

Appendix 7 to Chapter 5

SMS GAP ANALYSIS CHECKLIST AND IMPLEMENTATION PLAN

1. INITIAL GAP ANALYSIS CHECKLIST (TABLE 5-A7-1)

1.1 The initial gap analysis checklist in Table 5-A7-1 can be used as a template to conduct the first step of an SMS gap analysis. This format with its overall “Yes/No/Partial” responses will provide an initial indication of the broad scope of gaps and hence overall workload to be expected. The questionnaire may be adjusted to suit the needs of the organization and the nature of the product or service provided. This initial information should be useful to senior management in anticipating the scale of the SMS implementation effort and hence the resources to be provided. This initial checklist would need to be followed up by an appropriate implementation plan as per Tables 5-A7-2 and 5-A7-3.

1.2. A “Yes” answer indicates that the organization meets or exceeds the expectation of the question concerned. A “No” answer indicates a substantial gap in the existing system with respect to the question’s expectation. A “Partial” answer indicates that further enhancement or development work is required to an existing process in order to meet the question’s expectations.

Note.— The SSP references in square [] brackets refer to guidance material in this manual relevant to the gap analysis question.

Table 5-A7-1. Gap analysis checklist

No.	<i>Aspect to be analysed or question to be answered</i>	<i>Answer</i>	<i>Status of implementation</i>
Component 1 — SAFETY POLICY AND OBJECTIVES			
Element 1.1 — Management commitment and responsibility			
1.1-1	Is there a safety policy in place? [5.3.7 to 5.3.15; 5.5.3]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
1.1-2	Does the safety policy reflect senior management’s commitment regarding safety management? [5.3.7 to 5.3.15]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
1.1-3	Is the safety policy appropriate to the size, nature and complexity of the organization? [5.3.7 to 5.3.15]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
1.1-4	Is the safety policy relevant to aviation safety? [5.3.7 to 5.3.15]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	

No.	Aspect to be analysed or question to be answered	Answer	Status of implementation
1.1-5	Is the safety policy signed by the accountable executive? [5.3.7 to 5.3.15; 5.5.3]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
1.1-6	Is the safety policy communicated, with visible endorsement, throughout the [Organization]? [5.5.3]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
1.1-7	Is the safety policy periodically reviewed to ensure it remains relevant and appropriate to the [Organization]? [5.5.3]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
Element 1.2 — Safety accountabilities			
1.2-1	Has [Organization] identified an accountable executive who, irrespective of other functions, shall have ultimate responsibility and accountability, on behalf of the [Organization], for the implementation and maintenance of the SMS? [5.3.16 to 5.3.26; 5.5.2]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
1.2-2	Does the accountable executive have full control of the financial and human resources required for the operations authorized to be conducted under the operations certificate? [5.3.16 to 5.3.26]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
1.2-3	Does the Accountable Executive have final authority over all aviation activities of his organization? [5.3.16 to 5.3.26]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
1.2-4	Has [Organization] identified and documented the safety accountabilities of management as well as operational personnel, with respect to the SMS? [5.3.16 to 5.3.26]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
1.2-5	Is there a safety committee or review board for the purpose of reviewing SMS and safety performance? [5.3.27 to 5.3.33; Appendix 4]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
1.2-6	Is the safety committee chaired by the accountable executive or by an appropriately assigned deputy, duly substantiated in the SMS manual? [5.3.27 to 5.3.33; Appendix 4]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
1.2-7	Does the safety committee include relevant operational or departmental heads as applicable? [5.3.27 to 5.3.33; Appendix 4]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
1.2-8	Are there safety action groups that work in conjunction with the safety committee (especially for large/complex organizations)? [5.3.27 to 5.3.33; Appendix 4]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	

No.	Aspect to be analysed or question to be answered	Answer	Status of implementation
Element 1.3 — Appointment of key safety personnel			
1.3-1	Has [Organization] appointed a qualified person to manage and oversee the day-to-day operation of the SMS? [5.3.27 to 5.3.33; 5.5.2; Appendix 2]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
1.3-2	Does the qualified person have direct access or reporting to the accountable executive concerning the implementation and operation of the SMS? [5.3.27 to 5.3.33; 5.5.2; Appendix 2, 6.1]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
1.3-3	Does the manager responsible for administering the SMS hold other responsibilities that may conflict or impair his role as SMS manager. [Appendix 2, 6.4]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
1.3-4	Is the SMS manager's position a senior management position not lower than or subservient to other operational or production positions [Appendix 2, 6.4]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
Element 1.4 — Coordination of emergency response planning			
1.4-1	Does [Organization] have an emergency response/contingency plan appropriate to the size, nature and complexity of the organization? [Appendix 3]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
1.4-2	Does the emergency/contingency plan address all possible or likely emergency/crisis scenarios relating to the organization's aviation product or service deliveries? [Appendix 3, 4 f)]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
1.4-3	Does the ERP include procedures for the continuing safe production, delivery or support of its aviation products or services during such emergencies or contingencies? [Appendix 3, 4 e)]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
1.4-4	Is there a plan and record for drills or exercises with respect to the ERP? [Appendix 3, 5 c)]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
1.4-5	Does the ERP address the necessary coordination of its emergency response/contingency procedures with the emergency/response contingency procedures of other organizations where applicable? [Appendix 3, 4 d)]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
1.4-6	Does [Organization] have a process to distribute and communicate the ERP to all relevant personnel, including relevant external organizations? [Appendix 3, 5 d)]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	

No.	Aspect to be analysed or question to be answered	Answer	Status of implementation
1.4-7	Is there a procedure for periodic review of the ERP to ensure its continuing relevance and effectiveness? [Appendix 3, 5 f)]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
Element 1.5 — SMS documentation			
1.5-1	Is there a top-level SMS summary or exposition document which is approved by the accountable manager and accepted by the CAA? [5.3.36 to 5.3.38]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
1.5-2	Does the SMS documentation address the organization's SMS and its associated components and elements? [5.3.36 to 5.3.38; 5.4.1; Appendix 4]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
1.5-3	Is [Organization] SMS framework in alignment with the regulatory SMS framework? [5.3.36 to 5.3.38; 5.4.1; Appendix 4]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
1.5-4	Does [Organization] maintain a record of relevant supporting documentation pertinent to the implementation and operation of the SMS? [5.3.36 to 5.3.38; 5.5.5]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
1.5-5	Does [Organization] have an SMS implementation plan to establish its SMS implementation process, including specific tasks and their relevant implementation milestones? [5.4.4]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
1.5-6	Does the SMS implementation plan address the coordination between the service provider's SMS and the SMS of external organizations where applicable? [5.4.4]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
1.5-7	Is the SMS implementation plan endorsed by the accountable executive? [5.4.4; 5.5.2]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
Component 2 — SAFETY RISK MANAGEMENT			
Element 2.1 — Hazard identification			
2.1-1	Is there a process for voluntary hazards/threats reporting by all employees? [5.3.42 to 5.3.52; 5.5.4]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
2.1-2	Is the voluntary hazard/threats reporting simple, available to all personnel involved in safety-related duties and commensurate with the size of the service provider? [5.3.42 to 5.3.52]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	

No.	Aspect to be analysed or question to be answered	Answer	Status of implementation
2.1-3	Does [Organization] SDCPS include procedures for incident/accident reporting by operational or production personnel? [5.3.42 to 5.3.52; 5.5.4; Chapter 4, Appendix 3]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
2.1-4	Is incident/accident reporting simple, accessible to all personnel involved in safety-related duties and commensurate with the size of the service provider? [5.3.42 to 5.3.52; 5.5.4]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
2.1-5	Does [Organization] have procedures for investigation of all reported incident/accidents? [5.3.42 to 5.3.52; 5.5.4]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
2.1-6	Are there procedures to ensure that hazards/threats identified or uncovered during incident/accident investigation processes are appropriately accounted for and integrated into the organization's hazard collection and risk mitigation procedure? [2.13.9; 5.3.50 f); 5.5.5]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
2.1-7	Are there procedures to review hazards/threats from relevant industry reports for follow-up actions or risk evaluation where applicable? [5.3.5.1]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
Element 2.2 — Safety risk assessment and mitigation			
2.2-1	Is there a documented hazard identification and risk mitigation (HIRM) procedure involving the use of objective risk analysis tools? [2.13; 2.14; 5.3.53 to 5.3.61]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
2.2-2	Is the risk assessment reports approved by departmental managers or at a higher level where appropriate? [2.15.5; 5.3.53 to 5.3.61]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
2.2-3	Is there a procedure for periodic review of existing risk mitigation records? [5.5.4]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
2.2-4	Is there a procedure to account for mitigation actions whenever unacceptable risk levels are identified? [5.5.4]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
2.2-5	Is there a procedure to prioritize identified hazards for risk mitigation actions? [5.5.4]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
2.2-6	Is there a programme for systematic and progressive review of all aviation safety-related operations, processes, facilities and equipment subject to the HIRM process as identified by the organization? [5.5.4]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	

No.	Aspect to be analysed or question to be answered	Answer	Status of implementation
Component 3 — SAFETY ASSURANCE			
Element 3.1 — Safety performance monitoring and measurement			
3.1-1	Are there identified safety performance indicators for measuring and monitoring the safety performance of the organization's aviation activities? [5.3.66 to 5.3.73; 5.4.5; 5.5.4; 5.5.5; Appendix 6]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
3.1-2	Are the safety performance indicators relevant to the organization's safety policy as well as management's high-level safety objectives/goals? [5.3.66 to 5.3.73; 5.4.5; Appendix 6]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
3.1-3	Do the safety performance indicators include alert/target settings to define unacceptable performance regions and planned improvement goals? [5.3.66 to 5.3.73; 5.4.5; 5.5.4; 5.5.5; Appendix 6]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
3.1-4	Is the setting of alert levels or out-of-control criteria based on objective safety metrics principles? [5.3.66 to 5.3.73; 5.4.5; Appendix 6]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
3.1-5	Do the safety performance indicators include quantitative monitoring of high-consequence safety outcomes (e.g. accident and serious incident rates) as well as lower-consequence events (e.g. rate of non-compliance, deviations)? [5.3.66 to 5.3.73; 5.4.5; 5.5.4; 5.5.5; Appendix 6]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
3.1-6	Are safety performance indicators and their associated performance settings developed in consultation with, and subject to, the civil aviation authority's agreement? [5.3.66 to 5.3.73; 5.4.5.2; 5.5.4; 5.5.5]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
3.1-7	Is there a procedure for corrective or follow-up action to be taken when targets are not achieved and alert levels are exceeded/breached? [5.4.5; Appendix 6, Table 5-A6-5 b)]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
3.1-8	Are the safety performance indicators periodically reviewed? [5.4.5; Appendix 6]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
Element 3.2 — The management of change			
3.2-1	Is there a procedure for review of relevant existing aviation safety-related facilities and equipment (including HIRM records) whenever there are pertinent changes to those facilities or equipment? [5.3.74 to 5.3.77; 5.5.4]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	

No.	Aspect to be analysed or question to be answered	Answer	Status of implementation
3.2-2	Is there a procedure for review of relevant existing aviation safety-related operations and processes (including any HIRM records) whenever there are pertinent changes to those operations or processes? [5.3.74 to 5.3.77; 5.5.4]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
3.2-3	Is there a procedure for review of new aviation safety-related operations and processes for hazards/risks before they are commissioned? [5.5.4]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
3.2-4	Is there a procedure for review of relevant existing facilities, equipment, operations or processes (including HIRM records) whenever there are pertinent changes external to the organization such as regulatory/industry standards, best practices or technology? [5.5.4]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
Element 3.3 — Continuous improvement of the SMS			
3.3-1	Is there a procedure for periodic internal audit/assessment of the SMS? [5.3.78 to 5.3.82; 5.5.4; 5.5.5]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
3.3-2	Is there a current internal SMS audit/assessment plan? [5.3.78 to 5.3.82; 5.5.4; 5.5.5]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
3.3-3	Does the SMS audit plan include the sampling of completed/existing safety risk assessments? [5.5.5]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
3.3-4	Does the SMS audit plan include the sampling of safety performance indicators for data currency and their target/alert settings performance? [5.4.5; 5.5.5]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
3.3-5	Does the SMS audit plan cover the SMS interface with subcontractors or customers where applicable? [5.4.1; 5.5.5]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
3.3-6	Is there a process for SMS audit/assessment reports to be submitted or highlighted for the accountable manager's attention where appropriate. [5.3.80; 5.5.5]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	

No.	Aspect to be analysed or question to be answered	Answer	Status of implementation
Component 4 — SAFETY PROMOTION			
Element 4.1 — Training and education			
4.1-1	Is there a programme to provide SMS training/familiarization to personnel involved in the implementation or operation of the SMS? [5.3.86 to 5.3.91; 5.5.5]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
4.1-2	Has the accountable executive undergone appropriate SMS familiarization, briefing or training? [5.3.86 to 5.3.91; 5.5.5]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
4.1-3	Are personnel involved in conducting risk mitigation provided with appropriate risk management training or familiarization? [5.3.86 to 5.3.91; 5.5.5]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
4.1-4	Is there evidence of organization-wide SMS education or awareness efforts? [5.3.86 to 5.3.91; 5.5.5]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
Element 4.2 — Safety communication			
4.2-1	Does [Organization] participate in sharing safety information with relevant external industry product and service providers or organizations, including the relevant aviation regulatory organizations? [5.3.92; 5.3.93; 5.5.5]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
4.2-2	Is there evidence of a safety (SMS) publication, circular or channel for communicating safety (SMS) matters to employees? [5.3.92; 5.3.93; 5.5.5]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	
4.2-3	Are [Organization] SMS manual and related guidance material accessible or disseminated to all relevant personnel? [5.3.92; 5.3.93; 5.5.5]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial	

2. DETAILED SMS GAP ANALYSIS AND IMPLEMENTATION TASKS (TABLE 5-A7-2)

The initial gap analysis checklist in Table 5-A7-1 should then be followed up by using the detailed “SMS gap analysis and implementation task identification plan” in Table 5-A7-2. Once completed, Table 5-A7-2 will provide follow-up analysis on details of the gaps and help translate these into actual required tasks and subtasks in the specific context of the organization’s processes and procedures. Each task will then accordingly be assigned to appropriate individuals or groups for action. It is important that correlation of individual element/task development with their descriptive placeholders in the SMS document be provided for in Table 5-A7-2 in order to trigger progressive updating of the draft SMS document as each element is implemented or enhanced. (Initial element write-ups in SMS documents tend to be anticipatory rather than declaratory.)