Framework for Developing Aviation Safety Management System Competency

SMS Core Competency	Competency Subgroup
1. Working understanding of management systems to be able to evaluate how an organization ensures compliance with regulatory requirements on an on-going basis	• Understands the role of the accountable manager (See SM ICG pamphlet, *The Senior Manager's Role in SMS*). • Understanding of basic components of a management system. • Understands the need for management system components to be integrated and operate as one system. • Recognizes whether management systems are appropriate for the type, size and operating environment of the organization. • Understanding of change management principles. • Understanding of best practices for continuous improvement.
2. Understanding the regulatory framework and its intent to ensure an organization meets the requirements for its certificates	• Understanding of legislation and regulations (international/national). • Understanding of background/intent of legislation and regulations. • Understanding of acceptable means of compliance. • Understanding of state policies such as enforcement policies. • Ability to evaluate the acceptability of implementation of an organization with regard to legislation and regulations. • Ability to assist an organization in the interpretation of applicable regulatory requirements.
3. Understanding of SMS oversight techniques	• Training and demonstrated experience in regulatory surveillance activities. • Ability to plan, conduct and debrief compliance-based audits and inspections. • Ability to identify significant safety deficiencies in a system. • Ability to include performance-based elements in routine oversight activities. • Understanding difference between compliance- and performance-based oversight.
4. Understanding how organizational safety performance framework and indicators are	• Understands different types of indicators and their use and needs. • Differentiates between effective and ineffective indicators. Effective indicators are those that are directly related to performance goals, while

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developed and used in a management system	ineffective ones do not tell the inspector much about the performance. • Understands how data is collected and analyzed in the organization • Ability to evaluate effectiveness of indicators and review as necessary. • Knowledge of target setting and its limitations. • Awareness of best practices with measuring performance in the same aviation sector. • Awareness of major risk areas/concerns at the national/regional level and how the organization may contribute to them. • Ability to translate the information obtained from the safety performance into messages that are suitable for various audiences (e.g., accountable executive, national safety teams, staff). • Familiar with State safety performance Indicators and expectations of how organizations are expected to consider them.
5. Understanding of the different types of cultures found in an organization and how they can affect the system performance	• Recognizes different types of national, ethnic, and professional cultures and how they may affect the safety culture of an organization. • Recognizes different types of organizational culture and their impact on personnel at various levels of the organization. • Ability to assess whether, and to what extent, a just culture exists within an organization. • Ability to assess whether, and to what extent, a safety culture exists in an organization.
6. Understanding sensitivity of confidential issues to prevent inadvertent disclosure of safety data by the regulator	• Understands legislation and regulations regarding data disclosure and protection. • Recognizes the importance of an open reporting environment and its impact on the effectiveness of a management system. • Understands the limitations on the use of safety information and the potential impact of data release or inappropriate usage including inadvertent disclosure. • Understands the sensitivity of dealing with an organization's confidential reporting system/just culture and the damage that a regulator could have on that system/culture.
7. Communication skills necessary to interface effectively between industry and internal stakeholders	• Highly developed written communication skills including the ability to write detailed technical reports. • Experience and ability to communicate effectively in a complex technical environment.

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	• Demonstrates a high level of interpersonal, oral, and written communication skills, including the ability to liaise effectively at a senior level and influence outcomes both internally and with external organizations. • Demonstrate sound interviewing skills such as being an active listener, speaking clearly, and being able to articulate thoughts and formulate questions appropriately. • Ability to adequately manage conflict and confrontation in a work environment.
8. **Systems thinking:** The ability to recognize the components of a system and how they interact and interface	• Ability to identify indicators of a systemic failure in addition to indications of a single point failure. • Experience and ability to understand a complex technical operating environment. • Demonstrate clear understanding and application of accident causality models. • Understanding of the potential impact of interactions (both positive and negative) between systems and at interfaces within a system (e.g., Quality Management Systems (QMS), maintenance control systems, error management systems, Air Traffic Control (ATC) systems).
9. **Analytical skills commensurate with roles and responsibilities** to assess the organizations safety performance	• Ability to verify that the organization data collection processes capture appropriate information. • Ability to verify the effectiveness of the risk analysis process. • Ability to use causal analysis methods. • Ability to evaluate trends in safety and compliance issues. • Ability to assess the service provider's safety accomplishments compared with its safety performance objectives. • Ability to understand the limitations of data and how it can be used in analyzing safety performance.
10. **Decision making skills** necessary to exercise judgment based on all available information	• Ability to critically and accurately analyze trends, problem situations, and issues. • Ability to use logic and analysis to arrive at appropriate conclusions from relevant information and assumptions. • Ability to infer, categorize, organize, and connect related concepts. • Ability to exercise judgment, intelligence, and discretion in making decisions. • Skills that can help identify decision alternatives.

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	• Ability to envision possible future consequences of alternative solutions. • Ability to collaborate, communicate, cooperate, learn, negotiate, and listen to ensure effective group decision making. • Skilled in managing emotions and perception issues to ensure objectivity in stressful decision situations. • Ability to discern what factors contribute to a situation allowing for focusing on appropriate solution.
11. **Open-mindedness:** To be able to accept new ideas or different viewpoints including being able to recognize that a management system is proportionate to the size and complexity of the organization	• Ability to assess whether a management system is appropriate to the operations of the organization. • Understanding of the criteria for differentiating the size and complexity of each organization, taking into account its type(s) of certificate(s). • Skilled in recognizing that different processes and procedures may lead to the same result. • Ability to listen to and understand what the organization performs to achieve an effective management system.
12. **Assertiveness:** The quality of being able to confidently and vigorously state and defend one's opinion	• Rigorous and tenacious in finding proof or objective evidence. • Ability to state opinions firmly without either aggressively threatening or submissively accepting the opinions of others.
13. **Teamwork:** SMS assessment is often carried out as part of a team so there is a need to be able to work in a multi-disciplinary environment in a cooperative manner	• Ability to collaborate and cooperate to achieve a common goal. • Ability to employ cooperative behavior to resolve interpersonal problems and optimize member interaction. • Ability to build trust and respect among team members. • Ability to receive and offer constructive feedback to other team members. • Ability to work with specialists from other technical disciplines.
14. **Appreciation** of the subjectivity of safety management systems and the need to establish objective evidence where possible	• Ability to recognize and mitigate personal biases and emotional involvement when conducting inspections. • Ability to justify and document major decisions based on observable signals. • Ability to apply subjective judgments where necessary and to establish objective evidence where possible.

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15. **Understanding of human performance and limitations** and understanding of the organizational factors that may influence these	• Understanding of human factors and human performance limitations to be able to recognise weak risk mitigations, processes, and procedures that are open to human errors. • Ability to analyze incidents/events using human factors models (e.g., SHELL, HFACS). • Ability to identify and articulate the effects of organizational culture on operational safety. • Ability to identify human factor related risks within an organisation's SMS.
16. **Understanding risk** to evaluate issues or proposed changes and the impact on the organization and the aviation system; and to evaluate the need for safety risk controls	• Understanding of the relationships between hazards and their consequences and how they contribute to accidents and incidents. • Ability to identify the precursors to safety issues. • Ability to assess factors contributing to risk, and evaluate the effectiveness of implemented mitigation strategies. • Ability to share data and work cooperatively to determine risks. • Ability to recognize technical issues that may have safety-critical implications.