



Seattle-Tacoma International Airport SMS Assurance Plan

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Airport Operations

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Revision History

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3/29/10	.1	Initial draft for review with Sea-Tac SMS team
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1. Introduction

In order to focus on the principle of continuous improvement, Safety Management Systems (SMS) require a robust and comprehensive Assurance program. Such a program requires both Quality Control (QC) and Quality Assurance (QA) components. QC involves monitoring and recording results of specific safety-related activities and will include self-inspections, checklists, and tracking results. QA involves program-level audits to ensure that the SMS program is meeting defined safety goals and targets, that SMS is performing as expected, to recognize successes, and to identify opportunities for improvement.

The SMS Assurance Plan is designed to provide the tools and methods to 1) ensure that Seattle Tacoma International Airport (Sea-Tac) is a safe operating environment and 2) that the SMS program is effective. To that end, the plan is directly tied to the objectives documented and published in the Sea-Tac formal SMS Policy. Should those objectives change, it will be necessary to update this plan and other correlated SMS program documents. This plan has been authored to bridge the gap between existing Sea-Tac safety assurance activities (primarily consisting of current Part 139 inspections) and additional elements identified as required for a robust SMS implementation.

The SMS Assurance plan is based upon widely accepted Quality Management principles. One of the primary philosophies that underlie modern Quality Management is that quality is planned in, not inspected in. Quality Management is also founded on the fact that the cost of quality, or in the field of SMS, the cost of safety, is generally higher when applied reactively through inspection than when applied proactively through a robust assurance approach. From an SMS perspective, this means that, though both QC and QA are vital to a comprehensive Assurance plan, it is more efficient and effective to proactively ensure that safety goals are being met (QA), than to identify issues that already exist through inspection (QC).

One of the challenges in implementing a full SMS Assurance program at Sea-Tac will be the inclusion of QA elements in addition to standard QC functions. Because of the existing level of knowledge and comfort with current QC and inspection practices grounded in Part 139 compliance, Sea-Tac personnel and SMS team members are already exceptionally well-prepared and experienced in these types of activities. However, because airport operators have been primarily focused on QC activities to date, it may require a period of adjustment and additional training to develop and enact the higher program-level QA functions.

The figure below represents, in context of SMS, the basic Quality Management principle related to conformance (prevention) vs. nonconformance (failure).¹

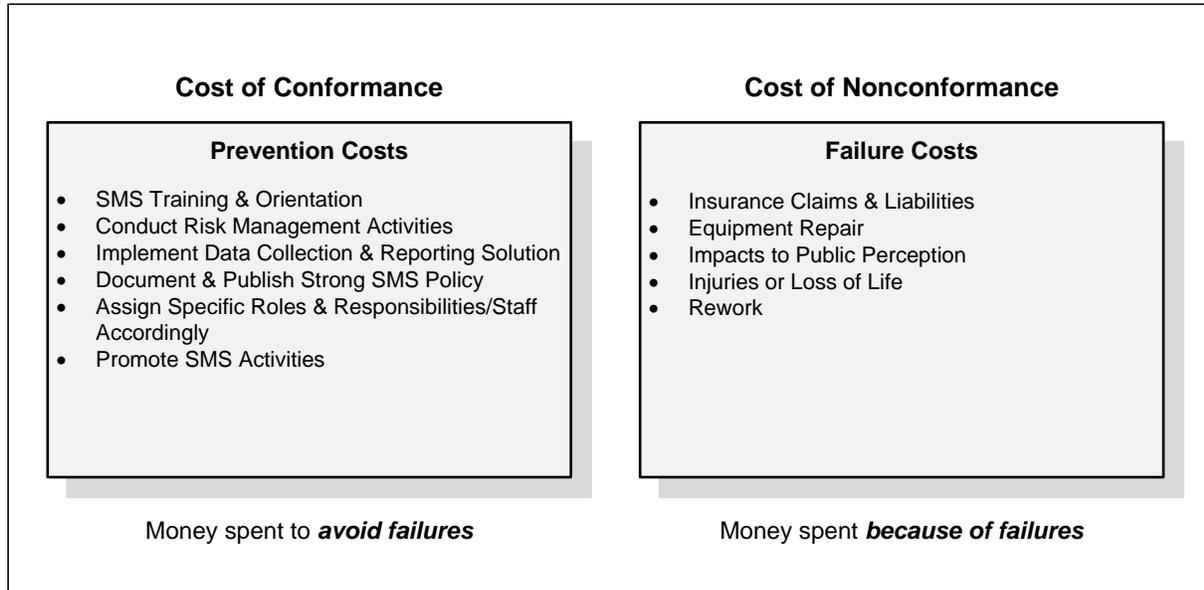


Figure 1-Cost of Conformance Diagram

1.1 SMS Assurance Plan Overview

As discussed, Quality Management tenets generally state that quality, i.e. **safety, is planned in - not inspected in**. Therefore, this SMS Assurance Plan provides considerable detail surrounding QA elements and activities.

The SMS Assurance plan has been segmented into 2 distinct components:

1. **Quality Control** – Conducting and documenting regular self-inspections.
2. **Quality Assurance** – Validating SMS actual performance against specific targets, identifying and aggregating corresponding metrics, and conducting periodic program audits to verify that the program itself is functioning as effectively and efficiently as possible.

¹ Modified from *A Guide to the Project Management Body of Knowledge* – Fourth Edition, © 2008 Project Management Institute, Newtown Square, PA

1.2 SMS Goals

In order to evaluate the successes and opportunities for improvement of the Sea-Tac SMS program, it is necessary to identify and measure against a specific set of goals. To this end goals have been established for both the near- and long-term SMS implementation timeframe. The SMS goals can and should be traceable back to the broad objectives published in the SMS Policy and approved by Sea-Tac executive and senior management. Appendix A includes a traceability matrix linking SMS objectives, SMS goals, and specific targets (further discussed in Section 3 Quality Assurance).

As discussed in Section 3 Quality Assurance, it is anticipated that these goals will be continually refined and revised as progress is made during implementation, internal program audits are conducted, and QC and QA activities begin. In particular, the long-term goals identified for SMS in years 4 and 5 are expected to develop and be significantly enhanced as the program matures.

It is important to note that a specific start date for Year 1 has not been determined as of this writing. Therefore, all associated milestone and start dates will need to be identified when the SMS implementation kickoff date is firmly established.

SMS Goals Years 1-3

1. Sea-Tac executive and senior management clearly and tangibly displays commitment to SMS program.
2. Create, integrate, and incorporate safety-focused team into operations by end of year 3.
3. Sea-Tac personnel are effectively trained and informed about SMS program.
4. Establish near perfect attendance at the Sea-Tac Safety Action Committee by end of year 3.
5. Establish a SMS Promotions and Orientation plan that engages, informs, educates and excites all Sea-Tac SMS stakeholders.
6. Conduct regular internal SMS program audits.
7. Maintain and enhance effective self-inspection program.
8. Implement and manage effective Safety Risk Assessment program.
9. Implement and manage effective Operational Safety Risk Management program.
10. SMS program information and documentation is readily available to all stakeholders.
11. Implement and manage effective FOD program.
12. Facilitate the integration and collaboration of SMS with disparate Port of Seattle safety initiatives and programs.
13. Assess baseline Safety Culture.

SMS Goals Years 4-5

1. Sea-Tac executive and senior management continues to support, demonstrate commitment to, and facilitate SMS.
2. Implement peer review.
3. Evaluate cost/benefits.
4. Establish firm baselines.
5. Conduct post-implementation safety culture assessment.
6. Make Identified Improvements to SMS.

2. Perform Quality Control

QC involves monitoring and recording the results of specific safety-related inspection activities. Due in large part to their expertise in Part 139 and other regulations, airport operators are skilled at executing inspections. Therefore, this document will not provide significant detail about inspection methods and the importance of conducting regular self-inspections. It is important in the context of this plan to understand the different self-inspections that will comprise the QC components and to understand that QC is only one component of Sea-Tac's overall SMS Assurance plan.

2.1 *Recommended Quality Control Self-Inspections*

The following self-inspections are recommended for SMS QC. As each inspection has been documented and a corresponding checklist created in a supplemental SMS program document, this Assurance plan will not recreate this information or level of detail. Rather, the location and title of the documents have been included in the list that follows:

1. Ramp Self-Inspection
 - a. Detailed instructions, timelines, and checklists can be located in the SMS Self-Inspection Process document.
2. Bagwell Self-Inspection
 - a. Detailed instructions, timelines, and checklists can be located in the SMS Self-Inspection Process document.
3. FOD Self-Inspection
 - a. Detailed instructions, timelines and checklists can be located in the FOD Program Manual.
4. Continued Part 139 Self-Inspection
 - a. Detailed instructions, timelines, and checklists can be found in the ADM Standard Operating Guidelines.

2.2 *Quality Control Outputs*

As discussed in detail in Section 3 Quality Assurance, the data and information collected through the QC self-inspections is critical in determining the success of the SMS program in meeting its defined targets and goals. In order to fully realize the benefit and to leverage the additional effort undertaken by SMS team members in conducting the new self-inspections, results must be systematically and immediately recorded upon completion. All self-inspections include an associated checklist that must be completed, submitted to a centralized location or staff, and recorded within 48-hours of inspection completion.

3. Quality Assurance

As discussed above, QA involves validating SMS actual performance against specific targets, identifying and aggregating corresponding metrics, and conducting periodic program audits to verify that the program itself is functioning as effectively and efficiently as possible. In essence, the QA component is designed to assist the SMS team in answering the fundamental question, “Is SMS doing what we said it was going to do?”

This section includes detailed information regarding the manner and mechanisms by which the Sea-Tac SMS team will answer that question including:

- Identification of targets associated with established SMS goals.
- Specific QA checkpoints and requirements to determine whether goals and targets are being met.
- Global SMS program audits and peer reviews to determine whether the program is meeting its intent and whether the goals and targets remain appropriate and relevant.
- Documentation and outputs of quality assurance functions to ensure that lessons learned and findings are preserved for future reference.

3.1 SMS Goals and Targets

The tables below provide a comprehensive view of detailed targets associated with the SMS program goals Years 1-3 and Years 4-5 discussed in Section 1.2 SMS Goals:

Sea-Tac SMS Program Years 1-3		
No.	SMS Goal	Associated Targets
1	Sea-Tac executive and senior management clearly and tangibly displays commitment to SMS program	a. Commit resources (financial, human, and other) to SMS with a specific line item added to appropriate budget dedicated to SMS program
		b. SMS Policy is endorsed and signed at beginning of year 1
		c. Safety Team begins regular safety briefings to executive management by month 6
		d. Executive Director facilitates and initiates SMS briefings (verbal or non-verbal presentation) by end of year 1
2	Create, integrate, and incorporate safety-focused team into operations by end of year 3	a. Assign responsibilities and accountability for SMS program to individual Safety Manager at beginning of year 1
		b. Finalize and assign SMS roles and responsibilities and formalize accountability by end of month 6
		c. Integrate and align roles and responsibilities of existing Sea-Tac personnel by end of year 1
3	Sea-Tac personnel are effectively trained and informed about SMS program	a. Develop internal training courses by end of year 1
		b. Establish initial and recurring training requirements for internal staff by end of year 1
		c. Conduct 100% of training for required personnel by end of year 2
		d. Implement recurring training by end of year 2
		e. Continue required training - initial and recurring- through year 3 and beyond

4	Establish near perfect attendance at the Sea-Tac Safety Action Committee by end of year 3	<ul style="list-style-type: none"> a. Establish baseline attendees and attendance record by end of month 6 b. Establish attendance plan by end of month 9, including distinct metrics and performance improvement goals
5	Establish a SMS Promotions and Orientation plan that engages, informs, educates and excites all Sea-Tac SMS stakeholders	<ul style="list-style-type: none"> a. Develop mechanism to track effectiveness of campaigns by end of year 1 b. Roll out a minimum of 2 SMS campaigns by end of year 1 c. Implement tenant SMS Orientation by end of year 1 d. Deliver SMS Orientation to all airport tenant employees by end of year 3
6	Conduct regular internal program audits	<ul style="list-style-type: none"> a. Review and revise SMS Assurance Plan and finalize audit criteria and audit process by end of month 6 b. Conduct initial program audit by end of year 1 c. Conduct second program audit by end of year 2 d. Conduct third program audit by end of year 3
7	Maintain and enhance effective self-inspection program	<ul style="list-style-type: none"> a. Ensure that monthly Ramp self-inspections are conducted and documented by end of year 1 b. Ensure that monthly Bagwell self-inspections are conducted and documented by end of year 1 c. Ensure that Part 139 inspections are not adversely impacted by implementation of new self-inspection programs (FOD, Ramp, Bagwell)
8	Implement and manage effective Safety Risk Assessment program	<ul style="list-style-type: none"> a. Conduct a minimum of 2 safety case panels for airfield projects by end of year 1 b. Conduct a minimum of 1 safety case panel for bagwell by end of year 1

9	Implement and manage effective Operational Safety Risk Management program	a. Develop interim hazard and risk data collection and reporting solution by end of month 6
		b. Implement full, automated hazard and risk data collection and reporting solution by end of year 1
		c. Begin collecting, recording, and prioritizing hazards (leveraging the Sea-Tac risk matrix) identified through self-inspection program by end of month 6
		d. Implement interim tenant hazard reporting mechanism by end of month 6 (through meetings, drop boxes, etc.)
		e. Prioritize 100% of hazards collected in year 1 by the end of year 1
		f. Create mitigation plans and take required actions on 100% of high risk hazards identified in year 1
		g. Create mitigation plans and take required actions on 40% of remaining hazards identified in year 1
		h. Review, reassess, and close remaining hazards at end of year 1
		i. Develop detailed hazard monitoring and closing procedures at end of year 1
10	SMS program information and documentation is readily available to all stakeholders	a. Document and records management system and methodology is in place by end of year 1
		b. Public website is updated with relevant external documents, records, and information by end of year 1
11	Implement and manage effective FOD program	a. Ensure that regular FOD inspections are conducted and documented by end of year 1
		b. FOD sub-committee holds frequent, effective meetings by month 6
		c. Decrease in FOD on the airfield and bagwell by month 6
		d. Integrate and align Sea-Tac FOD program with tenant FOD programs by end of year 1

12	Facilitate the integration and collaboration of SMS with disparate Port of Seattle safety initiatives and programs	a. Attend and provide briefings at all Airport Safety Leaders meetings on an ongoing basis
		b. Identify trends between and among SMS and other safety initiatives on an ongoing basis
		c. Assist and collaborate on mitigations and solutions and lead integrated initiatives in resolving joint safety issues on an ongoing basis
13	Assess baseline Safety Culture	a. Conduct focus group and/or survey to develop a baseline for existing safety culture at Sea-Tac by end of year 1

Table 1- SMS Goals and Targets Years 1-3

Sea-Tac SMS Program Years 4-5		
No.	SMS Goal	Associated Targets
1	Sea-Tac executive and senior management continues to support, demonstrate commitment to, and facilitate SMS	Enhanced and refined by prior targets
2	Implement peer review	Enhanced and refined by prior targets
3	Evaluate cost/benefits	Enhanced and refined by prior targets
4	Establish firm baselines	Enhanced and refined by prior targets
5	Conduct post-implementation safety culture assessment	Enhanced and refined by prior targets
6	Make Identified Improvements to SMS	Enhanced and refined by prior targets

Table 2- SMS Goals and Targets Years 4-5

3.2 Regular Quality Assurance Checkpoints

In order to validate that the SMS program is meeting the goals and targets outlined in the section above, it is critical that the SMS team conduct regularly scheduled QA checkpoints. At these checkpoints, defined validation criteria and metrics (where feasible) will be utilized to compare actual results to the program's targets and goals. Based upon the SMS goals and targets presented above, the following are the initial recommendations for QA checkpoints:

- SMS Program Kickoff
- Month-6
- Year-1
- Year-2
- Year-3

Years 1-3 (particularly Year 1) will focus on establishing the SMS foundation and collecting baseline data. Although the official goal for establishing a formal SMS baseline is set for the beginning of Year-4, some preliminary baselines and enhanced targets may be set once data is collected and aggregated during Years 1-3. Therefore, the SMS Assurance plan is expected to be dynamic and frequently updated.

In this version of the SMS Assurance plan, the most detailed targets and metrics have been identified for the Month-6 and Year-1 QA checkpoints, with less details for future Years (2-5). The expectation is that experience in the Year-1 implementation coupled with outputs from the QA checkpoints will provide valuable information and insights that can be used to enhance and refine future targets and goals.

3.2.1 Kickoff Checkpoint Requirements

Goal	Target	Validation	Sample Metrics
Sea-Tac executive and senior management clearly and tangibly displays commitment to SMS program	Commit resources (financial, human, and other) to SMS with a specific line item added to appropriate budget dedicated to SMS program	Line item added to budget	Per Se
	SMS Policy is endorsed and signed at beginning of year 1	SMS Policy endorsed and signed	Per Se
Create, integrate, and incorporate safety-focused team into operations by end of year 3	Assign responsibilities and accountability for SMS program to individual Safety Manager at beginning of year 1	Safety Manager identified and assigned	Per Se

Table 3 - Kickoff Checkpoint Requirements

3.2.2 Month-6 Checkpoint Requirements

Goal	Target	Validation	Sample Metrics
Sea-Tac executive and senior management clearly and tangibly displays commitment to SMS program	Safety Team begins regular safety briefings to executive management by month 6	Briefings scheduled, occurring, and attended by executive management	Per Se
Create, integrate, and incorporate safety-focused team into operations by end of year 3	Finalize and assign SMS roles and responsibilities and formalize accountability by end of month 6	SMS roles, as defined in the SMS Roles and Responsibilities document have been formally assigned and communicated to the assignee by management Responsibilities and accountability has been documented and included on individual PREPs	Per Se
Establish near perfect attendance at the Sea-Tac Safety Action Committee by end of year 3	Establish baseline attendees and attendance record by end of month 6	Baseline attendance has been documented	Per Se
Conduct regular internal program audits	Review and revise SMS Assurance Plan and finalize audit criteria and audit process by end of month 6	SMS Assurance Plan (this document) has been reviewed and updated	Per Se
Implement and manage effective Operational Safety Risk Management program	Develop interim hazard and risk data collection and reporting solution by end of month 6	Excel spreadsheet, database, or other interim data collection Data collection solution enables SMS team to capture information related to hazards, hazard categories, descriptions, assessed level of risk, mitigation strategies and effectiveness, responsible party, number/type of incidents and accidents, and results of root cause analysis	Per Se
	Begin collecting, recording, and prioritizing hazards (leveraging the Sea-Tac risk matrix) identified through self-inspection program by end of month 6	Data collected from self-inspections entered into interim hazard and risk data collection and reporting solution	

			<ul style="list-style-type: none"> • Number of medium risk hazards • Number of low risk hazards • Number of hazards identified by type of self-inspection (FOD, Ramp, Bagwell) • Number, and type of incidents and accidents and organization(s) involved
	Implement interim tenant hazard reporting mechanism by end of month 6 (through meetings, phone lines, drop boxes, etc.)	<p>Form/template developed that allows tenants to document and submit airfield hazards. Form/template may also be used by internal Sea-Tac resources to record hazard reports</p> <p>Solution provides tenants an avenue to submit hazard reports verbally (through ACC and/or through the Sea-Tac Safety Action Committee)</p>	Per Se
Implement and manage effective FOD program	FOD sub-committee holds frequent, effective meetings by month 6	Baseline attendance and meeting occurrences have been documented	Per Se
Facilitate the integration and collaboration of SMS with disparate Port of Seattle safety initiatives and programs	Attend and provide briefings at all Airport Safety Leaders meetings on an ongoing basis	Baseline attendance and meeting occurrences have been documented	Per Se
	Identify trends between and among SMS and other safety initiatives on an ongoing basis	<p>Documentation of any identified trends and/or overlapping hazards, accidents, incidents</p> <p>If no trends are identified, validation efforts should include a review of Airport Safety Leader meeting notes/presentations to determine if any information or trends that could have been identified were missed</p>	<ul style="list-style-type: none"> • Number and type of accidents/incidents documented by SMS as compared to other groups represented in Airport Safety Leaders (Health & Safety, Construction, Police, etc.)
	Assist and collaborate on mitigations and solutions and lead integrated initiatives in resolving joint safety issues	Documentation resulting from collaboration	Per Se

Table 4 - Month-6 Checkpoint Requirements

3.2.3 Year-1 Checkpoint Requirements

Goal	Target	Validation	Sample Metrics
Sea-Tac executive and senior management clearly and tangibly displays commitment to SMS program	Executive Director facilitates and initiates SMS briefings (verbal or non-verbal presentation) by end of year 1	Baseline attendance and meeting occurrences have been documented	Per Se
Create, integrate, and incorporate safety-focused team into operations by end of year 3	Integrate and align roles and responsibilities of existing Sea-Tac personnel by end of year 1	<p>Tasks and actions identified in the SMS Roles and Responsibilities document are occurring on a regular basis</p> <p>SMS is incorporated into existing departmental meetings (i.e. ADM meeting) and is discussed with frequency in daily operations</p> <p>Modifications to the SMS Roles and Responsibilities document have been identified based on experience and lessons learned through year 1</p>	Per Se
Sea-Tac personnel are effectively trained and informed about SMS program	Develop internal training courses by end of year 1	All training courses included in the SMS Training and Orientation plan have been developed and test runs delivered	Per Se
	Establish initial and recurring training requirements for internal staff by end of year 1	<p>Item and Curriculum as defined in the SMS Training and Orientation plan have been configured within the Learning Management System</p> <p>Reports and queries can be created to identify completed and overdue training requirements for Sea-Tac employees</p>	Per Se
Establish near perfect attendance at the Sea-Tac Safety Action Committee by end of year 3	Establish attendance plan by end of month 9, including distinct metrics and performance improvement goals	Attendance plan is documented based on baseline established in month 6	Per Se

Establish a SMS Promotions and Orientation plan that engages, informs, educates and exits all Sea-Tac SMS stakeholders	Develop mechanism to track effectiveness of campaigns by end of year 1	SMS Promotions metrics and performance targets are added to SMS Promotions Plan based upon lessons learned and data collected through the year 1 implementation	Per Se
	Roll out a minimum of 2 SMS campaigns by end of year 1	SMS campaigns detailed in the SMS promotions plan executed	<ul style="list-style-type: none"> • Number, type, and date of promotional campaigns launched • If related to hazard reporting, average number of hazard reports before/after campaign and percentage increase/decrease • If related to FOD walk or FOD program participation, number of attendees (meeting, FOD walk) before/after campaign and percentage increase/decrease • Number of promotional pieces distributed (posters, SOC's) • Number of promotional pieces available for continued use • Number of promotional pieces that need to be created or ordered for upcoming campaigns
	Implement tenant SMS Orientation by end of year 1	SMS tenant orientation as documented in the SMS Training and Orientation plan is developed and installed on client workstations at the Sea-Tac Training Office	<ul style="list-style-type: none"> • Number of expected trainees (based upon SIDA projections) • Number of completed SMS Orientation • Percent of completed SMS Orientation based on projections
Conduct regular internal program audits	Conduct initial program audit by end of year 1	<p>Results from internal program audited and documented, published, and distributed for review</p> <p>Briefing is conducted for executive and senior management on audit results</p>	Per Se

Maintain and enhance effective self-inspection program	Ensure that monthly Ramp self-inspections are conducted and documented by end of year 1	Completed Ramp self-inspection checklists are submitted, recorded, and archived for further review and validation ADMs are able to discuss findings and trends in relevant meetings	<ul style="list-style-type: none"> • Total number of monthly Ramp self-inspections completed • Number of Ramp self-inspections completed, by month • Number of Ramp self-inspections completed, by ADM • Correlation of number of self-inspections completed and number, type and location of identified hazards
	Ensure that monthly Bagwell self-inspections are conducted and documented by end of year 1	Completed Bagwell self-inspection checklists are submitted, recorded, and archived for further review and validation ADMs are able to discuss findings and trends in relevant meetings	<ul style="list-style-type: none"> • Total number of monthly Bagwell self-inspections completed • Number of Bagwell self-inspections completed, by month • Number of Bagwell self-inspections completed, by ADM • Correlation of number of self-inspections completed and number, type, and location of identified hazards
	Ensure that Part 139 inspections are not adversely impacted by implementation of new self-inspection programs (FOD, Ramp, Bagwell)	Part 139 certification inspection results are improved or equal to the prior year	<ul style="list-style-type: none"> • Average number of Part 139 inspections conducted monthly prior to and after implementation of new self-inspections • Average number of discrepancies identified monthly prior to and after implementation of new self-inspections • Average time to discrepancy resolution
Implement and manage effective Safety Risk Assessment program	Conduct a minimum of 2 safety case panels for airfield projects by end of year 1	2 SRMD or SRMDM documents are developed and approved for airfield projects	Per Se
	Conduct a minimum of 1 safety case panel for bagwell by end of year 1	1 SRMD or SRMDM document is developed and approved for bagwell project	Per Se

Implement and manage effective Operational Safety Risk Management program	Implement full, automated hazard and risk data collection and reporting solution by end of year 1	<p>Full, automated hazard and risk data collection and reporting solution has been developed and deployed in a production capacity</p> <p>Data collection solution enables SMS team to automatically capture information related to hazards, hazard categories, descriptions, assessed level of risk, mitigation strategies, responsible party, number/type of incidents and accidents, and results of root cause analysis</p> <p>Solution provides the ability for tenants to submit hazard reports online and anonymously</p>	<ul style="list-style-type: none"> • Number of hazards • Number of hazards, by category • Number of hazards, by location • Number of high risk hazards • Number of medium risk hazards • Number of low risk hazards • Number of hazards identified by type of self-inspection (FOD, Ramp, Bagwell) • Prioritization • Number, and type of incidents and accidents and organization(s) involved
	Prioritize 100% of hazards collected in year 1 by the end of year 1	All hazards collected by the end of year 1 have been assessed and prioritized according to Sea-Tac risk matrix and risk tolerances	<ul style="list-style-type: none"> • Number and priority of hazards • Hazards without specific prioritization
	Create mitigation plans and take required actions on 40% of remaining hazards identified in year 1	All hazards collected by the end of year 1 have been assessed and prioritized according to Sea-Tac risk matrix and risk tolerances	<ul style="list-style-type: none"> • Number and priority of hazards • Number of mitigation plans developed • Number of hazards with mitigation complete • Number of hazards without specific prioritization

	Review, reassess, and close remaining hazards at end of year 1	All hazards collected by the end of year 1 have been assessed and prioritized according to Sea-Tac risk matrix and risk tolerances and those that can be, are closed	<ul style="list-style-type: none"> • Number of open hazards • Number of closed hazards • Average time between opening and closing of hazard • Number of mitigation plans developed • Number of hazards with mitigation complete
	Develop detailed hazard monitoring and closing procedures at end of year 1	Documented process and criteria, based upon year 1 baseline, for formally closing a reported hazard (with or without mitigation)	Per Se
SMS program information and documentation is readily available to all stakeholders	Document and records management system and methodology is in place by end of year 1	Document storage and archival is available and has been communicated to all relevant SMS team members SMS documents have been added to identified repository	Per Se
	Public website is updated with relevant external documents, records, and information by end of year 1	The Port of Seattle public website and/or other SMS public website provide access to relevant SMS documents and information	Per Se
Implement and manage effective FOD program	Ensure that regular FOD inspections are conducted and documented by end of year 1	Completed FOD self-inspection checklists are submitted, recorded, and archived for further review and validation ADMs are able to discuss findings and trends in relevant meetings	<ul style="list-style-type: none"> • Total number of FOD self-inspections completed • Number of FOD self-inspections completed, by month or week • Number of FOD self-inspections completed, by ADM
	Decrease FOD on the airfield and bagwell	Baseline FOD performance documented and trends identified from continued self-inspections	<ul style="list-style-type: none"> • Correlation of self-inspections completed to location and type of FOD issues identified • Specific areas/tenants for FOD issues • Number of FOD discrepancies identified, by month or week • Increase or decrease in discrepancies identified

	Integrate and align Sea-Tac FOD program with tenant FOD programs	Documented understanding and knowledge of tenant FOD programs Joint FOD walks and other FOD activities occurring	Per Se
Facilitate the integration and collaboration of SMS with disparate Port of Seattle safety initiatives and programs	Attend and provide briefings at all Airport Safety Leaders meetings on an ongoing basis	Baseline attendance and meeting occurrences have been documented	Per Se
	Identify trends between and among SMS and other safety initiatives on an ongoing basis	Documentation of any identified trends and/or overlapping hazards, accidents, incidents If no trends are identified, validation efforts should include a review of Airport Safety Leader meeting notes/presentations to determine if any information or trends that could have been identified were missed	<ul style="list-style-type: none"> Number and type of accidents/incidents documented by SMS as compared to other groups represented in Airport Safety Leaders (Health & Safety, Construction, Police, etc.)
	Assist and collaborate on mitigations and solutions and lead integrated initiatives in resolving joint safety issues	Documentation resulting from collaboration	Per Se
Assess baseline Safety Culture	Conduct focus group and/or survey to develop a baseline for existing safety culture at Sea-Tac by end of year 1	Focus group and survey results analyzed and documented Targets and goals for improvement created	Per Se

Table 5 - Year-1 Checkpoint Requirements

3.2.4 Year-2 Checkpoint Requirements

Goal	Target	Validation	Sample Metric
Conduct 100% of training for required personnel by end of year 2	Conduct 100% of training for required personnel by end of year 2	Learning Management System reports to provide complete and incomplete training requirements for all required SMS personnel	<ul style="list-style-type: none"> • Completed training courses, by date, by personnel type, and by course • Incomplete training requirements • Number of training courses conducted • Number of attendees • Percentage of required attendees with completed training requirements • Percentage of required attendees with incomplete training requirements
	Implement recurring training by end of year 2	<p>Recurring requirements have been configured in the Learning Management System</p> <p>Recurrent training courses have been developed</p> <p>Recurrent training courses have been scheduled or completed for a subset of required personnel</p>	Per Se
Conduct regular internal program audits	Conduct initial program audit by end of year 2	<p>Results from internal program audited and documented, published, and distributed for review</p> <p>Briefing is conducted for executive and senior management on audit results</p>	Per Se

Facilitate the integration and collaboration of SMS with disparate Port of Seattle safety initiatives and programs	Attend and provide briefings at all Airport Safety Leaders meetings on an ongoing basis	Baseline attendance and meeting occurrences have been documented	Per Se
	Identify trends between and among SMS and other safety initiatives on an ongoing basis	Documentation of any identified trends and/or overlapping hazards, accidents, incidents If no trends are identified, validation efforts should include a review of Airport Safety Leader meeting notes/presentations to determine if any information or trends that could have been identified were missed	<ul style="list-style-type: none"> Number and type of accidents/incidents documented by SMS as compared to other groups represented in Airport Safety Leaders (Health & Safety, Construction, Police, etc.)
	Assist and collaborate on mitigations and solutions and lead integrated initiatives in resolving joint safety issues	Documentation resulting from collaboration	Per Se

Table 6 - Year-2 Checkpoint Requirements

3.2.5 Year-3 Checkpoint Requirements

Goal	Target	Validation	Sample Metrics
Sea-Tac personnel are trained and informed about SMS program	Continue required training - initial and recurring- through year 3 and beyond	Learning Management System reports to provide complete and incomplete training requirements for all required SMS personnel	<ul style="list-style-type: none"> • Completed training courses, by date, by personnel type and by course • Incomplete training requirements • Number of training courses conducted • Number of attendees • Percentage of required attendees with completed training requirements • Percentage of required attendees with incomplete training requirements
Establish a SMS Promotions and Orientation plan that engages, informs, educates and exits all Sea-Tac SMS stakeholders	Deliver SMS Orientation to all airport tenant employees by end of year 3	SMS tenant orientation as documented in the SMS Training and Orientation plan is developed and installed on client workstations at the Sea-Tac Training Office	<ul style="list-style-type: none"> • Number of expected trainees (based upon SIDA projections) • Number of completed SMS Orientation • Percent of completed SMS Orientation based on projections
Conduct regular internal program audits	Conduct initial program audit by end of year 3	<p>Results from internal program audited and documented, published, and distributed for review</p> <p>Briefing is conducted for executive and senior management on audit results</p>	Per Se
Facilitate the integration and collaboration of SMS with disparate Port of Seattle safety initiatives and programs	Attend and provide briefings at all Airport Safety Leaders meetings on an ongoing basis	Baseline attendance and meeting occurrences have been documented	Per Se

	Identify trends between and among SMS and other safety initiatives on an ongoing basis	Documentation of any identified trends and/or overlapping hazards, accidents, incidents If no trends are identified, validation efforts should include a review of Airport Safety Leader meeting notes/presentations to determine if any information or trends that could have been identified were missed	<ul style="list-style-type: none"> Number and type of accidents/incidents documented by SMS as compared to other groups represented in Airport Safety Leaders (Health & Safety, Construction, Police, etc.)
	Assist and collaborate on mitigations and solutions and lead integrated initiatives in resolving joint safety issues	Documentation resulting from collaboration	Per Se

Table 7 - Year-3 Checkpoint Requirements

3.3 *Quality Assurance Checkpoint Output*

In order to maximize the benefit of the QA checkpoints and ensure focus on continuous improvement, formal documentation of the checkpoint findings, identified trends, successes, lessons learned, and opportunities for improvement should be authored. The checkpoint output can take the form of a Word document, slide presentation, and/or components can be shared on SMS internal and external websites. However the information is captured, it must be thoroughly documented and archived so that it can be easily accessed and referenced in the future.

While the format and information contained within the checkpoint output can and should be tailored based upon its effectiveness, the following components are recommended for inclusion:

1. Summary of Targets for Checkpoint Period
2. SMS Team Members Involved in QA Checkpoint Review
3. Identification of Met and Missed Targets
 - a. Aggregation of key metrics illustrating level of target completion
 - b. Link or path to documents or other artifacts illustrating level of target completion
4. Identification of Preventive and Corrective Actions
 - a. Critical steps and timelines to bring SMS activities in line with checkpoint requirements for any missed targets
 - b. Proactive steps identified to ensure that next QA checkpoint targets are successfully met
5. Lessons Learned
 - a. Opportunities for improvement
 - b. Key successes and accomplishments
 - c. Missing resources or department collaboration
6. Required SMS Program Updates
 - a. SMS program document updates (Risk Guide, Policy, Assurance Plan, FOD Program, etc.)
 - b. Recommended modifications to processes and procedures
 - c. Recommended modifications to roles and responsibilities
7. Next Steps
 - a. Timeline to implement preventive and corrective actions and program updates
 - b. Approvals needed and/or dependencies
8. Overall Assessment of SMS Program Progress
 - a. Impact of target status on meeting overall SMS goals and objectives

3.4 Regular SMS Global Program Audits

As discussed in detail above, the SMS QA checkpoints are designed to ensure that the overall SMS program is meeting its specified objectives, goals, and targets. However, in order to deliver on the vision of continuous improvement, it is also critical to regularly examine the SMS program broadly, at a global level, to verify that the program as a whole is functioning as expected and meeting its overarching intent.

The Sea-Tac SMS team has identified several goals and targets for conducting SMS global program audits:

1. Goal: Conduct Regular Internal Program Audits
 - a. Target: Review and revise SMS Assurance plan (this document) and finalize audit criteria and audit process by end of Month-6
 - b. Target: Conduct initial program audit at end of Year-1
 - c. Target: Conduct initial program audit at end of Year-2
 - d. Target: Conduct initial program audit at end of Year-3
2. Goal: Implement Peer Review in Year 4-5

3.4.1 Internal Program Audit Process

The intent of the internal program audit is to determine the overall effectiveness of the SMS program. As such, the focus of the audit should be on information sharing and continuous improvement, rather than on following a stringent set of processes. Particularly as the SMS team implements internal program audits and becomes accustomed to being involved in the process, it is more critical to create a collaborative environment than to ensure specific steps are followed. Based upon the success and outcome of the initial internal program audit, the process may be refined to include more rigorous requirements.

The recommended process for the initial program audit includes the following steps:

1. SMS Manager ensures that key information is available and that dependencies have been completed.
 - a. Month-6 and Year-1 QA checkpoints are completed.
 - b. Documented outputs from the QA checkpoints are completed.
 - c. Audit criteria and discussion topics are finalized.
 - d. Aggregated metrics are available.
2. SMS team identifies resources to participate in a set of collaborative audit workshops.
 - a. SMS core team workshop (SMS Manager, sponsor, program manager, etc.)
 - b. SMS extended team workshop (ADM, ACC, Maintenance)
 - c. SMS tenant workshop (airlines, ground service providers)
3. SMS Manager schedules and coordinates workshops.
 - a. Criteria and discussion topics are distributed in advance.
 - b. A minimum of 2-hours is recommended for each session.
 - c. A designated note taker (other than the SMS Manager) is recommended for each session.
4. SMS core team conducts a final workshop to discuss and aggregate all audit findings and discussion points.
5. SMS Manager creates and distributed final internal program output audit document.

3.4.2 Internal Program Audit Criteria

As discussed above, the specific audit criteria for the initial internal program audit should be finalized by Month-6 of the SMS implementation. The following is a set of preliminary possible audit criteria and discussion topics that may be useful in that effort:

SMS Element	Key Area	Audit Criteria & Discussion Topics
Program	Data Collection and Information Systems	<ol style="list-style-type: none"> 1. Has our interim data collection and reporting system been easy to use and used consistently? Does the interim solution provide the data that we are tracking to? 2. Has data collection and reporting to-date helped to identify specific requirements for the automated solution? 3. Does the data collection system provide most of the data that we need to track to? If not, what other data or functionality is needed? 4. Does data collecting and tracking improve or decrease efficiency? What can we do to streamline processes and data entry?
Policy	SMS Policy	<ol style="list-style-type: none"> 1. Have the executive and senior management teams embraced and acted as ambassadors for the SMS? What have we seen that demonstrates this? What would we like to see done differently? 2. Do the SMS Policy objectives and elements accurately capture our intent with this program? 3. Do the SMS Policy objectives and elements align with the FAA's expectations of this program? 4. Do stakeholders have ready access to the SMS Policy and have they read it? 5. Do stakeholders concur with the SMS Policy and objectives or are there competing interests and/or conflict?
	Roles and Responsibilities	<p>Are the roles and responsibilities identified for SMS appropriate and necessary for the program that we are implementing at Sea-Tac? If not, do we recommend additional resources or fewer resources? How can we use our resources more effectively?</p>
Risk	Safety Risk Assessment	<ol style="list-style-type: none"> 1. Were the projects selected for the safety risk assessment process appropriate or relevant? If not, why and how can we select more appropriate projects in the future? 2. Were panels efficient and effectively facilitated? 3. Did the safety risk assessment panels identify any hazards or risks that might have otherwise not been identified or mitigated? 4. Was the panel effective? Were the correct resources identified? Did we experience any reluctance in participation? If so, from whom and how can we encourage collaboration and participation in the future? 5. Was the time between the panel's conclusion and the production of the resulting documentation acceptable? 6. Did the introduction of the safety risk assessment process result in any delays to the project? Were delays resulting from the process more significant than halting project work due to an unforeseen safety hazard occurring?

	Operational Safety Risk Management	<ol style="list-style-type: none"> 1. Is the operational safety risk management process being followed? 2. Is the process effective in identifying and mitigating day-to-day hazards and risks? 3. How do stakeholders perceive their ability to communicate safety hazards? Do they believe that their concerns are being addressed? 4. Has participation in operational safety risk management processes been adequate? If no, why not? 5. Are there opportunities to streamline the risk assessment and risk analysis processes? If so, how? And what impact may streamlining have on accuracy?
Assurance	Personnel Training	<ol style="list-style-type: none"> 1. How has the training for Sea-Tac employees been received? 2. Are there recommendations or areas for improvement in the training courses or curriculum? 3. Do the training courses require more or less time to complete than projected? 4. Have we been able to garner appropriate management support for employees attending SMS training? If not, why? And how can we obtain more support?
	FOD Program	<ol style="list-style-type: none"> 1. In general, are the airfield and bagwell FOD-free? 2. Have the FOD inspections been occurring? If not, why and how can we improve performance and consistency? 3. Have we created a collaborative environment and participated in tenant FOD programs? Have tenants participated in Sea-Tac FOD activities? How can we improve collaboration and communication?
	Minimum Standards	<ol style="list-style-type: none"> 1. Do the minimum standards adequately reflect safety and operational requirements? 2. Are the minimum standards published and available to tenants? 3. Do tenants have an understanding of the Sea-Tac minimum standards that impact their operation? 4. Are there improvements that can be made to minimum standards to further support SMS? If so, what?
	SMS Assurance	<ol style="list-style-type: none"> 1. Are the targets and metrics identified in the SMS Assurance plan accurately and effectively capturing the success and opportunities for improvement in our SMS program? 2. What metrics should be added to the SMS Assurance plan? 3. What metrics should be removed from the SMS Assurance plan? 4. Have the self-inspection activities been conducted as planned? If not, why and how can we improve performance and consistency? 5. Do we have access to appropriate data to gauge our success in meeting targets and goals?

Promotion	Promotion and Safety Culture	<ol style="list-style-type: none"> 1. Has the SMS promotion plan been effective in creating a just safety culture? 2. What is our assessment of cultural improvements since the beginning of the SMS implementation? 3. Have we seen any negative cultural impacts since the beginning of the SMS implementation? 4. Are tenants collaborating with the airport and among themselves? 5. What is the nature of safety-related communications between tenants and the airport? Are communications generally perceived positively or negatively? 6. What is the perception of the airport community of the successes and opportunities for improvement of the SMS program? 7. Do stakeholders generally have an understanding of the Sea-Tac SMS program? And what impact has the SMS Orientation course had on tenant understanding?
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Table 8 - Internal Program Audit Criteria

3.4.3 Internal Program Audit Output

Very similar to the QA checkpoint output, the results of the internal program audit must be formally documented. The output can take the form of a Word document, slide presentation, and/or components can be shared on SMS internal and external websites. However the information is captured, it must be thoroughly documented and archived so that it can be easily accessed and referenced in the future.

While the format and information contained within the internal program audit output can and should be tailored based upon its effectiveness, the following components are recommended for inclusion:

1. Summary of Audit Workshops
2. Audit Workshop Attendees
3. Summary of Documentation and Metrics Used in Workshop
4. Audit Findings
 - a. Opportunities for improvement
 - b. Key successes and accomplishments
 - c. Required SMS Program Updates
 - i. SMS program document updates (Risk Guide, Policy, Assurance Plan, FOD Program, etc.)
 - ii. Recommended modifications to processes and procedures
 - iii. Recommended modifications to roles and responsibilities
5. Next Steps
 - a. Timeline to implement preventive and corrective actions and program updates
 - b. Approvals needed and/or dependencies
6. Overall Assessment of SMS Program Progress
 - a. Assessment of program's ability to meet overall SMS goals and objectives

3.4.4 Peer Review

Because the Sea-Tac SMS team will be heavily involved in all of the day-to-day operations of the program, it may be difficult to approach QA checkpoints and internal program audits objectively. An effective strategy to assist in obtaining objective feedback on the SMS program will be to conduct a peer review. In the peer review, Sea-Tac will identify another airport, or multiple airports, who are also engaged in SMS implementation and who may be at various stages in SMS implementation, to review the program. In exchange, Sea-Tac will review the SMS programs at the other airport(s).

In order to effectively implement the peer review, the following should be performed:

1. Identify airports of a comparable size and/or structure that are at the same or reasonably similar stage of SMS implementation.
2. Conduct pre-peer review workshops to coordinate logistics.
 - a. Expectations for review process
 - b. Dates
 - c. Evaluation criteria
 - d. Documentation and other output requirements
3. Conduct peer review.
4. Conduct post-review collaboration workshop.

Appendix A: SMS Objectives Traceability Matrix

Sea-Tac SMS Program Years 1-3			
No.	SMS Goal	Associated Targets	SMS Objectives
1	Sea-Tac executive and senior management clearly and tangibly displays commitment to SMS program	Commit resources (financial, human, and other) to SMS with a specific line item added to appropriate budget dedicated to SMS program	All levels of Sea-Tac airport management will be clearly committed to safety
		SMS Policy is endorsed and signed at beginning of year 1	We will create collaboration and integration between the Sea-Tac SMS and all other airport safety programs
		Safety Team begins regular safety briefings to executive management by month 6	We will instill a pervasive, just safety culture at Sea-Tac
		Executive Director facilitates and initiates SMS briefings (verbal or non-verbal presentation) by end of year 1	We will strive to create openness and willingness and provide mechanisms for reporting and discussion of safety concerns
2	Create, integrate, and incorporate safety-focused team into operations by end of year 3	Assign responsibilities and accountability for SMS program to individual Safety Manager at beginning of year 1	All levels of Sea-Tac airport management will be clearly committed to safety
		Finalize and assign SMS roles and responsibilities and formalize accountability by end of month 6	We will establish a proactive program for hazard identification and risk mitigation
		Integrate and align roles and responsibilities of existing Sea-Tac personnel by end of year 1	We will instill a pervasive, just safety culture at Sea-Tac
			We will have clear safety metrics, with clear accountability

3	Sea-Tac personnel are effectively trained and informed about SMS program	Develop internal training courses by end of year 1	<p>We will establish a proactive program for hazard identification and risk mitigation</p> <p>We will strive to understand and mitigate root causes and trends</p> <p>We will instill a pervasive, just safety culture at Sea-Tac</p>
		Establish initial and recurring training requirements for internal staff by end of year 1	
		Conduct 100% of training for required personnel by end of year 2	
		Implement recurring training by end of year 2	
		Continue required training - initial and recurring- through year 3 and beyond	
4	Establish near perfect attendance at the Sea-Tac Safety Action Committee by end of year 3	Establish baseline attendees and attendance record by end of month 6	<p>We will have open safety communications</p> <p>We will instill a pervasive, just safety culture at Sea-Tac</p>
		Establish attendance plan by end of month 9, including distinct metrics and performance improvement goals	<p>We will establish a proactive program for hazard identification and risk mitigation</p> <p>We will strive to create openness and willingness and provide mechanisms for reporting and discussion of safety concerns</p>
5	Establish a SMS Promotions and Orientation plan that engages, informs, educates and excites all Sea-Tac SMS stakeholders	Develop mechanism to track effectiveness of campaigns by end of year 1	<p>We will have open safety communications</p> <p>We will instill a pervasive, just safety culture at Sea-Tac</p>
		Roll out a minimum of 2 SMS campaigns by end of year 1	
		Implement tenant SMS Orientation by end of year 1	
		Deliver SMS Orientation to all airport tenant employees by end of year 3	

6	Conduct regular internal program audits	Review and revise SMS Assurance Plan and finalize audit criteria and audit process by end of month 6	We will have clear safety metrics, with clear accountability
		Conduct initial program audit by end of year 1	We will strive to understand and mitigate root causes and trends
		Conduct second program audit by end of year 2	
		Conduct third program audit by end of year 3	
7	Maintain and enhance effective self-inspection program	Ensure that monthly Ramp self-inspections are conducted and documented by end of year 1	We will have clear safety metrics, with clear accountability
		Ensure that monthly Bagwell self-inspections are conducted and documented by end of year 1	We will establish a proactive program for hazard identification and risk mitigation
		Ensure that Part 139 inspections are not adversely impacted by implementation of new self-inspection programs (FOD, Ramp, Bagwell)	We will strive to create openness and willingness and provide mechanisms for reporting and discussion of safety concerns
8	Implement and manage effective Safety Risk Assessment program	Conduct a minimum of 2 safety case panels for airfield projects by end of year 1	We will have clear safety metrics, with clear accountability We will have open safety communications
		Conduct a minimum of 1 safety case panel for bagwell by end of year 1	We will instill a pervasive, just safety culture at Sea-Tac We will establish a proactive program for hazard identification and risk mitigation We will strive to understand and mitigate root causes and trends We will improve safety by identifying, prioritizing, and treating hazards and risks We will strive to create openness and willingness and provide mechanisms for reporting and discussion of safety concerns

9	Implement and manage effective Operational Safety Risk Management program	Develop interim hazard and risk data collection and reporting solution by end of month 6	<p>We will have clear safety metrics, with clear accountability</p> <p>We will have open safety communications</p> <p>We will instill a pervasive, just safety culture at Sea-Tac</p> <p>We will establish a proactive program for hazard identification and risk mitigation</p> <p>We will strive to understand and mitigate root causes and trends</p> <p>We will improve safety by identifying, prioritizing, and treating hazards and risks</p> <p>We will strive to create openness and willingness and provide mechanisms for reporting and discussion of safety concerns</p>
		Implement full, automated hazard and risk data collection and reporting solution by end of year 1	
		Begin collecting, recording, and prioritizing hazards (leveraging the Sea-Tac risk matrix) identified through self-inspection program by end of month 6	
		Implement interim tenant hazard reporting mechanism by end of month 6 (through meetings, drop boxes, etc.)	
		Prioritize 100% of hazards collected in year 1 by the end of year 1	
		Create mitigation plans and take required actions on 100% of high risk hazards identified in year 1	
		Create mitigation plans and take required actions on 40% of remaining hazards identified in year 1	
		Review, reassess, and close remaining hazards at end of year 1	
		Develop detailed hazard monitoring and closing procedures at end of year 1	

10	SMS program information and documentation is readily available to all stakeholders	Document and records management system and methodology is in place by end of year 1	We will have clear safety metrics, with clear accountability We will have open safety communications We will instill a pervasive, just safety culture at Sea-Tac
		Public website is updated with relevant external documents, records, and information by end of year 1	We will strive to create openness and willingness and provide mechanisms for reporting and discussion of safety concerns
11	Implement and manage effective FOD program	Ensure that regular FOD inspections are conducted and documented by end of year 1	We will have clear safety metrics, with clear accountability
		FOD sub-committee holds frequent, effective meetings by month 6	We will strive to understand and mitigate root causes and trends
		Decrease FOD on the airfield and bagwell	We will instill a pervasive, just safety culture at Sea-Tac
		Integrate and align Sea-Tac FOD program with tenant FOD programs	
12	Facilitate the integration and collaboration of SMS with disparate Port of Seattle safety initiatives and programs	Attend and provide briefings at all Airport Safety Leaders meetings on an ongoing basis	We will instill a pervasive, just safety culture at Sea-Tac We will establish a proactive program for hazard identification and risk mitigation
		Identify trends between and among SMS and other safety initiatives on an ongoing basis	We will strive to understand and mitigate root causes and trends
		Assist and collaborate on mitigations and solutions and lead integrated initiatives in resolving joint safety issues	We will create collaboration and integration between the Sea-Tac SMS and all other airport safety programs We will strive to create openness and willingness and provide mechanisms for reporting and discussion of safety concerns
13	Assess baseline Safety Culture	Conduct focus group and/or survey to develop a baseline for existing safety culture at Sea-Tac by end of year 1	We will instill a pervasive, just safety culture at Sea-Tac

Sea-Tac SMS Program Years 4-5

No.	SMS Goal	Associated Targets	Safety Objectives
1	Sea-Tac executive and senior management continues to support, demonstrate commitment to, and facilitate SMS	TBD	<p>All levels of Sea-Tac airport management will be clearly committed to safety</p> <p>We will create collaboration and integration between the Sea-Tac SMS and all other airport safety programs</p> <p>We will instill a pervasive, just safety culture at Sea-Tac</p> <p>We will strive to create openness and willingness and provide mechanisms for reporting and discussion of safety concerns</p>
2	Implement peer review	TBD	<p>We will have clear employee safety metrics, with clear accountability</p> <p>We will have open safety communications</p> <p>We will create collaboration and integration between the Sea-Tac SMS and all other airport safety programs</p> <p>We will strive to create openness and willingness and provide mechanisms for reporting and discussion of safety concerns</p>
3	Evaluate cost/benefits	TBD	We will have clear employee safety metrics, with clear accountability
4	Establish firm baselines	TBD	We will have clear employee safety metrics, with clear accountability
5	Conduct post-implementation safety culture assessment	TBD	We will instill a pervasive, just safety culture at Sea-Tac
6	Make Identified Improvements to SMS	TBD	We will have clear employee safety metrics, with clear accountability