# Safety Evolution Guide: SMS Assessments and Safety Culture Survey

1. OBJECTIVE OF GUIDE

Members of the Civil Air Navigation Services Organisation (CANSO) are committed to the improvement of their services. As part of this commitment, organisations share their practices in efforts transfer learning across the industry.

This guide captures:

- The practices of an Air Navigation Service Provider (ANSP) in one element of the CANSO Standard of Excellence (SoE) in Safety Management System (SMS). The practices of this ANSP have been recognized by their peers as being an optimised practice within the industry (see Figure 1). The optimized practices have been selected on the basis of their novelty, innovation or the recognition of their potential to manage operational risks.
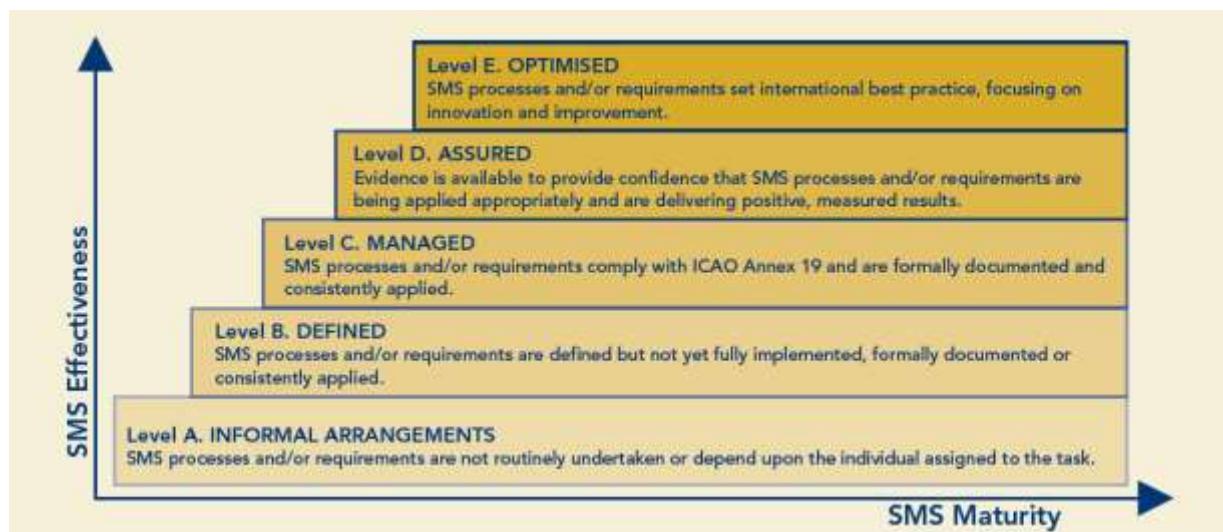
Given the dynamic nature of safety management, the practices presented in this document may be superseded. CANSO will publish updated best practice guidance.

2. APPLICATION OF THE GUIDANCE

CANSO recognizes that this guidance will not be relevant to all ANSPs. The maturity of any ANSP's Safety Management System will be dependent on their specific context. This context will be a reflection of factors including the size and complexity of the organisation, domestic regulations and the risk appetite of the organisation.

ANSPs do not necessarily need to adopt all the practices and processes promoted by CANSO, but consider the relevance of the practices promoted in this guide to their operational environment.

3. OPTIMISED PRACTICE

This guide addresses a SMS process which was identified in 2018 as being optimised, it details how one Air Navigation Service Provider, NAV CANADA, determines the performance of its SMS using the SMS Assessment program. The approach was reviewed

by a panel of experts from the Future Safety Working Group of the Safety Standing Committee. The approach meets both the CANSO and International Civil Aviation Organisation's requirements for a Safety Culture (see below).

4.   SCOPE OF GUIDE

This guide aims to provide an insight into how NAV CANADA implemented the SMS Assessment program, detailing why this approach was taken.

5.   APPLICABLE STANDARDS AND REQUIREMENTS

CANSO Standard of Excellence in Safety Management Systems

Objective	Informal Arrangements	Defined	Managed	Assured	Optimised
General SMS principles applicable to each study area	Awareness of the need for SMS exists. No specific formal implementation actions are in place or planned. The processes for managing safety are ad hoc and/or inconsistent with the organisation's safety obligations. Implementation of safety management depends on the performance and efforts of individuals. Processes are unpredictable and managed reactively.	The SMS framework implementation and activities are not yet mature, but are based on defined plans. A gap analysis has been performed to this CANSO Standard of Excellence, and an implementation plan is underway.	The SMS standard processes are in use across the organisation and are producing consistent results. The results are being measured using qualitative techniques. The SMS framework meets the required regulatory standard and complies with the SMS requirements of ICAO Annex 19. Processes are defined, and performance is managed.	The SMS framework is effective in achieving the overall safety policy and objectives of the organisation. SMS processes are quantitatively managed. Quantitative safety objectives are based on customer, end user and organisational needs.	SMS processes set international best practice, focusing on innovation and improvement. There is recognition that planning for safety is a continual process within an ANSP. Safety processes/systems are firmly embedded within the organisation. The effectiveness of the SMS and safety improvement actions is measured and evaluated against defined improvement criteria.
General principles for SMS framework implementation	The SMS framework is immature or non-existent in the organisation.	An SMS implementation plan is underway though not yet completed in some major aspects. The SMS may not yet meet the required regulatory standard.	The SMS implementation plan is largely complete.	The SMS framework is complete, functioning and effective in achieving the overall safety policy and objectives of the organisation.	The SMS framework is regularly reviewed and enhanced to achieve excellence in ATM safety management. On-going planning ensures that safety management activities are integrated and drive priorities for operational safety improvement.

Objective	Informal Arrangements	Defined	Managed	Assured	Optimised
General principles for performance monitoring	The organisation is not measuring or monitoring its safety performance.	The organisation has a plan to capture information on its safety performance.	The organisation is collecting safety reports under a controlled process, and is responding to safety issues identified as a result of individual incident investigations.	The organisation is quantitatively measuring safety performance. It has identified its key safety risks and has developed plans for improvement.	The organisation is managing its key safety risks in conjunction with external stakeholders and can demonstrate improved safety performance.
1.1 A positive and proactive, flexible, and informed safety culture (the shared beliefs, assumptions, and values regarding safety) that supports reporting and learning led by management.	Employees believe that safety will be achieved by complying with rules and regulations. A view which is reinforced by management. No mechanisms exist via which safety issues can be highlighted to staff. There are no avenues for differing functions to share information or collaborate about safety issues.	Employees are aware of their safety roles and responsibilities within their work team. There is recognition that the organisation needs to commit to improve safety performance. Organisation systems and process are being developed which support employees share safety lessons within and across teams and functional groups.	Employees are being trained to acquit their safety management related duties. The value which safety plays in the organisation is recognised and promoted. Management systems and approach demonstrates a genuine interest and commitment to address the safety issues which are raised. There is acceptance at all levels of the organisation that optimum safety performance can only be achieved when there is cross-organisational co-operation.	Employees are adequately trained to perform their safety management related duties. The value of safety to the organisation is promoted both within and outside the organisation. Management systems and processes support employees in their quest to be informed of and be adequately prepared for changes that may affect safety. Lessons learnt are actively sought and utilised to improve safety standards and processes. Individuals and organisational process support sharing safety information and concerns across organisational boundaries.	All within the organisation openly seek and exchange safety information. Employees are involved in the on-going review of safety. A future vision for safety within the organisation is documented and communicated. Management systems and approach encourages employees to challenge procedures/practices and people in their quest to improve safety performance. Management cooperates and supports customers, suppliers and contractors to improve their safety standards.

Objective	Informal Arrangements	Defined	Managed	Assured	Optimised
1.2 A just and open climate for reporting and investigation of occurrences NB: Thorough reporting and investigation must include the complete process from notification, data gathering, reconstruction, analysis, safety recommendation and implementation of remedial actions, up to final reporting, exchange of lessons learned and effective monitoring.	Management believes there are no issues regarding the existing reporting and investigation culture and therefore does not see the need for any activity or dialogue with the staff in this area.	Discussions between staff and management to define a just and open reporting and investigation climate are underway. However, no agreed policy and procedures are in place yet.	Policy and procedures which support an open reporting climate, and Just Culture principles are in place. Safety data-sharing and publication policies are supported by the staff. Safety data are sufficiently protected from external interference within legal limits.	Within the organisation, the line between acceptable and unacceptable behaviours is established and is known and accepted by the all levels in the organisation. Just culture reporting and investigation principles and processes are systematically applied within organisation.	Under certain legal regimes, there is a clear and published policy on how dialogue with judicial authorities and media is established and followed. As the organisation changes and evolves, the organisation sustains and maintains its Just Culture approach. Lessons from within the organisation and different industry sector are used to enhance to organisation's approach to Just Culture.
1.3 Regular measurement of safety culture and an improvement programme.	The organisation does not see the need to have a safety culture measuring mechanism in place.	The organisation is aware of the need to have periodic measurements of safety culture in place, as well as an improvement plan. However, what will be measured, and when, is still being defined.	Safety culture is measured and results are available. An improvement plan has been documented which addresses the need for individuals to be aware of, and support, the organisations shared beliefs, assumptions and values regarding safety	The organisation assesses its safety culture on a regular basis and implements improvements to any identified weaknesses. Safety Culture enablers and barriers are identified, and solutions to reduce barriers are being implemented.	All personnel are proactive and committed to improving safety. Safety Culture Surveys confirm that within the organisation, there is a high level of alignment between what is said what is done, and what is believed. Organisational management approves a continuous improvement plan.

Objective	Informal Arrangements	Defined	Managed	Assured	Optimised
12.1 Internal and independent (external) operational safety surveys and SMS audits.	There is no plan to conduct systematic operational safety surveys and SMS audits. Operational safety surveys, SMS audits, and gap assessments are conducted on an ad hoc basis (e.g., when deficiencies in the system or in working arrangements are found).	There is a plan in place to formalise the conduct of systematic operational safety surveys and SMS audits. A limited number of surveys and audits have been carried out.	Internal operational safety surveys and SMS audits are conducted on a periodic basis. Based on the output of operational safety surveys and SMS audits, a process is in place that requires the development and implementation of appropriate improvement plans.	Internal or external operational surveys and SMS audits are carried out in a systematic way. There is a process in place to monitor, analyse trends, and identify areas that require follow-up safety surveys or audits. Follow-up surveys, audits, and gap assessments are conducted in all areas affecting operational safety and the SMS.	Independent (external) operational safety surveys and SMS audits are periodically conducted. The outputs from operational safety surveys and SMS audits are incorporated as appropriate into operations or the SMS. There is a process in place that requires external data (e.g, pilot performance trend information) to be considered when selecting areas to be subject to operational safety surveys and SMS audits.

Extract from CANSO Standard of Excellence in Safety Management Systems

https://www.canso.org/sites/default/files/SMS_CANSO_SoE_16%20Nov%202015.pdf

6.   OPERATIONAL AND ORGANISATIONAL CONTEXT

The strategic goal of a safety management system (SMS) is to reduce operational safety hazards and their associated risks to a level as low as reasonably practicable. Its

effectiveness at accomplishing this goal is dependent on the implementation of key processes and the strength of the safety culture. In 2011, NAV CANADA instituted a program by which the SMS is assessed on an ongoing basis, through analysis and synthesis of data gained by periodic, structured examination of those activities that directly affect operational safety: the delivery of air navigations services, and technology design, maintenance and support.

The SMS Assessment program has the objective to determine the performance of the SMS, i.e. the degree to which the goal of the SMS is being achieved. SMS Assessments are conducted against NAV CANADA's Corporate Safety Management Policies and Procedures.

With 7 Area Control Centres (ACC), 41 Towers, 55 Flight Service Stations, and 8 Flight Information Centres, geographically dispersed across Canada's seven Flight Information Regions (FIR), the SMS Assessments are conducted region-by-region across a three-year cycle. As of 2016, prior to conducting an assessment, a Safety Culture Survey of all operational employees is undertaken within the target FIR to provide topical issues focused on safety in general, and safety culture in particular for inclusion in the assessment. A full face-to-face briefing is provided to the Senior Management Team of the FIR or Department to share the results of the safety culture survey, gain their insights into the results and confirm the areas that will be further explored during the SMS Assessment discussions with employees and managers.

In addition, senior management of the organizations being assessed (Engineering, Operations and Technical Operations) are contacted and asked whether there are any specific safety issues, topics, changes, etc. that they would like the SMS Assessment to include. This creates a direct link between SA1 safety culture and SA12 safety survey and audits. Assessors can pinpoint where potential areas of weakness in safety culture may be having an impact of the application and effectiveness of the SMS, and vice versa.

7.   SMS ASSESSMENT PROGRAM DESIGN

7.1.   BASED ON AUDIT FRAMEWORK

Existing frameworks already exist for visiting sites, discussing topics of interest and, where necessary, reviewing documentation to validate issues. The SMS Assessment process is based on the ISO 19011 guidelines. This does not, however, mean that an Assessment is an audit: it aims to determine how well a management system is addressing risks to operational safety rather than to specifically confirm that procedures are being followed.

7.2.   CONFIGURABLE FOCUS

The SMS Assessment aims to determine the effectiveness of the SMS, as implemented, by asking questions of personnel affected by the management system. This provides long-

term benefit to the organization by enabling a continuous improvement cycle. There is also an opportunity to leverage these safety discussions to gain further insight into targeted issues, whether local, regional or national in scope.

While a base question set is provided to address the SMS, additional questions are included in the SMS Assessment based on the results of the most recent safety culture survey and any requests from regional or department management.

7.3. INFORMAL DISCUSSIONS

In SMS Assessments, the term "discussion" is used deliberately (rather than the more-ominous word "interview") to describe the process of openly talking with people during an assessment. The goal is to have a dialogue (an informal but meaningful conversation about various aspects of safety) during which the person feels comfortable speaking candidly with the Assessment Team. This approach is opposed to other formal processes (e.g. job or performance interviews) where the employee may feel a need to prepare prior to meeting the team or that there are specific and limited responses (i.e. "the right answer") expected of him/her.

The questions should be topics of discussion rather than knowledge tests, and team members must strive to avoid a confrontational or authoritarian tone during the discussion. Follow-on questions in the dialogue related to the prepared questions should be open-ended, that is, phrased in such a fashion as to encourage expansive dialogue with the staff, as opposed to 'yes or no' responses.

7.4. IDENTIFY POSITIVE RESULTS AS WELL AS NEGATIVE ISSUES

Every organization needs to celebrate its successes, as well as acknowledge its failures, in order to encourage a desire to have more of those successes. In safety, different units will perform similar actions with slight differences and this may create a better practice in one unit as compared to another. Whenever possible, the SMS Assessment needs to identify these local best practices. Not all will be highlighted in the final report, but the most prominent can be promoted for adoption elsewhere. These practices may be operational or management in nature. They must have potential for repeatability, however; if the practice works well due to exceptional circumstances unique to that site, it cannot be shared elsewhere and does not meet the needs of the Assessment.

7.5. PROGRAM OUTCOME

This analysis and synthesis of data culminates in the identification and sharing of findings, observations, and best practices. These are all tracked in a central database to ensure completeness and tracking of activities. Dependent on the urgency of a finding, the effectiveness of management's mitigation to address any identified finding is evaluated through onsite follow-up activities immediately or up to several months following an assessment. Best practices that are identified are submitted for consideration under NAV CANADA's Successful Practice sharing process.

7.6.   PROGRAM ROLES

The Program is led by the Company's Quality and Safety Assurance group within the Safety and Quality department. Specific roles for completing an SMS Assessment are described below:

Assessment Coordinator: The Assessment Coordinator is a manager from the Quality and Safety Assurance group and designated by the Director. This individual must be a certified ISO9001:2015 Lead Auditors (TPECS), and has overall responsibility for the assessment and all team members.

Team Leader: Team Leaders should be from the Safety and Quality department and be certified ISO9001:2015 Lead Auditors (TPECS).

Observer: Observers may occasionally accompany Assessment Teams. They may come from other parts of the organization, the Board of Directors, the regulator or other stakeholders interested in the process. The presence of observers is permitted only with the approval of the Director overseeing the SMS Assessment Program.

An observer may be present at a discussion only with the prior agreement of the individual to be met. They must not influence that person's responses or the overall proceedings and must not speak during the discussions unless invited to do so.

Observers must be in-briefed in the same fashion as team members, so they are aware of their limited role and responsibilities while accompanying an Assessment Team.

8.   IMPLEMENTATION AND DELIVERY

There are four distinct stages to an SMS Assessment. These are described in detail in the sections which follow.

8.1.   PRE-ASSESSMENT

Thorough preparation is important to the success of a SMS Assessment. A Safety Culture Survey is conducted in the FIR normally within 90 days prior of the SMS Assessment.

8.2.   ASSESSMENT TEAMS

Two to four Assessment Teams are led by the Assessment Coordinator. Up to eight management and/or represented employees drawn from the Safety and Quality department and the operational groups are typically required to conduct a FIR or departmental SMS assessment.

Team members are typically recruited from all NAV CANADA disciplines. These external participants bring subject matter expertise and currency in operational activities to each Assessment Team.

8.2.1. COMBINE EXPERTISE

Each team's composition is dictated by the occupation or discipline of the staff to be met at the units. A review of the type of services and/or operational support provided at the units to be visited by each team will provide guidance for the teams' composition. Sharing common background with the staff lends professional credibility to the team.

8.2.2. PREPARING NEW TEAM MEMBERS/OBSERVERS

New team members or observers require no special training in advance of the assessment. They must, however, be formally briefed by a Team Lead or the Assessment Coordinator prior to the exercise. A checklist for this with acknowledgement and signoff is provided in Appendix A. This ensures they are adequately informed and prepared for their new duties.

8.3. CO-ORDINATING ASSESSMENT LOGISTICS

In preparing for an assessment all the following items must be considered and planned:

- The number of Assessment Teams required;
- Availability of team members for the planned duration of the assessment;
- Availability of unit staff and scheduling deconfliction with other activities;
- Necessary security arrangements and access to site facilities;
- Travel accommodations and transportation for the Assessment Teams; and
- Availability of private space required by the Assessment Teams.

8.4. PLANNING THE ASSESSMENT

Open communication is a key element of an effective SMS. For effective communications during the conduct of an assessment, it is good practice to establish and agree upon protocol in advance. Protocols for internal communications among the teams members and with the Department's or FIR's management should also be agreed upon.

The following elements should be considered when planning the assessment:

- The scope of the assessment, including the sites as well as the Departmental and functional units involved;
- Procedures to be observed when issues requiring immediate action to mitigate hazards or risks to operational safety (findings) are identified by the team during the assessment;
- A draft schedule detailing dates, times, and durations of on-site activities including meetings with the Department representatives;
- The allocation of appropriate resources (including unit staff) to on-site activities;
- Identification of the key points of contact;
- Communication protocols to be observed; and
- Assessment follow-up actions.

8.5. ESTABLISHING COMMUNICATIONS WITH THE FIR OR DEPARTMENT

Initial communication, normally through e-mail by the Assessment Coordinator with the senior management of the FIR to be assessed, will provide the team with the name of a representative from each operational group designated as its primary point of contact during the assessment.

For an FIR assessment, it is customary for the Director to communicate first with the General Manager of the FIR (GMFIR) to coordinate dates for the assessment. ACC Operations presents the greatest challenges in organising the SMS discussion schedule. The scheduling for other service delivery related groups, such as Engineering and Technical Operations, is usually done separately.

Following initial contact, the Assessment Coordinator will inform the SMS Assessment representative of:

- Purpose of the SMS Assessment and basics of the assessment process;
- Provision of information on proposed scheduling of discussions and teams' visits to sites; and
- Logistical requirements, if any.

8.6. FIR-LEVEL ASSESSMENT ACTIVITY PLANNING

Records and documentation pertinent to the upcoming assessment should be reviewed before the Assessment Teams visit a FIR, facility, or unit. Such materials include but are not limited to:

- Previous SMS Assessment Reports for the FIR or Department (including the follow-up);
- Most-recent audit and investigation reports (since the last assessment);
- Most-recent pertinent regulator inspection or audit reports;
- Most-recent group-specific internal quality/safety audit reports;
- Highlights of the recent Safety Culture Survey;
- Any other activities the Assessment Coordinator may consider informative (e.g. Level of Service study, major incidents or events, significant technological or procedural changes, investigation and occurrence trends, hazard identification procedures, etc.).

Review of the documentation provides the team with opportunities to identify specific additional areas to examine in depth during the SMS Assessment. Areas of concern which produced repeated findings or observations in previous assessments should be reviewed to ascertain whether documented mitigations are effective. A 'Pre-Assessment Briefing' document with all pertinent information should be created and shared with the team members.

8.7. COORDINATING SMS DISCUSSIONS WITH STAFF MEMBERS

The Assessment Team should aim to discuss with a minimum of 10% of all represented employees to ensure a statistically sound assessment. Each discipline should be

proportionately represented (i.e. 10% from each specialty). For units with fewer than 14 represented employees, the goal is to have a discussion with at least two employees and one supervisor.

Discussions should be held with as many of the FIR's or Department's management team with the goal to achieve 100% of managers interviewed, if possible.

Scheduling SMS discussions with staff at the FIR's units is most efficiently done through a single point of contact designated by the GMFIR. This co-ordinating Manager should be provided with the planned schedules for the Assessment so they can help coordinate the specific details for each unit to be visited.

8.8. SITE-LEVEL ASSESSMENT

The site-level assessment takes place at all staffed locations and is conducted by several Assessment Teams of two.

As a site-level assessment is conducted almost entirely face-to-face with the employees directly it is an exercise requiring tact, discretion, good judgment, and professional conduct on the part of all Assessment Teams' members. It includes the following activities:

- Opening meeting with senior FIR or Department managers;
- SMS discussions with staff;
- Reviews of records and documents (as required);
- Team meetings (as required); and
- Wrap-up activities.

8.9. OPENING MEETING

When conducting an FIR SMS Assessment, upon arrival at an ACC the Assessment Coordinator and, if available, the Assessment Teams working at the ACC should meet individually with the senior managers of Operations, Engineering and Technical Operations. The meeting need not be formal but it is good practice to: make introductions and briefly review with each manager the activities planned during the assessment; confirm the communications protocols to be observed; and answer any lingering questions they may have. Assessment Teams visiting smaller units should also seek out the senior employee from each operational group upon arrival (e.g. site manager or supervisor) and conduct a similar informal meeting with them before commencing discussions with staff. Similar protocols will be observed at other Departments. The intent is to ensure management and staff are well informed.

8.10. DISCUSSIONS WITH STAFF

It is through personal discussions with various operational employees at a site that information regarding the effectiveness of the SMS and the safety culture's strength is gained. An effective SMS is more than a suite of procedures to address policy

requirements; these procedures must be conscientiously and consistently applied by everyone in the Department to be effective.

Discussions must be confidential and, whenever possible, be conducted in a private setting. The discussion normally takes place with no more than two team members present. Unless the individual has agreed to the presence of an approved observer they should be alone with the Assessment Team for the discussion. Team members must take notes during the discussion for later comparison and review for potential findings or observations.

Often the site's staffs are initially unaware of what the team is doing, or even why they have been asked to participate. Before asking any questions, the Assessment Team should take a few minutes to make introductions, explain the process and intent, and put the participant at ease.

The two Assessment Team members should write down the person's name (which will be used only if a follow-up is required) and take detailed notes of the discussion. Afterward both team members should discuss and agree upon the highlights of the discussion. The Team Leader should summarize the discussion, take note of what the Assessment Team agreed to be the key information gained in the discussion, and enter this information later into the data tracking tool.

It is common for staff members to raise issues during discussions that are of heightened concern to them. Such issues usually become part of the final assessment report's findings, but may also be satisfactorily addressed through personal discussion with the FIR's or Department's management and not necessarily appear in the report.

Regardless of how these are addressed, it is critically important those who raised the issues in their discussions be informed later of what relevant information the Assessment Team learned about these issues in their post-discussion follow-up with the individual. Lack of closure following a reported concern can only erode that person's confidence in the assessment process and worse, in the SMS itself.

8.11. TRANSCRIBING DATA FROM DISCUSSIONS

The Assessment Team Leader is responsible for ensuring a summary of each discussion conducted by their team, with identification of significant issues, is transcribed into the data tracking tool. The names of the participants should not be entered. This is best done as soon as possible following the discussion to ensure the accurate capture of detailed information. The data should be entered on the same day as the discussion was held. This will assist the Assessment Coordinator with collating all Assessment Teams' data into a common master document for the final review during wrap-up.

The Team Leaders must inform the Assessment Coordinator of their teams' discussion counts by e-mail daily.

8.12.   EXAMINATION OF RECORDS AND DOCUMENTATION

In some cases, the need to examine site documentation and records (in addition to any documentation reviewed in the pre-assessment stage) will be triggered by information gathered during a discussion indicating a possibility that a safety issue may exist. Relevant documentary information can then be examined to either confirm the issue, treat it as a finding, or dismiss it.

8.13.   CREW MEETINGS DURING THE ASSESSMENT

As the Assessment Teams are normally located at diverse locations across a FIR and may have discussions with staff scheduled at any hour of the day or evening, it is rarely possible to schedule meetings or teleconferences with all of the Team Leaders long in advance. However, it is important the teams communicate with each other regularly during the progress of an Assessment.

The Assessment Coordinator should hold meetings or teleconferences with all the teams as needed to resolve any logistical issues or other problems and to discuss any important issues that have potential to become a finding. Each Team Leader should provide a briefing for the other team(s) and the Assessment Coordinator should provide any guidance necessary and details of changes to the planned schedule or activities.

8.14.   ON SITE INITIAL WRAP-UP ACTIVITIES AND INITIAL CLOSING MEETING

Upon completion of discussions at the sites, the Assessment Teams finalise their data tracking sheets and submit them to the Assessment Coordinator, who in turn collates all data for an initial review session attended by at least one member of each team. The purpose of the initial review is to provide an overview of the conduct of the assessment and to communicate all findings as well as the significant observations that have been identified at this stage.

The Assessment Coordinator should schedule an initial closing meeting with the FIR's or Department senior management team before departing the assessment location. During any meeting where issues are shared and validated, under no circumstances is it permissible for confidential discussion details to be shared with others outside of the Assessment Teams.

8.15.   INFORMATION GATHERING SESSIONS AND FINAL OUTBRIEF

Once the onsite component of an SMS Assessment is completed, a meeting with at least one member from each Assessment Team is scheduled to discuss the data. They will reach agreement on those items to be considered as findings, observations or best practices, as well as items more suitable for verbal briefing to the FIR's or Department's management team.

The Assessment Coordinator creates a document summarizing all findings, observations and best practices the team members have agreed upon for discussion at the closing meetings with each of the FIR's or Department's senior management team.

At the final outbrief with the senior management team of the FIR or Department, the Assessment Coordinator will lead discussions on each finding to validate, reclassify, or dismiss based upon additional clarifying information the senior managers may be able to provide. Agreement must be reached between the Assessment Coordinator and the appropriate senior manager on the disposition of every proposed finding, i.e. it is either withdrawn or validated and included in the report.

The following actions should be taken before the outbrief meeting is adjourned and after all proposed issues have been discussed with their dispositions agreed upon:

- Summary of all findings, observations and best practices;
- Summary of the process for addressing findings if required;
- Explanation of timelines for Assessment Report completion and of the FIR's or Department's management responsibilities arising from it (mitigations to findings or observations);
- Assurance that no findings or observations in addition to those already discussed and agreed upon will appear in the report; and
- Expression of thanks to senior management and participants for their hospitality, assistance and patience during the assessment.

Following this get together a brief final meeting among the available Assessment teams' members should be held to review the interim report findings, observations and best practices. Any items relevant to the safety culture survey should be submitted to the survey's coordinating team for their review

8.16. ASSESSMENT FOLLOW-UP

The purpose of an SMS Assessment is to assist Departments in strengthening their safety defences. Proactively identifying observations in the SMS and its sub-component control systems through the assessment process makes it possible for the client FIR or Department to close or reduce gaps in its defences against hazards and improve SMS performance.

While findings, observations and best practices are identified through field or Departmental Assessments, they are often assigned to head office functions since these functions are responsible for the affected controls. In this case, these issues must be communicated to the appropriate Vice President(s) for validation and proposed mitigations, if required.

All mitigations and other follow-up actions must be completed before the SMS Assessment can officially be closed.

8.16.1. FIR/DEPARTMENT AND/OR HEAD OFFICE GROUP FOLLOW-UP ACTIONS

Ownership of a finding, observation or best practice is assigned to the assessed FIR or Department, or to a head office function that is responsible for the affected controls. Every finding must be addressed through written mitigations developed by the owner, which are included in the report. Mitigations should be specific in describing the necessary actions and must also specify a date for completion.

The adequacy of proposed mitigations in addressing the related finding is validated by the Assessment Team. These mitigations are included in the Assessment Report. This Report must be returned to the FIR or Department once all necessary mitigations have been developed.

8.16.2. FOLLOW-UP FOR INDIVIDUAL CONCERNS

The Assessment Coordinator must take appropriate action to ensure each individual safety concern shared during the assessment is researched and the results documented. Feedback is to be sent to the person who reported it during the confidential discussion. The result may have been action by management, acknowledgement by management with an explanation of the existing mitigations applicable to the concern, clarification of misunderstanding by the individual, or other reasons and actions. Regardless of the result it must be communicated to the originator in complete confidence. Barring exceptional circumstances, individual follow-ups should be completed within 30 days after the end of the Assessment.

8.16.3. SIX TO TWELVE-MONTH FOLLOW-UP

Some of the mitigations proposed may take a longer period to implement and refine. This is not unusual, and it is necessary to monitor their progress after a reasonable amount of time has elapsed affording the assessed Department time to have them implemented. The SMS Assessment remains open until all mitigations are completed.

This monitoring typically requires a follow-up visit to the FIR or Department six to twelve months after the report is issued. Follow-up visits are normally conducted by the Director or/and VP, assisted by the Assessment Coordinator.

During this visit, the Assessment Coordinator will brief the FIR's or Department's management and/or Head Office Groups on the status of the program and will assess the implemented mitigations and activities related to findings and any actions voluntarily taken in response to identified observations in the report.

The team conducting the follow-up will inform the Department's management and/or head office functions if the mitigation applied is found to be less-effective in practice than had been planned. The team will request in writing a new or revised mitigation to address the finding more effectively. Mitigation should be developed and submitted for review within 30 days after the follow-up visit.

If the mitigations are deemed appropriate the Assessment Coordinator should produce the SMS Assessment Follow-up report published within 30 days of the follow-up visit. The report should include all mitigations to findings as well as any action taken to satisfy observations, share successful practices or implement employees' suggestions contained in the interim SMS Assessment Report.

9. SUMMARY

The practices in this guide present an example of how one ANSP has designed and implemented an SMS assessment process across the organization, which incorporates the most recent safety culture survey as part of its assessment. Through the implementation of this assessment, NAV CANADA has improved levels of safety across the whole business.

10. APPENDICES

These appendices are used by NAV CANADA in the conduct of SMS Assessments. They are included to support any other ANSP interested in adopting the practice.

Appendix A - Team Member/Observer In-Brief Checklist

Team Member/Observer:		Date / Location of briefing:	
Team Leader:			

#	Check	
1		**Describe Safety and Quality makeup and function in NAV CANADA**: • Internal group of experts charged with Operational Safety oversight and SMS Assurance • VP Safety and Quality is peer of all other VPs, reporting to CEO, but also has parallel and unique direct reporting relationship to Board Safety Committee • Occupational Safety and Health (OSH) not part of Safety and Quality's purview
2		**Describe purpose of SMS Assessment**: • Determine, through discussions with frontline professionals, how effective the safety policies, documents, guidance produced by Groups' management have been in facilitating the culture, environment, structure that supports a consistently safe operation
3		**Explain why we do SMS Assessments**: • Key tool used to determine that SMS is performing at a satisfactorily effective level • Since 1998, mandate exists under corporate safety policies for Safety and Quality to conduct cyclic, regular assessments of the SMS for effectiveness • Most importantly, it is the right thing to do; this is how NAV CANADA improves its management of safety, by critically examining the SMS
4		**Describe the role of the Safety and Quality Assessment Coordinator and the Assessment Team Leader**: • Manager in the Safety and Quality Group, responsible for conduct of his/her team(s) • They are the authority on all details of SMS Assessment conduct • Responsible for preparing their crew/team member(s) • Team Leader will follow-up confidentially and directly with an individual on any important concerns raised during a discussion, even if not included in final report

5		**Describe the role of the Team member/observer**: • Participate in discussions with frontline professionals in Operations • Brings currency and expertise in their operational discipline, lends further credibility to team • Reports to and acts only on direction of Team Leader • Does not work alone or outside direction of Team Leader • They are an ambassador for NAV CANADA, their operational group and for Safety and Quality. Must be objective, impartial, objective regardless the situation
6		**Describe rules followed by team members**: • Confidential • Names recorded on the written notes only for follow-up purposes • Information never attributed to any individual by name or position in final report • No verbatim quotes included in report
7		**Review the questions set to be used during assessment**: • Always remember, "yes" or "no" are inadequate responses to any questions except those used as introduction to topic • Never continue to the next question if a fulsome response has not been received; always probe the individual for more • Trust your instincts—if it feels like there is more, there probably is: keep probing!
8		**Review specific details (e.g. previous assessment discoveries or ongoing issues, safety culture survey, etc.) or difficulties anticipated at any of the units to be visited**
9		**Review itinerary and plan for units to be visited**
10		**Describe the review process to summarize and capture the discoveries**: • Importance of taking good notes and review the pertinent information after each discussion • Explain the information gathering sessions process at the end of the Assessment
11		**Describe the three types of Discovery: finding, observation, best practice**
12		**Describe the group discussion process used to identify FIR-wide Discoveries following the completion of on-site discussions and request the availability of the candidate for the information gathering sessions**
13		**Describe the end-of-assessment process by which Discoveries are reported to FIR management and validated**

14		**Describe the chronology of issuing the final report and follow-up activities**: • One interim report containing discoveries within 30 days of end of assessment • FIR or Department management responds to findings within 30 days of issue of interim report • Final report issued within 30 days of receipt of FIR or Department responses • Follow-up visit with VP Safety and Quality and/or Director to FIR Department (6-12 months later)
15		**Review the "Assessment Teams' Do's and Don'ts"**

Briefing given: _____Briefing received: _____

Appendix B - SMS Assessment planning tool

Assessment location		Planned dates for the SMS Assessment	
Safety and Quality Coordinator			

Timelines are guidelines only

Check	120 days before Assessment
	Review the current SMS Assessment Guide
	Review planned activities to avoid schedule conflict with other activities from (National, Safety and Quality, FIR level and outside agencies)
	Advise Internal Audit, Transport Canada or other agencies if required
	Coordinate with Manager, Safety Promotions Program for initiating the Safety Culture Survey
	Review the Discussion Lead-in/Wrap-up document in Appendix C
	Additional activities conducted
Check	**90 days before Assessment**
	Consult with GM to establish dates for the SMS Assessment
	Draft letter for Senior management (ex.: GM, VP, Director)
	Develop detailed plan with goals for the number of discussions
	Recruit additional team members as required
	Inform the Department if observers will be participating (TC, VP, etc.)
	Conduct the Safety Culture Survey (if required)
	Update Department chart (NAVCANADA and Safety and Quality)
	Additional activities conducted
Check	**60 days before Assessment**
	Review current question sets and consult the Client Management Team for their input
	Consult management team and/or HR to assess staffing level
	Determine Team leads and validate their First Aid certification
	Develop travel plan and consult with Team leads
	Advise the appropriate unions
	Additional activities conducted

Check	30 days before Assessment
	Prepare the Briefing package for the Assessment (see guide)
	Have a conference call with the Department representative to finalize the plan
	Contact Translation Services to book a slot time for the upcoming translation of the SMS Assessment Report
	Additional activities conducted
Check	**14 days before Assessment**
	Distribute the Assessment Briefing package to the team
	Have a conference call with GMFIR representative or Department management to provide details on the plan
	Prepare a draft Memo for the GMFIR or Department management (including question sets)
	Finalise the SMS Assessment Plan document for the GMFIR
	Have all travel itineraries completed
	Plan a Team Meeting to outline the SMS Assessment Plan
	Confirm all badge access issues are resolved for all Team Leaders
	Additional activities conducted
Check	**Prior to the Assessment**
	Brief all external team members or observers on the SMS Assessment process and signed-off the form found in Appendix A
	Prepare the In-brief for the Director and GMFIR
	Final plan communicated to team members
	Additional activities conducted
Check	**Prior leaving the Assessment location**
	Conduct a Team meeting and/or teleconference to gather discoveries immediately after the completion of the assessment
	Conduct a verbal GMFIR outbrief with significant discoveries and overall comment on the SMS Assessment
	Additional activities conducted
Check	**Not later than 30 days after the last SMS discussion**
	Conduct Team meetings to gather discoveries
	Plan a formal Out-Briefing with FIR and HO Groups if required
	Prepare ''thank you'' letters to external team members for their contribution
	Conduct the SMS Assessment exit survey (FIR Senior Management team)
	Consult with the GMFIR, Head Office Groups, the Assessment team and publish the interim report

	Copy finding for Safety and Quality into the "Corrective Actions" tab of the discovery on the Corporate safety repository
	Plan the SMS Follow-up visit with the Director Operational Analysis

Appendix C - Discussion Lead-In/Wrap-up document

- **Introduction**
  - Quick introduction of Team Members' backgrounds
  - Get the staff member to introduce themselves and provide background.
  - Is this your first participation in the SMS Assessment process?
  - How, by whom, were you informed of our visit?
  - Are you familiar with Safety and Quality? As required give a brief overview of Safety and Quality's role and Department structure (SMS, Corporate Safety Plan, ARGUS, oversight, international partnership, etc.)
  - Did you answer the last FIR Safety Culture Survey?
    - Yes: Request feedback to improve the survey
    - No: What could we do to increase the employee's general interest and yours to participate?

- **Describe the discussion process (Expectations, duration, confidentiality)**
  - We are interested in your understanding and thoughts on our topics, there are no "right" or "wrong" responses.
  - Don't restrain yourself, we are here to improve safety and confirm that processes in place are appropriate, sound and effective.
  - Questions centre on the five key elements of our SMS:
    - Safety Planning
    - Operational Risk Management
    - Exchange of Safety Information
    - Safety Performance Measurement
    - Safety Management Assurance
  - Refer to the question set to resume the main topics to be discussed

- **Conclusion**
  - Confirm with the individual if a personal follow-up will be done
  - Inform the staff of the report publication process
  - Remind the staff that any additional comments are welcome if something comes to their mind (Leave business card)
  - Reinforce the confidentiality aspect
  - Thank the staff for their participation