1 Initial Gap Analysis Checklist (Table 1)

The initial gap analysis questions checklist (Table 1) that follows can be used as a template to conduct the first step of a SMS gap analysis. This format with its overall "Yes/ No/ Partial" response 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 per Table 2 & 3).

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: SMM references within [ ] brackets contain guidance materials relevant to the Gap analysis question.

Table 1

No.	Aspect to be analysed or question to be answered	Answer	Status of implementation
Component 1 — SAFETY POLICY AND OBJECTIVES			
Element 1.1 — Management commitment and responsibility			
1	Is there a safety policy in place? [4.3.1; 4.5.2(a)]	☐ Yes ☐ No ☐ Partial	
2	Does the safety policy reflect senior management commitments regarding safety management? [4.3.1]	☐ Yes ☐ No ☐ Partial	
3	The Safety Policy is appropriate to the size, nature and complexity of the organization. [4.3.1]	☐ Yes ☐ No ☐ Partial	
4	The Safety Policy is relevant to aviation safety. [4.3.1]	☐ Yes ☐ No ☐ Partial	
5	Is the safety policy signed by the Accountable Executive? [4.3.1; 4.5.2]	☐ Yes ☐ No ☐ Partial	
6	Is the safety policy communicated, with visible endorsement, throughout the [organization]? [4.5.2]	☐ Yes ☐ No ☐ Partial	
7	Is the safety policy periodically reviewed to ensure it remains relevant and appropriate to the [organization]? [4.5.2]	☐ Yes ☐ No ☐ Partial	
Element 1.2 — Safety accountabilities			
1	Has the [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	☐ Yes ☐ No ☐ Partial	

No.	Aspect to be analysed or question to be answered	Answer	Status of implementation
	SMS? [4.5.1; 4.3.2]		
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? [4.3.2]	☐ Yes ☐ No ☐ Partial	
3	Does the Accountable Executive have final authority over all aviation activities of his organization? [4.3.2]	☐ Yes ☐ No ☐ Partial	
4	Has the organization identified and documented the safety accountabilities of management as well as operational personnel, with respect to the SMS? [4.3.2]	☐ Yes ☐ No ☐ Partial	
5	Is there a Safety Committee or Review board for the purpose of reviewing SMS and safety performance? [4.3.3 and App 3]	☐ Yes ☐ No ☐ Partial	
6	Is the Safety Committee chaired by the Accountable Executive or by an appropriately assigned deputy, duly substantiated in the SMS manual? [4.3.3 and App 3]	☐ Yes ☐ No ☐ Partial	
7	Does the Safety Committee include relevant operational or departmental Heads as applicable? [4.3.3 and App 3]	☐ Yes ☐ No ☐ Partial	
8	Are there Safety Action Groups that work in conjunction with the Safety Committee? (large/ complex organizations as appropriate) [4.3.3 and App 3]	☐ Yes ☐ No ☐ Partial	
Element 1.3 — Appointment of key safety personnel			
1	Has the organization appointed a qualified person to manage and oversee the day-to-day operation of the SMS? [4.5.1; 4.3.3; App 1]	☐ Yes ☐ No ☐ Partial	
2	Does the qualified person have direct access or reporting to the Accountable Executive concerning the implementation & operation of the SMS? [4.3.3; App 1, 6.1]	☐ Yes ☐ No ☐ Partial	
3	The Manager responsible for administering the SMS does not hold other responsibilities that may conflict or impair his role as SMS manager. [App 1, 6.4]	☐ Yes ☐ No ☐ Partial	
4	The SMS Manager is a senior management position not lower than or subservient to other operational or production positions [App1, 6.4]	☐ Yes ☐ No ☐ Partial	
Element 1.4 — Coordination of emergency response planning			
1	Does the [organization] have an emergency response/contingency plan appropriate to the size, nature and complexity of the organization? [App 4]	☐ Yes ☐ No ☐ Partial	
2	Does the Emergency/ Contingency plan address all possible or likely emergency/ crisis scenarios relating to the organization's aviation product or service deliveries? [App 4, 4(f)]	☐ Yes ☐ No ☐ Partial	
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? [App 4, 4(e)]	☐ Yes ☐ No ☐ Partial	
4	Is there a plan and record for drills or exercises with respect to the ERP? [App 4, 5c]	☐ Yes ☐ No ☐ Partial	
5	Does the ERP address necessary coordination of its emergency response/contingency procedures with the emergency/response contingency	☐ Yes ☐ No	

No.	Aspect to be analysed or question to be answered	Answer	Status of implementation
	procedures of other organizations where applicable? [App 4, 4(d)]	☐ Partial	
6	Does the [organization] have a process to distribute and communicate the ERP to all relevant personnel, including relevant external organizations? [App 4, 5(a)]	☐ Yes ☐ No ☐ Partial	
7	Is there a procedure for periodic review of the ERP to ensure its continuing relevance & effectiveness? [App 4, 5(d)]	☐ Yes ☐ No ☐ Partial	
Element 1.5 — SMS documentation			
1	There is a top level SMS summary or exposition Document which is approved by the Accountable Manager and accepted by the CAA. [4.3.5]	☐ Yes ☐ No ☐ Partial	
2	Does the SMS Documentation address the organization's SMS and its associated components and elements? [4.3.5; 4.4.1; App 3]	☐ Yes ☐ No ☐ Partial	
3	Is the organization's SMS framework in alignment to the regulatory SMS framework? [4.3.5; 4.4.1; App 3]	☐ Yes ☐ No ☐ Partial	
4	Does the organization maintain a record of relevant supporting documentation pertinent to the implementation and operation of the SMS? [4.3.5; 4.5.4]	☐ Yes ☐ No ☐ Partial	
5	Does the organization have a SMS implementation plan to establish its SMS implementation process, including specific tasks and their relevant implementation milestones? [4.4.4]	☐ Yes ☐ No ☐ Partial	
6	Does the SMS implementation plan address the coordination between the service provider's SMS and the SMS of external organizations where applicable? [4.4.4]	☐ Yes ☐ No ☐ Partial	
7	Is the SMS implementation plan endorsed by the Accountable Executive? [4.5.1; 4.4.4]	☐ Yes ☐ No ☐ Partial	
Component 2 — SAFETY RISK MANAGEMENT			
Element 2.1 — Hazard identification			
1	There is a process for voluntary hazards/ threats reporting by all employees. [4.5.3(a); 4.3.6]	☐ Yes ☐ No ☐ Partial	
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? 4.3.6]	☐ Yes ☐ No ☐ Partial	
3	Does the [organization's] SDCPS include procedures for incident/ accident reporting by operational or production personnel? [4.3.8; 4.5.3; Xref chpt 3, App 12]	☐ Yes ☐ No ☐ Partial	
4	Is incident/ accident reporting simple, accessible to all personnel involved in safety-related duties and commensurate with the size of the service provider? [4.5.3; 4.3.8]	☐ Yes ☐ No ☐ Partial	
5	Does the [organization] have procedures for investigation of all reported incident/ accidents?. [4.5.3; 4.3.8]	☐ Yes ☐ No ☐ Partial	
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? [1.12.2; 1.12.3; 4.3.6]	☐ Yes ☐ No ☐ Partial	

No.	Aspect to be analysed or question to be answered	Answer	Status of implementation
7	Are there procedures to review hazards/ threats from relevant industry reports for follow up actions or risk evaluation where applicable? [1.12.2; 1.12.3]	☐ Yes ☐ No ☐ Partial	

No.	Aspect to be analysed or question to be answered	Answer	Status of implementation
Element 2.2 — Safety risk assessment and mitigation			
1	Is there a documented Hazard Identification and Risk Mitigation (HIRM) procedure involving the use of objective risk analysis tools. [1.12; 1.14; 4.3.7]	☐ Yes ☐ No ☐ Partial	
2	Is the risk assessment reports approved by departmental managers or higher level where appropriate? [4.3.7; 1.15.1]	☐ Yes ☐ No ☐ Partial	
3	Is there a procedure for periodic review of existing risk mitigation records? [4.5.3]	☐ Yes ☐ No ☐ Partial	
4	Is there a procedure to account for mitigation actions whenever unacceptable risk levels are identified? [4.5.3]	☐ Yes ☐ No ☐ Partial	
5	Is there a procedure to prioritise identified hazards for risk mitigation actions? [4.5.3]	☐ Yes ☐ No ☐ Partial	
6	Is there a program for systematic and progressive HIRM performance of all aviation safety-related operations/ processes/ facilities/ equipment as identified by the organization? [4.5.3]	☐ Yes ☐ No ☐ Partial	
Component 3 — SAFETY ASSURANCE			
Element 3.1 — Safety performance monitoring and measurement			
1	Are there identified safety performance indicators for measuring & monitoring safety performance of the organization's aviation activities? [4.5.3; 4.3.8; App 6]	☐ Yes ☐ No ☐ Partial	
2	Are safety performance indicators relevant to the organization's safety policy as well as management's high level safety objectives/ goals? [4.5.3; 4.3.8; App 6]	☐ Yes ☐ No ☐ Partial	
3	Do the safety performance indicators include alert/ target settings to define unacceptable performance regions and planned improvement goals? [4.5.3; 4.3.8; App 6]	☐ Yes ☐ No ☐ Partial	
4	Is the setting of alert levels or out of control criteria based on objective safety metrics principles? [4.3.8; App 6]	☐ Yes ☐ No ☐ Partial	
5	Do the safety performance indicators include quantitative monitoring of high consequence safety outcomes (eg accident & serious incident rates) as well as lower consequence events (eg rate of non compliance, deviations)? [4.3.8; App 6]	☐ Yes ☐ No ☐ Partial	
6	Are safety performance indicators and their associated performance settings developed in consultation with, and subject to the Aviation Authority's agreement? [4.5.3; 4.3.8]	☐ Yes ☐ No ☐ Partial	
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? [4.4.5]	☐ Yes ☐ No ☐ Partial	
8	Are the safety performance indicators periodically reviewed? [4.4.5; App 6]	☐ Yes ☐ No ☐ Partial	
Element 3.2 — The management of change			
1	Is there a procedure for review of relevant existing aviation safety related facilities and equipment (including any HIRM records) whenever there are pertinent changes to those facilities or equipment? [4.3.9; 4.5.3]	☐ Yes ☐ No ☐ Partial	

No.	Aspect to be analysed or question to be answered	Answer	Status of implementation
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? [4.3.9; 4.5.3]	☐ Yes ☐ No ☐ Partial	
3	Is there a procedure for review of new aviation safety related operations and processes for hazards/ risks before they are commissioned? [4.5.3]	☐ Yes ☐ No ☐ Partial	
4	Is there a procedure for review of relevant existing facilities, equipment, operations or processes (including any HIRM records) whenever there are pertinent changes external to the organization such as regulatory/ industry standards, best practices or technology? [4.5.3]	☐ Yes ☐ No ☐ Partial	
Element 3.3 — Continuous improvement of the SMS			
1	Is there a procedure for periodic internal audit/ assessment of the SMS? [4.3.10; 4.5.3; 4.5.4]	☐ Yes ☐ No ☐ Partial	
2	Is there a current internal SMS audit/ assessment plan? [4.3.10; 4.5.3; 4.5.4]	☐ Yes ☐ No ☐ Partial	
3	Does the SMS audit plan include the sampling of completed/ existing safety risk assessments? [4.5.4]	☐ Yes ☐ No ☐ Partial	
4	Does the SMS audit plan include the sampling of safety performance indicators for data currency and their target/ alert settings performance? [4.5.4]	☐ Yes ☐ No ☐ Partial	
5	Does the SMS audit plan cover the SMS interface with sub-contractors or customers where applicable? [4.5.4]	☐ Yes ☐ No ☐ Partial	
6	There is a process for SMS audit/ assessment reports to be submitted or highlighted for the Accountable Manager's attention where appropriate. [4.5.4]	☐ Yes ☐ No ☐ Partial	
Component 4 — SAFETY PROMOTION			
Element 4.1 — Training and education			
1	Is there a program to provide SMS training/ familiarization to personnel involved in the implementation or operation of the SMS? [4.3.11; 4.5.4]	☐ Yes ☐ No ☐ Partial	
2	Has the Accountable Executive undergone appropriate SMS familiarisation, briefing or training? [4.3.11; 4.5.4]	☐ Yes ☐ No ☐ Partial	
3	Are personnel involved in conducting risk mitigation provided with appropriate risk management training or familiarisation? [4.3.11; 4.5.4]	☐ Yes ☐ No ☐ Partial	
4	Is there evidence of organization wide SMS education or awareness efforts? [4.3.11; 4.5.4]	☐ Yes ☐ No ☐ Partial	
Element 4.2 — Safety communication			
1	Does the organization participate in safety information sharing with relevant external industry product and service providers or organizations, including the relevant aviation regulatory organizations? [4.3.12; 4.5.4]	☐ Yes ☐ No ☐ Partial	
2	There is evidence of a Safety (SMS) publication, circular or channel for communicating Safety (SMS) matters to employees. [4.3.12; 4.5.4]	☐ Yes ☐ No ☐ Partial	

No.	Aspect to be analysed or question to be answered	Answer	Status of implementation
3	Are the organization's SMS manual and related guidance materials accessible or disseminated to all relevant personnel? [4.3.12; 4.5.4]	☐ Yes ☐ No ☐ Partial	

2   Detailed SMS Gap Analysis & Implementation Tasks (Table 2)

The above Table 1 initial gap analysis checklist will now need to be followed up by a detailed "Required Tasks/ Actions" plan such as per Table 2 example below. This Table 2 will provide follow up analysis on details of the gaps and translating these into actual required tasks and sub-tasks in the specific context of the organization's processes and procedures. Each Task is accordingly assigned to appropriate individuals or groups for action. It is important that correlation of individual element/ task development to their descriptive placeholders in the SMS Document be provided for in this Table 2. This will trigger progressive updating of the draft SMS Document even as each element is being enhanced or implemented. (Initial element write-ups in SMS documents tend to be anticipatory rather than declaratory).

3   Actions/ Tasks Implementation Schedule (Table 3)

Table 3 may be a separate consolidation of all outstanding Actions/ Tasks or if preferred, be a continuation of Table 2 in the form of a spread sheet. This Table will show the milestones (Start-End dates) as scheduled for each Task/ Action. For a Phased implementation approach, these Tasks/Actions would need to be sorted according to its related element's Phase allocation. Refer to Phased Approach Section of this chapter for the phased prioritization of SMS elements as appropriate. Where it is anticipated that the actual number of Tasks/ Actions and their milestones are sufficiently voluminous and complex as to require utilising a project management software to management them, this may be done by using such as MS project/ Gantt chart as appropriate. Table 4 is an illustration of such a Gantt chart.