

Appendix 1 to GM 4 SKPI Verification of ANSP EoSM by NSA/competent authority

| | | Effectiveness Levels | | | | |
|---|--|---|---|--|---|--|
| <i>ID</i> | <i>Objective</i> | <i>Initiating</i> | <i>Planning/ Initial Implementation</i> | <i>Implementing</i> | <i>Managing & Measuring</i> | <i>Continuous Improvement</i> |
| SA1 Development of a positive and proactive safety culture | | | | | | |
| SA1-1 | A positive and pro-active 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>A positive safety culture is developing, although it is still immature.</p> <p>Individuals are starting to 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> |

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|-----------|--|---|---|--|--|--|
| SA1-1 | <p>Outcomes of the objective fulfilment which may be considered applicable for each level of implementation</p> | <p>People who make mistakes (human errors) are blamed for their failure to comply with rules. Disciplinary action may be seen as the best way to minimize the chance of employees making errors.</p> <p>Role of management is seen as endorsing the rules, pushing employees and expecting results.</p> <p>There may be an adversarial relationship between management and employees, with little trust or respect demonstrated.</p> <p>Problems are not anticipated; the organization reacts to each one as it occurs.</p> <p>Management does not understand the kinds of mistakes that actually occur in the organisation.</p> <p>There is little learning within the organization, which tends to adopt a defensive posture when criticised.</p> <p>Incidents and accidents are addressed by “fixing the people” as opposed to understanding what and why things happened.</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>Management recognizes the need to implement processes that will allow them to understand the underlying factors that contribute to accidents and incidents.</p> <p>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.</p> <p>Management recognizes the importance of safety training and starts to develop employee participation by inviting employees to identify training needs.</p> <p>Management encourages cross-departmental and cross-functional teams and communications.</p> | <p>A positive safety culture is developing, although it is still immature.</p> <p>Individuals are starting to be involved in systematic safety management.</p> <p>Management believes that it is more important to understand what has happened than to find someone to blame.</p> <p>The organisation has developed operational rules and procedures to support a just culture and to encourage self reporting</p> <p>Management works closely with union representatives to ensure that labour relations are positive and that labour contracts do not contribute to a “punitive climate”.</p> <p>The organisation is somewhat open to learning from other companies, especially techniques and best practices.</p> <p>Management recognizes that suppliers and contractors may impact safety performance, and looks to understand and</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>Relationship between management and employees is respectful and supportive.</p> <p>A Just Culture Policy is extended to include all employees in the organization.</p> <p>An increase is seen in the number of reports being submitted by employees.</p> <p>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.</p> <p>Standards of accountability are applied consistently to everyone in the organisation.</p> <p>Management seeks the active involvement of employees in improving safety.</p> | <p>Individuals across the organisation are proactively and constantly striving to improve their approach to systematic safety management.</p> <p>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> <p>Management’s role is seen as coaching people to improve safety performance.</p> <p>Managers encourage employees to share information in order to assist with the further improvement of existing processes.</p> <p>Employees share safety- related information, even cases of human error that would probably not have been identified.</p> |

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|-----------|------------------|--|--|--|--|--|
| | | <p>Management operates strictly by “command and control”. Processes are highly bureaucratic and centralized. Departments and functions behave as semi-autonomous units, with little collaboration or shared decision making. Conflicts are not resolved, departments and functions compete with each other. Safety is seen as a technical issue; mere compliance with rules and regulations is seen as adequate. There is a limited understanding of the hazards and risk associated with operations. There is limited understanding of the impact that changes may have on departments, functions, or the safety performance of the organisation. There are limited, if any, means for measuring the safety performance of the organisation. Management operates strictly by “command and control”.</p> | <p>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. Senior managers formulate safety policy and communicate it to the workforce. 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. 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>address those impacts before safety performance is affected. Trends identified through reporting and investigation are used to improve process, procedures, etc. and are shared across operational units. Safety Training is seen as an important element of a learning culture and management provides the necessary support and resources. There is an expectation across the organization of co-operation rather than indifference or conflict. Employees view themselves as being part of a single team, not in competition with other departments. Senior managers function as a team and begin to co-ordinate departmental and functional decisions. People recognize and state the need for collaboration between departments and functions.</p> | <p>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 expertise during periods of high activity. People are willing to cross organizational boundaries to share safety information and concerns. The organisation invests heavily in the quality, motivation, and experience of its first-line supervisors. Processes are put in place to find ways to improve SMS integration across the organisation. The existence of conflict is recognized and addressed by searching for mutually beneficial solutions. There is no goal conflict between safety and production performance, so that safety is not jeopardized in pursuit of production targets.</p> | <p>All types of information are openly and proactively shared up and down as well as across the organization for the improvement of safety performance. Management cooperates with customers, suppliers, and contractors to improve their safety performance. 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. Management values and continuously encourages employees to forward ideas and suggestions for ways to improve safety performance. All individuals in the organisation feel personally responsible for safety. Senior managers make comparisons with external organisations chosen as benchmarks.</p> |

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|-----------|---------------------------------|---|---|--|---|--|
| | | <p>Processes are highly bureaucratic and centralized. Departments and functions behave as semi-autonomous units, with little collaboration or shared decision making. Conflicts are not resolved, departments and functions compete with each other. 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. There is limited understanding of the impact that changes may have on departments, functions, or the safety performance of the organisation. There are limited, if any, means for measuring the safety performance of the organisation.</p> | | <p>Management provides the support, recognition, and resources necessary for collaborative work. Senior management encourage managers' awareness that good safety performance is good for business. Managers establish safety performance measures and analyse statistics to establish trends. They share this information with employees. Critical mechanisms for improving the sharing of information are established, such as executive management safety committees, management/employee safety committees, etc. Implementation of the Safety Management System is completed. All are aware of their duties and accountabilities as they relate to the safety management system.</p> | <p>The organisation operates a best-in-class Safety Management System. 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. Decisions are made in full knowledge of their safety impact on work or processes as well as on department and functions across the whole organisation. Everyone is kept informed of and adequately prepared for changes that may affect safety. Safety performance targets are set, measured and weaknesses identified and addressed.</p> | <p>Management undertakes a leadership role in creating and communicating the future safety vision for their organisation. The organisation looks to continuously improve and enhance its Safety Management System.</p> |
| SA1-1 | 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>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?</p> | | | | |

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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:</p> <p>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:</p> <p>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:</p> <p>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:</p> <p>All personnel are pro-active 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 and addressed.</p> <p>New SMS procedures and processes may not be followed or will be ineffective.</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>Awareness campaigns and training on safety culture are being introduced to management.</p> <p>Management works with labour organisations in order to plan safety culture measurement and enhancement initiatives.</p> | <p>Management becomes cognizant 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 and reporting cultures within the operational areas of the company.</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 culture enablers.</p> <p>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.</p> <p>People are rewarded for improving processes as well as results.</p> |

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|--------------|---|---|--|---|--|--|
| SA1-2 | 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?</p> <p>If low maturity: Why do you think measurement is not needed? How do you ensure improvement if you do not measure?</p> <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> | | | | |
| SA1-3 | An 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. | <p>All of Initiating plus:</p> <p>Discussions between staff and management to define an open reporting and investigation climate are underway. However, there is no agreed policy in place yet.</p> | <p>All of Planning/ Initial Implementation plus:</p> <p>Safety data-sharing and publication policies are supported by the staff.</p> <p>Safety data are sufficiently protected from external interference within legal limits.</p> | <p>All of Implementing plus:</p> <p>Within the organisation, the line between acceptable and unacceptable mistakes is established and known by the staff.</p> <p>Just reporting and investigation culture principles are in place and systematically applied within the organisation.</p> | <p>All of Managing & Measuring plus:</p> <p>Under certain legal regimes, there is a clear and published policy on how dialogue with judicial authorities and media is established and followed.</p> |

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|-----------|--|--|--|---|--|---|
| SA1-3 | <p>Outcomes of the objective fulfilment which may be considered applicable for each level of implementation</p> | <p>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.</p> | <p>Management begins to recognize the need for a just culture within the organization. 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 recognize the need for more safety information. Management begins discussions with union 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>Management strongly encourages employees to report any safety concerns that they might have. The organization 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 organization 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 learned. Safety reporting is increasing across the company.</p> | <p>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 corrective action programme, is established.</p> | <p>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 recognize 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 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> |

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|--|--|---|---|---------------------|---|---|
| | | | <p>The organisation has committed to developing the necessary reporting system(s), including the allocation of appropriate resources.</p> | | <p>Understanding achieved through a variety of means, including reporting, lessons learned, 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>Learning from outside the organization is valued. Time and resources are made available to acquire and adapt such knowledge to improve safety performance.</p> |
| SA1-3 | 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>If low maturity: Why does the management believe there is no need for an open climate? Is there an intention to put a policy regarding reporting and investigation of occurrences?</p> <p>If more positive maturity level: How is safety data protected? How is safety data published? How do staff feel about safety data being published? Who draws the line between acceptable and unacceptable mistakes? What mechanisms are in place for dialogue with judicial authorities?</p> | | | | |
| SA2 Organisational and individual safety responsibilities | | | | | | |

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|--------------|---|---|---|--|--|---|
| 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. | <p>All of Initiating plus:</p> <p>Safety authorities, responsibilities, and accountabilities have been identified but not yet formalised.</p> <p>Line managers assume responsibility for safety.</p> | <p>All of Planning/ Initial Implementation plus:</p> <p>Authorities, responsibilities, and accountabilities for the management of safety have been defined and documented.</p> <p>Delineation of responsibility for the development, oversight and implementation of the SMS is clearly understood.</p> | <p>All of Implementing plus:</p> <p>Procedures are in place to address the need to review safety authorities, responsibilities, and accountabilities after any significant organisational change.</p> | <p>All of Managing & Measuring plus:</p> <p>Safety authorities, responsibilities, and accountabilities are periodically reviewed to determine whether they are suitable and effective (i.e., continuous improvement of safety management).</p> |
| 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. | Safety accountabilities of senior managers are documented. Safety accountability matrix that shows a complete and consistent set of accountabilities is produced. The organisation can provide an evidence which shows that safety accountabilities are being discharged. | Safety responsibilities are clear and without overlap. The organisation can provide an evidence that responsibilities are reviewed on a regular 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 gathered and used to drive a process of continuous improvement. |
| SA2-1 | 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> | | | | |

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| SA2-2 | A clearly defined safety management function that is independent of line management. | A safety management function has not yet been appointed to develop the SMS.. | <p>All of Initiating plus:</p> <p>A safety management function has been appointed to develop and maintain the SMS.</p> | <p>All of Planning/ Initial Implementation plus:</p> <p>The safety management function is independent of line management and develops and maintains an effective SMS.</p> <p>The safety manager has access to the resources required for the proper execution and maintenance of the SMS.</p> | <p>All of Implementing plus:</p> <p>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:</p> <p>There is clear evidence that the highest organisational level plays a pro-active 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.</p> <p>An SMS Implementation Plan has been produced.</p> <p>Governance structure for the SMS has been approved and published.</p> | <p>The organisation can provide an evidence that the Safety Manager is providing effective and efficient challenge to proactively manage safety within the ANSP</p> <p>SMS resource plan is in place.</p> <p>Safety Governance structures are in place (example - Review Board and Safety Action Group).</p> | <p>The organisation can provide evidences:</p> <ul style="list-style-type: none"> • that the Safety Management System is fully embedded, within the organisation; • that Safety is considered in every investment decision; • of senior management support for safety. | <p>Evidences exist that Safety and Safety Management has become a way of life in the organisation and drives decisions at all levels in the ANSP.</p> |
| SA2-2 | 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>How is the SMS maintained, promoted and continuously improved?</p> | | | | |

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| SA2-3 | An integrated safety planning process is adopted by the organisation with published and measurable safety goals and objectives for which the executive is accountable. | 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. | 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. | 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 practices. | All of Implementing plus: An Organisation Safety Plan is published on a periodic basis with specific accountable and measurable safety management goals and targets. | All of Managing & Measuring plus: The <i>Organisation Safety Plan</i> goals and objectives are developed and prioritized 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 practices. |
| SA2-3 | Outcomes of the objective fulfilment which may be considered applicable for each level of implementation | | Regulatory requirements are identified. SMS Implementation Plan is available. Evidence of gap analysis from established procedures to proposed SMS. | SMS Implementation Plan is completed. SMS is in place. Evidences can be provided that the SMS addresses the regulatory requirements. | Organisation Safety Plan is in place. Measurable safety goal/targets exists. | 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 improve them on a continuous cycle |
| SA2-3 | 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>What were the results of the gap analysis? How are the organisation safety objectives defined? Who is accountable for safety objectives? How often are safety objective revisited?</p> | | | | |

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| SA2-4 | Clear understanding and acceptance of safety management responsibilities by all staff and contractors. Commitment to continuous improvement to safety. | Knowledge of the principles underpinning SMS amongst all staff and contractors is negligible. | 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. | 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. | All of Implementing 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. | All of Managing & Measuring plus: The organisation regularly reviews and assesses documented safety management responsibilities. |
| SA2-4 | Outcomes of the objective fulfilment which may be considered applicable for each level of implementation | | Staff are beginning to become aware of the importance of a formal safety management system. Evidence exists that procedures that are available as part of the developing SMS are starting to be applied. | 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 a formal SMS is agreed and applied. | Evidence exists that: - Safety and Safety Management is now a core discipline within the organisation; - Safety is one of the key considerations in every part of the ANSP from project, operational unit to finance and HR. | Evidence exists that the effectiveness of safety management system is continually assessed and the data gathered used in a cycle of continuous improvement. |
| SA2-4 | 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? 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? | | | | |
| 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. |

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| <i>ID</i> | <i>Objective</i> | <i>Initiating</i> | <i>Planning/ Initial Implementation</i> | <i>Implementing</i> | <i>Managing & Measuring</i> | <i>Continuous Improvement</i> |
|-----------|--|--|---|--|--|--|
| SA3-1 | Outcomes of the objective fulfilment which may be considered applicable for each level of implementation | | ANSP has a plan to implement a SMS and is working towards the goal through a prioritised program. | SMS in place is compliant to the requirements. | The SMS is an effective management system which is assisting in decision making at the every 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) | | | | |
| SA3-2 | 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. | There is little awareness of the regional or international safety standards. | All of Initiating plus: There is an awareness of the European or national requirements or international safety standards. Work has started in some areas. | All of Planning/ Initial Implementation plus: European or national requirements or international safety standards are known and met as required. | 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. | 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. |
| SA3-2 | Outcomes of the objective fulfilment which may be considered applicable for each level of implementation | | A gap analysis has been completed, and areas of non-compliance are known and prioritised for action. | Compliance differences have been filed. | The organisation is compliant with new requirements ahead of the effective date. Embedded management processes (including audit) monitor practices to test internal compliance. | The organisation can identify area of its operations which further legislative requirements are needed to improve safety standards. |

Appendix 1 to GM 4 SKPI Verification of ANSP EoSM by NSA/competent authority

| ID | Objective | Initiating | Planning/ Initial Implementation | Implementing | Managing & Measuring | Continuous Improvement |
|--|---|--|--|--|--|--|
| SA3-2 | 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?</p> <p>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> | | | | |
| 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. | <p>All of Initiating plus:</p> <p>The documentation of SMS processes and procedures has started and is progressing as planned.</p> | <p>All of Planning/ Initial Implementation plus:</p> <p>The documentation of the essential parts of the SMS processes and procedures is complete.</p> <p>The processes and procedures ensure that the organisation is compliant with all applicable safety and regulatory requirements.</p> | <p>All of Implementing plus:</p> <p>There is clear evidence that the safety and safety management documentation is readily available to all personnel in the organisation.</p> <p>This documentation details safety and safety management processes and procedures that meet or exceed the applicable safety and regulatory requirements.</p> | <p>All of Managing & Measuring plus:</p> <p>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.</p> |
| SA4-1 | Outcomes of the objective fulfilment which may be considered applicable for each level of implementation | | SMS Policy Statement is in place Documented SMS Framework SMS Initial Implementation Plan is adopted Initial SMS Documentation exists | 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 | 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, cheaper, quicker and more effective. Benchmarking against external organisations and sharing of best practice is an on-going activity |

Appendix 1 to GM 4 SKPI Verification of ANSP EoSM by NSA/competent authority

| ID | Objective | Initiating | Planning/ Initial Implementation | Implementing | Managing & Measuring | Continuous Improvement |
|-------|---|--|--|--|---|--|
| SA4-1 | 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>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> | | | | |
| SA4-2 | Staff know about the safety and safety management requirements and standards, which are regularly reviewed, assessed, and maintained. | 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>All of Initiating plus:</p> <p>A process to maintain all safety and safety management procedures exists, but its initial implementation is ad-hoc and not fully effective.</p> <p>The authority (or authorities) responsible for the updates are partially identified.</p> | <p>All of Planning/ Initial Implementation plus:</p> <p>The process to maintain all safety and safety management procedures is documented and practised.</p> <p>Procedures are kept up-to-date on an ad-hoc basis.</p> | <p>All of Implementing plus:</p> <p>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.</p> <p>The authority (or authorities) responsible for the updates are completely identified.</p> <p>All safety-related procedures are documented in an appropriate manner and are known by the staff.</p> | <p>All of Managing & Measuring plus:</p> <p>Changes within the organisation that could affect safety and/or the safety management framework are subjected to formal review.</p> |
| SA4-2 | Outcomes of the objective fulfilment which may be considered applicable for each level of implementation | 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. | The process for maintaining the SMS is documented and well understood, but not yet implemented. Uncontrolled and out-of-date copies of the SMS are used locally within the organisation. Responsibility for ownership and maintenance of some part of the SMS is identified. The remaining parts of the SMS are not formally maintained or up-to-date. | 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 | The SMS update process is well understood managed effectively. Authorities maintain the individual sections they are responsible for according to a periodic review cycle. The SMS is demonstrably up-to-date and made available to all staff that require it. | All changes are subject to an impact assessment on the SMS before they are implemented. The SMS is continually updated and reviewed to improve its efficiency and effectiveness. |

Appendix 1 to GM 4 SKPI Verification of ANSP EoSM by NSA/competent authority

| ID | Objective | Initiating | Planning/ Initial Implementation | Implementing | Managing & Measuring | Continuous Improvement |
|-------|---|---|--|---|---|--|
| 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?</p> <p>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> | | | | |
| SA4-3 | 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. | The organisation has sound primary Air Traffic Management systems but does not have redundant capabilities or back-up systems. | <p>All of Initiating plus:</p> <p>There are procedures and some redundant capabilities and resources to cope with abnormal and unexpected situations.</p> | <p>All of Planning/ Initial Implementation plus:</p> <p>All primary systems have redundant capabilities, and emergency/contingency response procedures have been developed, documented, and distributed to appropriate staff.</p> <p>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:</p> <p>Primary Air Traffic Management systems are reliable and have redundant capabilities and back-up systems.</p> <p>The emergency/contingency response plan and procedures have been rehearsed through desktop or operational exercises.</p> | <p>All of Managing & Measuring plus:</p> <p>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 | 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 | | | | |

Appendix 1 to GM 4 SKPI Verification of ANSP EoS by NSA/competent authority

| ID | Objective | Initiating | Planning/ Initial Implementation | Implementing | Managing & Measuring | Continuous Improvement |
|-----------------------|--|--|--|---|---|---|
| SA4-3 | 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>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> | | | | |
| SA5 Competency | | | | | | |
| SA5-1 | Staff, and contractors (where appropriate) are trained, competent in safety and safety management, and where required, licensed. | Competent staff and contractors (where appropriate) are provided on an ad-hoc basis for safety and safety management activities. There are no formal competency methods (including proficiency, licensing, and training). | <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 providers(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 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 | | Core Competencies for safety professionals are defined in policy. Training Plan is adopted. | Training course materials exists. Training statistics (metric) is available. | There are metrics for safety professional performance. Organisational structure shows recognised safety professional categories. Safety professionals possess required core competency process elements for their roles. | Training feedback is provided and analysed. Periodic training course review. Process Improvement Reports are available. Periodic Best Practices Reports. |

Appendix 1 to GM 4 SKPI Verification of ANSP EoSM by NSA/competent authority

| ID | Objective | Initiating | Planning/ Initial Implementation | Implementing | Managing & Measuring | Continuous Improvement |
|----------------------------|---|--|---|---|--|--|
| SA5-1 | 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>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> | | | | |
| SA6 Risk management | | | | | | |
| SA6-1 | 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 an approved and structured process in place for the assessment of current and potential safety risks, but it is not yet mature. Training in risk assessment is ongoing.</p> | <p>All of Implementing plus:</p> <p>There is clear evidence that safety risk management is embedded within the organisation and identified safety risks are managed and controlled.</p> | <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 | | Risk Management Policy in place. Risk Management Training Plan adopted. Risk Management Implementation Plan adopted. | Risk Management process guide in place. Risk Management training manual & materials and training statistics (metrics) are available. | Risk Management (RM) process reports (metrics) are available. Organisation structure shows RM process elements. RM process activities are well documented. There are lists of risks, controls & mitigations, and status. | Risk prediction reports are available. Periodic RM Process Management Review is documented: <ul style="list-style-type: none"> o Agendas; o Minutes; o Actions; o Status of previous actions. RM Process Improvement Reports. Periodic Best Practices Reports. |

Appendix 1 to GM 4 SKPI Verification of ANSP EoS by NSA/competent authority

| ID | Objective | Initiating | Planning/ Initial Implementation | Implementing | Managing & Measuring | Continuous Improvement |
|------------------------------|---|--|---|--|--|---|
| SA6-1 | 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 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> | | | | |
| 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. | <p>All of Initiating plus:</p> <p>Internal safety-related interfaces are managed on an informal or ad-hoc basis.</p> | <p>All of Planning/ Initial Implementation plus:</p> <p>Internal safety-related interfaces are managed with a solid understanding of the boundaries and relationships between the interfaces.</p> | <p>All of Implementing plus:</p> <p>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)).</p> | <p>All of Managing & Measuring plus:</p> <p>A process is in place to regularly identify weaknesses in agreed interface arrangements (LoAs/MoUs/SLAs etc)</p> |
| 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 | | | | |
| SA7-1 | 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 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).</p> | | | | |

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| <i>ID</i> | <i>Objective</i> | <i>Initiating</i> | <i>Planning/ Initial Implementation</i> | <i>Implementing</i> | <i>Managing & Measuring</i> | <i>Continuous Improvement</i> |
|---|---|---|--|--|---|---|
| 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 are 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> | | | | |
| SA7-2 | <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>With which other external parties do you interface with? (e.g. answers such as interface with Military, Airports, Airspace Users). Which of these interfaces are formal or informal? How often are the interface agreements reviewed/audited for improvement purposes?</p> | | | | |
| <p>SA8 Safety reporting, investigation and improvement</p> | | | | | | |

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| ID | Objective | Initiating | Planning/ Initial Implementation | Implementing | Managing & Measuring | Continuous 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 | There are gaps in the organisation's knowledge of its performance. There is an incomplete investigation regime which means that some deficiencies are not rectified when they become visible. Potential of organisation learning is limited by the safety system inadequacies. | The organisation has committed to and resourced an organisational wide reporting and investigation system. | A reporting and investigation regime is established, improvements are however only able to focus on findings from investigations of incidents and accidents due to the scope of the reporting system. | The reporting and investigation system is continual development and embraces accident, incidents and hazardous situations. The organisation's process and system improvement cycle is embedded. | A confidential reporting system is in place with feedback processes to those who raise safety concerns |
| 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? 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 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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| <i>ID</i> | <i>Objective</i> | <i>Initiating</i> | <i>Planning/ Initial Implementation</i> | <i>Implementing</i> | <i>Managing & Measuring</i> | <i>Continuous Improvement</i> |
|-----------|--|---|---|---|---|--|
| SA8-2 | An organisation-wide means to record and disseminate lessons learned. | Safety lessons learned 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 learned. This may already happen, but only on an ad-hoc basis. | All of Planning/ Initial Implementation plus: The process for sharing safety lessons learned is systematic and operational and the majority of data is shared with appropriate personnel. | All of Implementing plus: All safety lessons learned are systematically shared across the organisation at all appropriate levels. Corrective actions are taken to address lessons learned. | All of Managing & Measuring plus: There is clear evidence that the internal lessons learned 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? 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 give an example of how your organisation records lessons identified. How are they disseminated? Is the process systematic or ad-hoc? If systematic, please describe it.</p> | | | | |
| SA8-3 | Appropriate safety information and knowledge is shared with Industry stakeholders. Information disclosure is compliant with agreed publication and confidentiality policies/agreements. | Safety data and information are treated as confidential. There are no plans to release it in any way to any industry stakeholders. | All of Initiating plus: Safety data and information are shared internally, but the organisation is reluctant or unwilling to share data with industry stakeholders. | All of Planning/ Initial Implementation plus: Safety data and information is shared internally, nationally, and with international bodies when it is required by regulation. | All of Implementing plus: There is a clear and published policy that encourages the proactive sharing of safety-related information with other parties. | 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. |

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| <i>ID</i> | <i>Objective</i> | <i>Initiating</i> | <i>Planning/ Initial Implementation</i> | <i>Implementing</i> | <i>Managing & Measuring</i> | <i>Continuous Improvement</i> |
|--|--|---|--|---|---|---|
| SA8-3 | Outcomes of the objective fulfilment which may be considered applicable for each level of implementation | Data is not accessible to those outside the information. | The organisation is accessing and using safety data internally. | The organisation meets the intent of the regulations in relation to data sharing. | 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 who it believes it needs to share data with, and what data should be shared | 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 an recognised organisational process. |
| SA8-3 | 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>Describe to what level safety data (including lessons learned) 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> | | | | |
| SA9 Safety performance monitoring | | | | | | |
| 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 regulatory 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> |

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| <i>ID</i> | <i>Objective</i> | <i>Initiating</i> | <i>Planning/ Initial Implementation</i> | <i>Implementing</i> | <i>Managing & Measuring</i> | <i>Continuous Improvement</i> |
|-----------|---|---|---|---|---|--|
| SA9-1 | Outcomes of the objective fulfilment which may be considered applicable for each level of implementation | | Approved plan in place to implement range of safety indicators; Data is being collected on the first indicators to be collected, allowing for targets to be established. A gap analysis has been completed and a formal plan to implement a robust monitoring program has been documented and approved. | Business process have been developed and documented to assure all data is available to support monitoring Indicators, which address regulatory requirements are in place. | Management is making decisions on the basis of safety performance monitoring. Trend monitoring is a key component of business operations. The range of indicators has been extended over time. | Indicators and targets are updated on a regular basis and incorporate measures which address all services. Indicators and targets are updated on a regular basis and incorporate measures which address all services. |
| SA9-1 | 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>What type of indicators are you using? 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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| <i>ID</i> | <i>Objective</i> | <i>Initiating</i> | <i>Planning/ Initial Implementation</i> | <i>Implementing</i> | <i>Managing & Measuring</i> | <i>Continuous Improvement</i> |
|-----------|---|---|---|--|---|--|
| SA9-2 | Methods to measure safety performance, which is compared within and between ANSPs. | Ad-hoc safety performance data related to individual incidents is available, but there is no systematic approach for measuring safety performance. | <p>All of Initiating plus:</p> <p>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:</p> <p>Qualitative techniques are in place, and the implementation of quantitative techniques has started.</p> | <p>All of Implementing plus:</p> <p>Safety performance is measured using statistical and other quantitative techniques.</p> <p>Internal comparative analysis is done, and external comparative analysis has begun.</p> | <p>All of Managing & Measuring plus:</p> <p>The reporting, operational safety survey and SMS auditing programmes are integral parts of the management and operational processes.</p> <p>Results are used to drive further safety improvements across the organisation.</p> <p>Internal and external comparative analysis is well-established.</p> |
| SA9-2 | Outcomes of the objective fulfilment which may be considered applicable for each level of implementation | | Monitoring is limited by available data. | A range of techniques to monitor safety are in place. | Internal benchmarking allows units to compare their performance against other similar operations. | Safety improvements are driven by internal and external benchmarking of performance. |
| SA9-2 | 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?</p> <p>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> | | | | |

Appendix 1 to GM 4 SKPI Verification of ANSP EoSM by NSA/competent authority

| <i>ID</i> | <i>Objective</i> | <i>Initiating</i> | <i>Planning/ Initial Implementation</i> | <i>Implementing</i> | <i>Managing & Measuring</i> | <i>Continuous Improvement</i> |
|---|--|---|---|---|--|--|
| SA9-3 | A general public knowledgeable of the ANSP's performance through routine publication of achieved safety levels and trends. | Safety-related performance information is not made available to the public under any circumstances. | All of Initiating plus: A limited amount of safety-related performance information is made available, but only to selected authorities. | All of Planning/ Initial Implementation plus: High-level safety-related performance information is made available according to applicable-requirements. | All of Implementing plus: Safety performance information not governed by applicable requirements is also made available to the public. | 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. |
| SA9-3 | Outcomes of the objective fulfilment which may be considered applicable for each level of implementation | | The organisation has recognised the value of releasing information about the levels of safety achieved. | 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. | The ANSP makes available information about its performance to the public. | A range of measures are released to the general public with the aim of increasing confidence in the performance of the ANSP. |
| SA9-3 | 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 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? | | | | |
| SA10 Operational safety surveys and SMS audits | | | | | | |

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| ID | Objective | Initiating | Planning/ Initial Implementation | Implementing | Managing & Measuring | Continuous Improvement |
|---------------|---|--|--|--|---|---|
| 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; - Statement of authority and independence of the auditors. | <p>The following 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.</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</p> <p>Evidence of management review and action on results</p> <p>Action plan to address external findings</p> <p>Records of dissemination of findings, internally and externally</p> |

Appendix 1 to GM 4 SKPI Verification of ANSP EoSM by NSA/competent authority

| ID | Objective | Initiating | Planning/ Initial Implementation | Implementing | Managing & Measuring | Continuous Improvement |
|--|--|--|---|--|--|---|
| SA10-1 | 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>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> | | | | |
| SA11 Adoption and sharing of best practises | | | | | | |
| SA11-1 | A structured approach exists to promote safety, its standing within the organisation and lessons learned through application of the SMS. | <p>There is no structured approach to promote safety and its management within the organisation.</p> <p>The organisation has the capability to identify lessons learnt and promote them but on an ad-hoc basis.</p> | <p>All of Initiating plus:</p> <p>Ad-hoc processes are in place to gather and then promote information on safety, lessons learnt and the SMS.</p> <p>Some initial implementation has begun.</p> <p>Some internal best practises are spread across units within the organisation, but there is no systematic structure for internal safety promotion.</p> | <p>All of Planning/ Initial Implementation plus:</p> <p>An organisational approach has been established to promote safety, lessons learned and the SMS.</p> | <p>All of Implementing plus:</p> <p>Formal methods are in place to capture safety knowledge and promote it internally.</p> <p>The standing of safety and its management is a consistent and expected feature in internal communication.</p> | <p>All of Managing & Measuring plus:</p> <p>Staff are encouraged to share lessons learned in order that the lessons can be promoted across the organisation.</p> <p>Strategies to promote safety and its management are developed by senior levels in the organisation and are being implemented.</p> <p>Other industries' initiatives in relation to internal safety promotion are periodically reviewed with the approach being modified on the basis of the information gathered.</p> |
| SA11-1 | Outcomes of the objective fulfilment which may be considered applicable for each level of implementation | | Lessons learnt process identified. Evidence of identifying Lessons Learnt. | Lessons Learnt process implemented. KPIs and Milestones for lessons learnt identified. Evidence of staff training. | Lessons learning process can be shown to be effective. Safety is at the heart of every decision the ANSP makes | All staff are aware of the lessons learning process. Senior managers actively promote safety to all staff. Evidence of regular benchmarking of safety best practices across the industry. |

Appendix 1 to GM 4 SKPI Verification of ANSP EoSM by NSA/competent authority

| ID | Objective | Initiating | Planning/ Initial Implementation | Implementing | Managing & Measuring | Continuous Improvement |
|--------|---|--|--|---|---|--|
| 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> | | | | |
| SA11-2 | A structured approach to gather information on operational safety and SMS best practises from the industry. | <p>There is no structured approach to gather best practises from the industry.</p> <p>The organisation has the capability to identify and adopt industry best practises 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 practises.</p> <p>Some initial implementation has begun.</p> <p>Some internal best practises are spread across units within the organisation, but there is no systematic structure for the adoption of best practises.</p> | <p>All of Planning/ Initial Implementation plus:</p> <p>A structure has been established to identify applicable operational safety and SMS best practises from the industry.</p> | <p>All of Implementing plus:</p> <p>Industry best practises 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 practises are readily accessible to appropriate personnel.</p> <p>The organisation actively participates in developing industry best practises.</p> |
| SA11-2 | Outcomes of the objective fulfilment which may be considered applicable for each level of implementation | | <p>Best practice process identified. Evidence of identifying best practice. Some evidence of application of internal best practice.</p> | <p>Auditable process to identify and apply best practice from the industry. KPIs and Milestones have been produced to show that the process is being applied and is being effective.</p> | <p>Evidence of regular benchmarking of safety best practices across the industry. Evidence that best practices are adopted where appropriate.</p> | <p>Evidence that best practices are made available for all staff to learn. Evidence that the organisation is proactive in developing and spreading best practice in the industry.</p> |

Appendix 1 to GM 4 SKPI Verification of ANSP EoSM by NSA/competent authority

| ID | Objective | Initiating | Planning/ Initial Implementation | Implementing | Managing & Measuring | Continuous Improvement |
|--------|---|--|---|--|---|--|
| SA11-2 | 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?</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> | | | | |
| SA11-3 | Sharing of safety and SMS-related best practises with industry stakeholders. | There are no plans to release and share best practises with industry stakeholders. | <p>All of Initiating plus:</p> <p>Sharing of best practises takes place in response to requests for assistance from industry stakeholders.</p> | <p>All of Planning/ Initial Implementation plus:</p> <p>Best practises are shared with industry stakeholders as required by regulation.</p> | <p>All of Implementing plus:</p> <p>Best practises are actively shared with industry stakeholders.</p> <p>Sharing of safety-related best practises with industry has demonstrated improved safety performance.</p> | <p>All of Managing & Measuring plus:</p> <p>SMS-related best practises are proactively shared with industry stakeholders with the aim of improving SMS standards.</p> |
| SA11-3 | Outcomes of the objective fulfilment which may be considered applicable for each level of implementation | | Evidence of ad-hoc discussion on best practice with industry stakeholders. | Process to share best practice with the industry. Evidence that best practice is being shared with the industry | 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. |

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|---------------|--|--|---|---------------------|---------------------------------|-------------------------------|
| SA11-3 | 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>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> | | | | |