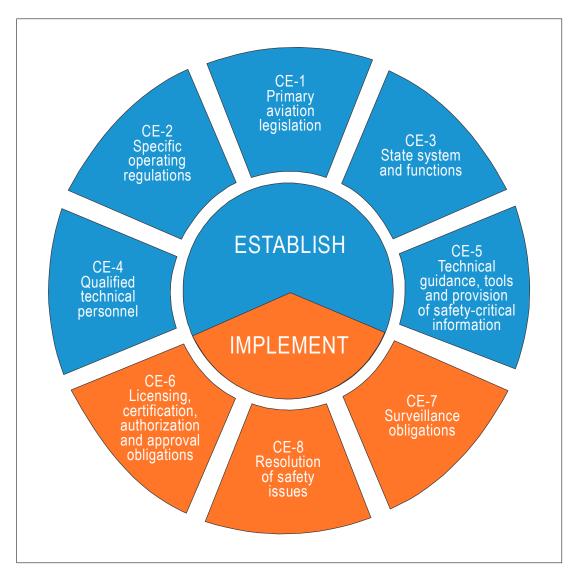


Figure 1. Critical elements of a State's safety oversight system

The NASP also encompasses the civil aviation areas, addressed through the audit areas (AAs)⁹ defined by ICAO in the *Universal Safety Oversight Audit Programme Continuous Monitoring Manual* (Doc 9735). The latest ICAO activities, which aim to measure the effectiveness and sustainability of [State]'s safety oversight system, as part of the Universal Safety Oversight Audit Programme (USOAP), have resulted in the following scores consolidated in a national "Heat Map":

CE-1	[X]%							
CE-2	[X]%							
CE-3	[X]%							
CE-4	[X]%							
CE-5	[X]%							
CE-6	[X]%							
CE-7	[X]%							
CE-8	[X]%							
	LEG	ORG	PEL	OPS	AIR	AIG	ANS	AGA

The following [number] organizational challenges in the [State] context are considered of the utmost priority because they impact the State's safety oversight and safety management capabilities and, consequently, aviation safety at the national level. They were identified based on analysis from USOAP data, accident and incident investigation reports, safety oversight activities over the past [number] years, as well as on the basis of regional analysis conducted by [list names of entities — For 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 safety management systems (SMS) implementation by national service providers. They take into consideration the impact of organizational aspects (such as organizational culture; policies and procedures; employee selection and training; and allocation of resources) on the safety oversight and safety management capabilities 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 For example, lack of aircraft accident and incident investigation capabilities at the national level. This was the area where the State received the lowest scoring AA and CE combination (as per the national "Heat Map") during the most recent ICAO USOAP audit and was therefore placed as a high priority issue to resolve.]
- 2) [...]
- 3) [...]

⁹ Eight audit areas pertaining to USOAP, that is, 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).

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SECTION 5. [STATE]'S STRATEGIC DIRECTION FOR THE MANAGEMENT OF AVIATION SAFETY

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]
For example, achieve a continuous reduction of operational safety risks	1.1 By 2028, the State and its industry to decrease the national accident rate (using a 5-year rolling average and Year 2025 as a baseline) 1.2 n	 1.1.1 Number of accidents in the State per 10 000 departures. 1.1.2 Number of fatal accidents in the State per 10 000 departures. 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. For example, strengthen the State's safety oversight capabilities	2.1 By 2028, the State to improve its effective implementation (EI) score for qualified technical personnel (CE-4) for aircraft accident and incident investigation (AIG) and for aerodromes and ground aids (AGA), respectively, to that of the global average 2.2 n	2.1.1 El score for CE-4 and AIG 2.1.2 El score for CE 4 and AGA 2.2. n	This goal is directly linked to Goal 2 and Target 2.2 of the GASP and linked to Goal 2 and Target 2.2 of the RASP.
3.	3.1		
	3.2 n		
4.	4.1		
	4.2 n		
5.	5.1		
	5.2 n		
6.	6.1		
	6.2 n		

The NASP includes an action plan, composed of a list of prioritized SEIs, that support the national safety strategy. The list of prioritized SEIs will help to achieve the national safety goals by addressing the national safety issues identified in this plan, with specific actions for each of the national operational safety risks and organizational challenges identified in Sections 3 and 4, respectively. These SEIs include actions such as policy development, capacity building activities, safety data analysis, safety risk assessments and safety promotion. 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 — For example, legislation, directive, hazard identification, etc.]. 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 SEIs in this plan are implemented through [State]'s existing safety oversight capabilities and the service providers' SMS.

The NASP also addresses emerging issues, which may stem from new concepts of operations, new technologies, changes to public policies, new business models or ideas that might impact safety in the future, for which insufficient data exists to complete a 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, collect and share 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 — For example, an analysis conducted by service providers] for further analysis:

- 1) [list emerging issues For example, small drones operating in the vicinity of aerodromes]
- 2) [...]
- 3) [...]

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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. [Name of responsible entity — For 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 — For 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 5 of this plan to measure safety performance of the national civil aviation system and monitor each national safety target. A periodic [For example, annual, triennial, 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 contributing factors 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 and to report to [name of responsible entity — For example, the RASG] by [describe methodologies used by the region]. This allows the region to receive information and assess safety issues 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 — For example, LOC-I]

Goal x: [name — For example, Goal 1: Achieve a continuous reduction of operational safety risks]

Target x.x: [description — For example, Target 1.1: By 2028, the State and its industry to decrease the national accident rate]

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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]
For example, ICAO OPS SEI-2 — Mitigate contributing factors to LOC-I accidents and incidents at the national level	Require upset prevention and recovery training (UPRT) in all full flight simulator type conversion and recurrent training programmes	Q1 2026 to Q4 2028	CAA	 Operators Approved training organizations (ATO) Flight simulator product and service providers Pilots' associations CAA inspectors 	 Training programmes updated with upset prevention and recovery Percentage of pilots completing UPRT 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: NATIONAL ORGANIZATIONAL CHALLENGES

Organizational challenge x¹⁰: [name of challenge — For example, lack of aircraft accident and incident investigation capabilities at the national level]

Goal x: [name — For example, Goal 2: Strengthen the State's safety oversight capabilities]

Target x.x: [description — For example, Target 2.2: By 2028, the State to improve its El score for CE-4 for AIG and for AGA, to that of the global average]

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]
For example, ICAO ORG SEI-3 — Implementation of a mechanism to ensure that each safety oversight authority has sufficient personnel to meet its national and international obligations	Establish and implement a system, including supporting human resource plans, to attract, recruit, and retain the appropriate number of qualified technical personnel to support accident and incident investigations	Q1 2026 to Q4 2028	Accident investigation board (AIB)	AIB CAA Aircraft manufacturers RAIO	 Recruitment system updated with new recruitment package Number of training sessions on accident and incident investigations Number of personnel completing accident and incident investigator training Number of investigators retained more than 12 months after recruitment 	High	USOAP CMA results following next audit

 $^{^{\}rm 10}$ 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 ¹¹)	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 (sections and their content)?	□ Yes	
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 describe the process for the NASP's development, implementation and monitoring?	□ Yes	
4.3.1 d) 1)	Does it describe how the NASP is developed and endorsed, including the responsible entities?	□ Yes	
4.3.1 d) 2)	Does it explain that a collaborative approach is needed to achieve the strategy presented in the NASP?	□ Yes □ No	
4.3.1 d) 3)	Does it describe the governance of the NASP, including how frequently it is reviewed and updated?	□ Yes	
4.3.1 e)	Does it describe the national safety issues?	□ Yes	

¹¹ 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 ¹¹)	Reference in State's NASP (if different from template)
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	
	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	
4.3.2 b)	Does it establish the duration of the NASP?	□ Yes	
4.3.2 c)	Does it note the relationship between the NASP, the most current edition of the GASP and the corresponding RASP?	□ 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 National operational safety risk	ks	
4.3.3 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	
4.3.3 b)	Does it describe the taxonomy used in the process of determining national operational safety risks?	□ Yes	
4.3.3 c)	Does it list the national HRCs (N-HRCs), including the reason they were given priority?	□ Yes	
4.3.3 d)	Does it list the main contributing factors leading to the N-HRCs identified by the State?	□ Yes □ No	
4.3.3 e)	Does it list other national risk categories of occurrences, including the reason they were given priority?	□ Yes □ No	

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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 ¹¹)	Reference in State's NASP (if different from template)
	4.3.4 National organizational challeng	jes	
4.3.4 a)	Does it provide a summary of the State's effective safety oversight capabilities?	□ Yes	
4.3.4 b)	Does it include a list and description of the national organizational challenges selected for the NASP, including the reason they were given priority?	□ Yes □ No	
4.3.4 c)	Does it explain how they were identified, including, but not limited to, a data-driven approach?	□ Yes	
4.3	3.5 The State's strategic direction for the manageme	nt of aviation	safety
4.3.5 a)	Does it list the national safety goals, targets and indicators?	□ Yes	
4.3.5 a) 1)	Does it explain how the national safety goals, targets and indicators are linked to the GASP and RASP?	□ Yes	
4.3.5 a) 2)	Does it list any specific national safety goals, targets and indicators over and above those of the GASP and RASP, if applicable?	☐ Yes ☐ No ☐ N/A	
4.3.5 b)	Does it describe the action plan that supports the safety strategy presented in the NASP?	□ Yes □ No	
4.3.5 b) 1)	Does it explain how the list of prioritized SEIs will help to achieve the national safety goals?	□ Yes	
4.3.5 b) 2)	Does it explain how SEIs are linked to overarching initiatives at the regional or international levels?	□ Yes	
4.3.5 b) 3)	Does it list the SEIs that the State plans to implement, or is in the process of implementing, to address all the identified N-HRCs and other national risk categories of occurrences, and which are needed to achieve the national safety goals?	□ Yes □ No	
4.3.5 b) 4)	Does it identify those SEIs derived from the global aviation safety roadmap (mainly taken from the operational safety risks (OPS) roadmap), where applicable?	☐ Yes ☐ No ☐ 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 ¹¹)	Reference in State's NASP (if different from template)
4.3.5 b) 5)	Does it list the SEIs that the State plans to implement, or is in the process of implementing, to address all national organizational challenges identified, and which are needed to achieve the national safety goals?	□ Yes □ No	
4.3.5 b) 6)	Does it identify those SEIs derived from the global aviation safety roadmap (mainly taken from the organizational challenges (ORG) roadmap), where applicable?	☐ Yes ☐ No ☐ N/A	
4.3.5 b) 7)	Does it provide references to corresponding SEIs in the RASP, where applicable?	☐ Yes ☐ No ☐ N/A	
4.3.5 c)	Does it list the emerging issues that may require further analysis?	□ Yes	
	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	
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 contributing factors 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,	□ Yes □ No	

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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) possibly leading to an unscheduled revision of the NASP"?	Answer (Yes/No or N/A ¹¹)	Reference in State's NASP (if different from template)
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	