

(G) – Appendix 1 to GM45 SKPI Verification of ANSP EoSM by NSA/competent authority

It is the responsibility of the ANSP to complete the ANSP-level Effectiveness of Safety Management questionnaire and for the NSAs to verify the evidence submitted. When answering the questions there are one of five levels of implementation to be selected. The ANSP should select the implementation level that best describes their organisation and provide evidence in support of the level selected.

In order to ensure consistent interpretation of the questions the following guidance has been prepared. Table A presents a set of generic principles that are applicable to each maturity level, throughout the questionnaire. Table B presents a set of outcomes for each question that align with each implementation level. It is important to be cognisant of BOTH tables when selecting the most appropriate implementation level since the principles of both tables are applicable. To further help with the interpretation of the questions additional explanations are provided at the end of each study area group.

Respondents are reminded that the answers should be conservative and ALL required elements must be in place for a certain level. This includes the generic elements from the table A below, as well as the particular elements suggested by the questionnaire and the guidance in Table B below. Even if a certain level has only one or two elements still missing, then the level below (which has all elements in place) must be selected.

Table A – Generic Principles for each Implementation Level

<i>Initiating</i>	<i>Planning / Initial Implementation</i>	<i>Implementing</i>	<i>Managing & Measuring</i>	<i>Continuous Improvement</i>
<ul style="list-style-type: none"> • Awareness for the need for SMS exists. No specific formal implementation actions are in place or planned • The processes for managing safety are ad- hoc and/or inconsistent with the Organisation's safety obligations. 	<ul style="list-style-type: none"> • A gap analysis has been performed. • The Organisation has an SMS Implementation Plan that is consistent with the Organisation's safety goals and obligations. • Implementation is underway but not yet completed in some major aspects. 	<ul style="list-style-type: none"> • The Organisation has achieved the required regulatory standard. • The SMS standard processes are in use across the organisation and are producing consistent results. The results are being measured using qualitative techniques. 	<ul style="list-style-type: none"> • SMS Implementation has been completed and both safety performance and system performance are measured and controlled using statistical and other quantitative techniques. • Quantitative safety objectives are based on customer, end user and organisational needs. • Sub-processes are developed that significantly contribute to overall organisation safety performance. 	<ul style="list-style-type: none"> • Safety processes/systems are firmly embedded within the organisation. • The focus is on continuous improvement in operational safety and maximising the effectiveness of SMS processes through innovative improvements. • There are defined processes to set standards and improvement targets. • The effectiveness of the SMS and safety improvement actions are measured and evaluated against defined improvements criteria.
The SMS framework is very	The SMS framework is not yet	The SMS framework meets the	The SMS framework is	The SMS framework is regularly

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<p>immature or non-existent in the organisation. The SMS components and elements are not documented and have not been implemented. No Implementation Plan has been formally developed.</p>	<p>effective and does not yet meet the required regulatory standard. The Implementation Plan exists. The plan is not yet fully deployed.</p>	<p>required regulatory standard. The SMS Implementation Plan is mostly implemented.</p>	<p>functioning and is effective in achieving the overall safety policy and objectives of the organisation. The Organisation is identifying and adopting industry best (good) practices.</p>	<p>reviewed and enhanced to achieve excellence in ATM safety management. Ongoing planning ensures that safety management activities are integrated and drive priorities for operational safety improvement. The Organisation is setting the industry SMS best (good) practices.</p>
<p><i>The organisation is not measuring and monitoring safety performance.</i></p>	<p><i>The organisation has a plan to capture information about safety performance.</i></p>	<p><i>The organisation is collecting safety reports under a controlled process, and is responding to safety issues identified as a result of individual incident investigations.</i></p>	<p><i>The organisation is measuring safety performance. It has identified its key safety risks and has developed plans for improvement.</i></p>	<p><i>The organisation is managing its key safety risks in conjunction with external stakeholders and can demonstrate improved safety performance.</i></p>

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Table B – Example Outcomes for Each Level and Every Question

Effectiveness Levels						
ID	Objective	Initiating	Planning / Initial Implementation	Implementing	Managing and Measuring	Continuous Improvement
SA1 Development of a positive and proactive safety culture						
SA1-1	A positive and proactive just, flexible, and informed safety culture (the shared beliefs, assumptions, and values regarding safety) that supports reporting and learning led by management.	<p>Within the organisation, there are significant differences between what is said, what is done, and what is believed.</p> <p>The competent authority may be regarded as being responsible for safety.</p> <p>The organisation determines what safety means and generates some awareness of this throughout the organisation. Individuals may have a different understanding of how their activities contribute to safety.</p>	<p>All of Initiating plus:</p> <p>Individuals within the organisation have a good level of systematic safety management awareness.</p> <p>The organisation is starting to put processes in place for systematic safety management.</p>	<p>All of Planning/ Initial Implementation plus:</p> <p>The fundamentals of a positive safety culture exist and are operating is developing, although it is still immature.</p> <p>Individuals are starting to may be involved in systematic safety management.</p>	<p>All of Implementing plus:</p> <p>Staff are proactively involved in planning for and implementing systematic safety management.</p> <p>The organisation operates informed learning and reporting cultures, as well as a just culture with respect to errors in operations.</p>	<p>All of Managing & Measuring plus:</p> <p>Individuals across the organisation are proactively and constantly striving to improve their approach to systematic safety management. They are supported by measurement and review processes and organisational management.</p> <p>Experiences are openly exchanged internally and externally.</p> <p>Within the organisation, there is a complete alignment between what is said, what is done, and what is believed.</p>
SA1-1	Outcomes of the objective	People who make mistakes (human errors) are blamed	Individuals within the organisation have a good level	A positive safety culture is developing, although it is still	Staff are proactively involved in planning for and	Individuals across the organisation are

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<p>fulfilment which may be considered applicable for each level of implementation</p>	<p>for their failure to comply with rules. Disciplinary action may be seen as the best way to minimize the chance of employees making errors. Role of management is seen as endorsing the rules, pushing employees and expecting results. There may be an adversarial relationship between management and employees, with little trust or respect demonstrated. Problems are not anticipated; the organization reacts to each one as it occurs. Management does not understand the kinds of mistakes that actually occur in the organisation. There is little learning within the organization, which tends to adopt a defensive posture when criticised. Incidents and accidents are addressed by “fixing the people” as opposed to understanding what and why things happened. Management operates strictly by “command and control”. Processes are highly bureaucratic and centralized. Departments and functions</p>	<p>of systematic safety management awareness. The organisation is starting to put processes in place for systematic safety management. Management recognizes the need to implement processes that will allow them to understand the underlying factors that contribute to accidents and incidents. Management, working with employees and unions, begins the development of investigative and other processes (such as over the shoulder checks, unit evaluations, etc.) for the purpose of improving the safety performance of the organisation. Management recognizes the importance of safety training and starts to develop employee participation by inviting employees to identify training needs. Management encourages cross-departmental and cross-functional teams and communications. Safety management processes may be developed in isolation and are not as integrated and effective as they could be. Senior managers commit the organization to improving its safety performance, and agree on a safety vision.</p>	<p>immature. This is being achieved through forums such as safety committees, SMS integration working groups and other cross-organisational groups have been established for the sharing of information and the integration of safety processes. Individuals are starting to be involved in systematic safety management. Management believes that it is more important to understand what has happened than to find someone to blame. The organisation has developed operational rules and procedures to support a just culture and to encourage self reporting Management works closely with union representatives to ensure that labour relations are positive and that labour contracts do not contribute to a “punitive climate”. The organisation is somewhat open to learning from other companies, especially techniques and best practices. Management recognizes that suppliers and contractors may impact safety performance, and looks to understand and address those impacts before safety performance is affected. Trends identified through reporting and investigation are</p>	<p>implementing systematic safety management. It is expected that: The organisation operates informed learning and reporting cultures, as well as a just culture with respect to errors in operations. Relationship between management and employees is respectful and supportive. A Just Culture Policy is extended to include all employees in the organization. An increase is seen in the number of reports being submitted by employees. Management realizes that an increase in the number of incident reports may well be an indication of a strong just culture. An increase in reporting is not seen negatively. Standards of accountability are applied consistently to everyone in the organisation. Management seeks the active involvement of employees in improving safety. Employees report not only safety concerns but also their own errors. People are adequately trained to perform their safety related duties. Information flows more freely as hierarchies are flattened and rank defers to technical</p>	<p>proactively and constantly striving to improve their approach to systematic safety management. They are supported by measurement and review processes and organisational management. Experiences are openly exchanged internally and externally. Within the organisation, there is a complete alignment between what is said, what is done, and what is believed. Management’s role is seen as coaching people to improve safety performance. Managers encourage employees to share information in order to assist with the further improvement of existing processes. Employees share safety-related information, even cases of human error that would probably not have been identified. All types of information are openly and proactively shared up and down as well as across the organization for the</p>
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	<p>behave as semi-autonomous units, with little collaboration or shared decision making.</p> <p>Conflicts are not resolved, departments and functions compete with each other.</p> <p>Safety is seen as a technical issue; more compliance with rules and regulations is seen as adequate.</p> <p>There is a limited understanding of the hazards and risk associated with operations.</p> <p>There is limited understanding of the impact that changes may have on departments, functions, or the safety performance of the organisation.</p> <p>There are limited, if any, means for measuring the safety performance of the organisation.</p> <p>Management operates strictly by “command and control”.</p> <p>Processes are highly bureaucratic and centralized.</p> <p>Departments and functions behave as semi-autonomous units, with little collaboration or shared decision making.</p> <p>Conflicts are not resolved, departments and functions</p>	<p>Senior managers formulate safety policy and communicate it to the workforce.</p> <p>Implementation is begun of a Safety Management System that looks to meet the needs of the organisation based on the CANSO Standard of Excellence in Safety Management Systems.</p> <p>An analysis is conducted to determine the gap between which SMS elements are already in place and what a fully implemented SMS requires.</p> <p>Senior management has formulated and communicated to the workforce a corporate safety policy.</p> <p>The SMS and training to support its implementation are under development.</p> <p>Communication on safety starts to develop ,although it is strictly related to safety occurrences.</p>	<p>used to improve process, procedures, etc. and are shared across operational units.</p> <p>Safety Training is seen as an important element of a learning culture and management provides the necessary support and resources.</p> <p>There is an expectation across the organization of co-operation rather than indifference or conflict.</p> <p>Employees view themselves as being part of a single team, not in competition with other departments.</p> <p>Senior managers function as a team and begin to co-ordinate departmental and functional decisions.</p> <p>People recognize and state the need for collaboration between departments and functions.</p> <p>Management provides the support, recognition, and resources necessary for collaborative work.</p> <p>Senior management encourage managers' awareness that good safety performance is good for business.</p> <p>Managers establish safety performance measures and analyse statistics to establish trends. They share this information with employees.</p>	<p>expertise during periods of high activity.</p> <p>People are willing to cross organizational boundaries to share safety information and concerns.</p> <p>The organisation invests heavily in the quality, motivation, and experience of its first-line supervisors.</p> <p>Processes are put in place to find ways to improve SMS integration across the organisation.</p> <p>The existence of conflict is recognized and addressed by searching for mutually beneficial solutions.</p> <p>There is no goal conflict between safety and production performance, so that safety is not jeopardized in pursuit of production targets.</p> <p>The organisation operates a best-in-class Safety Management System.</p> <p>There is a clear understanding of the hazards and risks associated with operations. It is understood that safe operations are the outcome of a positive interaction between Best Practices SMS and a sound safety culture.</p> <p>Decisions are made in full knowledge of their safety impact on work or processes as well as on department and</p>	<p>improvement of safety performance.</p> <p>Management cooperates with customers, suppliers, and contractors to improve their safety performance.</p> <p>When needed, the organisation can shift from centralized control to a decentralized mode in which the guidance of local operations depends largely on the professionalism of first-line supervisors.</p> <p>Management values and continuously encourages employees to forward ideas and suggestions for ways to improve safety performance.</p> <p>All individuals in the organisation feel personally responsible for safety.</p> <p>Senior managers make comparisons with external organisations chosen as benchmarks.</p> <p>Management undertakes a leadership role in creating and communicating the future safety vision for their organisation.</p> <p>The organisation looks to continuously improve and enhance its Safety</p>
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	<p>compete with each other.</p> <p>Safety is seen as a technical issue; mere compliance with rules and regulations is seen as adequate.</p> <p>There is a limited understanding of the hazards and risk associated with operations.</p> <p>There is limited understanding of the impact that changes may have on departments, functions, or the safety performance of the organisation.</p> <p>There are limited, if any, means for measuring the safety performance of the organisation.</p> <p>Safety is not recognised as a priority within the organisation and is strictly dealt with as required by the Regulations.</p> <p>Within the organisation there are</p> <ul style="list-style-type: none"> • Low levels of trust • Lack of appreciation for the role the organisation plays in safety • Lack of accountabilities for safety outcomes <p>Management gives little to no importance to safety issues.</p>		<p>Critical mechanisms for improving the sharing of information are established, such as executive management safety committees, management/employee safety committees, etc.</p> <p>Implementation of the Safety Management System is completed.</p> <p>All are aware of their duties and accountabilities as they relate to the safety management system.</p> <p>The reporting and investigation system includes accidents, incidents, hazardous situations and precursor data.</p> <p>All employees are aware of their duties and accountabilities as they relate to safety.</p> <p>A reporting and investigation 'regime' has been established.</p> <p>Safety reports are produced but they are not proactive.</p>	<p>functions across the whole organisation.</p> <p>Everyone is kept informed of and adequately prepared for changes that may affect safety.</p> <p>Safety performance targets are set, measured and weaknesses identified and addressed.</p> <ul style="list-style-type: none"> • Safety performance measures have been identified and implemented. • Safety performance targets have been set and measured, and weaknesses identified and addressed. • The organisation has committed resources to collect, maintain and analyse safety data. <p>This category may only be selected if a formal (i.e. not an ad hoc process) Safety Culture measurement has been performed, such as the EUROCONTROL Safety Culture Survey or similar.</p>	<p>Management System.</p> <p>Management undertakes a leadership role in creating and communicating the future safety vision for their organisation.</p> <p>Ongoing contacts are established with external stakeholders such as airlines, aviation associations, airports and other ANSPs in order to collect and address safety concerns.</p> <p>The organisation has developed and implemented methods for sharing lessons learnt.</p> <p>The organisation looks to continuously improve and enhance its Safety Management System</p> <p>A safety culture measurement must have been made and targets set for the organisation to select this level.</p>
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SA1	Possible verification questions	Why have you scored in x maturity level? Can you give examples of the situation? What were the enablers to score x maturity level? What needs to happen to move forward? What obstacles are you experiencing? Is there anything that can be done to help you progress in this area? Is there any regulatory input into your Safety Culture? If so, to what level? How is this impacting your progress in implementing Safety Culture? What is the role of management in leading Safety Culture?
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SA1-2	Regular measurement of safety culture and an improvement programme	The organisation does not see the need to have a safety culture measuring mechanism in place.	<p>All of Initiating plus: The organisation is aware of the need to have periodic measurements of safety culture in place, as well as an improvement plan.</p> <p>However, what will be measured, and when, is still being defined.</p>	<p>All of Planning/ Initial Implementation plus: Safety culture is measured and results are available.</p> <p>An improvement plan addresses the need for individuals to be aware of, and support, the organisation's shared beliefs, assumptions and values regarding safety.</p>	<p>All of Implementing plus: The organisation assesses its safety culture on a regular basis and implements improvements to any identified weaknesses.</p> <p>Safety Culture enablers and barriers are identified, and solutions to reduce barriers are being implemented.</p>	<p>All of Managing & Measuring plus: All personnel are proactive and committed to improving safety.</p> <p>Safety Culture Surveys confirm that, within the organisation, there is a high level of alignment between what is said, what is done, and what is believed.</p> <p>Organisational management approves a continuous improvement plan.</p>
SA1-2	Outcomes of the objective fulfilment which may be considered applicable for each level of implementation	<p>There is no attempt to measure or improve the organisation's safety culture.</p> <p>No consideration is given to the impact of culture on the safety performance of the organisation.</p> <p>The implementation of SMS may be negatively affected if areas of safety culture deficiencies are not identified</p>	<p>There is a growing awareness of the impact of cultural issues in the workplace.</p> <p>The importance of safety culture and the role it plays in supporting SMS implementation is starting to be understood. It is recognized that the success of the SMS depends upon a positive safety culture.</p> <p>Based on the operational context of the organisation, a model of safety culture has been defined.</p> <p>Safety culture drivers have</p>	<p>Management becomes cognisant of the need to address safety culture issues in order to support new SMS processes.</p> <p>Awareness campaigns and training on safety culture are introduced to all employees.</p> <p>Tools are developed and utilized for the measurement of safety culture, primarily in operational groups.</p> <p>Improvement plans focus on improving the initiating elements of a positive safety culture by instilling just culture</p>	<p>People are aware of the impact of cultural issues and consider these factors in key decisions.</p> <p>A wide variety of tools and processes (i.e., surveys, focus groups, evaluations, observations, etc.) are used to assess safety culture across the organization.</p> <p>Improvement plans shift towards using improved reporting to enhance the informed and learning cultures across the entire organisation.</p>	<p>Safety and production are seen as interdependent and not mutually exclusive.</p> <p>Top management is knowledgeable of the barriers and enablers to safety culture, and fully support efforts to eliminate barriers and enhance enablers.</p> <p>Safety culture assessment tools are used in a more targeted manner to further refine and enhance key safety</p>

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		<p>and addressed. New SMS procedures and processes may not be followed or will be ineffective.</p>	<p>been identified. Awareness campaigns and training on safety culture are being introduced to all employees to management. Management works with labour organisations in order to plan safety culture measurement and enhancement initiatives.</p> <p>The organisation is researching how to measure safety culture.</p>	<p>and reporting cultures within the operational areas of the company.</p> <p>Tools such as climate surveys and workshops have been developed and used to measure safety culture.</p> <p>Results of measurement efforts have been evaluated, areas for improvement identified and an action plan developed.</p> <p>In concert with employee representatives, a plan, including a communications plan, for safety culture assessment and enhancement has been developed and implemented.</p> <p>At least one safety culture measurement must have been undertaken and finalised, with results available.</p>	<p>A regular cycle of safety culture measurement has been agreed upon, e.g. once every two years.</p> <p>Feedback is provided to management and employees on the results of the assessment and plans for enhancement.</p> <p>More than a single survey must have been undertaken and finalised in the past 3 to 5 years.</p>	<p>culture enablers. Improvement plans look to all areas of the company, and focus on the flexible culture within the organization as well as enhancing the enablers to the other safety culture elements. People are rewarded for improving processes as well as results.</p> <p>Assessment of safety culture has been expanded outside the operational groups.</p> <p>Action plans for enhancing safety culture, including continuous improvement, have been implemented.</p> <p>Levels of safety culture are improving over time.</p>
<p>SA1-2</p>	<p>Possible verification questions</p>	<p>Can you give examples of the situation? What were the enablers to score x maturity level? What needs to happen to move forward? What obstacles are you experiencing? Is there anything that can be done to help you progress in this area? If low maturity: Why do you think measurement is not needed? How do you ensure improvement if you do not measure?</p>				

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	<p>If signs of positive maturity level: How are measurements being done? What do you do with the measurements? Who are they available to? How are they made available?</p>
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SA1-3	A just and open climate for reporting and investigation of occurrences	Management believes there are no issues regarding the existing reporting and investigation culture and, therefore, does not see the need for any activity or dialogue with the staff in this area.	All of Initiating plus: Discussions between staff and management to define an open reporting and investigation climate are underway. However, there is no agreed policy in place yet.	All of Planning/ Initial Implementation plus: Safety data-sharing and publication policies are supported by the staff. Safety data are sufficiently protected from external interference within legal limits.	All of Implementing plus: Within the organisation, the line between acceptable and unacceptable mistakes is established and known by the staff. Just reporting and investigation culture principles are in place and systematically applied within the organisation.	All of Managing & Measuring plus: Under certain legal regimes, There is a clear and published policy on how dialogue with judicial authorities and media is established and followed.
SA1-3	Outcomes of the objective fulfilment which may be considered applicable for each level of implementation	Individuals do not feel sufficiently responsible for safety, see little benefit in reporting problems that they observe, and fear retribution. Reporting is limited, and focused on accidents and incidents as opposed to precursors. Management tends to dissuade employees from sharing “bad news”. At the same time there may be the belief that no news is good news.	Management begins to recognise the need for a just culture within the organisation. Management’s response to mistakes is to put more controls in place via procedures and retraining. There tends to be less blaming. Management, in close cooperation with union representatives and employees, begins development of a JC policy for all operational staff. Efforts are undertaken to improve management/ employee relations and to improve trust. Management begins to recognise the value of safety reporting. need for more safety information. Management begins discussions with union	Management strongly encourages employees to report any safety concerns that they might have. The organisation has a confidential safety reporting program that allows all employees to report safety concerns that they might have. The organization has established the necessary procedures, processes, and tools for collecting safety-related occurrence data. The organisation has established the necessary procedures, processes and tools for collecting hazard and system safety deficiencies from across the company, providing feedback to reporters, and disseminating lessons learnt.	Reporting is not limited to accidents and incidents, but also extends to collection of precursor data, such as situations where there was no loss of separation but safety was not assured. The necessary action is taken to address safety issues that have been identified, and mechanisms are in place to provide prompt feedback to incident reporters. Honest information flows up the organisation, ensuring that management has the necessary information to make critical decisions; in other words, telling the truth is more important than looking good. Self-assessment of safety performance, including the application of the SMS along with a comprehensive	Senior management is focused on obtaining the safety data necessary to reduce the rate of serious incidents and accidents, and recognizes that collecting increasing quantities of precursor data is essential. Employees recognise the essential role of safety reporting, trust management to treat them fairly, and believe that their safety concerns will be investigated thoroughly and openly. Employees are comfortable reporting safety concerns directly to their supervisors, not just confidentially to the safety department. The organisation seeks to

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		<p>There is no guarantee against penalties arising from the reporting of incidents.</p> <p>There is not trust between management and staff.</p>	<p>representatives to establish the processes necessary for collecting safety information such as a confidential safety reporting program, occurrence reporting processes, and reporting of maintenance errors and significant outages.</p> <p>The organisation has committed to developing the necessary reporting system(s), including the allocation of appropriate resources.</p>	<p>Safety reporting is increasing across the company.</p> <p>Staff are protected and incident reporting is confidential.</p>	<p>corrective action programme, is established.</p> <p>Understanding achieved through a variety of means, including reporting, lessons learnt, investigation, and self-assessment, is used to modify and improve safety processes throughout the organisation. Increased incident reporting, investigation, and analysis, and a proactive approach to understanding and addressing underlying factors and precursors, is likely to lead to an associated decrease in the most serious incidents.</p> <p>A just culture policy has been adopted by the organisation for employees, including operational staff.</p> <p>The organisation has developed operational rules and procedures that support a just culture and encourage self-reporting (i.e. a well-defined process, such as a decision tree, for dealing with rule violations, including routine violations).</p> <p>A confidential reporting system, with feedback processes to those who raise</p>	<p>collect safety concerns not only internally but externally from stakeholders as well. Based on information gathered through SMS processes, the organisation has a realistic view of risk, and anticipates problems and deals with their causes before they occur.</p> <p>Learning from outside the organization is valued. Time and resources are made available to acquire and adapt such knowledge to improve safety performance.</p>
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					safety concerns, is in place for all employees, .
SA1-3	<p>Possible verification questions</p> <p>Additional explanations</p>	<p>Why have you scored in x maturity level?</p> <p>Can you give examples of the situation?</p> <p>What were the enablers to score x maturity level?</p> <p>What needs to happen to move forward?</p> <p>What obstacles are you experiencing?</p> <p>Is there anything that can be done to help you progress in this area?</p> <p>If low maturity:</p> <p>Why does the management believe there is no need for an open climate?</p> <p>Is there an intention to put a policy regarding reporting and investigation of occurrences?</p> <p>If more positive maturity level:</p> <p>How is safety data protected?</p> <p>How is safety data published?</p> <p>How do staff feel about safety data being published?</p> <p>Who draws the line between acceptable and unacceptable mistakes?</p> <p>What mechanisms are in place for dialogue with judicial authorities?</p> <p>Individuals: Means individual employees within the organisation whose responsibilities have a direct impact, or potential impact, on safety.</p> <p>Management: These are the people within the organisation who are accountable for safety and make the decisions that affect safety.</p> <p>Measurement: This refers not just to the fact that measurement takes place, but also to how things are measured. It refers to using the appropriate statistical and other quantitative techniques. These should be listed in the Justification paragraph.</p> <p>Organisation: In this context, it means all those parts of the ANSP involved in ATM Safety. Where the ANSP is a Member of a formally established FAB and if this measurement is conducted at the level of the FAB, then 'organisation-wide' they can refer to the FAB and all other references to 'organisation' must be consistent with this approach.</p> <p>Staff: All those individual personnel, operational and technical, with a safety responsibility within their job description.</p>			

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SA2 Organisational and individual safety responsibilities						
SA2-1	An approved, clearly documented, and recognised system for the management of safety. Management structure, responsibilities, accountabilities and authorities are clearly defined and documented.	No formal designation of authorities, responsibilities or accountabilities for the management of safety exists.	All of Initiating plus: Safety authorities, responsibilities, and accountabilities have been identified but not yet formalised. Line managers assume responsibility for safety.	All of Planning/ Initial Implementation plus: Authorities, responsibilities, and accountabilities for the management of safety have been defined and documented. Delineation of responsibility for the development, oversight and implementation of the SMS is clearly understood ¹ .	All of implementation plus: Procedures are in place to address the need to review safety authorities, responsibilities, and accountabilities after any significant organisational change.	All of Managing & Measuring plus: Safety authorities, responsibilities, and accountabilities are periodically reviewed to determine whether they are suitable and effective (i.e., continuous improvement of safety management).
SA2-1	Outcomes of the objective fulfilment which may be considered applicable for each level of implementation		Safety accountability procedure is in place. It may be associated with a list of staff who have safety accountabilities Initial safety accountabilities are identified. A list of staff who have safety responsibilities is	Safety accountabilities of senior managers are documented. Safety accountability matrix that shows a complete and consistent set of accountabilities is produced. The organisation can	Safety responsibilities are Responsibilities are clear and without overlap. The organisation can provide an evidence that responsibilities are reviewed on a regulation basis and following any organisational change.	The organisation can provide an evidence that data on the effectiveness of safety management, and safety accountabilities and responsibilities of managers is Evidence shows that data on the effectiveness of safety

¹ Line management is usually responsible for the implementation of procedures or practices which are required by the SMS, whilst specific responsibility for the development and oversight of the SMS and the organisation's safety outcomes centre in safety departments, executive management and board oversight committees depending on the structure and governance of the organisation.

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			established.	provide an evidence which shows that safety accountabilities are being discharged. Evidence shows that safety responsibilities are being delegated. SMS ownership is clearly documented.	Evidence shows that responsibilities are reviewed on 1) a regular basis, and 2), following any organisational change.	management and safety accountability/responsibilities of managers are gathered and used to drive a process of continuous improvement
SA2 -1	Possible verification questions	<p>Why have you scored in x maturity level? Can you give examples of the situation? What were the enablers to score x maturity level? What needs to happen to move forward? What obstacles are you experiencing? Is there anything that can be done to help you progress in this area?</p>				

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SA2-2	A clearly defined safety management function/safety manager that is independent of line management	A safety management function has not yet been appointed to develop the SMS.	<p>All of Initiating plus: A safety management function has been appointed to develop and maintain the SMS.</p>	<p>All of Planning/ Initial Implementation plus: The safety management function is independent of line management and develops and maintains an effective SMS. The safety manager has access to the resources required for the proper development and maintenance of the SMS.</p>	<p>All of implementation plus: The highest organisational level recognises its role in the SMS and actively supports the development, implementation, maintenance, and promotion of the SMS throughout the organisation (including support departments).</p>	<p>All of Managing & Measuring plus: There is clear evidence that the highest organisational level plays a proactive role in the continuous improvement of the SMS.</p>
SA2-2	Outcomes of the objective fulfilment which may be considered applicable for each level of implementation		<p>The Safety Manager has been appointed. An SMS Implementation Plan has been produced. Governance structure for the SMS has been approved and published.</p>	<p>The organisation can provide an evidence shows that the Safety Manager is providing effective and efficient challenge to proactively manage safety within the ANSP</p> <p>An SMS Resource plan exists is in place</p> <p>Safety Governance structures are in place (e.g., review board and/or safety action group) are in place eg Review board and Safety action Group)</p>	<p>The organisation can provide evidences: That the SMS is fully embedded, within the organisation; That safety is considered in every investment decision; Of senior management support for safety. Evidence shows that:</p> <ul style="list-style-type: none"> • the SMS is fully embedded within the organisation; • safety is considered in every investment decision; • senior management support for safety. 	<p>Evidence shows Evidences exist that safety and safety management have become a way of life in the organisation and drive decisions at all levels in the ANSP.</p>
SA2-2	Possible	Why have you scored in x maturity level?				

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	verification questions	Can you give examples of the situation? What were the enablers to score x maturity level? What needs to happen to move forward? What obstacles are you experiencing? Is there anything that can be done to help you progress in this area? How is the SMS maintained, promoted and continuously improved?
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<p>SA2-3</p>	<p>An integrated safety planning process is adopted by the organisation with published and measurable safety goals and objectives for which the executive is accountable.</p>	<p>An ad hoc or non-existent safety planning process is utilised by the organisation. Safety goals and objectives have not been identified or documented for the implementation of a safety management system.</p>	<p>All of Initiating plus: Identification of an appropriate SMS has been identified. A compliance gap analysis has been performed and a SMS Implementation Plan developed to meet the applicable safety regulatory requirements.</p>	<p>All of Planning/ Initial Implementation plus: The requirements expressed in the SMS Implementation Plan have been completed. The SMS meets the regulatory requirements. but may not incorporate best (good) practices.</p>	<p>All of Implementing plus: An Organisation Safety Plan is published on a periodic basis with specific accountable and measurable safety management goals and targets.</p>	<p>All of Managing & Measuring plus: The Organisation Safety Plan goals and objectives are developed and prioritised based on organisation safety risks which have been identified through trend analysis, risk assessment processes and identified system safety deficiencies. Where appropriate (considering ANSP size and complexity), the organisation is committed to share and implement ATM safety management international best (good) practices.</p>
<p>SA2-3</p>	<p>Outcomes of the objective fulfilment which may be considered applicable for each level of implementation</p>		<p>There is evidence of a gap analysis between established procedure and the proposed SMS. Regulatory requirements are identified. SMS structure is agreed upon. A SMS Implementation plan is produced.</p>	<p>SMS Implementation Plan is completed. SMS is in place Evidence can be provided that the SMS addresses the regulatory requirements.</p>	<p>Organisation Safety Plan is in place. Measurable safety goals/targets exists.</p>	<p>The organisation understands its major safety risks. The organisation Safety Plan identifies mitigations for key risks. The effectiveness of both SMS and Safety Plan are measured and the information used to</p>

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			<p>SMS Implementation Plan is available.</p> <p>Evidence of gap analysis from established procedures to proposed SMS.</p>			<p>improve them on a continuous cycle.</p>
SA2-3	Possible verification questions	<p>Why have you scored in x maturity level?</p> <p>Can you give examples of the situation?</p> <p>What were the enablers to score x maturity level?</p> <p>What needs to happen to move forward?</p> <p>What obstacles are you experiencing?</p> <p>Is there anything that can be done to help you progress in this area?</p> <p>What were the results of the gap analysis?</p> <p>How are the organisation safety objectives defined?</p> <p>Who is accountable for safety objectives?</p> <p>How often are safety objective revisited?</p>				

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<p>SA 2-4</p>	<p>Clear understanding and acceptance of safety management accountabilities and responsibilities by all relevant staff and contractors.</p> <p>Commitment to continuous improvement to safety.</p>	<p>Knowledge of the principles underpinning SMS amongst all staff and contractors is negligible.</p>	<p>All of Initiating plus: All staff and contractors apply rules and procedures to their tasks in the knowledge that some of the rules and procedures need improvement. All staff and contractors are only partially aware of their roles in the SMS.</p>	<p>All of Planning/ Initial Implementation plus: All staff and contractors are aware of how their actions impact the safety of the wider operation and how the actions of others impact safety.</p>	<p>All of implementation plus: All staff and contractors across the organisation are actively promoting and improving safety. All staff and contractors take proactive day-to-day action to have rules and procedures changed where they identify a safety benefit by the change.</p>	<p>All of Managing & Measuring plus: The organisation regularly reviews and assesses documented safety management responsibilities.</p>
<p>SA2-4</p>	<p>Outcomes of the objective fulfilment which may be considered applicable for each level of implementation</p>		<p>Evidence shows that staff are beginning starting to become aware of the importance of a formal SMS. Evidence shows exists that procedures that are available as part of the developing SMS are starting to be applied.</p>	<p>Evidence shows that employees The organisation can provide evidence that staff and contractors are aware of how they all contribute to the safety of the operation and why it is important that formal SMS is agreed and applied.</p>	<p>Evidence shows that :</p> <ul style="list-style-type: none"> • safety and safety management are now core disciplines within the organisation; • safety is one of the key considerations in every part of the ANSP from operational units to finances and HR human resources departments. 	<p>Evidence shows that the effectiveness of the safety management system SMS is continually assessed and that the data gathered are used in a cycle of continuous improvement.</p>
<p>SA2-4</p>	<p>Possible verification questions Additional explanations</p>	<p>Why have you scored in x maturity level? Can you give examples of the situation? What were the enablers to score x maturity level? What needs to happen to move forward? What obstacles are you experiencing? Is there anything that can be done to help you progress in this area?</p>				

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	<p>How do you make staff and contractors aware of the SMS? How do you know how much individuals are aware of how their actions impact the safety of operations? Give examples of individual actions for SMS improvement</p> <p>Accountability: The person, who is accountable, has ultimate responsibility (liability) for safety and ensuring that those who are responsible for safety undertake their duties effectively and efficiently, i.e. 'the Buck stops here'.</p> <p>Appropriate: In this context, it means providing an SMS that meets the needs of your organisation. It is realised that smaller organisations have less complex processes than larger ANSPs. However, the chosen SMS must be Justified and clear Evidence of its suitability given.</p> <p>Authority: The person who is required to perform a certain safety management task is given all internal means to e.g. access the necessary data, avail of needed resources, experts, etc.</p> <p>Clear evidence: It must be shown that the CEO/Board have clear accountabilities with regard to safety and evidence of this must be shown below. E.g. Example of CEO's written accountability and examples of how he/she takes a proactive role in improving safety.</p> <p>Contractor: In the context of this survey, 'contractor' refers to internal 'contracted' staff with safety significant tasks and not external contractors. E.g. the IT department may have been outsourced, but the staff is on-site and for everyday work are working alongside permanent staff and operate under the rules. External 'contracted' staff are dealt with through external interfaces which are assessed in study area 7.</p> <p>Delineation: In this context, it means that accountabilities, responsibilities, etc. are described and written down in detail.</p> <p>Documentation: A formal statement, documentation, or equivalent, endorsed by top management and/or Board is required.</p> <p>Highest organisational level: It means that post with overall accountability for Safety. E.g. the CEO.</p> <p>Independent of Line Management: It means an individual can exercise authority without reference to their line management and reports directly to a senior post without going through line management. E.g. Safety Manager reports directly to CEO.</p> <p>Integrated safety planning process: It means that the process covers the entire organisation (not just single units) and is accountable to the highest level of the ANSP. E.g. the CEO/Board are accountable for the process.</p>
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SA3 Timely compliance with international obligations						
SA3-1	A formal SMS that meets all applicable safety requirements	There is no SMS in place. There may be deviations from safety requirements.	All of Initiating plus: The SMS is partially implemented, but it is not yet effective; it does not yet meet the safety requirements.	All of Planning/ Initial Implementation plus: The essential parts of the SMS are implemented, and the organisation meets the safety requirements.	All of Implementing plus: The SMS is fully implemented and effective. Operations are monitored regularly to identify deviations.	All of Managing & Measuring plus: Where applicable The organisation is committed to going beyond compliance and operating at the highest international safety standard.
SA3-1	Outcomes of the objective fulfilment which may be considered applicable for each level of implementation		ANSP has a plan to implement an SMS and is working towards the goal through a prioritised program.	A compliant SMS is implemented in place is compliant to the requirements.	The SMS is an effective management system which is assisting in decision making at the very highest levels.	The ANSP has recognised that there is benefit for its operations in having a mature SMS. There is a plan in place for reaching the highest international safety standards.
SA3-1	Possible verification questions	Why have you scored in x maturity level? Can you give examples of the situation? What were the enablers to score x maturity level? What needs to happen to move forward? What obstacles are you experiencing? Is there anything that can be done to help you progress in this area? Do you have any intention to go beyond the regulatory requirements? (If yes, further explanation could be requested)				

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SA3-2	<p>An organisation that strives to go beyond compliance, takes into account the need to ensure, in a timely manner, that there are no inconsistencies with European or national requirements or international safety standards</p>	<p>There is little awareness of the regional or international safety standards.</p>	<p>All of Initiating plus: There is an awareness of the European or national requirements or international safety standards. Work has started in some areas.</p>	<p>All of Planning/ Initial Implementation plus: European or national requirements or international safety standards are known and met as required.</p>	<p>All of Implementing plus: There is a process in place to address the need for timely and consistent compliance with European or national requirements or international safety standards.</p>	<p>All of Managing & Measuring plus: The organisation has a structured mechanism to address the need for ongoing and consistent compliance with European or national requirements or international safety standards. It contributes to a European, national or international dialogue to improve these requirements or standards.</p>
SA3-2	<p>Outcomes of the objective fulfilment which may be considered applicable for each level of implementation</p>		<p>A gap analysis has been completed, and areas of non-compliance are known and prioritised for action.</p>	<p>Compliance differences have been filed.</p>	<p>The organisation is compliant with new requirements ahead of the effective date. Embedded management processes (including audit) monitor practices to test internal compliance.</p>	<p>The organisation can identify areas of its operations for which further legislative requirements are needed to improve safety standards.</p>
SA3-2	<p>Additional explanations</p>	<p>Why have you scored in x maturity level? Can you give examples of the situation? What were the enablers to score x maturity level? What needs to happen to move forward? What obstacles are you experiencing? Is there anything that can be done to help you progress in this area? How do you follow the on-going development of European requirements and international standards? Could you provide an example of implementation of safety requirement before it enters into force?</p>				

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	<p>Applicable: It means all those safety requirements laid down by State and International bodies. E.g. State Safety Plan, SES Regulations, etc.</p> <p>Evidence: Within the Evidence box you must show how you contribute and provide clear evidence of how you contribute to national and international standards. Structured mechanisms must be clearly identified.</p> <p>Examples: Clear examples of going beyond compliance have to be provided (more than one).</p> <p>Going beyond compliance: Means not just meeting the requirements but doing so before the deadline and having things in place that go beyond the basic requirement. The 'applicable' safety requirements are often the 'minimum' standard required and it is feasible to reach higher levels of safety by implementing additional safety measures. To achieve this level, ANSPs must demonstrate that they have not only achieved the applicable safety requirements but have also gone beyond that level of compliance.</p> <p>International Safety Standards: These are standards recognised by international organisations such as ICAO, EUROCONTROL, CANSO, EASA, etc.</p> <p>Monitored regularly: Justification and Evidence of the methods used to monitor and evidence of the monitoring will be required.</p> <p>Organisation In this context, it means all those parts of the ANSP involved in ATM Safety. Where the ANSP is a Member of a formally established FAB, and if this survey is conducted at the level of the FAB, then 'organisation-wide' can refer to the FAB and all other references to 'organisation' must be consistent with this approach.</p> <p>Process: Give details on the process to ensure compliance and measurements used to monitor this process, such as number of regulations per year, people involved directly, average time to compliance, number of findings (if applicable) from audits, etc.</p> <p>Safety Requirements: It means all those safety requirements laid down by State and International bodies that you have to meet. E.g. State Safety Plan, SES and BR Regulations, etc.</p> <p>Timely and Consistent Compliance: It means that the organisation consistently meets all deadlines set and has a process in place to ensure this happens. However, just having a process in place is not the same as meeting the target or implementing a specific project.</p> <p>Timely Manner: It means that all requirements and standards are met well within any deadlines set.</p>
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SA4 Safety standards and procedures						
SA4-1	Clearly defined and documented safety standards and procedures	Some safety and safety management procedures exist, but they are not complete. Operations manuals do not contain any specific safety management procedures.	All of Initiating plus: The documentation of SMS processes and procedures has started and is progressing as planned.	All of Planning/ Initial Implementation plus: The documentation of the essential parts of the SMS processes and procedures is complete. The processes and procedures ensure that the organisation is compliant with all applicable safety and regulatory requirements.	All of Implementing plus: There is clear evidence that the safety and safety management documentation is readily available to all personnel in the organisation. This documentation details safety and safety management processes and procedures that meet or exceed the applicable safety and regulatory requirements.	All of Managing & Measuring plus: Processes are in place and are being applied to give effect to the organisation's commitment to continuously improve safety and safety management processes and procedures.
SA4-1	Outcomes of the objective fulfilment which may be considered applicable for each level of implementation		The following documentation exists: <ul style="list-style-type: none"> • SMS policy statement is in place • Documented SMS framework • SMS initial implementation plan is adopted • Initial SMS documentation 	Documented Compliance with Regulatory requirements	SMS published and available to all staff in the organisation Identification of best practice Compliance with best practice — to exceed regulatory requirements. It exceeds the regulatory requirements when it reflects best (good) practice in some areas.	The effectiveness of the organisations safety standards and procedures is measured and procedures are regularly updated to ensure that they reflect evolving best practice — i.e. better, quicker and more effective. Benchmarking against external organisations and sharing of best practice is an ongoing activity.
SA4-1	Possible verification questions	<p>Why have you scored in x maturity level?</p> <p>Can you give examples of the situation?</p> <p>What were the enablers to score x maturity level?</p>				

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	<p>What needs to happen to move forward? What obstacles are you experiencing? Is there anything that can be done to help you progress in this area? Why are there some safety and safety management procedures not included in the operational manuals? Is there any intention to include these? If not, why not? How are safety standards and procedures made available to staff? What is the process to improve them?</p>
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SA4-2	<p>Clearly defined and documented safety standards and procedures. Staff know about the safety and safety management requirements and standards, which are regularly reviewed, assessed, and maintained</p>	<p>Staff have limited knowledge of SMS processes and procedures. There is no formal process that maintains the SMS, nor is there an identified authority (or authorities) responsible for the updates.</p>	<p>All of Initiating plus: A process to maintain all safety and safety management procedures exists, but its initial implementation is ad hoc and not fully effective. The authority (or authorities) responsible for the updates are partially identified.</p>	<p>All of Planning/ Initial Implementation plus: The process to maintain all safety and safety management procedures is documented and practised. Procedures are kept up to date on an ad hoc basis as a minimum .</p>	<p>All of Implementing plus: There is a formal process in place to periodically review safety and safety management procedures and ensure that they remain relevant, up to date, and effective. The authority (or authorities) responsible for the updates are completely identified. All safety-related procedures are documented in an appropriate manner and are known by the staff.</p>	<p>All of Managing & Measuring plus: Changes within the organisation that could affect safety and/or the safety management framework are subjected to formal review.</p>
SA4-2	<p>Outcomes of the objective fulfilment which may be considered applicable for each level of implementation</p>	<p>Staff are aware of the existence of the SMS, but are not familiar with the content or what they are required to do. It is hard to obtain a controlled and accurate copy of the SMS. The SMS exists, but is not up to date or formally maintained. SMS documentation is not subject to</p>	<p>The process for maintaining the SMS is documented and is documented well understood, but not yet implemented. Uncontrolled and out-of-date copies of the manual may still be SMS are used locally within the organisation. Responsibility for ownership and maintenance is known and documented for only parts of the SMS of some part of the SMS is identified. The remaining parts of the SMS are not formally maintained or up-to-date.</p>	<p>The SMS development processes are well understood and follow the formally documented processes. The procedures are controlled and the issue status is known, but they are not all up to date as a formal and regular review and update cycle has not yet been instigated.</p>	<p>The SMS update process is well understood and managed effectively. Authorities maintain the individual sections for which they are responsible for according to a periodic review cycle. All safety documents and procedures are up to date. All safety documents and procedures are easily accessible to staff. The SMS is demonstrably up-to-date and made available to</p>	<p>All changes are subject to an impact assessment of on the SMS before they are implemented. The SMS is continually updated and reviewed to improve its efficiency and effectiveness. A well-established SMS change management process is in place and is continually reviewed to improve its efficiency and effectiveness.</p>

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		regular review and update.			all staff that require it.	
		Staff familiarity with the SMS is low.				
		Accessibility to SMS documents is low and not well understood.				
SA4-2	Possible verification questions	<p>Why have you scored in x maturity level? Can you give examples of the situation? What were the enablers to score x maturity level? What needs to happen to move forward? What obstacles are you experiencing? Is there anything that can be done to help you progress in this area? How do you ensure that safety and safety management procedures are kept relevant, up to date and effective? How are staff informed of updates to safety and safety management procedures? How often are safety and safety management procedures are updated?</p>				

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SA4-3	<p>Emergency/Contingency response procedures and an emergency/contingency response plan that documents the orderly and efficient transition from normal to emergency operations and return to normal operations</p>	<p>The organisation has sound primary Air Traffic Management systems but does not have redundant capabilities or backup systems.</p>	<p>All of Initiating plus: There are procedures and some redundant capabilities and resources to cope with abnormal and unexpected situations.</p>	<p>All of Planning/ Initial Implementation plus: All primary systems have redundant capabilities, and emergency/contingency response procedures have been developed, documented, and distributed to appropriate staff. The emergency/contingency response plan is properly coordinated with the emergency/contingency response plans of those organisations it must interface with during the provision of its services.</p>	<p>All of Implementing plus: Primary Air Traffic Management systems are reliable and have redundant capabilities and backup systems. The emergency/contingency response plan and procedures have been rehearsed through desktop or operational exercises.</p>	<p>All of Managing & Measuring plus: The Emergency/Contingency Response planning processes and Emergency/Contingency Procedures and Plans are regularly exercised and revised to keep them up to date.</p>
SA4-3	<p>Outcomes of the objective fulfilment which may be considered applicable for each level of implementation</p>	<p>The description of each level of implementation could be considered self explanatory in terms of outcomes. No emergency response planning has been carried out. No planned redundant capabilities exist.</p>	<p>The primary risks to the organisation from abnormal and unexpected situations have been analysed. Emergency response procedures are documented for the most likely abnormal situations. Redundant capabilities are in place for high-risk functions.</p>	<p>Redundant capabilities are in place for all primary systems. Emergency response procedures have been published. An emergency response plan has been published. The emergency response plan has been co-ordinated with interfacing organisations.</p>	<p>Redundant capabilities and backups exist for all primary systems. The schedule for rehearsal of the emergency response plan and procedures has been determined.</p>	<p>The schedule for regularly reviewing the organisation's key risks has been determined. Regular lessons learnt exercises are conducted on the effectiveness of the emergency response plan. To reach level E, ANSPs must demonstrate that their emergency/contingency response planning process is exercised on a regular</p>

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						<p>basis and there is a process in place to ensure that the procedures are revised and kept up to date. In practical terms, this means that contingency plans must be exercised either in real time if feasible or, if not, by simulation.</p>
<p>SA4-3</p>	<p>Possible verification questions Additional explanations</p>	<p>Why have you scored in x maturity level? Can you give examples of the situation? What were the enablers to score x maturity level? What needs to happen to move forward? What obstacles are you experiencing? Is there anything that can be done to help you progress in this area? How often do you review your contingency plans? Who is accountable for the whole contingency planning process? How often training of the contingency plan implementation is given to the staff?</p> <p>Ad Hoc: It means that plans are only developed as and when required and there is no formal planning process.</p> <p>Authorities: In the context of this survey, it means those posts within the ANSP who are Accountable for Safety.</p> <p>Documentation: Documentation must be readily available to all staff, including those in remote locations. Intranet-based libraries are fine, however, there must be a process in place to ensure the documentation is updated and to check how easily it is accessible. Manuals buried in a library or web links that need countless clicks to access are not good examples, nor are those where personnel has to go through a complex registration procedure to access the documents.</p> <p>Emergency/contingency response plans: These must have been exercised, either through actual events, where practicable, or through simulation.</p> <p>Examples: Examples of such processes must be given. What are the resources allocated? Are these processes systematic or ad hoc?</p> <p>Formal Process: This is an established formal process in place that is documented and approved at the highest level within the ANSP.</p> <p>Formal Review: This is an established formal review process in place that is documented and approved at the top level within the ANSP.</p> <p>Organisation: In this context, it means all those parts of the ANSP involved in ATM Safety. Where the ANSP is a Member of a formally established FAB and if this survey is conducted at the level of the FAB, then 'organisation-wide' they can refer to the FAB and all other references to 'organisation' must be consistent with this approach.</p> <p>Periodically: Something that occurs at regular or predictable intervals. E.g. a safety audit cycle that occurs every 6 months, or some other defined period.</p>				

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		<p>Redundancy: Monitoring of the redundancy as well as the readiness for crisis are needed (e.g. time to recovery, loss of capability on average, etc.). Exercises and simulations should yield such results and indicate where improvement is potentially needed.</p> <p>Redundant Capability: The underlying concept behind redundant capability is to provide alternate means of providing a service. This may be a associated system or a standby network. To achieve redundancy, the network infrastructure (switches) must support redundancy protocols designed to negate the usual problems of putting loops into an Ethernet network, maintaining a default data path and switching to an alternate one when a fault occurs.</p> <p>Safety Processes/Procedures: Processes that are set out by local order or in the Safety Management Manual to ensure or enhance safety.</p> <p>Safety Management Processes/Procedures: Processes that are set out in the Safety Management Manual that define how safety should be managed within the organisation.</p> <p>Safety Standards & Regulations: Safety standards and Regulations are standards or requirements designed to ensure the safety of products, activities or processes, etc. They may be advisory or compulsory and may be issued by national and international bodies. E.g. National Regulator, ICAO, EUROCONTROL, EASA, etc.</p> <p>Staff: All those individual personnel, operational and technical, with a safety responsibility within their job description.</p> <p>Targets: Further to the monitoring defined for D, there need to be targets defined in terms of review of procedures (threshold for review, number of reviews, average time to solution etc.) as well as ensuring a minimum level of staff awareness.</p>
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SA5 Competency						
SA5-1	Staff, and contractors (where appropriate) are trained, competent in safety and safety management, and where required, licensed	<p>Competent staff and contractors (where appropriate) are provided on an ad hoc basis for safety and safety management activities.</p> <p>There are no formal competency methods (including proficiency, licensing, and training).</p>	<p>All of Initiating plus:</p> <p>Competent staff, and contractors (where appropriate) are provided and allocated based on limited planning and only for a limited number of positions related to operations and safety management activities.</p> <p>Competency methods are being developed.</p>	<p>All of Planning/ Initial Implementation plus:</p> <p>Competency methods have been designed and are applied.</p> <p>An annual planning process for training is in place.</p>	<p>All of Implementing plus:</p> <p>There is a process for the training provider(s) to receive feedback on the effectiveness of training programmes; based on feedback, the training programmes are revised to improve effectiveness.</p>	<p>All of Managing & Measuring plus:</p> <p>Competency methods (including proficiency, licensing, and training) are periodically reviewed and improved with industry best (good) practices adopted.</p> <p>Training plans cover safety and SMS activities and allow for the improvement of staff skills and competency.</p>
SA5-1	Outcomes of the objective fulfilment which may be considered applicable for each level of implementation		<p>Core Competencies for safety professionals are defined in policy.</p> <p>Training Plan is adopted.</p>	<p>Training course materials exists.</p> <p>Training statistics (metric) is available, provide attendance records and competence assessment</p> <p>A gap analysis to identify any unfulfilled training needs or requirements has been established.</p>	<p>Safety professional performance standards related to core competency requirements as defined by the ANSP are met.</p> <p>There are metrics for safety professional performance.</p> <p>The Organisational structure shows recognised safety professional categories.</p> <p>Safety professionals possess required core competency process elements for their roles.</p>	<p>Training feedback is provided and analysed.</p> <p>Periodic training course review.</p> <p>Process Improvement Reports are available.</p> <p>Periodic Best (good) Practices Reports.</p>
SA5-4	Possible verification questions	<p>Why have you scored in x maturity level?</p> <p>Can you give examples of the situation?</p> <p>What were the enablers to score x maturity level?</p>				

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	<p>Additional explanations</p>	<p>What needs to happen to move forward? What obstacles are you experiencing? Is there anything that can be done to help you progress in this area? Who undertakes competency activities (ATSEP, ATCOs, AIS staff, MET staff)? Is there an annual or multiannual plan in place for training staff required to undertake competency checks? How often are competencies checked? Is the competency scheme internal only, or is there regulatory involvement? Is there a scheme for examiners i.e. to evaluate their competency? How often are the training programmes reviewed for improvement purposes?</p> <p>Ad-Hoc: Means that plans are only developed as and when required and there is no formal planning process.</p> <p>Competent Staff: Are those individual Operational/Technical personnel who have reached the required standard to operate safely within the ANSP.</p> <p>Competency Methods/Processes: Any process or procedure that is in place that meets current regulations to check the competency of staff (Operational & Engineering when appropriate) and includes proficiency, licensing, and training.</p> <p>Contractor In the context of this survey, 'contractor' refers to internal 'contracted' staff with safety significant tasks and not external contractors. E.g. the IT department may have been outsourced, but the staff are on-site and for everyday work are working alongside permanent staff and operate under the rules. External 'contracted' staff are dealt with through external interfaces which are assessed in study area 7.</p> <p>Feedback: Training and feedback must be monitored, such as effectiveness of response to the feedback, periodicity of training, satisfaction surveys from the trainees, etc.</p> <p>Limited Planning: This means that, although some planning is undertaken, it does not cover all safety issues.</p> <p>Periodically: Something that occurs at regular or predictable intervals. E.g. a safety audit cycle that occurs every 6 months, or some other defined period.</p> <p>Staff: All those individual personnel, operational and technical, with a safety responsibility within their job description.</p> <p>Targets: There are targets on the periodicity of review as well as on the quality of training from the feedback received and potential external audits.</p>
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SA6 Risk Management						
SA 6-1	A continuing risk management process that identifies, assesses, classifies, and controls all identified safety risks within the organisation, including potential future risks	There is no formal risk management process in place.	<p>All of Initiating plus:</p> <p>The principles of risk management are documented and understood.</p> <p>There is an approved plan in place to implement the risk management process.</p>	<p>All of Planning/ Initial Implementation plus:</p> <p>There is The fundamentals of an approved and structured process is in place for the assessment of current and potential safety risks but it is not yet mature. Training in risk assessment is ongoing.</p>	All of Implementing plus:	<p>All of Managing & Measuring plus:</p> <p>Methods are in place to predict future safety risks and to mitigate these risks.</p> <p>The risk management processes are reviewed and improved on a periodic basis.</p> <p>The organisation develops best practice guidelines that it shares with other ANSPs.</p>
SA6-1	Outcomes of the objective fulfilment which may be considered applicable for each level of implementation		<p>Risk Management Policy in place.</p> <p>Risk Management Training Plan adopted.</p> <p>Risk Management Implementation Plan adopted.</p> <p>The following documents (or equivalent) have been formally approved and published:</p> <ul style="list-style-type: none"> Risk management policy; Risk management definitions and theory. <p>Risk management training and</p>	<p>Risk Management process guide in place.</p> <p>Risk Management training manual & materials and training statistics (metrics) are available.</p> <p>The following (or equivalent) are available:</p> <ul style="list-style-type: none"> Risk management process guide; Risk management training manual and materials; Training statistics (metrics). 	<p>Risk Management (RM) process reports (metrics) are available.</p> <p>Organisation structure shows RM process elements.</p> <p>RM process activities are well documented.</p> <p>There are lists of risks, controls & mitigations, and their status.</p>	<p>The following are available:</p> <ul style="list-style-type: none"> Risk prediction reports are available. Periodic risk management process Management review by management. Including agendas, minutes, actions and their status Risk management process

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		<p>risk management implementation plans have been developed and are subject to implementation.</p>			<p>improvement reports is documented:</p> <ul style="list-style-type: none"> o Agendas; o Minutes; o Actions; o Status of previous actions. <p>RM Process Improvement Reports.</p> <p>Periodic Best Practices Reports.</p>
SA6-4	<p>Possible verification questions</p> <p>Additional explanations</p>	<p>Why have you scored in x maturity level? Can you give examples of the situation? What were the enablers to score x maturity level? What needs to happen to move forward? What obstacles are you experiencing? Is there anything that can be done to help you progress in this area? Please describe your risk management process. (Who is involved, who approves, endorses and accepts the process). To what extent is your regulator involved with risk management? What type of training is undertaken? What type of methods and tools are used to support the process? (I.e. How are future safety risks identified?)</p> <p>Future/Potential Risks: These can be identified when planning future systems and/or making changes to existing systems. A risk assessment process needs to be in place to capture any unforeseen risks that may occur in the future.</p> <p>Metrics: There must be clear quantitative metrics identified, which are monitored on a systematic basis. These may be lagging, leading or a combination of both types of indicators.</p> <p>Risk Management: A systematic, explicit, and comprehensive analytical approach for managing safety risk at all levels and throughout the entire scope of an operation or the lifecycle of a system in ATM.</p> <p>Targets: Targets have to be defined based on the above-mentioned metrics and these must be chased by the organisation.</p>			

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SA7 Safety interfaces						
SA7-1	Effectively managed safety-related internal interfaces (e.g. quality management system, security, and environment)	The relationships between various different internal interfaces are defined; however, the interfaces operate in isolation.	All of Initiating plus: Internal safety-related interfaces are managed on an informal or ad hoc basis.	All of Planning/ Initial Implementation plus: Internal safety-related interfaces are managed with a solid understanding of the boundaries and relationships between the interfaces.	All of Implementing plus: Safety-related internal interfaces are coordinated, and relationships are managed through interface agreements (e.g., Letters of Agreement (LoAs), Memoranda of Understanding (MoUs), Service-Level Agreements (SLAs)).	All of Managing & Measuring plus: A process is in place to regularly review identify weaknesses in-agreed interface arrangements (LoAs/MoUs/SLAs etc), identify weaknesses and act on rectification .
SA7-1	Outcomes of the objective fulfilment which may be considered applicable for each level of implementation	The description of each level of implementation could be considered self explanatory in terms of outcomes. The key relationships within the organisation are understood, but not documented	All safety interfaces are understood, but procedures to manage these relationships are not formalised or documented. Plans to improve interaction between the interfaces or to formalise the interaction are absent.	Sound procedures are in place to manage the interfaces and the relationships between them.		
SA7-1	Possible verification questions	Why have you scored in x maturity level? Can you give examples of the situation? What were the enablers to score x maturity level? What needs to happen to move forward? What obstacles are you experiencing? Is there anything that can be done to help you progress in this area? Please describe what type of internal interfaces are in place? (e.g. answers such as Service Level Agreement between ATS and CNS/Engineering). What other management systems do you have in place and what is their relationship with the SMS? (e.g. Quality Management System, Security Management System, Environment Management System).				

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SA7-2	<p>The effective management of external interfaces with a safety impact (e.g., MIL, airspace users, airports)</p> <p>Formalised processes and procedures dealing with external agreements, services, and supplies (e.g., cross-border Letters of Agreement)</p> <p>(NB: for certain organisations MET, CNS and/or AIS are internal interfaces of the Organisation)</p>	<p>There is a limited number of agreements in place.</p>	<p>All of Initiating plus:</p> <p>Safety-related external interfaces are managed on an informal or ad hoc basis.</p> <p>Draft contractual arrangements are being prepared and negotiated for all safety-related external interfaces.</p> <p>Some elements are already formalised and implemented.</p>	<p>All of Planning/ Initial Implementation plus:</p> <p>Safety requirements are specified and documented in appropriate agreements.</p>	<p>All of Implementing plus:</p> <p>Activities with safety-related external interfaces are coordinated and relationships are managed through documented agreements.</p> <p>Safety requirements within contractual agreements are systematically reviewed and revised as necessary.</p>	<p>All of Managing & Measuring plus:</p> <p>External services and suppliers are surveyed/audited and systematically monitored to identify deviations from the documented arrangements.</p>
SA7-2	<p>Outcomes of the objective fulfilment which may be considered applicable for each level of implementation</p>	<p>The description of each level of implementation could be considered self explanatory in terms of outcomes.</p> <p>Some agreements between external interfaces have been agreed.</p>	<p>All external safety interfaces are understood.</p> <p>Procedures/agreements to manage them are yet to be formalised but are in the process of being arranged.</p>	<p>All safety-related external interfaces are acknowledged, and the management of the relationship and the associated safety requirements is formally acknowledged and agreed upon.</p>		
SA7-2	<p>Possible verification questions</p> <p>Additional explanations</p>	<p>Why have you scored in x maturity level?</p> <p>Can you give examples of the situation?</p> <p>What were the enablers to score x maturity level?</p> <p>What needs to happen to move forward?</p> <p>What obstacles are you experiencing?</p> <p>Is there anything that can be done to help you progress in this area?</p> <p>With which other external parties do you interface with? (e.g. answers such as interface with Military, Airports, Airspace Users).</p> <p>Which of these interfaces are formal or informal?</p>				

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	<p>How often are the interface agreements reviewed/audited for improvement purposes?</p> <p>Ad Hoc: Means that plans are only developed as and when required and there is no formal planning process.</p> <p>Audit: Testing of process, product and people to assure that standards and requirements as documented in the organisation's SMS are complied with. If externals are independently audited and the report is made available that is it acceptable. E.g. If they are ISO certified and maintain the ISO certification.</p> <p>Environment: This term is used here as an example. If your organisation does not have an environmental unit, it should be ignored.</p> <p>External Interfaces: Interfaces between the ANSP and organisations, which are external to your own organisation e.g. NAA/NSA, FAB Partners, Military, Airlines, Energy Suppliers, etc., that you deal with on safety matters. Even if they are ISO certified, it may be necessary to have an agreement if they have a direct effect on safety.</p> <p>Internal Interfaces: These are interfaces that exist within the ANSP between departments that work together and have some reliance upon each other for the safe execution of their responsibilities e.g. Safety, Security, operations, engineering, etc. It is accepted that internal interfaces are rarely managed through LoAs, but some form of formal agreement is required and evidence should be provided. Where Safety & Quality Departments are combined, or they are under the same leadership (e.g. a single Head of Safety and Quality), formalised agreements are not required, as it is assumed that the coordination is achieved naturally. In the case of FABs, there may be instances where the FAB partner may be considered to be an internal interface.</p> <p>Interfaces: All interfaces have been positively identified and the need for formal agreements or not is documented, together with a measurement of such interfaces, such as number of required versus achieved, time between requests and solution across interfaces, etc.</p> <p>Informal basis: Means that no formal agreements have been signed. Nonetheless, interfaces are managed by cooperation between the parties without an official formal agreement.</p> <p>Limited Number: Very few agreements compared to the potential number of interfaces the ANSP has. These agreements are by and large set up on an ad hoc basis.</p> <p>Periodicity: The periodicity is clearly established and documented. An option may also be a contract renewal, provided this is clearly specified and not simply expected. For example, contracts mutually extended do not guarantee a revision at the time of renewal.</p> <p>Process: The process must ensure that weaknesses are identified and measured and targets are set to eliminate the identified weaknesses or problems.</p> <p>Regularly: An action that is scheduled at regular, predictable time intervals.</p> <p>Some Elements: Where this term is used, it means that agreements are being developed for interfaces (internal & external) and, although all agreements are yet to be finalised, some elements of the agreements are already in place and operating.</p> <p>Systematically: Something that is systematic, in the sense of belonging to the system, be it as a physical part of the system or as an enshrined procedure, action, etc. This may also be an action or something that happens with a certain regularity, which is established through internal procedures.</p>
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SA8 Safety reporting, investigation and improvement						
SA8-1	A continuing organisation-wide process to report and investigate safety occurrences and risks	<p>There is an informal system in place for reporting safety occurrences and risks, but reports are not reviewed systematically.</p> <p>The reporting system is not organisation-wide.</p> <p>Investigation is done on an ad hoc basis and with little or no feedback.</p>	<p>All of Initiating plus:</p> <p>There is a plan to formalise the existing reporting and investigation system.</p> <p>There is commitment from management to allocate resources to implement this system.</p> <p>The reporting system is wide-spread but does not yet cover the whole organisation. Feedback is given on an ad hoc basis.</p>	<p>All of Planning/ Initial Implementation plus:</p> <p>The system in place is commensurate with the size of the organisation.</p> <p>The organisation has a complete and formal system that records all reported information relevant to the SMS, including incidents and accidents.</p> <p>Corrective and preventive actions are taken in response to event analysis.</p>	<p>All of Implementing plus:</p> <p>Identified safety-related risks and deficiencies are actively and continuously monitored and reviewed for improvement.</p>	<p>All of Managing & Measuring plus:</p> <p>Personnel who report safety occurrences, risks and problems are empowered to suggest corrective actions, and there is a feedback process in place.</p>
SA8-1	Outcomes of the objective fulfilment which may be considered applicable for each level of implementation	<p>There are gaps in the organisation's knowledge of its performance. There is an incomplete investigation system, regime which means that some deficiencies are not rectified when they become visible. The potential of organisation learning is limited by the safety system inadequacies.</p>	<p>The organisation has committed to and resourced an organisational wide reporting and investigation system.</p>	<p>A reporting and investigation regime is established, however, improvements are however only able to focus only on findings from investigations of incidents and accidents due to the scope of the reporting system.</p>	<p>The reporting and investigation system is under continual development and includes embraces accidents, incidents and hazardous situations. The organisation's process and system improvement cycle is embedded.</p>	<p>A confidential reporting system is in place with feedback processes to those who raise safety concerns.</p>
SA8-1	Possible verification questions	<p>Why have you scored in x maturity level? Can you give examples of the situation? What were the enablers to score x maturity level?</p>				

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	<p>What needs to happen to move forward? What obstacles are you experiencing? Is there anything that can be done to help you progress in this area? What resources have been allocated and trained to undertake reporting and investigation? What tools and methods are being used to support investigation process? Please briefly describe your safety reporting process (mandatory, voluntary, confidential, anonymous, manual or automatic). Please briefly describe your investigation process (including identifying recommendations and remedial actions).</p>
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SA8-2	An organisation-wide means to record and disseminate lessons learnt	Safety lessons learnt are known only to those who experience them.	All of Initiating plus: There is an intention to develop a means to record and share lessons learnt. This may already happen, but only on an ad hoc basis.	All of Planning/ Initial Implementation plus: The process for sharing safety lessons learnt is systematic and operational and the majority of data is shared with appropriate personnel.	All of Implementing plus: All safety lessons learnt are systematically shared across the organisation at all appropriate levels. Corrective actions are taken to address lessons learnt.	All of Managing & Measuring plus: There is clear evidence that the internal lessons learnt dissemination process is embedded across the organisation at all levels and is periodically reviewed.
SA8-2	Outcomes of the objective fulfilment which may be considered applicable for each level of implementation	There is no transfer of learning at either an organisational or individual level.	Sharing of lessons is driven by individual workers or managers than at an organisational level.	The organisation has identified a number of mediums through which lessons can be shared	The organisation has developed and implemented a number of mediums through which lessons can be shared.	A continual improvement cycle has been developed to further refine and develop the ways in which lessons are shared within the organisation.
SA8-2	Possible verification questions	<p>Why have you scored in x maturity level?</p> <p>Can you give examples of the situation?</p> <p>What were the enablers to score x maturity level?</p> <p>What needs to happen to move forward?</p> <p>What obstacles are you experiencing?</p> <p>Is there anything that can be done to help you progress in this area?</p> <p>Please give an example of how your organisation records lessons identified.</p> <p>How are they disseminated?</p> <p>Is the process systematic or ad-hoc? If systematic, please describe it.</p>				

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SA8-3	<p>Appropriate safety information and knowledge is shared with Industry stakeholders</p> <p>Information disclosure is compliant with agreed publication and confidentiality policies/agreements</p>	<p>Safety data and information are treated as confidential. There are no plans to release it in any way to any industry stakeholders.</p>	<p>All of Initiating plus: Safety data and information are shared internally, but the organisation is reluctant or unwilling to share data with industry stakeholders.</p>	<p>All of Planning/ Initial Implementation plus: Safety data and information is shared internally, nationally, and with international bodies when it is required by regulation.</p>	<p>All of Implementing plus: There is a clear and published policy that encourages the proactive sharing of safety-related information with other parties.</p>	<p>All of Managing & Measuring plus: Safety data and information are actively shared internally, nationally, with recognised international bodies, and with other industry stakeholders. The organisation has a process in place to receive and act on safety data and information from external stakeholders.</p>
SA8-3	<p>Outcomes of the objective fulfilment which may be considered applicable for each level of implementation</p>	<p>Data is not accessible to those outside the information.</p>	<p>The organisation is accessing and using safety data internally.</p>	<p>The organisation meets the intent of the regulations in relation to data sharing.</p>	<p>Processes and protocols have been developed to assure that when data is shared with external parties this is conducted in an appropriate way. The organisation has determined with whom it believes it needs to share data with, and what data should be shared.</p>	<p>Internal policy addresses the need for continued data sharing. The benefits of data sharing are recognised within the organisation, and acting on the basis of such information is a recognised organisational process.</p>
SA8-3	<p>Possible verification questions Additional explanations</p>	<p>Why have you scored in x maturity level? Can you give examples of the situation? What were the enablers to score x maturity level? What needs to happen to move forward? What obstacles are you experiencing? Is there anything that can be done to help you progress in this area? Describe to what level safety data (including lessons learnt) is shared with the industry and the public. Is there any regulation in place that affects the sharing of safety data (e.g. Freedom of Information Act). Which international bodies do you share information with? (e.g. EC, ICAO, EUROCONTROL, CANSO, EASA). How and in what form is safety data and information shared?</p>				

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	<p>Appropriate: In this context, it means providing information that meets the needs of your organisation.</p> <p>Confidentiality policies/Agreements: These are those requirements that your ANSP is bound to follow by national and international requirements.</p> <p>Lessons Learnt Shared: This refers to significant information being made available.</p> <p>Metrics: The metrics defined above will have a number of relevant targets associated, such as minimum time to implementation, minimum number of people captured in the sharing exercise, etc.</p> <p>Monitored: In this context, 'monitored' means to observe and check the progress of all perceived safety risks and deficiencies and that regular surveillance over these areas is maintained. This is about how the monitoring is achieved.</p> <p>Monitoring: A monitoring system of lessons learnt and shared must be in place. Such metrics can be a count of the said lessons, targeted areas, units or people, effectiveness or corrective actions, time to implementation, etc.</p> <p>Organisation: In this context, it means all those parts of the ANSP involved in ATM Safety. Where the ANSP is a Member of a formally established FAB and if this survey is conducted at the level of the FAB, then 'organisation-wide' can refer to the FAB and all other references to 'organisation' must be consistent with this approach.</p> <p>Other Parties: This is a collective term for all those organisations, bodies, Industry Stakeholders, etc. that an ANSP has a policy to proactively share data with.</p> <p>Process: The process must be measured for robustness. This objective is not about identifying the risks per se (see SA 6.1 for that). This is about having a process feeding the risk management, therefore, its robustness and quality must be monitored. Possible measurements are: manual reports vs automatic, internal vs external, average duration of investigation, percentage of recommendations implemented and within what timescale, etc.</p> <p>Safety Data: Any information associated with safety within the organisation. E.g. occurrence reports.</p>
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SA9 Safety performance reporting						
SA9-1	An established and active monitoring system that uses and tracks suitable safety indicators and associated targets (e.g. lagging and leading indicators).	There are no indicators, thresholds, or formal monitoring system in place to measure safety achievements and trends.	<p>All of Initiating plus:</p> <p>There is a plan to implement a monitoring system. A limited set of indicators has been implemented.</p>	<p>All of Planning/ Initial Implementation plus:</p> <p>The safety monitoring system has been implemented and documented.</p> <p>Indicators and targets have been set: limited to meeting the safety requirements</p>	<p>All of Implementing plus:</p> <p>Additional indicators are also defined and monitored to meet both organisational and local safety objectives.</p> <p>All indicators are tracked against thresholds/targets on a regular basis.</p> <p>Trends are analysed for safety improvement purposes.</p>	<p>All of Managing & Measuring plus:</p> <p>Safety indicators covering all aspects of the system/operations are mature and used to measure safety improvement.</p> <p>There are comprehensive metrics in place to measure and monitor indicators and thresholds throughout the system.</p>
SA9-1	Outcomes of the objective fulfilment which may be considered applicable for each level of implementation		<p>An approved plan is in place to implement range of safety indicators;</p> <p>Data is being collected on the first indicators to be collected, allowing for targets to be established.</p> <p>A gap analysis has been completed and a formal plan to implement a robust monitoring program has been documented and approved.</p>	<p>Business processes have been developed and documented to assure that all data is available to support monitoring.</p> <p>Indicators, which address regulatory requirements are in place.</p>	<p>Management is making decisions on the basis of safety performance monitoring.</p> <p>Trend monitoring is a key component of business operations.</p> <p>The range of indicators has been extended over time.</p>	<p>Indicators and targets are updated on a regular basis and incorporate measures which address all services.</p> <p>Indicators and targets are updated on a regular basis and incorporate measures which address all services.</p>
SA9-1	Possible verification questions	<p>Why have you scored in x maturity level?</p> <p>Can you give examples of the situation?</p> <p>What were the enablers to score x maturity level?</p> <p>What needs to happen to move forward?</p> <p>What obstacles are you experiencing?</p> <p>Is there anything that can be done to help you progress in this area?</p> <p>What type of indicators are you using?</p>				

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	<p>For what purpose are they used? Are there targets associated with the indicators? What is the overall performance monitoring process? To what level have staff bought into the targets and indicators that have been set? How often are trends analysed? What type of metrics are used to measure and monitor indicators?</p>
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SA9-2	<p>Methods to measure safety performance, which is compared within and between ANSPs</p>	<p>Ad hoc safety performance data related to individual incidents is available, but there is no systematic approach for measuring safety performance.</p>	<p>All of Initiating plus: The implementation of some qualitative and quantitative techniques in certain parts of the organisation has started. However, there is insufficient data to analyse.</p>	<p>All of Planning/ Initial Implementation plus: Qualitative techniques are in place, and the implementation of quantitative techniques has started.</p>	<p>All of Implementing plus: Safety performance is measured using statistical and other quantitative techniques. Internal comparative analysis is done, and external comparative analysis has begun.</p>	<p>All of Managing & Measuring plus: The reporting, operational safety survey and SMS auditing programmes are integral parts of the management and operational processes. Results are used to drive further safety improvements across the organisation. Internal and external comparative analysis are well-established.</p>
SA9-2	<p>Outcomes of the objective fulfilment which may be considered applicable for each level of implementation</p>		<p>Monitoring is limited by available data.</p>	<p>A range of techniques to monitor safety are in place.</p>	<p>Internal benchmarking allows units to compare their performance against other similar operations.</p>	<p>Safety improvements are driven by internal and external benchmarking of performance.</p>
SA9-2	<p>Possible verification questions</p>	<p>Why have you scored in x maturity level? Can you give examples of the situation? What were the enablers to score x maturity level? What needs to happen to move forward? What obstacles are you experiencing? Is there anything that can be done to help you progress in this area? What are your leading indicators? (e.g. Safety Surveys outcome etc.) What are your lagging indicators? (e.g. Safety Occurrences) Which areas of the safety system are covered by indicators?</p>				

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SA9-3	<p>A general public knowledgeable of the ANSP's performance through routine publication of achieved safety levels and trends</p>	<p>Safety-related performance information is not made available to the public under any circumstances.</p>	<p>All of Initiating plus: A limited amount of safety-related performance information is made available, but only to selected authorities.</p>	<p>All of Planning/ Initial Implementation plus: High-level safety-related performance information is made available according to applicable requirements.</p>	<p>All of Implementing plus: Safety performance information not governed by applicable requirements is also made available to the public.</p>	<p>All of Managing & Measuring plus: The organisation voluntarily makes available appropriate safety-related performance information to the general public. The achieved safety levels and trends are transparent to the general public.</p>
SA9-3	<p>Outcomes of the objective fulfilment which may be considered applicable for each level of implementation</p>		<p>The organisation has recognised the value of releasing information about the levels of safety achieved.</p>	<p>Regulatory agencies are provided with data about levels of safety achieved, in the expectation that regulatory activities such as audit will be informed by this information.</p>	<p>The ANSP makes available information about its performance to the public.</p>	<p>A range of measures is released to the general public with the aim of increasing confidence in the performance of the ANSP.</p>
SA9-3	<p>Possible verification questions Additional explanations</p>	<p>Why have you scored in x maturity level? Can you give examples of the situation? What were the enablers to score x maturity level? What needs to happen to move forward? What obstacles are you experiencing? Is there anything that can be done to help you progress in this area? Is the information disclosed to the general public supported by the organisation? If no, why not? What are the impediments? Is there any national law or regulation that oversees the process of public disclosure? Does the national regulator play any role in this process?</p> <p>Applicable Requirements: Those published requirements national and international that state that specific data must be made available. That does not mean actively shared, just 'made available'.</p> <p>Appropriate: In this context, it means safety data that will demonstrate safety performance, while not disclosing any sensitive details about individuals or the ANSP.</p>				

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	<p>Information: This refers to any safety information beyond that specified by international and/or national requirements. If there are no requirements, then any safety information published is acceptable.</p> <p>Metrics: The metrics and statistical techniques must be exemplified clearly.</p> <p>Monitored: In this context, 'monitored' means to observe and check the progress of additional indicators (along with other indicators) to ensure that they are meeting your and State objectives.</p> <p>Monitoring System: In this context, it means a system that observes, checks and tracks the safety indicators and associated targets and maintains regular surveillance over must be consistent with this approach.</p> <p>Safety Objectives: This can be read the same as 'targets'.</p> <p>Safety Requirements: Those requirements that are set out in national and international law (E.g. SES, ICAO) to maintain or improve ATM Safety.</p> <p>Safety Survey: A safety survey is a routine examination of the working processes of an ANSP with the objective of detecting and correcting weaknesses, thus, improving the safety performance of the ANSP. A survey is wide in scope and typically encompasses either a Division or the entire ANSP. It is concerned with:</p> <ul style="list-style-type: none"> • conformity to published procedures (i.e. correct working practices); • the fitness for purpose of the procedures; • the identification of new (or hitherto unidentified) potential hazards affecting operations; • any other safety weaknesses which are capable of elimination; • identifying opportunities for safety improvement even where no specific deficiencies exist; • validation that safety requirements are achieved during project execution; • verification that safety requirements continue to be achieved in operations. <p>SES States: Partners in a FAB may consider each other as 'external', for the purpose of this objective, provided they are not aggregated in a consortium.</p> <p>SMS Survey/Audit: An independent review of processes, products and people to assure that standards and requirements as documented in the organisation's SMS are complied with.</p> <p>Transparent to the General Public: Safety levels and trends are published and available to the General Public in an easily accessible way (i.e. not an 'on-request' system).</p> <p>Organisation: In this context, it means all those parts of the ANSP involved in ATM Safety. Where the ANSP is a Member of a formally established FAB and if this survey is conducted at the level of the FAB, then 'organisation-wide' can refer to the FAB and all other references to 'organisation'.</p>
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SA10 Operational safety surveys and SMS audits						
SA10-1	Internal and independent (external) operational safety surveys and SMS audits	<p>There is no plan to conduct systematic operational safety surveys and SMS audits.</p> <p>Operational safety surveys, SMS audits, and gap assessments are conducted on an ad hoc basis (e.g. when deficiencies in the system or in working arrangements are found).</p>	<p>All of Initiating plus:</p> <p>There is a plan in place to formalise the conduct of systematic operational safety surveys and SMS audits.</p> <p>A limited number of operational safety surveys and SMS audits have been carried out.</p>	<p>All of Planning/ Initial Implementation plus:</p> <p>Internal operational safety surveys and SMS audits are conducted on a periodic basis.</p> <p>Based on the output of operational safety surveys and SMS audits, a process is in place that requires the development and implementation of appropriate improvement plans.</p>	<p>All of Implementing plus:</p> <p>Internal or external operational safety surveys and SMS audits are carried out in a systematic way. There is a process in place to monitor, analyse trends, and identify areas that require follow-up operational safety surveys or SMS audits.</p> <p>Follow-up operational safety surveys, SMS audits, and gap assessments are conducted in all areas affecting operational safety and the SMS.</p> <p>Operational safety surveys and SMS audits are actively reviewed to assess opportunities for system improvement.</p>	<p>All of Managing & Measuring plus:</p> <p>Independent (external) operational safety surveys and SMS audits are periodically conducted.</p> <p>The outputs from operational safety surveys and SMS audits are incorporated as appropriate into operations or the SMS.</p> <p>There is a process in place that requires external data (e.g. pilot performance trend information) to be considered when selecting areas to be subject to operational safety surveys and SMS audits.</p>
SA10-1	Outcomes of the objective fulfilment which may be considered applicable for each level of implementation	Little to no evidence of surveys/audits having been performed	<p>The following information for survey/audits can be provided:</p> <ul style="list-style-type: none"> - Plans; - Reports; - Set of Requirements list; - Statement of authority and independence of the auditors. 	<p>The following survey/audit documentation exists information for survey/audits can be provided:</p> <ul style="list-style-type: none"> - Schedules; - Resources; - Technical procedure/ process descriptions. 	<p>Trend reports, showing periodicity have been published.</p> <p>Records of management review:</p> <ul style="list-style-type: none"> - Agendas; - Minutes; - Action item responses; - Follow-up status reporting. 	<p>Log of External surveys/audits are documented in a log.</p> <p>There is Evidence of management review and action on results</p> <p>An Action plan has been written to address external findings</p> <p>Records of dissemination of findings, internally and externally, are available.</p>

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SA10-4	Possible verification questions Additional explanations	<p>Why have you scored in x maturity level? Can you give examples of the situation? What were the enablers to score x maturity level? What needs to happen to move forward? What obstacles are you experiencing? Is there anything that can be done to help you progress in this area?</p> <p>How often are safety surveys conducted? How often are SMS audits conducted? How do you use the outcome of safety surveys? How do you use the outcome of SMS audits? How do you benchmark the results against other ANSPs?</p> <p>Actively: In this context, it means without any external and/or independent trigger, but simply at own initiative. Ad Hoc: Means that plans are only developed as and when required and there is no formal planning process. Independent: This means surveys and audits are undertaken by people from outside of the ANSP. For the purpose of this question, audits performed by the national regulator (NSA, NAA or equivalent) or a qualified entity in a regulatory-auditing role, cannot be considered as independent. Periodic: Something that occurs at regular or predictable intervals. E.g. a safety audit cycle that occurs every 6 months, or some other defined period. Process: The process of monitoring and analysis must be clearly exemplified. Metrics must exist for all relevant areas surveyed. SMS Audit: Testing of processes, products and people to assure that standards and requirements as documented in the organisation's SMS are complied with. Safety Survey: A safety survey is a routine examination of the working processes of an ANSP with the objective of detecting and correcting weaknesses, thus, improving the safety performance of the ANSP. A survey is wide in scope and typically encompasses either a Division or the entire ANSP. It is concerned with:</p> <ul style="list-style-type: none"> • conformity to published procedures (i.e. correct working practices); • the fitness for purpose of the procedures; • the identification of new (or hitherto unidentified) potential hazards affecting operations; • any other safety weaknesses which are capable of elimination; • identifying opportunities for safety improvement even where no specific deficiencies exist; • validation that safety requirements are achieved during project execution; • verification that safety requirements continue to be achieved in operations.
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SA11 Adoption and sharing best(good) practices						
SA11-1	A structured approach exists to promote safety, its standing within the organisation and lessons learnt through application of the SMS	There is no structured approach to promote safety and its management within the organisation.	All of Initiating plus: Ad hoc processes are in place to gather and then promote information on safety, lessons learnt and the SMS.	All of Planning/ Initial Implementation plus: An organisational approach has been established to promote safety, lessons learnt and the SMS.	All of Implementing plus: Formal methods are in place to capture safety knowledge and promote it internally.	All of Managing & Measuring plus: Staff are encouraged to share lessons learnt in order that the lessons can be promoted across the organisation.
		The organisation has the capability to identify lessons learnt and promote them but on an ad hoc basis.	Some initial implementation has begun. Some internal best (good) practices are spread across units within the organisation, but there is no systematic structure for internal safety promotion.		The standing of safety and its management is a consistent and expected feature in internal communication.	Strategies to promote safety and its management are developed by senior levels in the organisation and are being implemented. Other industries' initiatives in relation to internal safety promotion are periodically reviewed with the approach being modified on the basis of the information gathered.
SA11-1	Outcomes of the objective fulfilment which may be considered applicable for each level of implementation	There is no transfer of learning at either an organisational or individual level. Lessons learning, for example, is ad hoc.	Sharing of lessons is driven by individual workers or managers rather than at an organisational level. Lessons learnt processes are under development. identified. Evidence of identifying Lessons Learnt.	The organisation has identified a number of mediums through which lessons can be shared and these have been formalised. There is some evidence that lessons learning is effective. There is evidence of staff training in lessons learning. Lessons Learnt process implemented.	The organisation has developed and implemented a number of mediums through which lessons can be shared. Lessons learning process can be demonstrated shown to be effective. Changes to procedures, training can be traced back to lessons learning process. Safety is at the heart of every decision the ANSP makes	A continual improvement cycle has been developed to further refine and develop the ways in which lessons are shared within the organisation. All staff are aware of the lessons learning process. Senior managers actively promote safety to all staff. There is evidence of regular benchmarking of

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				KPIs and Milestones for lessons learnt identified. Evidence of staff training.		safety best (good) practices across the industry. Evidence of regular benchmarking of safety best practices across the industry.
SA11-1	Possible verification questions	<p>Why have you scored in x maturity level? Can you give examples of the situation? What were the enablers to score x maturity level? What needs to happen to move forward? What obstacles are you experiencing? Is there anything that can be done to help you progress in this area?</p> <p>Please describe the process in place to adopt and share best practices.</p>				

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SA11-2	<p>A structured approach to gather information on operational safety and SMS best (good) practices from the industry</p>	<p>There is no structured approach to gather best (good) practices from the industry.</p> <p>The organisation has the capability to identify and adopt industry best (good) practices on an ad hoc basis.</p>	<p>All of Initiating plus:</p> <p>There is an ad hoc structure in place to gather information on operational safety and SMS best (good) practices.</p> <p>Some initial implementation has begun.</p> <p>Some internal best (good) practices are spread across units within the organisation, but there is no systematic structure for the adoption of best (good) practices.</p>	<p>All of Planning/ Initial Implementation plus:</p> <p>A structure has been established to identify applicable operational safety and SMS best(good) practices from the industry.</p>	<p>All of Implementing plus:</p> <p>Industry best (good) practices are periodically reviewed to provide the most current information, which is then assessed for applicability, and adopted as appropriate.</p>	<p>All of Managing & Measuring plus:</p> <p>All relevant best (good) practices are readily accessible to appropriate personnel.</p> <p>The organisation actively participates in developing industry best (good) practices.</p>
SA11-2	<p>Outcomes of the objective fulfilment which may be considered applicable for each level of implementation</p>		<p>Best practice process identified.</p> <p>There is evidence of identifying best practice.</p> <p>There is some evidence of application of internal best practice.</p>	<p>There is an auditable process to identify and apply best practice from the industry.</p> <p>Key performance indicators KPIs and Milestones have been produced to show that the process is being applied and is being effective.</p>	<p>There is evidence of regular benchmarking of safety best (good) practices across the industry.</p> <p>Evidence shows that best (good) practices are adopted where appropriate.</p>	<p>Evidence shows that best (good) practices are made available for all staff to learn.</p> <p>Evidence shows that the organisation is proactive in developing and spreading best practice in the industry.</p>
SA11-2	<p>Possible verification questions</p>	<p>Why have you scored in x maturity level? Can you give examples of the situation? What were the enablers to score x maturity level? What needs to happen to move forward? What obstacles are you experiencing? Is there anything that can be done to help you progress in this area?</p> <p>What type of formal mechanism is in place to identify, adapt and adopt best practices? Are you actively implementing ICAO Global Aviation Roadmap? In which international fora is your organisation involved re development of industry best practices? How often does your organisation review industry best practices?</p>				

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SA11-3	Sharing of safety and SMS-related best (good) practices with industry stakeholders	There are no plans to release and share best (good) practices with industry stakeholders.	All of Initiating plus: Sharing of best (good) practices is ad hoc and takes place in response to requests for assistance from industry stakeholders.	All of Planning/ Initial Implementation plus: Best practices are shared with industry stakeholders as required by regulation. A formalised process is in place to share best (good) practices with industry.	All of Implementing plus: Best (good) practices are actively shared with industry stakeholders. Sharing of safety-related best (good) practices with industry has demonstrated improved safety performance.	All of Managing & Measuring plus: SMS-related best (good) practices are pro-actively shared with industry stakeholders with the aim of improving SMS standards.
SA11-3	Outcomes of the objective fulfilment which may be considered applicable for each level of implementation		A best practice process has been identified. There is evidence of ad hoc discussion on best practice with industry stakeholders. There is some evidence of application of internal best practice.	There is an auditable process to identify and apply best practice from the industry. Key performance indicators and milestones have been produced to show that the process is being applied and is effective. Process to share best practice with the industry. Evidence that best practice is being shared with the industry	There is evidence that best practice is proactively shared within the industry. KPIs show that the best practice has been effective in reducing risk and increasing safety performance.	Evidence that the organisation is proactive in developing and spreading best practice to improve the overall; level of safety management in the industry.
SA11-3	Possible verification questions Additional explanations	<p>Why have you scored in x maturity level? Can you give examples of the situation? What were the enablers to score x maturity level? What needs to happen to move forward? What obstacles are you experiencing? Is there anything that can be done to help you progress in this area?</p> <p>What type of formal mechanism is in place to share your best practices with other ANSPs? Are you actively implementing ICAO Global Aviation Roadmap? In which international fora is your organisation involved re development of industry best practices? Has your organisation the capability to set best practices? (If yes – provide an example.)</p> <p>AdHoc: Means that plans are only developed as and when required and there is no formal planning process.</p> <p>Appropriate: In this context, it means providing information to those personnel within your ANSP that need it in order to meet the needs of the</p>				

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		<p>organisation.</p> <p>No Structured Approach: It means that there is nothing in place to promote safety, not even an <i>ad hoc</i> process that would promote safety for a specific purpose or occasion.</p> <p>Organisation: In this context, it means all those parts of the ANSP involved in ATM Safety. Where the ANSP is a Member of a formally established FAB and if this survey is conducted at the level of the FAB, then 'organisation-wide' can refer to the FAB and all other references to 'organisation' must be consistent with this approach.</p> <p>Other Industries' initiatives: It means safety initiatives taken within other industries E.g. Petrochemical, Rail, etc. Gathering information from other industries is a demanding requirement as it is about 'the best of the best'.</p> <p>Procedures: A procedure and/or allocated task is in place to review the industry best (good) practices, which is then applied internally. Examples of such best (good) practices should be given.</p> <p>Staff: All those individual personnel, operational and technical, with a safety responsibility within their job description. A visible policy of management is required to promote this sharing across the organisation.</p> <p>Structured approach: In this context, it refers to actions, resources, procedures that the ANSP puts in place to share industry best-practice. While some elements may be part of a greater external structure (i.e. EUROCONTROL, CANSO etc.), there must be certain internal structures to deal with this matter and clearly allocated resources.</p>
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