

Safety Risk Assessment

SSAT Temporary Maintenance Shop

2021-Feb-18 08:00

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1 Introduction

The POS continues to implement a Safety Management System (SMS), specific to SEA, which requires a pro-active look at changes to the airport system or existing conditions within the airport system that might introduce or contain hazardous conditions and therefore increase exposure to risk. According to POS's established guidance any requests to deviate from established ICAO, FAA or IATA recommended standards requires the completion of a SRA; so that, hazards which are identified through this process can be mitigated pro-actively and which provides the best opportunity for efficiency and operational continuity.

The SRA facilitation and subsequent documentation is based on the industry standard 5-Step Risk Assessment process including the following:

1. Define the System
2. Identify the Hazards
3. Analyze the Risks/Consequences
4. Assess the Risks
5. Mitigate the Risks

The established POS SMS definitions for Severity and Likelihood, and the Risk Matrix (Appendix B) were used for the risk assessment portion of the SRA and all participants agreed with and validated these metrics, definitions and thresholds as applicable and valid.

2 Logistics

SEA Aviation Operations coordinated all logistics for the SRA. The SRA meeting took place at MS Teams on 18 February 2021 from 08:00 to 10:00.

2.1 Stakeholders and Participants

Stakeholders and participants present for the SRA are listed below along with their respective organizations:

Tony Vasquez - Port of Seattle, **Alicia Waterton** - Port of Seattle, **Adam Varo** - Port of Seattle, **Dave Crowner** - Port of Seattle, **Michael Papahronis** - , **Paul Pelton** - Port of Seattle, **Juan Martell** - Port of Seattle, **Jamie Tomosada** - Port of Seattle, **Arland Fagerstrom** - Port of Seattle, **Sabin Mudaliar** - Port of Seattle, **Dan Lapinsky** - , **Doug Sinclair** - Port of Seattle, **Philip Allan** - Port of Seattle,

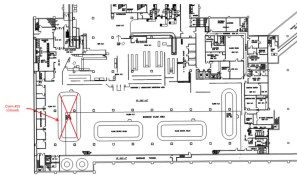
2.2 Background

The purpose of this meeting is to review and discuss potential impacts to SSAT arrivals hall, bagwell, and ramp operations associated with changes impacting relocation of the temporary Maintenance shop from Central Terminal.

3 Define the System

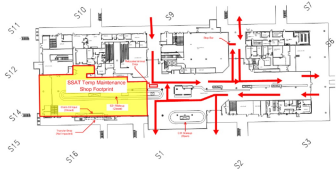
The relocation of the temporary Maintenance shop SSAT bagwell area will impact C21 make up closure; claim 33 input closure; tug drive entry/exit; and relocation of pet holding and inspection locations.

Overview of SSAT FIS Bag Claim



- Claim 33 Closure
- Potential for crowded bag claim hall during multiple arrivals

Overview of SSAT Bagwell Impacts/Changes



- Summary of changes:
- C21 makeup closure
 - Claim 33 input closure
 - Baggage cart circulation change
 - Relocation of animal drop to allow for U-turn

4 Identify the Hazards

Following the Definition of the System discussion, the SRA panel was asked to think about and identify the hazards associated with the new operation. The panel agreed to the following hazards:

The hazardous condition identified by the participants is: **Change tug traffic pattern due to closure of west end of SSAT bagwell.**
The worst credible outcome agreed upon for this hazard is: **Operational confusion due to rerouted traffic and restricted access.**
The credible risk was assessed in the category of **Continuity of Operations.**
This resulted in an agreed severity of **Minor 4** and an agreed likelihood of **Frequent A**, which results in an overall risk rating of **M13**.

The hazardous condition identified by the participants is: **Pet cart staging in the bagwell.**
The worst credible outcome agreed upon for this hazard is: **Pets may be misplaced if employees do not know the correct staging locations resulting in delay to inspections and delivery to passengers.**
The credible risk was assessed in the category of **Continuity of Operations.**
This resulted in an agreed severity of **Minimal 5** and an agreed likelihood of **Remote C**, which results in an overall risk rating of **L3**.

The hazardous condition identified by the participants is: **Claim 33 input block.**
The worst credible outcome agreed upon for this hazard is: **Significant facility congestion due to relocation of claim 33 operations which may impact other flights and CBP operations.**
The credible risk was assessed in the category of **Continuity of Operations.**
This resulted in an agreed severity of **Minor 4** and an agreed likelihood of **Frequent A**, which results in an overall risk rating of **M13**.

The hazardous condition identified by the participants is: **S8 lane reduction/restricted roadway**
The worst credible outcome agreed upon for this hazard is: **Potential vehicle accident with another vehicle and/or lift**
The credible risk was assessed in the category of **Continuity of Operations.**
This resulted in an agreed severity of **Minor 4** and an agreed likelihood of **Probable B**, which results in an overall risk rating of **M12**.

See Appendix B for Severity and Likelihood Chart with required actions.

5 Mitigation Plan

Following the listing of hazards and rating of associated risks the panel agreed on the following mitigation for identified risks:

| Title | Description | Responsible Party | Completed By | Status |
|--------------------|--|-------------------|-------------------|-------------|
| Traffic management | Making sure traffic pattern is adhered to; and if any airlines need to adjust/move their vehicles. | AVPMG | 2021-Mar-29 00:00 | Not Started |

| Title | Description | Responsible Party | Completed By | Status |
|--------------------------|--|-------------------|-------------------|-------------|
| Safety Bulletin for SSAT | SMS team to issue safety bulletin with the changes. "Change of Condition" notification | SMS Airport OPS | 2021-Mar-22 00:00 | Not Started |

| Title | Description | Responsible Party | Completed By | Status |
|--------------------|---|-------------------|-------------------|-------------|
| Posted information | Create and post new information on the wall in the area | SMS Airport OPS | 2021-Mar-22 00:00 | Not Started |

| Title | Description | Responsible Party | Completed By | Status |
|------------------------------|--|--------------------|-------------------|-------------|
| Passenger traffic management | There will be staff to direct passengers to que around carousel 33 and stanchions to prevent blocking the exits. | Airport Operations | 2021-Mar-29 00:00 | Not Started |

| Title | Description | Responsible Party | Completed By | Status |
|---------|--|--------------------|-------------------|-------------|
| Signage | Enhancing signage in S8 entry/exit bagwell area. Stop signs on the walls and ground. | Airport Operations | 2021-Mar-29 00:00 | Not Started |

See Appendix A for a list of hazards associated with the mitigations.

Appendix A - Risk Matrix

The following table represents all the hazardous conditions identified and the consequences. Because the consequences are germane to all the hazardous conditions listed they should NOT be attributed to one, individual hazardous condition. The table includes the hazards, risks, risk assessments, proposed mitigation, residual risks, and responsible party(ies). Note: The definitions of Severity and Likelihood outlined in the Severity and Likelihood Classification Chart and Risk Matrix, as provided by the POS, are included in Appendix B for reference.

| Hazard | Credible Outcome | Severity | Likelihood | Risk Rating | Is Mitigation Required/Recommended? | Mitigations | Responsible Party |
|--|--|-----------|------------|-------------|-------------------------------------|--|---|
| Change tug traffic pattern due to closure of west end of SSAT bagwell. | Operational confusion due to rerouted traffic and restricted access. | Minor 4 | Frequent A | M13 | Yes | <ul style="list-style-type: none"> Traffic management Safety Bulletin for SSAT Posted information | <ul style="list-style-type: none"> AVPMG SMS Airport OPS SMS Airport OPS |
| Hazard | Credible Outcome | Severity | Likelihood | Risk Rating | Is Mitigation Required/Recommended? | Mitigations | Responsible Party |
| Pet cart staging in the bagwell. | Pets may be misplaced if employees do not know the correct staging locations resulting in delay to inspections and delivery to passengers. | Minimal 5 | Remote C | L3 | Yes | <ul style="list-style-type: none"> Posted information | <ul style="list-style-type: none"> SMS Airport OPS |
| Hazard | Credible Outcome | Severity | Likelihood | Risk Rating | Is Mitigation Required/Recommended? | Mitigations | Responsible Party |
| Claim 33 input block. | Significant facility congestion due to relocation of claim 33 operations which may impact other flights and CBP operations. | Minor 4 | Frequent A | M13 | Yes | <ul style="list-style-type: none"> Passenger traffic management | <ul style="list-style-type: none"> Airport Operations |
| Hazard | Credible Outcome | Severity | Likelihood | Risk Rating | Is Mitigation Required/Recommended? | Mitigations | Responsible Party |
| S8 lane reduction/restricted roadway | Potential vehicle accident with another vehicle and/or lift | Minor 4 | Probable B | M12 | Yes | <ul style="list-style-type: none"> Signage | <ul style="list-style-type: none"> Airport Operations |

Appendix B - Severity and Likelihood Classification Chart

SEVERITY AND LIKELIHOOD CLASSIFICATION CHART AND RISK MATRIX

| | | SEVERITY | | | | | |
|--------------------------------|--|---------------------|---|---|--|---|----------------|
| | | No to slight injury | Injury w/ Medic Response | Injury with transport | Multiple injuries or fatalities | Mass Casualty | |
| People | | | | | | | |
| Community Of Operations (COOP) | | No impact | Minor Disruption to Normal Ops Recovery time = immediate | Major Disruption to Normal Ops Recovery time = 24-48 hours | Sever Disruption to Normal Ops Recovery time = > 48 hours | Widespread Regional Disruption to Ops Recovery time = indefinite | |
| Environmental | | No impact | Non Reportable-Containable minimal volume or hazardous material | Reportable - Non-Containable minimal volume of hazardous material | Reportable - Containable moderate volume of hazardous material | Reportable - Non-Containable significant volume of hazardous material | |
| Perception/ Reputation | | No impact | Minimal media inquiries | Local Media coverage | Local and national media coverage for > 48 hours | Widespread international media coverage and reduction of air travel | |
| Assets | | < \$50K | \$50K - < \$1million | \$1 million - \$100 million | \$100 Million to \$ 1 Billion | Over \$1 Billion | |
| | | Severity | Minimal 5 | Minor 4 | Major 3 | Hazardous 2 | Catastrophic 1 |
| LIKELIHOOD | Likelihood | Minimal 5 | Minor 4 | Major 3 | Hazardous 2 | Catastrophic 1 | |
| | Likely to occur: | Minimal 5 | Minor 4 | Major 3 | Hazardous 2 | Catastrophic 1 | |
| | once a day or multiple times per week | Frequent A | L5 | M13 | H20 | H22 | H25 |
| | multiple times per year or once per month | Probable B | L4 | M12 | M15 | H21 | H24 |
| | once a year or multiple times within 5 years | Remote C | L3 | L8 | M14 | M17 | H23 |
| | once in every five years or multiple times within 10 years | Extremely Remote D | L2 | L7 | L10 | M16 | M19 |
| only once in 10 to 100 years | Extremely Improbable E | L1 | L6 | L9 | L11 | M18 | |

| | | |
|---|--|---|
| <p>High Risk</p> <ul style="list-style-type: none"> Analyze for mitigation to medium or low Change cannot be implemented unless the hazards' associated risks are mitigated Tracking, monitoring, and management require mitigation so that the risks are reduced to medium or low levels | <p>Medium Risk</p> <ul style="list-style-type: none"> Analyze for mitigation to low Minimum acceptable safety objective Change may be implemented, but tracking, monitoring, and management required | <p>Low Risk</p> <ul style="list-style-type: none"> No mitigation necessary Acceptable without restriction or limitation Hazard must be documented |
|---|--|---|