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# Safety Management System Assessment Guide



Canada

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Foreword

This assessment guide contains all the information needed to set up an assessment protocol for a certificate holder. It includes the process outline to conduct an assessment. Each step is summarized and the needed charts and tables are included.

This guide should be used to set up the assessment – it has the master protocol, which is modified according to TC intelligence and past assessment history. The expectations with their associated questions are included along with the methods to develop observations and apply the measurement criteria. The guide concludes with the evaluation methodology and the TC scoring system.



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## **1 INTRODUCTION**

The Safety Management System (SMS) Assessment Protocol is the primary assessment reference for delegated officers. The protocol covers the components and elements of the Civil Aviation SMS model. Expectations have been developed for each element with associated questions and evaluation criteria based on the *Civil Aviation Regulations* (CAR).

This Assessment Guide contains the master protocol. It is to be used in support of assessment activity by adding past assessment data, and current Transport Canada (TC) intelligence for any certificate holder to generate a case-specific protocol.

A case specific protocol is unique to the company being assessed and will vary depending on the current SMS regulatory framework.

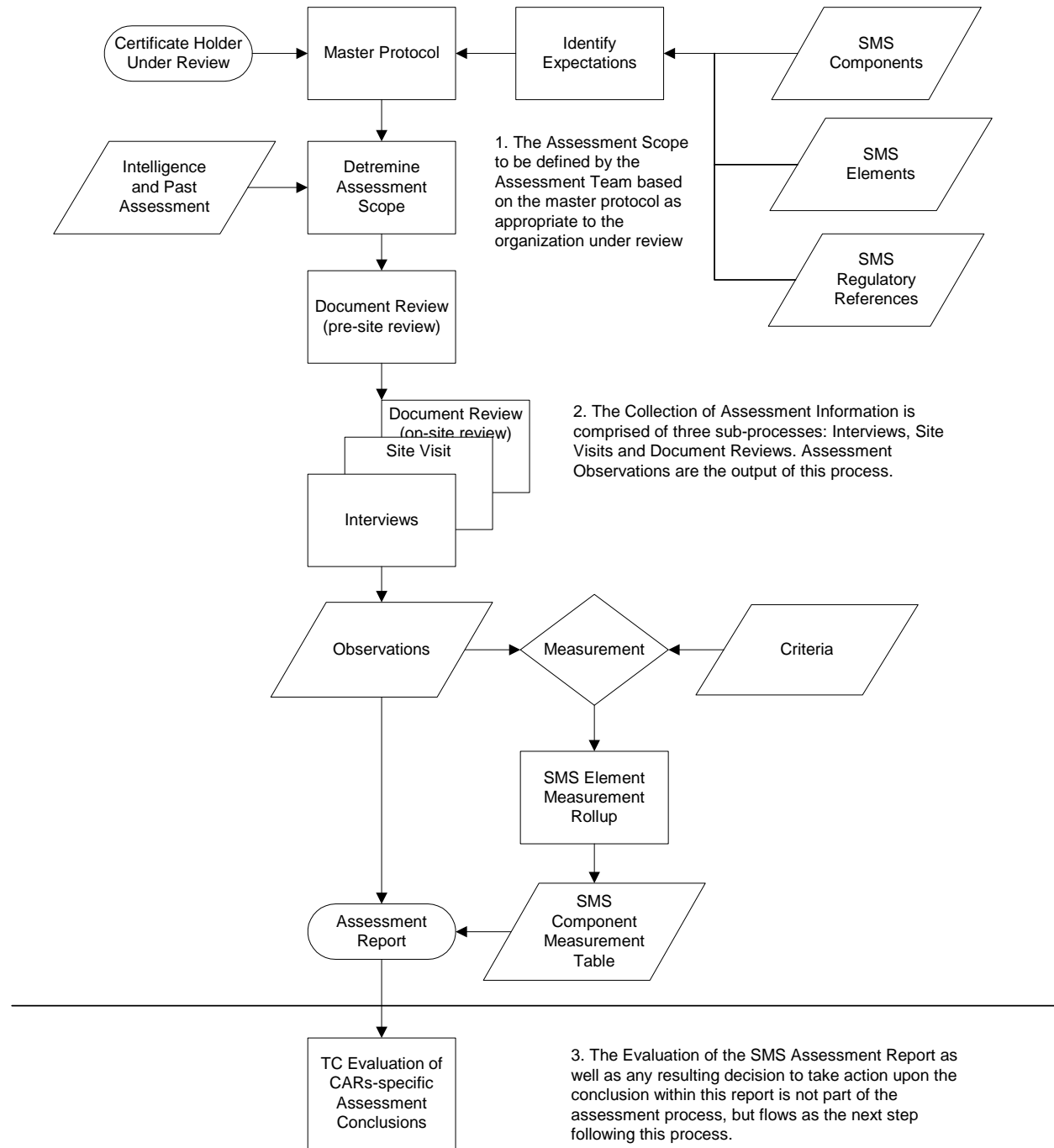
## **2 SMS ASSESSMENT PROCESS**

The SMS Assessment Protocol has been developed to give Transport Canada a tool for systematically evaluating the effectiveness of Safety Management Systems (SMS) in civil aviation approved organizations. It is not meant to be an inspection or compliance audit, but rather, the assessment focuses on the effectiveness and efficiency of a management system and makes judgments on its performance.

The SMS assessment is supported by the relevant CARs. A six component SMS model with associated elements forms the basis of the Protocol. Transport Canada has developed the protocol which comprises a set of defined expectations for each component and element. The expectations, along with a set of accompanying questions for each expectation, form the master protocol for the SMS assessments.

It is anticipated that the master protocol will change as the CARs evolve and experience in using the protocol is gathered. The primary steps in the assessment process are detailed in the following sections of the SMS Assessment Process, as shown in figure 1.

**Figure 1**





## **2.0 Determine Assessment Scope**

The scope of an assessment is determined by:

1. The scope of operations of the certificate holder, i.e. operations, maintenance, airport etc. that determines which parts of the CARs are applicable.
2. Full scale assessment or a follow-up from a full-scale assessment.
3. Intelligence on the certificate holder – change in management, incident records, complaints etc.

This information is used to determine which sections of the master protocol are relevant. It will set the extent of the assessment and from this the time needed and the team size. The modified master protocol is called a case-specific protocol. It should be noted that there is no expectation that an organisation's SMS mirrors that of TC but it must contain all of the elements required to achieve the minimum level of regulatory compliance.

### **2.1 Certificate Holder under Review**

The Certificate Holder under review is determined in accordance with the Frequency of Inspection Policy Document, the SMS Implementation Guide (TP14343) or as a result of cause.

### **2.2 Pre-Site Visit Document Review**

Once the need for an assessment has been determined by the Convening Authority, the scope is set, the team is collected and the certificate holder is notified so that the actual assessment can commence.

The documentation review will take place two months in advance of the physical assessment. All policies, procedures and supporting documentation will be requested from the assessee.

In cases where the documentation is incomplete, the assessment manager will request that any missing documentation be provided within 1 week of receiving the notification.

Where the assessee fails to supply documentation the assessment manager may choose not to convene the assessment. This decision is at the discretion of the assessment manager and should be based upon the criticality of the missing documentation.

The Assessment Manager will determine the required documents that must be present and the certificate holder will send these documents to TC for review. SMS assessments will not proceed beyond this point until all required documentation is in place.

### **2.3 Site(s) Visit**

Once the document review is complete then the Assessment Manager will set up the site visit(s) at which the following three reviews will be conducted for the purpose of gathering evidence:

1. Site walk through
2. Interviews with personnel
3. Document review (this review assures that not only is it in place but that it reflects what actually takes place). It will also include a sampling of documentation such as safety reports to ensure that the internal processes are effective.

This is an iterative process and reviews 1-3 can be revisited as more information comes to light.

### **2.4 Observations**

Notes taken during the site visits should be documented at once and then compared. The assessment team members will then compare their notes for each expectation and make observations about the SMS of the certificate holder. These may be positive where the SMS goes beyond the CAR requirements or may be negative where requirements are not met.

### **2.5 Apply Measures**

The observations, for each of the elements in the organization's SMS, are then compared to the measurement criteria. These can be found in the evaluation section of this guide. The resulting measure is then placed in the SMS element measurement table. The elements are grouped according to SMS component.

### **2.6 Rollup**

The results of the SMS element measurement table are used to develop a measurement for each component. This in turn is placed in the SMS component measurement table, which acts as a roll up for the entire assessment. The measures are then compared against the TC assessment guidelines. This will determine if the certificate holder is meeting the SMS CARs, and is demonstrating an effective SMS. Certificate removal or re-visit schedules are also determined from these guidelines.

### **2.7 Assessment Report**

The assessment report will be written, reviewed, approved by the convening authority and delivered within 30 days. The results must be acted upon within the time constraints given in the assessment guidelines. These can be found in Section 5.

### 3 MASTER PROTOCOL

The protocol has been organized in four parts: A – framework, B – expectations, C – questions, and D – criteria.

#### 3.0 SMS Framework

The master protocol framework is outlined in Table A. This follows the same structure as the TC SMS model, which is outlined in the index of guidance document TP 13881 E. It has six components and corresponding elements, with component ‘0’ representing the overall SMS.

Expectations for the protocol elements are used in the preparation of assessment observations, firstly by focusing information gathering efforts (be it through review of documentation or through interviews) and secondly by guiding the analysis of collected information.

<b>Table A – SMS Assessment Protocol Framework</b>	
<b>Component</b>	<b>Element</b>
0. Safety Management System	
1. Safety Management Plan	1.1 Safety Policy
	1.2 Non-Punitive Safety Reporting Policy
	1.3 Roles, Responsibilities & Employee Involvement
	1.4 Communication
	1.5 Safety Planning, Objectives and Goals
	1.6 Performance Measurement
	1.7 Management Review
2. Documentation	2.1 Identification and Maintenance of Applicable Regulations
	2.2 SMS Documentation
	2.3 Records Management
3. Safety Oversight	3.1 Reactive Processes
	3.2 Proactive Processes
	3.3 Investigation and Analysis
	3.4 Risk Management
4. Training	4.1 Training, Awareness and Competence
5. Quality Assurance	5.1 Operational Quality Assurance
6. Emergency Preparedness	6.1 Emergency Preparedness and Response

#### 3.1 SMS Expectations

The SMS Master Protocol includes all of the expectations for the SMS components and elements. These expectations are detailed in Tables B0 to B6. The expectations are gathered from the CARs, guidance documents and industry best practices. Where the guidance material and industry best practices exceed the CAR requirement, then bonus points are awarded to the organization being assessed. This is clarified in the TC scoring detail found in Section 5.

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**Table B0 – Safety Management System**

<b>Component</b>	0. Safety Management System
<b>Element</b>	
<b>Expectations</b>	
<ul style="list-style-type: none"> <li>• A safety management system with defined components is established, maintained and adhered to</li> <li>• A single SMS is established for holders of multiple operator’s certificates with integrated operations</li> <li>• The SMS is coordinated with the SMSs of organisations providing services</li> <li>• The safety management system is appropriate to the size and complexity of the organization.</li> </ul>	

**Table B1 – Safety Management Plan**

<b>Component</b>	1. Safety Management Plan
<b>Element</b>	1.1 Safety Policy
<b>Expectations</b>	
<ul style="list-style-type: none"> <li>• A safety policy is in existence.</li> <li>• The organization has based its safety management system on the safety policy.</li> <li>• The safety policy is appropriate to the size and complexity of the organization.</li> <li>• The safety policy states the organization’s intentions, management principles and commitment to continuous improvement in the safety level.</li> <li>• The safety policy is approved by the accountable executive.</li> <li>• The safety policy is promoted by the accountable executive.</li> <li>• The safety policy is reviewed periodically</li> <li>• The safety policy includes a commitment to involve personnel at all levels in the establishment of the safety management system.</li> <li>• The safety policy includes a commitment to involve personnel at all levels in the maintenance of the safety management system.</li> <li>• The safety policy is communicated to all employees with the intent that they are made aware of their individual safety obligations.</li> <li>• There is a clear declaration of commitment to safety.</li> <li>• Senior Management has a clear commitment to safety.</li> <li>• Senior Management demonstrates their commitment to safety through active and visible participation in the safety management system.</li> <li>• The policy is implemented at all levels of the organization.</li> <li>• The policy is clearly visible to all personnel and particularly throughout the safety critical areas of the organization.</li> <li>• The policy is included in key documentation and communication media.</li> <li>• Senior managers clearly articulate the importance of safety when addressing company personnel.</li> <li>• Verification that personnel have understood the message.</li> <li>• Senior executives have made a commitment to the development and ongoing improvement of the safety management system.</li> </ul>	
<b>Element</b>	1.2 Non-Punitive SMS Safety Reporting Policy
<b>Expectations</b>	
<ul style="list-style-type: none"> <li>• There is a policy in place that provides immunity from disciplinary action for employees that report safety deficiencies, hazards or occurrences.</li> <li>• Conditions under which punitive disciplinary action would be considered (e.g. illegal activity, negligence or willful misconduct) are clearly defined.</li> <li>• The policy is widely understood within the organization.</li> <li>• The organizations have letters of understanding between employees and/or third party contractors and management to document the disciplinary policy, and the manner in which it will be implemented.</li> <li>• Personnel express confidence and trust in the policy.</li> <li>• There is concrete evidence that the organization is applying the non-punitive safety reporting policy.</li> </ul>	

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<b>Element</b>	1.3 Roles, Responsibilities and Employee Involvement
<p><b>Expectations</b></p> <ul style="list-style-type: none"> <li>• An accountable executive has been appointed with responsibility for ensuring that the safety management system is properly implemented and performing to requirements in all areas of the organization.</li> <li>• The accountable executive has the financial and human resources required for the proper execution of his/her SMS responsibilities.</li> <li>• A qualified person has been appointed to manage the operation of the SMS</li> <li>• The person managing the operation of the SMS fulfils the required job functions and responsibilities</li> <li>• Safety authorities, responsibilities and accountabilities are promulgated to all personnel in key documentation and communication media.</li> <li>• All personnel understand their authorities, responsibilities and accountabilities in regards to all safety management processes, decision and actions.</li> <li>• Safety authorities, responsibilities and accountabilities are reviewed after any significant organizational change.</li> <li>• Safety authorities, responsibilities and accountabilities of personnel and partners at all levels of the organization are defined and documented.</li> <li>• The role of the Certificate Holders, Applicant and Delegate is defined where applicable.</li> <li>• There is clear evidence that the accountable executive understands that he or she has ultimate responsibility for safety within the organization.</li> <li>• The accountable executive demonstrates their commitment to safety within the organization on a daily basis.</li> <li>• There are documented organizational diagrams, where applicable, and job descriptions.</li> <li>• There is a logical flow within organizational authorities, responsibilities and accountabilities for safety.</li> <li>• Safety imperatives are clearly described in senior management duties and responsibilities.</li> <li>• Senior management recognizes the significance of contributions from all levels of the organization for the establishment and maintenance of the system.</li> <li>• Employee involvement and consultation arrangements are documented.</li> <li>• There is evidence that SMS procedures have penetrated all levels of the organization.</li> </ul>	
<b>Element</b>	1.4 Communication
<p><b>Expectations</b></p> <ul style="list-style-type: none"> <li>• There are communication processes in place within the organization that permit the safety management system to function effectively.</li> <li>• Communication processes are commensurate with the size and scope of the organization. (written, meetings, electronic, etc.)</li> <li>• SMS information is established and maintained in a suitable medium that provides direction in related documents.</li> <li>• There is a process for the dissemination of safety information throughout the organization.</li> <li>• There is a means of monitoring the effectiveness of the process for disseminating safety information within the organization.</li> <li>• Company wide, uncomplicated, reciprocal communications related to safety and quality issues are plainly evident.</li> <li>• All areas, including out-stations and outsource functions, are included in the communication network of the organization.</li> <li>• There is an established means of inter-departmental communication to spread information on SMS related matters.</li> <li>• There exists a formal means of communicating with experts in SMS so that advice can easily and quickly be obtained by personnel. The documentation should indicate where these experts could be located.</li> <li>• All personnel are informed as to who is their primary contact for aviation safety related matters.</li> <li>• There is a process for communication strategy that includes electronic communication, frequent meetings, SMS award systems, employee recognition system, SMS bulletins, etc.</li> <li>• There is a process for sharing safety related information with outside sources that might be impacted by this information.</li> </ul>	

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<b>Element</b>	1.5 Safety Planning, Objectives and Goals
<b>Expectations</b>	
<ul style="list-style-type: none"> <li>• Safety objectives have been established</li> <li>• There is a formal process to develop a coherent set of safety goals necessary to achieve overall safety objectives.</li> <li>• Safety objectives and goals are publicized and distributed.</li> <li>• Safety objectives are expressed as a top-level statement describing the organization's commitment to achieving improvements in safety.</li> <li>• Resources have been allocated for achieving the objectives and goals.</li> <li>• Safety objectives and goals are reviewed and updated periodically.</li> <li>• When establishing and reviewing objectives and goals, the organization considers:             <ul style="list-style-type: none"> <li>- hazards and risks;</li> <li>- financial, operational and business requirements;</li> <li>- views of interested parties.</li> </ul> </li> <li>• Goals are specific, measurable, agreed to, relevant and time-based</li> <li>• Goals encompass all areas of the organization.</li> <li>• Personnel at all levels are aware of the goals.</li> </ul>	
<b>Element</b>	1.6 Performance Measurement
<b>Expectations</b>	
<ul style="list-style-type: none"> <li>• There is a formal process to develop and maintain a set of performance parameters to be measured.</li> <li>• The process for measuring these indicators and determining their effectiveness is documented.</li> <li>• Leading and lagging performance parameters are linked to SMS goals.</li> <li>• Performance parameters are linked to potential safety-critical events based on proactive recommendations.</li> <li>• Procedures have been established and maintained to monitor and measure safety performance on a regular basis, with the purpose of improving the system.</li> <li>• Resources are allocated based on output from the performance measurement.</li> <li>• Personnel at all levels are aware of the safety critical performance measures in their areas of responsibility.</li> </ul>	
<b>Element</b>	1.7 Management Review
<ul style="list-style-type: none"> <li>• There are regular and periodic, planned reviews of company safety performance and achievement including an examination of the company's Safety Management System to ensure its continuing suitability, adequacy and effectiveness.</li> <li>• There is a process to evaluate the effectiveness of corrective actions.</li> <li>• The organization has established a formal safety management review committee or board, appropriate for the size and complexity of the organization, consisting of a full range of senior management representatives who are responsible for safety outcomes.</li> <li>• The organization benchmarks its SMS against other organizations and is an active proponent of SMS within the aviation industry.</li> <li>• The Management Review Committee has the necessary authority to make decisions related to:             <ul style="list-style-type: none"> <li>- the improvement and effectiveness of the Safety Management System, the initiation and implementation of safety policy and actions across the organization, allocation of resources needed to achieve objectives</li> </ul> </li> <li>• The Safety Management System Review includes: Internal audit results, safety objective achievement results, hazard and occurrence investigation and analysis results, internal/external feedback analysis and results, status of preventive and corrective action, follow-up actions from previous management reviews, changes that could affect the Safety Management System, recommendations for improvement, sharing of best practices across the organization</li> <li>• Management review decisions are widely disseminated to demonstrate to employees how the review process leads to new objectives that will benefit the organization.</li> <li>• There are sufficient records to provide the necessary traceability to facilitate the evaluation of the management review process.</li> <li>• The results of management review are used by the accountable executive as input to the improvement processes.</li> </ul>	

**Table B2 – Documentation**

<b>Component</b>	2. Documentation
<b>Element</b>	2.1 Identification and Maintenance of Applicable Regulations
<b>Expectations</b>	
<ul style="list-style-type: none"> <li>• A documented procedure has been established and maintained for identifying applicable regulatory requirements.</li> <li>• Regulations, Standards and exemptions are periodically reviewed to ensure that the most current information is available.</li> <li>• All pertinent technical and regulatory information is readily accessible by personnel.</li> <li>• The organization has defined specific triggers that would lead to a review of the company documentation</li> <li>• The organization actively participates in regulatory development activities and anticipates the introduction of new requirements (Notice of Proposed Amendments, CARAC Technical Committee Meetings, etc...)</li> </ul>	
<b>Element</b>	2.2 SMS Documentation
<b>Expectations</b>	
<ul style="list-style-type: none"> <li>• There is consolidated documentation that describes the safety management system and the interrelationship between all of its elements.</li> <li>• This information resides or is incorporated by reference into approved documentation, such as DAPM / EPM, Company Operations Manual, Maintenance Control Manual, Airport Operations Manual, as applicable, and where these approved documents are not required by regulation, the organization includes the information in a separate, controlled document.</li> <li>• The consolidated documentation is readily accessible by personnel.</li> <li>• Manuals or controlled electronic media are used to document the system.</li> <li>• There is a process to periodically review safety management system documentation to ensure its continuing suitability, adequacy and effectiveness, and that changes to company documentation have been implemented.</li> <li>• The system is documented in suitable company media at both the corporate and operational levels.</li> <li>• Documentation reflects functional coordination within the management system that ensures the organization works as a system and not as a group of separate or fragmented units.</li> <li>• Documents show lines of authority, accountability and responsibility at the corporate level of management. This documentation also indicates the authority within the Company and the authority granted by the regulator.</li> <li>• Acceptable means of documentation include, but are not limited to, organizational charts, job descriptions and other descriptive written material that define and clearly delineate the system of authority and responsibility within the organization for ensuring safe operation.</li> <li>• The organization has a process to identify changes within the organization that could affect company documentation.</li> </ul>	
<b>Element</b>	2.3 Records Management
<b>EXPECTATIONS</b>	
<ul style="list-style-type: none"> <li>• The organization has a records system that ensures the generation and retention of all records necessary to document and support operational requirements, and is in accordance with applicable regulatory requirements.</li> <li>• The system shall provide the control processes necessary to ensure appropriate identification, legibility, storage, protection, archiving, retrieval, retention time, and disposition of records.</li> <li>• The organization has a policy that defines how long records that are not specifically required by regulations are kept.</li> </ul>	

**Table B3 – Safety Oversight**

<b>Component</b>	3. Safety Oversight
<b>Element</b>	3.1 Reactive Processes
<b>EXPECTATIONS</b>	
<ul style="list-style-type: none"> <li>• The organization has a reactive process or system that provides for the capture of internal information including incidents, accidents and other data relevant to SMS.</li> <li>• The reactive reporting system is simple, accessible and commensurate with the size of the organization.</li> <li>• Reactive reports are reviewed at the appropriate level of management.</li> <li>• There is a feedback process to notify contributors that their reports have been received and to share the results of the analysis.</li> <li>• There is a process in place to monitor and analyze trends documented</li> <li>• Corrective and preventive actions to respond to event analysis</li> <li>• The organization has a process in place to ensure confidentiality as requested.</li> <li>• The range and scope of safety related occurrences or deficiencies that must be reported are explained and defined</li> <li>• There is a process to ensure that information contained in reports is validated for accuracy prior to analysis</li> <li>• Personnel invited in its reporting process are empowered to suggest corrective actions.</li> <li>• The reactive report form(s) is(are) simple, standardized and accessible across the organization</li> <li>• There is a process to ensure that information is received from all areas of the organization within the scope of the SMS</li> <li>• There is data collection processes throughout the safety critical areas of the company to permit company wide analysis of safety issues</li> <li>• There is a process in place to investigate and analyze reported events.</li> <li>• Corrective and preventative actions are generated in response to event analysis</li> </ul>	



<b>Element</b>	3.2 Proactive Processes
<b>EXPECTATIONS</b>	
<ul style="list-style-type: none"><li>• The organization has a proactive process or system that provides for the capture of internal information identified as hazards and other data relevant to SMS</li><li>• The proactive reporting process is simple, accessible and commensurate with the size of the organization.</li><li>• Proactive reports are reviewed by the appropriate level of management.</li><li>• There is a feedback process to notify contributors that their proactive reports have been received and to share the results of the analysis.</li><li>• There is a process in place to monitor and analyze trends.</li><li>• The organization has planned self-evaluation processes. (regularly scheduled reviews, evaluations, surveys, operational audits, assessments, etc)</li><li>• Corrective and preventive actions are generated in response to hazard analysis</li><li>• There is a criteria for evaluating risk and the tolerable level of risk the organization is willing to accept</li><li>• The organization has a process in place to ensure confidentiality as required.</li><li>• The range and scope of safety related hazards that must be reported are explained and defined</li><li>• There is a process to ensure that information contained in proactive reports is validated for accuracy prior to analysis</li><li>• All proactive reports are subjected to a risk analysis process to determine the extent and priority of further action</li><li>• The organization has identified primary sources of internal information for safety assessment, including line management judgment, workplace opinions, minutes of safety meetings, audit reports, flight data monitoring programs (FDM), Line Operations Safety Audits (LOSA), etc.</li><li>• There is a process to ensure that industry data from outside the organization is considered within SMS initiatives</li><li>• Participation in industry operational and safety activities such as conferences, symposia and other safety related meetings is a priority</li><li>• The proactive report form(s) is(are) simple, standardized and accessible across the organization</li><li>• There is a process to ensure that proactive data is received from all areas of the organization within the scope of the SMS</li><li>• The organization has a process for the systematic investigation and analysis of operational conditions or activities that have been identified as potentially hazardous</li><li>• Data collection processes throughout the safety critical areas of the company permit company wide analysis of safety issues</li><li>• The organization has a clearly defined interval between formal hazard analyses.</li><li>• The organization conducts formal hazard analyses for new aircraft, major organizational change, and change in key personnel</li></ul>	

<b>Element</b>	3.3 Investigation and Analysis
<b>EXPECTATIONS</b>	
<ul style="list-style-type: none"><li>• There are procedures in place for the conduct of investigations.</li><li>• Measures exist that ensure all reported occurrences and deficiencies are investigated.</li><li>• There is a process to ensure that occurrences and deficiencies reported are analyzed to identify contributing and root causes</li><li>• Corrective and preventative actions are generated in response to event investigation and analysis.</li><li>• The organization has a staff of technically competent investigators commensurate with the size and complexity of its operation</li><li>• When identifying contributing and root causes, the organization considers individual human factors, the environment, supervision and organizational elements</li><li>• Results of the analysis are communicated to the responsible manager for corrective/preventive action and to other relevant managers for their information</li><li>• All reactive reports are subjected to a risk analysis process to determine the extent and priority of further action.</li><li>• Responsibility and timelines are established for each corrective action.</li><li>• There is a process in place to monitor and analyze trends.</li></ul>	

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<b>Element</b>	3.4 Risk Management
<b>Expectations</b>	
<ul style="list-style-type: none"> <li>• There is a structured process for the assessment of risk associated with identified hazards, expressed in terms of severity, level of exposure and probability of occurrence</li> <li>• There are criteria for evaluating risk and the tolerable level of risk the organization is willing to accept.</li> <li>• The organization has risk control strategies.</li> <li>• Risk control strategies include corrective/preventive action plans to prevent recurrence of reported occurrences and deficiencies.</li> <li>• The organization has a process for evaluating the effectiveness of the corrective/preventive measures that have been developed.</li> <li>• Corrective/preventive actions, including timelines, are documented</li> <li>• There is a risk classification system that guides the organization in developing risk control strategies</li> <li>• The organization uses its risk management results to develop best practice guidelines that it shares with the industry</li> <li>• The results of the risk management program are built into the organizations methods and procedures.</li> <li>• The organization is able to demonstrate the risk management process through records and be able to show periodic review.</li> </ul>	

**Table B4 – Training**

<b>Component</b>	4. Training
<b>Element</b>	4.1 Training, Awareness and Competence
<b>Expectations</b>	
<ul style="list-style-type: none"> <li>• There is a documented process to identify training requirements so that personnel are competent to perform their duties.</li> <li>• There is a validation process that measures the effectiveness of training.</li> <li>• The training includes initial, recurrent and update training, as applicable.</li> <li>• SMS training is incorporated into indoctrination training upon employment.</li> <li>• Training includes human and organizational factors.</li> <li>• There is emergency preparedness and response training for affected personnel.</li> <li>• There is a formal and objective training needs analysis.</li> <li>• Training requirements are documented for each area of activity within the organization, including areas where training requirements are not defined by regulations. The attendance of symposiums outside of SMS is considered.</li> <li>• A training file is developed for each employee, including management, to assist in identifying and tracking employee training requirements and verifying that the personnel have received the planned training. This file is completed in accordance with the training guidelines that are developed.</li> <li>• Training needs are included as part of the performance appraisal process. The technical training and SMS training should be defined.</li> <li>• Management recognizes and uses informal opportunities to instruct employees on safety management.</li> <li>• Continued occupational competency is maintained.</li> <li>• Evidence exists that management supports safety training initiatives.</li> <li>• Training exercises and methods are kept current to reflect new techniques, technologies, results of investigations and corrective actions and regulatory changes.</li> </ul>	

**Table B5 – Quality Assurance**

<b>Component</b>	5. Quality Assurance
<b>Element</b>	5.1 Operational Quality Assurance
<p><b>EXPECTATIONS</b></p> <ul style="list-style-type: none"> <li>• A quality assurance program is established and maintained.</li> <li>• There is a person responsible for quality assurance program.</li> <li>• There exists an operationally independent audit function with the authority required to carry out an effective internal evaluation program.</li> <li>• The organization conducts reviews and audits of its processes, its procedures, analyses, inspections and training.</li> <li>• The organization has a system to monitor for completeness the internal reporting process and the corrective action completion.</li> <li>• The quality assurance system covers all functions defined within the certificate(s).</li> <li>• There are defined audit scope, criteria, frequency and methods</li> <li>• A selection/training process to ensure the objectivity and competence of auditors as well as the impartiality of the audit process.</li> <li>• There is a procedure for reporting audit results and maintaining records.</li> <li>• There is a procedure outlining requirements for timely corrective and preventive action in response to audit results.</li> <li>• There is a procedure to record verification of action(s) taken and the reporting of verification results.</li> <li>• The organization performs a periodic Management review of safety critical functions and relevant safety or quality issues that arise from the internal evaluation program.</li> <li>• Where contracted functions exist, the organization performs a quality assurance review on those functions.</li> <li>• There is a documented procedure defining responsibilities and requirements for planning and conducting internal audits of:             <ul style="list-style-type: none"> <li>- management policies, controls and procedures concerning all safety critical activities</li> <li>- the implementation and maintenance of Safety Management System requirements established by the organization.</li> </ul> </li> <li>• Audit scope, frequency and criteria based on:             <ul style="list-style-type: none"> <li>- the status and importance of the processes and areas to be audited</li> <li>- results of previous audits.</li> </ul> </li> <li>• Input from the area to be audited, as well as from other interested parties is considered in the development of internal audit plans.</li> <li>• Audit reporting includes evidence of excellent performance to provide opportunities for recognition by management and motivation of people.</li> <li>• The organization has established and implemented a self-assessment evaluation system used to benchmark the company's performance against external organizations and world-class performance.</li> <li>• Audit scope and criteria includes industry best practice.</li> </ul>	

**Table B6 – Emergency Preparedness**

<b>Component</b>	6. Emergency Preparedness
<b>Element</b>	6.1 Emergency Preparedness and Response
<b>EXPECTATIONS</b>	
<ul style="list-style-type: none"> <li>• The organization has an emergency preparedness procedure, appropriate to the size, nature and complexity of the organization</li> <li>• The Emergency preparedness procedures have been documented, implemented and assigned to a responsible manager.</li> <li>• The emergency preparedness procedures have been periodically reviewed as a part of the management review and after key personnel or organizational change.</li> <li>• The organization has a process to distribute the ERP procedures and to communicate the content to all personnel.</li> <li>• The organization has conducted drills and exercises with all key personnel at intervals defined in the approved control manual.</li> <li>• The organization has MOUs or agreements with other agencies for mutual aid and the provision of emergency services</li> <li>• The organization has a designated command post where the overall coordination and general direction of the response to an emergency takes place.</li> <li>• The emergency response plan contains procedures for periodic testing of the adequacy of the plan and for reviewing the results in order to improve its effectiveness.</li> <li>• A procedure exists for recording activities during an emergency response</li> </ul>	

For each expectation, associated question(s) can be posed to gather the evidence needed to assess. These questions are shown in tables C0 – C6 in Section 3.2.

### 3.2 SMS Questions

The questions shown in relation to each expectation are meant to assist in the assessment. They are intended for guidance only. It is not mandatory to ask all the questions. If the assessor feels that enough information has been gathered to effectively assess the element or if a different “open-ended” question will elicit a better response, it can be used. The assessor may also rephrase the question if it is more comfortable to do so. It is expected that answers to any question would lead to others not shown on this list. It is also expected that questions aimed at determining performance with respect to one criterion may lead to information relevant to the assessment of other criteria for either the intended component or others. Assessors will use their experience to follow-up on information that is uncovered and apply revelations to the assessment of SMS components and elements as appropriate.

In the Questions column of Tables C0 – C6 below, the letter coding in brackets to the left of each question indicates the level 3 expectation (from the Measurement Criteria tables following) that the question relates to. Questions labelled (BP – best practice) are aimed at level 5 criteria. Certain questions are suggested for direction to the accountable executive, department heads and management, and employees in general. The phrasing of these questions and their categorisation is not meant to be prescriptive. Delegated officers are invited to rephrase and pose questions as appropriate to the audience they are addressing during the site visit(s).

In order to obtain valuable information related to the performance of the SMS, it is recommended that, to the extent possible, all the questions are open ended. Where a question would lead to a yes/no answer, the assessor may prompt the assessee by asking why/why not? Or ask for an explanation or proof (documentation). Depending on the maturity of the SMS, management and employees may be able to provide case examples to support their statements.

**Table C0 – Questions: Safety Management System**

Component	0. Safety Management System
Element	
<b>Questions</b>	
<b>To the accountable executive:</b>	
(A)	Has a Safety Management System been established for your organization?
(A)	How do you maintain it?
(A)	How do you ensure that it is adhered to?
(BP)	Are you a multiple certificate holder? If so, explain how you have established a single SMS with integrated operations.
(BP)	How is your SMS coordinated with the SMSs of organizations providing services?
(B)	How do you ensure that your SMS procedures are appropriate to the size and complexity of your organization?
<b>To functional department heads:</b>	
(BP)	Is your organization a multiple certificate holder? If so, explain how you have integrated SMS activities with departments under other certificates.
(BP)	How are your SMS activities coordinated with the SMSs of organizations providing services?
<b>To employees:</b>	
(A)	What is your understanding of your organization's Safety Management System?

**Table C1 – Safety Management Plan**

<b>Component</b>	1. Safety Management Plan
<b>Element</b>	1.1 Safety Policy
<b>Questions</b>	
<b>To the accountable executive:</b>	
(A,C)	How would you summarize your safety philosophy and expectations from your company's Safety Management System? Are there any particular SMS policy initiatives with which you or your senior management are personally identified? (show me)
(D,F)	How do you communicate your SMS performance expectations to the organization? Are there any specific SMS issues that you expect to have a significant impact on your company's performance?
(E)	How often do you critically review the standing SMS policy? Who is involved in this review?
(BP)	How do you assess the extent to which safety policy and SMS processes are understood within your company? How do you measure your company's SMS performance? How is the information from these performance appraisals used?
(B)	How has your safety policy influenced the development of your safety management system? Show me an example.
<b>To functional department heads:</b>	
(F)	What expectations does your employer have with respect to you and your department's SMS performance? How are these expectations communicated to you? Can you explain your role in the development of your safety obligations and your department's SMS performance criteria?
(D)	How do you communicate SMS processes/obligations to personnel within your department? How do you assess the extent to which safety policy and SMS processes/obligations are understood within your department?
(BP)	How are employees involved in the maintenance of the SMS?
<b>To employees:</b>	
(F)	What is your understanding of management's expectations of you with respect to company SMS performance?
(D)	How would you characterize management's commitment to strong SMS performance?
(B)	How does management make you aware of the relationship between the safety policy and different safety initiatives?
<b>Element</b>	1.2 Non-Punitive Safety Reporting Policy
<b>Questions</b>	
<b>To accountable executive and department heads:</b>	
(A)	Can you describe the disciplinary policy in regards to the SMS reporting system? Is it non punitive?
(BP)	How do you ensure that employees understand the policy?
(BP)	Has the organization established the conditions under which disciplinary action would be considered? (show me) How do you know that this is clearly understood by the personnel?
(BP)	Are there any formalized documents, such as letters of understanding, between employee groups / third party contractors and management?
<b>To employees:</b>	
(A)	Do you feel confident reporting safety deficiencies, hazards and occurrences? Explain

<b>Element</b>	1.3 Roles, Responsibilities & Employee Involvement
<b>Questions</b>	
<b>To the accountable executive:</b>	
(A, B)	What do you understand your SMS-related responsibilities to be? Are these documented anywhere? (show me)
(C,D)	Who is the person appointed to manage the operation of the SMS within your organisation? How were they selected for this position? What do you understand their SMS-related responsibilities to be? Are these documented anywhere? (show me)
(C)	How are personnel involved in the organisational roles and responsibilities?
<b>To the person appointed to manage the operation of the SMS:</b>	
(C,D)	What do you understand your SMS-related responsibilities to be? Are these documented anywhere? (show me)
(D,E)	What authorities, resources and support have been given to you in order to allow you to fulfill your role as person appointed to manage the operation of the SMS for the organisation? Are these supported by documentation and actions from management? (show me)
(C)	What qualification and experience do you have that justify your appointment to this position? How confident are you in this role?
<b>To functional department heads and management:</b>	
(A,E)	Can you identify who is the organization's accountable executive? Can you describe what you understand to be the accountable executive's role and responsibilities?
(F)	What do you understand your SMS-related responsibilities to be? Are these documented anywhere?
(BP)	Do you feel that roles and responsibilities for SMS management within the organization are clearly and appropriately defined? If not, why not and where could they be sharpened?
(BP)	When are safety authorities, responsibilities and accountabilities reviewed?
(BP)	Can you show me a sample of job descriptions and/or an organizational diagram illustrating SMS responsibilities within the organisation?
<b>To employees:</b>	
(F)	What do you understand your own SMS roles and responsibilities to be?



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<b>Element</b>	1.4 Communication
<b>Questions</b>	
<b>To accountable executive and functional department heads:</b>	
(A)	What communication processes or methods are in place within your organization? Explain how these processes help your SMS to function effectively?
(B)	How often are SMS meetings held? Who attends these meetings? Do you attend any SMS meetings? How often?
(C)	How does information flow relate to the documentation? How are these made available? (Give examples)
(D)	How is safety information shared within the organization? (horizontally and vertically throughout the organization) How do you know these methods/processes are working?
(D)	How is information on SMS related matters shared between departments? How do you ensure there is company wide, uncomplicated communications?
(BP)	What mechanisms are in place that allow reciprocal communications related to safety and quality issues? (horizontally and vertically throughout the organization)
(BP)	How do you know what the results of these meetings are? How are minutes or decision records kept? How are the results of these meetings communicated to personnel?
(BP)	How are all areas, including out-stations and outsource functions included in the communications network?
(BP)	How are personnel informed as to who is their primary contact for aviation safety related matters?
(BP)	How are best practices identified and shared across the organization?
<b>To employees:</b>	
(A)	How do you know SMS activities are going on within your organization? What evidence do you see that shows SMS is or is not working?
(B)	How often are meetings held? Who attends these meetings? Do you attend any SMS meetings? How often?
(C)	If you needed information related to safety issues, procedures or processes, how would you get it?
(C,D)	How is safety information communicated to you? How do you communicate safety information?
(BP)	Has there ever been a safety related or quality matter that you felt should be brought to the attention of management? How did you deal with this? What response did you receive from management?
(BP)	Who is your primary contact for aviation safety related matters? Do you feel comfortable bringing issues to this person? (explain how, why/why not)
<b>Element</b>	1.5 Safety Planning, Objectives and Goals
<b>Questions</b>	
<b>To the accountable executive and department management:</b>	
(A)	Do you have SMS-related objectives as part of your safety management plan? (What are they...show me) How are they established? How are they maintained?
(BP)	How do you ensure that your personnel understand the objectives?
(BP)	How often are the objectives reviewed and updated?
(BP)	What does the organization take into consideration when establishing and reviewing SMS objectives?
(BP)	Do you feel that resources are adequate and appropriate for achieving the SMS objectives? (explain)
(B)	What are your organizational/departmental safety goals? Long term? Short term? How are goals established, reviewed, updated?
(BP)	How do you ensure that safety goals encompass all areas of the organization?
(C)	How do you ensure that all employees are aware of safety objectives and goals?
<b>To employees:</b>	
(A)	Does the organization set SMS-related safety goals?
	(B) How are these goals communicated to you?
	(BP)How are goals linked to significant safety events?
	(B) How does the attainment of the goals relate to the performance appraisal process?
(BP)	Is there a time frame established by which these goals are to be achieved? What are they?
(BP)	How often are goals reviewed and updated? Where is this interval described?

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<b>Element</b>	1.6 Performance Measurement
<b>Questions</b>	
<b>To the accountable executive and functional department heads:</b>	
(A)	Are there measures of the organization's SMS performance? What are they? (A) What is the process for developing and maintaining these measures? (BP) Do they allow you to determine whether performance is improving over time?
(A)	How often are performance measures reviewed and updated? Where is this interval described?
(BP)	How do you know that the results of performance measurement are being used to continuously improve the system?
(BP)	How does the output from the performance measurement affect resource allocation?
<b>Element</b>	1.7 Management Review
<b>Questions</b>	
<b>To the accountable executive or safety officer:</b>	
(A)	What is the procedure for reviewing company safety performance and achievement? Is there a planned timeline for reviews? What is it?
(A)	How does the organization ensure that the Safety Management System is suitable, adequate and effective over time?
(B)	What is the process for evaluating corrective actions?
<b>To employees:</b>	
(A)	What evidence have you seen that indicates the organization's safety performance is periodically reviewed? How often does this happen?
(B)	When changes are made to a system or process how is the effectiveness of these changes evaluated?

**Table C2 – Document Management**

<b>Component</b>	2. Documentation
<b>Element</b>	2.1 Identification and Maintenance of Applicable Regulations
<b>Questions</b>	
<b>To management:</b>	
(B)	What is the procedure for identifying applicable regulatory requirements? Show me where this is documented.
(BP)	How is pertinent technical and regulatory information accessible by personnel?
(B)	How do you ensure that this documentation and information is in line with the most current regulations, standards and exemptions?
(BP)	In what way does the organisation participate in regulatory development activities?
<b>To employees:</b>	
(BP)	Where would you find pertinent technical and regulatory information?
(A,B)	How are changes in regulatory requirements built into the company operations?

<b>Element</b>	2.2 SMS Documentation
<b>Questions</b>	
<b>To the accountable executive and functional department heads:</b>	
(A, B)	Is there consolidated documentation that describes the safety management system and the interrelationship between all of its elements? (show me) Where else is this information located? What other documents, approved or otherwise incorporate reference to this information? (show me)
(B)	How is this documentation made accessible to personnel?
(BP)	Where can employees find SMS information at both the corporate and operational levels? (show me)
(BP)	How does documentation reflect functional coordination within the management system?
(BP)	How/where does documentation show lines of authority, accountability and responsibility at the corporate level of management?
(BP)	What is the process for review of safety management system documentation over time?
(BP)	What is the process to identify changes within the organization that could affect company documentation?
(BP)	How do you ensure that changes to company documentation have been implemented?
<b>To employees:</b>	
(A,B,BP)	Where can you find an explanation of the SMS and the interrelationships between its elements? (show me)
<b>Element</b>	2.3 Records Management
<b>Questions</b>	
<b>To the functional department heads:</b>	
(B)	What records are necessary in support of operational and regulatory requirements?
(B)	Explain how these records are generated and retained for documentation and support of operational requirements.
(B)	Explain how records are generated and retained for documentation and support of regulatory requirements.
(B)	What is the process for ensuring operational and regulatory requirements are sufficiently supported?
(B)	What are the SMS control processes to ensure appropriate identification, legibility, storage, protection, archiving, retrieval, retention time, and disposition of records? Justify the presence of these processes.
(BP)	How long are records, not specifically required by regulations, kept? What is the policy for retaining records that are not specifically required by regulations?
<b>To employees:</b>	
(B)	What records are kept within your organization? Are these records sufficient to support operational requirements?
(B)	What records and/or documentation are most useful in support of your responsibilities to operations? Is there a system in place to ensure you have or can easily obtain records and documentation when needed?

**Table C3 – Safety Oversight**

<b>Component</b>	3. Safety Oversight
<b>Element</b>	3.1 Reactive Processes
<b>Questions</b>	
<b>To the accountable executive and upper management:</b>	
(C)	Can you explain how the organization ensures that incidents, accidents and other data relevant to SMS are captured? What is done with this data once it has been collected?
(A, B)	Is there a reactive reporting process? Please explain how this process works and why it is appropriate for your organization.
(BP)	Show me the reactive report form(s). Who has access to these forms? What do employees have to do to get (and then submit) these forms?
(C)	Do you review reactive reports? How do you determine which reports to review? On what basis do you pass on reports to other levels of management?
(D)	How do employees know if their reports have been read or heeded?
(BP)	Is there a process in place to investigate and analyze reported events? Explain.
(E)	Explain how SMS data is analyzed, trends identified and monitored?
(BP)	Explain the data collection processes throughout the safety critical areas of the company. How do these processes permit company wide analysis of safety issues?
(F)	Explain the standard procedure for response to event analysis. What is the timeline for these actions? How does this impact the future operations of the organization?
<b>To functional department heads:</b>	
(C)	How are incidents, accidents and other data relevant to SMS captured within your department? What is done with this data once collected?
(A, B)	Is there a reactive reporting process? Please explain how this process works and why it is appropriate for your organization.
(C)	Do you review reactive reports? On what basis do you pass on reports to other levels of management?
(D)	How do employees know if their reports have been read or heeded?
(BP)	Is there a process in place to investigate and analyze reported events? Explain.
(E)	Is there a process in place to monitor and analyze trends documented? Explain.
(F)	What actions are taken in response to an event analysis? If a trend is revealed what type of mitigation actions are taken? How does this affect future operations within your department?
<b>To employees:</b>	
(A, B)	Explain how you would report an incident, accident or safety concern? How is feedback given to those who report? Can you give me an example where results incident analyses were shared?
(BP)	Are you comfortable reporting incidents and accidents? Explain.
(BP)	Can you show me the form you would fill out in making this report and explain the process for submitting this report?
(D)	Is it worth your time to communicate safety concerns and report incidents? Explain why (or why not) you make use of the reporting process.
(E)	Do you ever feel that patterns in accident and incident occurrence go unnoticed? Does management heed your safety concerns and act accordingly? How quickly?
(F)	What does your manager do when a safety concern is raised? What do they do if there has been an incident or accident? Can you give me an example of actions taken in response to a safety event or identified concern? Did normal operating procedures change as a result of this event? How?
(F)	Do you feel that adequate corrective and preventive actions are generated in response to event analysis? Are you confident that management is given the power and resources to take appropriate actions when required? Explain how these powers are exercised?

<b>Element</b>	3.2 Proactive Processes
<b>Questions</b>	
<b>To the accountable executive and upper level management:</b>	
(A)	Please explain how you capture internal information and other SMS related data in order to proactively identify hazards.
(A, B)	Is there a proactive reporting process or system to identify hazards? Please explain how this process works and how it was developed. Why is this process suited to your organization?
(C)	Do you review proactive reports? How do you determine which reports to review? On what basis do you pass on reports to other levels/members of management?
(D)	How do contributors know if their reports have been read or heeded?
(E)	Explain how proactive reports and SMS data are analyzed, trends identified and monitored?
(BP)	Explain the data collection processes throughout the safety critical areas of the company in the context of proactive hazard assessment. How do these processes permit company wide analysis of the SMS?
(F)	Explain how the organization evaluates its own SMS. Can you identify planned self-evaluation processes? How often are these processes conducted?
(G)	Explain what actions are taken in response to the identification of a hazard. What is the timeline for this response?
(BP)	What are your criteria for evaluating risk? What is considered a tolerable level of risk and how is this level determined?
<b>To functional department heads:</b>	
(A)	How do you identify hazards within your department? What type of information, reports or data are collected in order to identify safety concerns before an accident or incident occurs?
(A,B)	Is there a proactive reporting process? Please explain how this process works and why it is appropriate for your organization.
(C)	Do you review proactive reports? On what basis do you pass on reports to other levels of management?
(D)	How do contributors know if their reports have been read or heeded?
(BP)	Is there a process in place to investigate and analyze reported events? Explain.
(E)	Is there a process in place to monitor and analyze trends documented? Explain.
(F)	Explain how the effectiveness of SMS is evaluated within your department. Can you identify planned self-evaluation processes? How often are these processes conducted?
(G)	What actions are taken in response to an event analysis? If a trend is revealed what type of mitigation actions are taken? How does this affect future operations within your department?
(BP)	Are you aware of specific criteria for evaluating risk of identified hazards? How does this relate to the level of risk you are willing to accept?
<b>To employees:</b>	
(A, B)	Explain how you would report an incident or safety concern?
(D)	Is it worth your time to communicate safety concerns and report incidents? Explain why (or why not) you make use of the proactive reporting process. How are you informed that your report has been received? How are you made aware of the results of proactive report and data analysis?
(E)	Do you ever feel that patterns in accident and incident occurrence go unnoticed? Does management heed your safety concerns and act accordingly? How quickly?
(G)	What does your manager do when a safety concern is raised? What do they do if there has been an incident or accident? Can you give me an example of actions taken in response to a safety event or identified concern? Did normal operating procedures change as a result of this event? How?
(G, BP)	Do you feel that adequate corrective and preventive actions are generated in response to event analysis? Are you confident that management is given the power and resources to take appropriate actions when required? Explain how these powers are exercised?
(BP)	How do you assess risk in your job? Are you aware of specific criteria for acceptable levels of risk applicable to your work or that of your work team?

<b>Element</b>	3.3 Investigation and Analysis
<b>Questions</b>	
<b>To the accountable executive and functional department heads:</b>	
(A)	Explain how investigations are conducted in response to safety related occurrences and deficiencies.
(B)	What measures exist to ensure all reported safety occurrences and deficiencies are investigated?
(C)	How do you ensure that safety related occurrences and deficiencies reported are analyzed? What is the goal of this analysis?
(D)	Explain what and how actions are taken in response to event investigation and analysis.
<b>To employees:</b>	
(A)	Explain how investigations are conducted within your department in response to identified or reported safety related occurrences and deficiencies.
(B)	What measures are taken by management to ensure all reported safety occurrences and deficiencies are investigated?
(B)	What measures are taken by staff to ensure all reported safety occurrences and deficiencies are investigated?
(C)	How do you know that occurrences and deficiencies reported are analyzed? What are the goals of this analysis? What role does the staff play in the analysis of safety related occurrences and deficiencies?
(D)	Do you feel that adequate corrective and preventive actions are generated in response to event investigation and analysis? Are you confident that management is given the power and resources to take appropriate actions when required? Can you give me an example of changes to procedures or work practices initiated as a result of an identified safety concern or hazard?

<b>Element</b>	3.4 Risk Management
<b>Questions</b>	
<b>To the accountable executive and upper level management:</b>	
(A)	What is the process for the assessment of risk associated with identified hazards? How is risk expressed in terms of severity, level of exposure and probability of occurrence?
(B)	What are your criteria for evaluating risk? What is considered a tolerable level of risk and how is this level determined?
(C)	Outline the organizations risk control strategy. What corrective/preventive action plans are in place to prevent recurrence of reported occurrences and deficiencies?
(D)	How is the effectiveness of implemented corrective/preventive measures evaluated? What actions might be taken as a result of a unsatisfactory evaluation? What sort of timeline is associated with the conduct of this evaluation and the implementation of further corrective actions?
(E)	How are corrective/preventive actions documented? What type of information is included in this documentation? (show me)
<b>To functional department heads:</b>	
(B)	Are you aware of specific criteria for evaluating risk of identified hazards? How does this relate to the level of risk you are willing to accept?
(C)	Outline the risk control strategy employed in your department. What corrective/preventive action plans are in place to prevent recurrence of reported occurrences and deficiencies? How does this relate to the strategy and plans of the organization as a whole?
(D)	How do you evaluate the effectiveness of implemented corrective/preventive measures? What actions might you take as a result of an unsatisfactory evaluation? What sort of timeline is associated with the conduct of this evaluation and the implementation of further corrective actions? What are the critical factors affecting this timeline?
(E)	How are corrective/preventive actions documented? What type of information is included in this documentation? (show me) How often and to what purpose do you reference this documentation? How and when is this documentation shared with upper level management or other departments?
<b>To employees:</b>	
(B)	Are you aware of specific criteria for evaluating risk of identified hazards? How does this relate to the level of risk you are willing to accept?
(C)	What approach of management to the control of risk within your work environment? What planning actions are taken by management in order to prevent recurrence of reported occurrences and deficiencies? How are you involved in this process?
(D)	What evidence do you see that indicates the effectiveness of implemented corrective/preventive measures is evaluated? What sort of timeline is associated with the conduct of this evaluation and the implementation of further corrective actions?
(E)	How are corrective/preventive actions documented? What type of information is included in this documentation? (show me) How are you involved in the maintenance of this documentation? How often and to what purpose do you reference this documentation?

**Table C4 – Training**

<b>Component</b>	4. Training
<b>Element</b>	4.1 Training, Awareness and Competence
<b>Questions</b>	
<b>To the accountable executive and upper management:</b>	
(A)	Explain how training requirements are identified in order to ensure that personnel are competent to perform their duties? Is this process documented? (show me)
(B)	How is the effectiveness of training evaluated?
(C)	When do employees receive SMS training? What follow-up training on SMS is provided by the organization and how do you determine who receives this training?
(D)	Explain how and when SMS training is provided to new employees.
(E)	What do you consider to be human and organizational factors in the context of SMS? Explain how this is included in SMS training delivered to employees at all levels.
(F)	What kind of emergency preparedness and response training is provided? How do you determine who receives this training?
<b>To functional department heads:</b>	
(A)	Are you confident in your knowledge and understanding of SMS and your role and responsibilities in with respect to SMS? Summarize the SMS training you have received including the context, timing and intensity of each session?
(C)	How often is SMS training available to your employees? How do you determine who receives this training?
(D)	What kind of SMS training is provided to new employees and how soon after employment is it delivered?
(D)	Was SMS in place when you joined this organization? (If yes) How was SMS presented to you when you joined the company and to what extent was it discussed as part of orientation? (If no) When did you first receive training on SMS?
(E)	What do you consider to be human and organizational factors in the context of SMS as it affects your department? Explain how this is included in SMS training delivered to employees in your department.
(E)	How were work environment, equipment use, habits, procedures, workload and employee interaction discussed as part of the SMS training you received?
(F)	What kind of emergency preparedness and response training is provided? How do you determine who receives this training?
<b>To employees:</b>	
(A)	Are you confident in your knowledge and understanding of SMS and your role and responsibilities in with respect to SMS? What kind of SMS training you have received? What was the context and intensity of these training sessions?
(C)	How accessible is SMS training and information to you? Do you know how management determines who receives training and when?
(C,D)	Was SMS in place when you joined this organization? (If yes) How was SMS presented to you when you joined the company and to what extent was it discussed as part of orientation? Discuss any further training since that initial session. If you wished to receive more SMS training how would you approach management on this issue? (If no) When did you first receive training on SMS?
(E)	What do you consider to be human and organizational factors? Explain how this subject was addressed in the SMS training you received.
(E)	How were your work environment, equipment use, habits, procedures, workload and employee interaction discussed as part of your SMS training?
(F)	What kind of emergency preparedness and response training have you received? How does management decide who receives this training?



**Table C5 – Quality Assurance**

<b>Component</b>	5. Quality Assurance
<b>Element</b>	5.1 Operational Quality Assurance
<b>Questions</b>	
<b>To accountable executive and upper level management:</b>	
(A)	Outline the quality assurance program implemented within your organization. How was this program established? What actions are taken to ensure that it continues to function effectively? Who is responsible for the quality assurance program?
(B)	Outline your internal evaluation program. Explain how the group responsible for the audit function is operationally independent.
(C)	What is the process for conducting reviews and audits of your processes, procedures, analyses, inspections and training?
(D)	How is the internal reporting process and corrective action system monitored to ensure completion of remedial actions and follow-up on reactive and proactive reports?
(E)	Please explain how the quality assurance system covers all functions defined within the certificate(s) held by your organization.
(F)	What is the scope of internal audits? What are the audit criteria? How often are audits performed and what methods are employed?
(G)	What is the selection/training process to ensure the objectivity and competence of auditors as well as the impartiality of the audit process?
(I)	When do you review of safety critical functions and relevant safety or quality issues that arise from the internal evaluation program?
(J)	What is your procedure for reporting audit results? (show me) How do you maintain these records?
(K)	Upon receipt of audit results, how do you and your managers ensure that the appropriate preventive or corrective actions are taken in a timely fashion? Where is the documented procedure that guides outlines these requirements? (show me)
(H)	Show me the procedure to record verification of action(s) taken and the reporting of verification results.
(BP)	To what extent are contracted functions subject to a quality assurance review? What are the criteria for these reviews?
(BP)	How does your organisation interact with other organisations that are governed by these SMS regulations?
<b>To functional department heads:</b>	
(A)	Outline the quality assurance program implemented within your department. How was this program established? What actions are taken to ensure that it continues to function effectively? How does this program relate to the quality assurance program implemented across the organization?
(E)	Please explain how your quality assurance system covers all functions defined within the certificate(s) held by your organization as applicable to your department.
(J)	What is the procedure for reporting audit results? (show me) How do you maintain these records?
(K)	Upon receipt of audit results, how do you ensure that the appropriate preventive or corrective actions are taken in a timely fashion? How do you know what “timely” is in each case? Where is the documented procedure that outlines these requirements? (show me)
(H)	Show me the procedure to record verification of action(s) taken and the reporting of verification results.
<b>To lead auditor:</b>	
(C)	What is the process for conducting reviews and audits of the SMS processes, its procedures, analyses, inspections and training?
(F)	What is the scope of internal audits? What are the audit criteria? How often are audits performed and what methods are employed?
(G)	What is the selection/training process to ensure the objectivity and competence of auditors as well as the impartiality of the audit process?
(BP)	To what extent are contracted functions subject to a quality assurance review? What are the criteria for these reviews?
(H)	What procedure do you follow when recording verification of action(s) taken and the reporting of verification results? (show documented procedure)
(J)	What is the procedure for reporting audit results? Show me where this is documented.

**Table C6 – Emergency Preparedness**

<b>Component</b>	6. Emergency Preparedness
<b>Element</b>	6.1 Emergency Preparedness and Response (EPR)
<b>Questions</b>	
<b>To the accountable executive and responsible manager:</b>	
(BP)	What is the organization’s emergency preparedness policy? Please provide an outline of roles and responsibilities for all staff in the event of an accident or unforeseen emergency.
(A)	Outline emergency preparedness procedures for the organization. How were these procedures established? Explain how they are appropriate to the nature and complexity of the organization.
(B)	Show me the documented emergency preparedness procedures. Explain how they have been implemented within the organization. Who is the responsible manager?
(BP)	How do you assess whether or not your emergency response preparedness procedures meet Commercial Air Service Standards?
(C)	What drills have you been a part of
<b>To functional department heads:</b>	
(BP)	What is the organization’s emergency preparedness policy? Please show me documentation, (applicable to your department) outlining roles and responsibilities in the event of an accident or unforeseen emergency.
(A,B)	Where are emergency procedures documented? Is this documentation accessible to you and your staff? How are these procedures appropriate to the size and complexity of your department? How have these procedures been implemented within your department?
(B)	Who is responsible for emergency procedures within your department? What was the justification for assigning this responsibility and how does it impact their day-to-day job?
(C)	How often are EPR procedures reviewed? Who conducts these reviews and under what circumstances would a review be initiated?
(D)	Explain the process for distributing EPR procedures to all personnel. How do you ensure that personnel understand the procedures?
(E)	When was the last time you and your staff were involved in an EPR drill or exercise? How often are drills and exercises conducted? According to the control manual, how often should exercises and drill be performed (show me)?
<b>To employees and key EPR personnel:</b>	
(BP)	What are your roles and responsibilities in the event of an accident or unforeseen emergency? Where is this documented?
(B)	What would you do in the event of an emergency? Are there standard procedures for you to follow? (show me)
(D)	How comfortable are you with the content of the EPR procedures? How are the procedures communicated to you and how accessible are they?
(E)	When was the last time you participated in an EPR drill or exercise?

## **4 EVALUATION**

After the collection of assessment information (evidence) is complete, observations are prepared by use of the notes taken during the assessment. The process of evaluation of the observations makes use of SMS element criteria, outlined in Tables D0 – D6.1.

### **4.0 Measurement Criteria**

Observations for each element are compared to the measurement criteria tables below. The resulting measurement is then placed in the element measurement table shown in the assessment guide from TC - this can be found in Table E.

The roll up of the elements gives an SMS component measurement, which when placed in a similar table is used to adjudge the overall assessment evaluation. This table is also found in Table E.

Section 5 gives the TC scoring rules which determine whether certificate holders meet the CARS and the extent of follow up or other corrective action.

**Table D0 – Criteria: Safety Management System**

<b>Score</b>	<b>Criteria</b>
<b>1</b>	The organization has no aspects of SMS in place.
<b>2</b>	<b>(3) less some aspects</b>
<b>3</b>	A. The organization has a Safety Management System, which has defined components that are established, maintained and adhered to. B. The safety management system is appropriate to the size and complexity of the organization.
<b>4</b>	<b>All of (3) plus some aspects of (5)</b>
<b>5</b>	The organization is a recognized leader in SMS within the aviation industry. A single SMS is established for holders of multiple operator’s certificates with integrated operations, and it is coordinated with the SMSs of organizations providing services.

**Table D1.1 – Safety Management Plan – Safety Policy**

Score	Criteria
1	Senior Management does not demonstrate commitment to a SMS. Safety policies are not well developed and most personnel are not involved in SMS.
2	<b>(3) less some aspects</b>
3	<p>A. A safety policy is in existence and appropriate to the size and complexity of the organization.</p> <p>B. The organization has based its safety management system on the safety policy.</p> <p>C. The safety policy is approved by the accountable executive.</p> <p>D. The safety policy is promoted by the accountable executive.</p> <p>E. The safety policy is reviewed periodically.</p> <p>F. The safety policy is communicated to all employees with the intent that they are made aware of their individual safety obligations.</p>
4	<b>All of (3) plus some aspects of (5)</b>
5	<p><b>All of 3, plus all of the following:</b></p> <p>There is a clear declaration of commitment to safety.</p> <p>The safety policy states the organization’s intentions, management principles and commitment to continuous improvement in the safety level.</p> <p>Senior Management has a clear commitment to safety and demonstrates it through active and visible participation in the safety management system.</p> <p>Personnel at all levels are involved in the establishment and maintenance of the safety management system.</p> <p>The policy is implemented at all levels of the organization.</p> <p>The policy is clearly visible to all personnel and particularly throughout the safety critical areas of the organization.</p> <p>The policy is included in key documentation and communication media.</p> <p>Senior managers clearly articulate the importance of safety when addressing company personnel.</p> <p>Verification that personnel have understood the message.</p> <p>Commitment of the organization’s senior executives to the development and ongoing improvement of the safety management system.</p>

**Table D1.2 – Safety Management Plan – Non-Punitive Safety Reporting Policy**

<b>Score</b>	<b>Criteria</b>
<b>1</b>	Safety-related reports or inadvertent errors result in punitive action being taken against individuals.
<b>2</b>	<b>(3) less some aspects</b>
<b>3</b>	A. There is a policy in place that provides immunity from disciplinary action for employees that report safety deficiencies, hazards or occurrences.
<b>4</b>	<b>All of (3) plus some aspects of (5)</b>
<b>5</b>	<p>All of 3, plus all of the following:</p> <p>Conditions under which punitive disciplinary action would be considered (e.g. illegal activity, negligence or willful misconduct) are clearly defined and documented.</p> <p>The policy is widely understood within the organization.</p> <p>The organizations have letters of understanding between employees and/or third party contractors and management. The purpose of these letters is to document the disciplinary policy, and the manner in which it will be implemented.</p> <p>Personnel express confidence and trust in the policy.</p> <p>There is concrete evidence that the organization is applying the policy.</p>

**Table D1.3 – Safety Management Plan – Roles and Responsibilities**

<b>Score</b>	<b>Criteria</b>
<b>1</b>	No formal designation of authorities, responsibilities and accountabilities for the safety management system exists. A management representative has not been appointed to ensure the SMS is implemented. Safety mandates are not widely disseminated and personnel’s awareness of their role in the SMS is limited
<b>2</b>	<b>(3) less some aspects</b>
<b>3</b>	<p>A. An accountable executive has been appointed with responsibility for ensuring that the safety management system is properly implemented and performing to requirements in all areas of the organization.</p> <p>B. The accountable executive has control of the financial and human resources required for the proper execution of his/her SMS responsibilities.</p> <p>C. A qualified person has been appointed to manage the operation of the SMS.</p> <p>D. The person managing the operation of the SMS fulfils the required job functions and responsibilities</p> <p>E. Safety authorities, responsibilities and accountabilities are promulgated to all personnel in key documentation and communication media.</p> <p>F. All personnel understand their authorities, responsibilities and accountabilities in regards to all safety management processes, decision and actions.</p>
<b>4</b>	<b>All of (3) plus some aspects of (5)</b>
<b>5</b>	<p>All of 3, plus all of the following:</p> <p>Safety authorities, responsibilities and accountabilities are reviewed after any significant organizational change.</p> <p>Safety authorities, responsibilities and accountabilities of personnel and partners at all levels of the organization are defined and documented. The role of the Certificate Holders, Applicant and Delegate should also be defined, where applicable.</p> <p>There is clear evidence that the accountable executive not only understands that he or she has ultimate responsibility for safety within the organization, but that he or she demonstrates this commitment on a daily basis.</p> <p>There are documented organizational diagrams, where applicable, and job descriptions.</p> <p>There is a logical flow within organizational authorities, responsibilities and accountabilities for safety.</p> <p>Safety imperatives are clearly described in senior management duties and responsibilities.</p> <p>Senior management recognizes the significance of contributions from all levels of the organization for the establishment and maintenance of the system.</p> <p>Employee involvement and consultation arrangements are documented.</p> <p>Evidence that safety management system procedures have penetrated all levels of the organization.</p>

**Table D1.4 – Safety Management Plan – Communication**

<b>Score</b>	<b>Criteria</b>
<b>1</b>	The general exchange of information throughout the organization does not permit the system to function effectively. The organizational communication network does not include all personnel, out-stations and outsource functions.
<b>2</b>	<b>(3) less some aspects</b>
<b>3</b>	<p>A. There are communication processes in place within the organization that permit the safety management system to function effectively.</p> <p>B. Communication processes (written, meetings, electronic, etc.) are commensurate with the size and scope of the organization.</p> <p>C. Information is established and maintained in a suitable medium that provides direction in related documents.</p> <p>D. There is a process for the dissemination of safety information throughout the organization and a means of monitoring the effectiveness of this process.</p>
<b>4</b>	<b>All of (3) plus some aspects of (5)</b>
<b>5</b>	<p>All of 3, plus all of the following:</p> <p>Company wide, uncomplicated, reciprocal communications related to safety and quality issues are plainly evident.</p> <p>All areas, including out-stations and outsource functions, are included in the communication network of the organization.</p> <p>There is an established means of inter-departmental communication to spread information on SMS related matters.</p> <p>There exists a formal means of communicating with experts in SMS so that advice can easily and quickly be obtained by personnel. The documentation should indicate where these experts could be located.</p> <p>All personnel are informed as to who is their primary contact for aviation safety related matters.</p> <p>There is a process for communication strategy that includes electronic communication, frequent meetings, SMS award systems, employee recognition system, SMS bulletins, etc.</p> <p>There is a process for sharing safety related information with outside sources that might be impacted by this information.</p>

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**Table D1.5 – Safety Management Plan – Safety Planning**

<b>Score</b>	<b>Criteria</b>
<b>1</b>	Safety objectives are poorly defined and/or not communicated. Resources are not allocated for achieving objectives.
<b>2</b>	<b>(3) less some aspects</b>
<b>3</b>	A. Safety objectives have been established B. There is a formal process to develop a coherent set of safety goals necessary to achieve overall safety objectives. C. Safety objectives and goals are publicized and distributed. (Part III only)
<b>4</b>	<b>All of (3) plus some aspects of (5)</b>
<b>5</b>	All of 3, plus all of the following: Safety objectives are expressed as a top-level statement describing the organization's commitment to achieving improvements in safety. Resources have been allocated for achieving the objectives and goals. Safety objectives and goals are reviewed and updated periodically. Objectives and goals are widely publicized and distributed throughout the organization. When establishing and reviewing objectives and goals, the organization considers: - hazards and risks; - financial, operational and business requirements; - views of interested parties. Goals are specific, measurable, agreed to, relevant and time-based Goals encompass all areas of the organization. Personnel at all levels are aware of the goals.

**Table D1.6 – Safety Management Plan – Performance Measurement**

<b>Score</b>	<b>Criteria</b>
<b>1</b>	Safety performance measures have not been established.
<b>2</b>	<b>(3) less some aspects</b>
<b>3</b>	A. There is a formal process to develop and maintain a set of performance parameters to be measured.
<b>4</b>	<b>All of (3) plus some aspects of (5)</b>
<b>5</b>	All of 3, plus all of the following: The process for measuring these indicators and determining their effectiveness should also be documented. Leading and lagging parameters should be linked to SMS goals. Performance parameters are linked to potential safety-critical events based on proactive recommendations. These parameters should also be linked to SMS goals. Procedures have been established and maintained to monitor and measure safety performance on a regular basis, with the purpose of improving the system. Resources are allocated based on output from the performance measurement. Personnel at all levels are aware of the safety critical performance measures in their areas of responsibility.



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**Table D1.7 – Safety Management Plan – Management Review**

Score	Criteria
1	The process for conducting reviews of the safety management system is based on event response rather than on a periodic, scheduled basis.
2	<b>(3) less some aspects</b>
3	<p>A. Regular and periodic, planned reviews of company safety performance and achievement including an examination of the company's Safety Management System to ensure its continuing suitability, adequacy and effectiveness.</p> <p>B. There is a process to evaluate the effectiveness of corrective actions.</p>
4	<b>All of (3) plus some aspects of (5)</b>
5	<p>All of 3, plus all of the following:</p> <p>The organization has established a formal safety management review committee or board, appropriate for the size and complexity of the organization, consisting of a full range of senior management representatives who are responsible for safety outcomes.</p> <p>The organization benchmarks its SMS against other organizations and is an active proponent of SMS within the aviation industry.</p> <p>The Management Review Committee has the necessary authority to make decisions related to:</p> <ul style="list-style-type: none"> <li>- the improvement and effectiveness of the Safety Management System</li> <li>- the initiation and implementation of safety policy and actions across the organization</li> <li>- allocation of resources needed to achieve objectives</li> </ul> <p>The Safety Management System Review includes:</p> <ul style="list-style-type: none"> <li>- Internal audit results</li> <li>- Safety objective achievement results</li> <li>- Hazard and occurrence investigation and analysis results</li> <li>- Internal/external feedback analysis and results</li> <li>- Status of preventive and corrective action</li> <li>- Follow-up actions from previous management reviews</li> <li>- Changes that could affect the Safety Management System</li> <li>- Recommendations for improvement</li> <li>- Sharing of best practices across the organization</li> </ul> <p>Management review decisions are widely disseminated to demonstrate to employees how the review process leads to new objectives that will benefit the organization.</p> <p>There are sufficient records to provide the necessary traceability to facilitate the evaluation of the management review process.</p> <p>The results of management review are used by the accountable executive as input to the improvement processes.</p>

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**Table D2.1 – Documentation –Identification and Maintenance of Applicable Regulations**

<b>Score</b>	<b>Criteria</b>
<b>1</b>	There is no system for the identification and maintenance of applicable regulations exists.
<b>2</b>	<b>(3) less some aspects</b>
<b>3</b>	A. A documented procedure has been established and maintained for identifying applicable regulatory requirements. (Parts IV, VI, VIII only) B. Regulations, Standards and exemptions are periodically reviewed to ensure that the most current information is available. (Parts IV, VI, VIII only)
<b>4</b>	<b>All of (3) plus some aspects of (5)</b>
<b>5</b>	All of 3, plus all of the following: All pertinent technical and regulatory information is readily accessible by personnel. The organization has defined specific triggers that would lead to a review of the company documentation The organization actively participates in regulatory development activities and anticipates the introduction of new requirements (Notice of Proposed Amendments, CARAC Technical Committee Meetings, etc...)

**Table D2.2 – Documentation – SMS Documentation**

<b>Score</b>	<b>Criteria</b>
<b>1</b>	SMS documentation is incomplete and maintenance procedures are not well established.
<b>2</b>	<b>(3) less some aspects</b>
<b>3</b>	A. There is consolidated documentation that describes the safety management system and the interrelationship between all of its elements. B. This information resides or is incorporated by reference into approved documentation, such as DAPM / EPM, Company Operations Manual, Maintenance Control Manual, Airport Operations Manual, as applicable, and where these approved documents are not required by regulation, the organization includes the information in a separate, controlled document.
<b>4</b>	<b>All of (3) plus some aspects of (5)</b>
<b>5</b>	All of 3, plus all of the following: Manuals or controlled electronic media are used to document the system. The consolidated documentation is readily accessible by personnel. There is a process to periodically review safety management system documentation to ensure its continuing suitability, adequacy and effectiveness, and that changes to company documentation have been implemented. The system is documented in suitable company media at both the corporate and operational levels. Documentation reflects functional coordination within the management system that ensures the organization works as a system and not as a group of separate or fragmented units. Documents show lines of authority, accountability and responsibility at the corporate level of management. This documentation also indicates the authority within the Company and the authority granted by the regulator. Acceptable means of documentation include, but are not limited to, organizational charts, job descriptions and other descriptive written material that define and clearly delineate the system of authority and responsibility within the organization for ensuring safe operation. The organization has a process to identify changes within the organization that could affect company documentation.

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**Table D2.3 – Documentation – Records Management**

Score	Criteria
1	There are no processes in place for managing SMS output.
2	<b>(3) less some aspects</b>
3	A. The organization has a records system that ensures the generation and retention of all records necessary to document and support operational requirements, and is in accordance with applicable regulatory requirements. B. The system shall provide the control processes necessary to ensure appropriate identification, legibility, storage, protection, archiving, retrieval, retention time, and disposition of records.
4	<b>All of (3) plus some aspects of (5)</b>
5	All of 3, plus all of the following: The organization has a policy that defines how long records that are not specifically required by regulations are kept.

**Table D3.1 – Safety Oversight – Reactive Process - Reporting**

Score	Criteria
1	The reporting processes do not ensure the capture of internal information, nor do they promote voluntary reporting of observed occurrences or deficiencies. Reports are not reviewed at the appropriate level of management.
2	<b>(3) less some aspects</b>
3	A. The organization has a process or system that provides for the capture of internal information including incidents, accidents and other data relevant to SMS. B. The reactive reporting system is simple, accessible and commensurate with the size of the organization. C. Reactive reports are reviewed at the appropriate level of management. D. There is a feedback process to notify contributors that their reports have been received and to share the results of the analysis. E. There is a process in place to monitor and analyze trends documented F. Corrective and preventive actions to respond to event analysis
4	<b>All of (3) plus some aspects of (5)</b>
5	All of 3, plus all of the following: The organization has a process in place to ensure confidentiality as requested. The range and scope of safety related occurrences or deficiencies that must be reported are explained and defined There is a process to ensure that information contained in reports is validated for accuracy prior to analysis Personnel invited in its reporting process are empowered to suggest corrective actions. The reactive report form(s) is(are) simple, standardized and accessible across the organization There is a process to ensure that information is received from all areas of the organization within the scope of the SMS There is data collection processes throughout the safety critical areas of the company to permit company wide analysis of safety issues There is a process in place to investigate and analyze reported events. Corrective and preventative actions are generated in response to event analysis

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**Table D3.2 – Safety Oversight – Proactive Process – Hazard ID**

<b>Score</b>	<b>Criteria</b>
<b>1</b>	The existing procedures do not promote the generation of safety data other than on a reactive basis.
<b>2</b>	<b>(3) less some aspects</b>
<b>3</b>	<p>A. The organization has a proactive process or system that provides for the capture of internal information identified as hazards and other data relevant to SMS</p> <p>B. The proactive reporting process is simple, accessible and commensurate with the size of the organization. (Part V &amp; VII only)</p> <p>C. Proactive reports are reviewed at the appropriate level of management.</p> <p>D. There is a feedback process to notify contributors that their proactive reports have been received and to share the results of the analysis.</p> <p>E. There is a process in place to monitor and analyze trends.</p> <p>F. The organization has planned self-evaluation processes, such as regularly scheduled reviews, evaluations, surveys, operational audits, assessments, etc.</p> <p>G. Corrective and preventive actions are generated in response to hazard analysis</p>
<b>4</b>	<b>All of (3) plus some aspects of (5)</b>
<b>5</b>	<p>All of 3, plus all of the following:</p> <p>The organization has a process in place to ensure confidentiality as required.</p> <p>The range and scope of safety related hazards that must be reported are explained and defined</p> <p>There is a process to ensure that information contained in proactive reports is validated for accuracy prior to analysis</p> <p>All proactive reports are subjected to a risk analysis process to determine the extent and priority of further action</p> <p>The organization has identified primary sources of internal information for safety assessment, including line management judgment, workplace opinions, minutes of safety meetings, audit reports, flight data monitoring programs (FDM), Line Operations Safety Audits (LOSA), etc.</p> <p>There is a process to ensure that industry data from outside the organization is considered within SMS initiatives</p> <p>Participation in industry operational and safety activities such as conferences, symposia and other safety related meetings is a priority</p> <p>The proactive report form(s) is(are) simple, standardized and accessible across the organization</p> <p>There is a process to ensure that proactive data is received from all areas of the organization within the scope of the SMS</p> <p>The organization has a process for the systematic investigation and analysis of operational conditions or activities that have been identified as potentially hazardous</p> <p>Data collection processes throughout the safety critical areas of the company permit company wide analysis of safety issues</p> <p>The organization has a clearly defined interval between formal hazard analyses.</p> <p>The organization conducts formal hazard analyses for:</p> <ul style="list-style-type: none"> <li>- new aircraft</li> <li>- major organizational change</li> <li>- change in key personnel</li> </ul>

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**Table D3.3 – Safety Oversight – Investigation and Analysis**

<b>Score</b>	<b>Criteria</b>
<b>1</b>	The organization does not routinely conduct investigation and analysis of safety related occurrences and deficiencies.
<b>2</b>	<b>(3) less some aspects</b>
<b>3</b>	A. There are procedures in place for the conduct of investigations. (Part V & VII only) B. Measures exist that ensure all reported occurrences and deficiencies are investigated. C. There is a process to ensure that occurrences and deficiencies reported are analyzed to identify contributing and root causes. D. Corrective and preventative actions are generated in response to event investigation and analysis.
<b>4</b>	<b>All of (3) plus some aspects of (5)</b>
<b>5</b>	All of 3, plus all of the following: The organization has a staff of technically competent investigators commensurate with the size and complexity of its operation When identifying contributing and root causes, the organization considers individual human factors, the environment, supervision and organizational elements Results of the analysis are communicated to the responsible manager for corrective/preventive action and to other relevant managers for their information All reactive reports are subjected to a risk analysis process to determine the extent and priority of further action. Responsibility and timelines are established for each corrective action. There is a process in place to monitor and analyze trends.

**Table D3.4 – Safety Oversight – Risk Management**

<b>Score</b>	<b>Criteria</b>
<b>1</b>	The organization does not have a process for evaluating and managing risks.
<b>2</b>	<b>(3) less some aspects</b>
<b>3</b>	A. There is a structured process for the assessment of risk associated with identified hazards, expressed in terms of severity, level of exposure and probability of occurrence B. There are criteria for evaluating risk and the tolerable level of risk the organization is willing to accept. C. The organization has risk control strategies that include corrective/preventive action plans to prevent recurrence of reported occurrences and deficiencies. D. The organization has a process for evaluating the effectiveness of the corrective/preventive measures that have been developed. E. Corrective/preventive actions, including timelines, are documented
<b>4</b>	<b>All of (3) plus some aspects of (5)</b>
<b>5</b>	All of 3, plus all of the following: There is a risk classification system that guides the organization in developing risk control strategies The organization uses its risk management results to develop best practice guidelines that it shares with the industry The results of the risk management program are built into the organizations methods and procedures. The organization is able to demonstrate the risk management process through records and be able to show periodic review.

**Table D4.1 – Training – Training Awareness and Competence**

Score	Criteria
1	Training requirements are not documented, nor does the organization incorporate SMS training into indoctrination training.
2	<b>(3) less some aspects</b>
3	<p>A. There is a documented process to identify training requirements so that personnel are competent to perform their duties.</p> <p>B. There is a validation process that measures the effectiveness of training.</p> <p>C. The training includes initial, recurrent and update training, as applicable.</p> <p>D. The organization’s safety management training is incorporated into indoctrination training upon employment.</p> <p>E. Training includes human and organizational factors.</p> <p>F. There is emergency preparedness and response training for affected personnel.</p>
4	<b>All of (3) plus some aspects of (5)</b>
5	<p>All of 3, plus all of the following:                      There is a formal and objective training needs analysis.</p> <p>Training requirements are documented for each area of activity within the organization, including areas where training requirements are not defined by regulations. The attendance of symposiums outside of SMS should also be considered.</p> <p>A training file is developed for each employee, including management, to assist in identifying and tracking employee training requirements and verifying that the personnel have received the planned training. This file should be completed in accordance with the training guidelines that are developed.</p> <p>Training needs are included as part of the performance appraisal process. The technical training and SMS training should be defined.</p> <p>Management recognizes and uses informal opportunities to instruct employees on safety management.</p> <p>Continued occupational competency to be maintained.</p> <p>Evidence exists that management supports safety training initiatives.</p> <p>The training exercises and methods are kept current to reflect new techniques, technologies, results of investigations and corrective actions and regulatory changes.</p>

**SAFETY MANAGEMENT SYSTEMS ASSESSMENT GUIDE**

**Table D5.1 – Quality Assurance – Operational Quality Assurance**

<b>Score</b>	<b>Criteria</b>
1	The organization does not perform audits of its processes at the operational level.
2	<b>(3) less some aspects</b>
3	<p>A. A quality assurance program is established and maintained, and the program is under the management of an appropriate person.</p> <p>B. There exists an operationally independent audit function with the authority required to carry out an effective internal evaluation program.</p> <p>C. The organization conducts reviews and audits of its processes, its procedures, analyses, inspections and training.</p> <p>D. The organization has a system to monitor for completeness the internal reporting process and the corrective action completion.</p> <p>E. The quality assurance system covers all functions defined within the certificate(s).</p> <p>F. There are defined audit scope, criteria, frequency and methods.</p> <p>G. A selection/training process to ensure the objectivity and competence of auditors as well as the impartiality of the audit process.</p> <p>H. There is a procedure to record verification of action(s) taken and the reporting of verification results.</p> <p>I. The organization performs a periodic Management review of safety critical functions and relevant safety or quality issues that arise from the internal evaluation program.</p> <p>J. There is a procedure for reporting audit results and maintaining records.</p> <p>K. There is a procedure outlining requirements for timely corrective and preventive action in response to audit results.</p>
4	<b>All of (3) plus some aspects of (5)</b>
5	<p>All of 3, plus all of the following:</p> <p>There is a documented procedure defining responsibilities and requirements for planning and conducting internal audits of:</p> <ul style="list-style-type: none"> <li>- management policies, controls and procedures concerning all safety critical activities</li> <li>- the implementation and maintenance of Safety Management System requirements established by the organization.</li> </ul> <p>Audit scope, frequency and criteria based on the status and importance of the processes and areas to be audited, and results of previous audits.</p> <p>A documented procedure for reporting audit results and maintaining records.</p> <p>A documented procedure outlining requirements for timely corrective and preventive action in response to audit results.</p> <p>Input from the area to be audited, as well as from other interested parties is considered in the development of internal audit plans.</p> <p>Audit reporting includes evidence of excellent performance to provide opportunities for recognition by management and motivation of people.</p> <p>The organization has established and implemented a self-assessment evaluation system used to benchmark the company's performance against external organizations and world-class performance.</p> <p>Audit scope and criteria includes industry best practice.</p> <p>Where contracted functions exist, the organization performs a quality assurance review on those functions.</p>

**Table D6.1 – Emergency Preparedness – Emergency Preparedness and Response**

<b>Score</b>	<b>Criteria</b>
<b>1</b>	The organization does not have a documented emergency preparedness policy. Roles and responsibilities in the event of an accident are poorly defined.
<b>2</b>	<b>(3) less some aspects</b>
<b>3</b>	<p>A. The organization has an emergency preparedness procedure, appropriate to the size, nature and complexity of the organization</p> <p>B. The Emergency preparedness procedures have been documented , implemented and assigned to a responsible manager.</p> <p>C. The emergency preparedness procedures have been periodically reviewed as a part of the management review and after key personnel or organizational change</p> <p>D. The organization has a process to distribute the ERP procedures and to communicate the content to all personnel</p> <p>E. The organization has conducted drills and exercises with all key personnel at intervals defined in the approved control manual.</p>
<b>4</b>	<b>All of (3) plus some aspects of (5)</b>
<b>5</b>	<p>All of 3, plus all of the following:</p> <p>The organization has MOUs or agreements with other agencies for mutual aid and the provision of emergency services</p> <p>The organization has a designated command post where the overall coordination and general direction of the response to an emergency takes place.</p> <p>The emergency response plan contains procedures for periodic testing of the adequacy of the plan and for reviewing the results in order to improve its effectiveness.</p> <p>A procedure exists for recording activities during an emergency response</p>



## **5 SAFETY MANAGEMENT SYSTEM ASSESSEMENT SCORING RULES**

### **5.0 Scoring Award Level**

Scoring award levels are based on a set of defined expectations. The expectations relate to an element being assessed. For example, a safety management plan must contain a safety policy. An expectation of the safety policy is that it should contain a clear declaration of commitment and objectives. As safety management systems are progressive in their development, we expect to see continuous improvement in the system; we also expect to see a variation in the type of safety policy we see. Expectations are intended to provide a guide for the types of thing that would make-up a good response. They are not intended as a checklist, nor are they all-inclusive. They are provided as indicators for understanding what a good element might contain and for standardizing the assessment process.

Each assessed element will be assigned a score from (1) to (5) based on a set of specific criteria. The assessed score shall be in increments no smaller than 0.5. The criteria are to be used as guidelines for scoring the various elements.

Scoring awards are assessed in the following manner:

- (a) A score of (1) is considered to be not documented and not implemented;
- (b) A score of (1.5), (2.0) or (2.5) is considered to be partially implemented but not effective. In other words, the organization does not have all of the criteria required for an award level of (3).
- (c) A score of (3) is considered has meeting the minimum acceptable standard of assessment. As such, to be considered as having an acceptable level, required elements have to be rated as per the criteria at an award level of (3). The score of (3) in all criteria reflects only the minimum requirements of the *Canadian Aviation Regulations*. Any additional requirements and best practices in the guideline protocol represent bonus points in addition to the (3) award level.
- (d) A score of (3.5), (4.0) or (4.5) is considered to exceed the minimum acceptable standard of assessment. To receive this award level, the element is considered to meet all of (3) plus some aspects of (5).
- (e) A score of (5) is considered to meet all of the criteria for an award level of (3) plus all of the additional requirements listed under the criteria for that element. To achieve an award level of (5), an organization would have to meet the regulatory requirements as well as demonstrate industry best practices at a very high level.

### **5.1 Optional Components**

Until such time that the regulations are fully amended to reflect the Civil Aviation Safety Management System Model, Transport Canada will not assess component or elements not required by regulation. Nevertheless, organizations are encouraged to incorporate all SMS components or elements described in this guide's SMS framework in anticipation of future rule changes. Organizations that do not incorporate optional components or elements shall not be penalized and those component or element scores shall not be factored into the overall SMS score.

On the date of publication of this guide, CAR 705 operations are not required by regulations to incorporate operational quality assurance within their safety management system. Likewise, CAR 573 operations are not required to establish emergency preparedness procedures.

**5.2 Failure to Meet Minimum Requirements**

A failure to achieve a minimum score of (3) on any of the required elements will result in the following action:

- (a) Where the element is assessed at an award level of (1.0), (1.5) or (2.0), a 30-day corrective action notice will be issued. The delegated officer responsible for the certificate will have 30-days to either accept the corrective action or to suspend the operator’s certificate.
- (b) Where the element is assessed at an award level of (2.5), a 90-day corrective action notice will be issued. The delegated officer responsible for the certificate will have 90-days to either accept the corrective action or to suspend the operator’s certificate.

**5.3 Scoring Using the Criteria**

When awarding an assessment score to an element, the assessor should consider whether the element meets the established criteria. Within specific ranges there is flexibility for interpretation. The assessor should consider all of the expectations and apply the scoring criteria to determine the award level for that element. The assessor should also consider, and give credit where appropriate, for features that are not contained in the expectations.

The example shown in the table below demonstrates how the assessment tool works. The component is “safety management plan” and the element is “non-punitive reporting policy”. The expectations (what you would expect to see) are shown in the first table below and the criteria (what should be there) for assessing the award level are shown in the following table.

<b>Component</b>	1. Safety Management Plan
<b>Element</b>	1.2 Non-Punitive Safety Reporting Policy
<b>Expectations</b>	
<ul style="list-style-type: none"> <li>• There is a policy in place that provides immunity from disciplinary action for employees that report safety deficiencies, hazards or occurrences.</li> <li>• Conditions under which punitive disciplinary action would be considered (e.g. illegal activity, negligence or willful misconduct) are clearly defined.</li> <li>• The policy is widely understood within the organization.</li> <li>• The organizations have letters of understanding between employees and/or third party contractors and management to document the disciplinary policy, and the manner in which it will be implemented.</li> <li>• Personnel express confidence and trust in the policy.</li> </ul>	
There is concrete evidence that the organization is applying the non-punitive safety reporting policy.	

**Safety Management Plan – Non-Punitive Safety Reporting Policy**

<b>Score</b>	<b>Criteria</b>
<b>1</b>	Safety-related reports or inadvertent errors result in punitive action being taken against individuals.
<b>2</b>	<b>(3) less some aspects</b>
<b>3</b>	A. There is a policy in place that provides immunity from disciplinary action for employees that report safety deficiencies, hazards or occurrences.
<b>4</b>	<b>All of (3) plus some aspects of (5)</b>
<b>5</b>	<p>All of 3, plus all of the following:</p> <p>Conditions under which punitive disciplinary action would be considered (e.g. illegal activity, negligence or willful misconduct) are clearly defined and documented.</p> <p>The policy is widely understood within the organization.</p> <p>The organizations have letters of understanding between employees and/or third party contractors and management. The purpose of these letters is to document the disciplinary policy, and the manner in which it will be implemented.</p> <p>Personnel express confidence and trust in the policy.</p> <p>There is concrete evidence that the organization is applying the non-punitive safety reporting policy.</p>

Certificate holders failing to make an award level of (3) on any of the elements required within a component will fail that particular component. If the award level is 2.5, the organization must provide a corrective action within 90-days. If the award level is below 2.5, the organization must provide a corrective action within 30 days.

**5.4 Suspension of the Operating Certificate**

In cases where a component is non compliant and is assessed as being not effective, the operating certificate may be suspended based on the grounds that the certificate ceases to meet the qualifications necessary for the issuance of the document or to fulfill the conditions subject to which the document was issued.

## **6 COMPLIANCE WITH THE CARS REQUIREMENTS**

Compliance with the CARs SMS requirements is based on a certificate holder having documented policies and procedures to support the SMS components and elements the certificate holder is required to have in place, as well as an effective system. Compliance will be determined upon completion of the assessment exercise.

An assessment of effectiveness will only be conducted after the certificate holder has demonstrated to Transport Canada's satisfaction, that the company's SMS documentation is in place. Where a company is found not to have the supporting documentation for a particular SMS component, the procedure will not be validated during the physical assessment nor will it be assessed for effectiveness. Where a CASI feels that the lack of documentation is significant enough to warrant not conducting an assessment the Certificate Holder will be subject to Transport Canada enforcement action. Companies found in non-compliance with the CARs will be advised and administrative action will be taken by Transport Canada. Only those components with the required documentation will be assessed.

**Table E – SMS Measurement Table**

Component	ELEMENT	CAR Compliant	ELEMENT SCORE	Component Score
1. Safety Management Plan	1.1 Safety Policy	Y / N		
	1.2 Non-Punitive Safety Reporting Policy	Y / N		
	1.3 Roles, Responsibilities and Employee Involvement	Y / N		
	1.4 Communication	Y / N		
	1.5 Safety Planning, Objectives and Goals	Y / N		
	1.6 Performance Measurement	Y / N		
	1.7 Management Review	Y / N		
<b>Total:</b>			÷7→	
2. Documentation	2.1 Identification and Maintenance of Applicable Regulations	Y / N		
	2.2 SMS Documentation	Y / N		
	2.3 Records Management	Y / N		
<b>Total:</b>			÷3→	
3. Safety Oversight	3.1 Reactive Processes	Y / N		
	3.2 Proactive Processes	Y / N		
	3.3 Investigation and Analysis	Y / N		
	3.4 Risk Management	Y / N		
<b>Total:</b>			÷4→	
4. Training	4.1 Training, Awareness and Competence	Y / N		
<b>Total:</b>			→	
5. Quality Assurance	5.1 Operational Quality Assurance *	Y / N		
<b>Total:</b>			→	
6. Emergency Preparedness	6.1 Emergency Preparedness and Response **	Y / N		
<b>Total:</b>			→	
<b>Component Score Total:</b>				
<b>Overall SMS Score (Component Score Total / # of Components):</b>				

\* Optional for CAR 705 Operations    \*\* Optional for CAR 573 Operations