



2022 Anahim Lake Airport SMS Report

Review of Hazards, Incidents and Accidents

Hazard: Painting to correct runway marks that did not meet Transport Canada standards.

Risk: The work and equipment posing a risk to aircraft.

Actions Taken: The Airport Manager maintained close communication with pilots throughout the work, ensured all equipment remained below the OLS, and released a NOTAM. The Airport Manager followed all safety protocols.

Hazard: Lack of ongoing maintenance of potential obstacle trees.

Risk: Trees becoming obstacles that infringe into the airspace, creating a frost shadow on a portion of the runway and/or obstructing the view of the end of Runway 13-31 from the apron.

Actions Taken: An OLS Survey was performed in 2020 to ensure no trees are infringing. The Airport Contractor is trained in the use of the inclinometer to perform regular obstacle height measurement. Performance of the obstacle height maintenance plan will be an ongoing long-term strategy within the Safety Management System's Annual Plan.

Hazard: Animals on the airport property.

Risk: Aircraft strikes or crashes due to the presence of animals on the runway.

Actions Taken: The occurrence of animals on the airport property increased in 2022 to six. In 2021, zero animals were reported on the property. No animal strikes occurred in 2022. Fencing was maintained to help keep animals off the property. When noted, animals were safely removed from the property and their presence was recorded in the Animal Presence and strikes report.

Hazard: Performance of crack sealing and seal coating on the runway.

Risk: Aircraft striking equipment or workers.

Actions Taken: A NOTAM informing pilots of the work was released. The Airport Manager, who performed the work, and pilots maintained communication via radio.

Measurement of 2022 Safety Goals

Goal: Have an external SMS Quality Assurance Audit performed for the airport.

Status: Completed. EBA Tetrattech provided the audit in May 2022. The audit results recommended including more questions – based on CARs requirements - for the Winter Maintenance Plan in the Internal and External Operational Audit.

Goal: Conduct a full-scale emergency exercise at the airport.

Status: Completed. A full-scale emergency exercise was held at the airport on Oct 5, 2022. The exercise resulted in amendments to the ERP, including clarification of:

- the transportation of uninjured passengers and crew from an on-airport accident/incident site to a holding facility;
- the inventory of the available vehicles; and
- methods to aid and protect subjects involved in an emergency during variable weather and daylight conditions.

Goal: Reduce the number of animals on the airport property to as close to zero as possible.

Status: Completed. There were six animals – all dogs - reported on the property in 2022, an increase from zero in 2021. The Airport Contractor will continue to implement appropriate animal control measures, but the number of animals on the airport property is likely to fluctuate year-to-year.

Goal: Reduce the risks of trees infringing into the Obstacle Limitation Surface (OLS) to as close to zero as possible.

Status: Completed. An OLS survey was performed in 2020, infringing and close-to-infringing trees were removed, and annual inclinometer reports will confirm all incursions have been removed and will help ensure no trees become infringements. The annual inclinometer report for 2022 was submitted by the airport manager.

SMS Performance Indicators

Several performance indicators are reviewed through the SMS Management Review process such as number of reported hazards, incidents or accidents, on time completion of corrective actions, reviews and audits, and the number of voluntary reports received.

SMS Management Review

A management review was conducted in early 2023. Please find the minutes attached to this report.

Results of Quarterly and Annual Internal Audits

The quarterly audits performed in 2022 have ensured that hazards and occurrences have been reported and followed up appropriately and have been used to monitor and analyze safety trends. The completed quarterly audit checklists are available upon request.

An internal on-site Operational Audit was conducted in 2022 to ensure the effectiveness and appropriateness of the SMS and related documentation. The completed annual internal Operational Audit is available upon request.

An external SMS Quality Assurance Audit was conducted in 2022 to further ensure the effectiveness and appropriateness of the SMS and related documentation. The completed external SMS Quality Assurance Audit is available upon request.

Occurrence and Hazard Reports

Three safety reporting forms were filled out in 2022. Completed safety reporting forms are available upon request. The forms identified and addressed:

- animal presence on airport property;
- possible hazards due to crack filling; and
- possible hazards due to painting of markings.

Investigations and Inspections

Three investigations were conducted in 2022 in response to the three safety reporting forms.

One of the hazards identified in the safety reporting forms was considered low risk and two were considered medium risk. Completed investigation forms are available upon request.

Status of Action Plan

Three action plan forms were filled out in 2022 in response to the three safety reporting forms.

All three of the action plans are complete.

Follow-up for all three of the actions plans has occurred, as scheduled in the plans.

Completed action plan forms are available upon request.

Outstanding Safety Issues

Animal presence on airport property.
Pooling water around the taxiway and apron.

Facility Improvements

Installation of photovoltaic solar panels
Improvement of water drainage around the taxiway and apron.
Construction of picnic spot
Crack sealing

Process Improvements

In 2022, a comprehensive training plan for CRD staff and contractors was developed.

In 2022, an external SMS Quality Assurance Audit was performed.

In 2019, a Process Inspection (PI) was conducted by Transport Canada. Three findings resulted from the PI and CRD staff have completed and implemented corrective action plans. The findings and corrective action plans are available upon request.

The external SMS Quality Assurance Audit was expanded to include more detail.

Historical Data

| | Aircraft Movements | Hazards | Incidents | Accidents | Injury or Property Damage | Animal Presence | Animal Strikes |
|------|--------------------|---|-----------|--------------------|---------------------------|-------------------------|----------------|
| 2022 | 1,054 | Painting work Crack sealing Animal presence, Need for ongoing tree maintenance | 0 | 0 | 0 | 6 dogs | 0 |
| 2021 | 1,722 | Terrain slopes, animal presence, need for ongoing tree maintenance | 0 | 0 | 0 | 0 | 0 |
| 2020 | 763 | Terrain slopes, animal presence, need for ongoing tree maintenance | 0 | 1 (crash off-site) | 0 | 7 dogs 9 large birds | 0 |

| | Aircraft Movements | Hazards | Incidents | Accidents | Injury or Property Damage | Animal Presence | Animal Strikes |
|-------------|---------------------------|---|------------------|------------------|----------------------------------|------------------------|-----------------------|
| 2019 | 1,131 | Animal presence Need for ongoing tree maintenance Fencing | 0 | 0 | 0 | 7 dogs 1 horse | 0 |
| 2018 | 2,078 | Remarking of runway Upgrade of fuel system Animal presence Need for ongoing tree maintenance | 0 | 0 | 0 | 7 dogs 1 bear | 0 |

Recommendations for Improvement and Sharing Best Practices Throughout the Organization

Ensure staff and contractors have the required recurrent training, including Emergency Response Plan, Safety Management System, Human and Organizational Factors, Investigation Analysis training and Root Cause Analysis training.

Action plans that produce successful results, as shown in the follow-up section of the action plans, will be used to demonstrate best practices. The Annual SMS Report will communicate which practices are beneficial through its measurement of safety goals and its review of safety reporting forms, investigations, action plans, and internal audits. Best practices will also be shared during the SMS meetings, including the SMS Management Review meeting.

Training Effectiveness

Training staff and contractors in the safety reporting form process has been effective as safety reporting forms are being filled out and submitted to the SMS Coordinator.

A checklist to assess effectiveness of training for airport staff is included in the on-site inspection portion of the Operational Audit.

The Accountable Executive, the SMS Coordinator and airport staff have received Emergency Response training, Human and Organizational Factors training, Investigation & Analysis training, Incident Command System training and Root Cause Analysis training.

SMS Annual Management Review Meeting Minutes

Held Thursday, January 24, 2023 at 2:00 PM
at the Cariboo Regional District Williams Lake Office

Attendees: Darron Campbell (Accountable Executive) and Kathleen MacDonald (SMS Coordinator).

1. Review and agreement upon Agenda.
2. Review of January 20, 2022 SMS Management Review minutes
3. Internal Operational Audit results
 - The 2022 Operation Audit findings were reviewed: procedures to permit the return of the airport to operational status after an emergency need to be followed and demonstrated in exercises (#B36); the runway exit sign requires maintenance (#D12).
 - At the time of this meeting, both items are still outstanding but are expected to be completed by the end of the year.
 - SMS CAP forms have been filled out for the findings.
4. Activities to verify that employees understand the SMS and their roles and responsibilities in it
 - The annual reviews and exams were evaluated during the meeting, confirming that they remind employees of the SMS and their roles and responsibilities in it. SMS roles and responsibilities were also discussed at the October 2022 commission meeting.
5. Review suitability, adequacy, and effectiveness of SMS documentation (ex: safety/investigation/action forms, op audit/ quarterly audit)
 - The SMS documentation and forms were reviewed. The operational audit now has increased checklist items related to the Winter Maintenance Plan, as was recommended by the external auditor. The other forms and documentation were deemed appropriate.

6. Safety objectives achievement results

- The safety objectives contained in the SMS 2022 Annual Plan were reviewed.
- The 2022 safety objectives of:
 - having an SMS external audit performed;
 - conducting a full-scale emergency exercise;
 - reducing the number of animals on the airport property to as close to zero as possible (the Airport Contractor confirmed that these numbers are being tracked throughout the year); and
 - reducing the risks of trees infringing into the Obstacle Limitation Surface (OLS) to as close to zero as possiblewere achieved.

7. Hazard and occurrence investigation and analysis results

- The investigation and analysis results from the 2022 safety forms were reviewed; all safety issues were assigned an appropriate risk level based on severity and probability.
- All the safety forms from 2022 were initiated due to observed possible hazards (such as line painting and crack sealing possibly posing risk to aircraft), rather than due to any incidents, accidents, administrative deficiency, or possible standard contravention.

8. Internal/external feedback analysis and results

- The CAP Safety Reporting Log was reviewed.
- The SMS Annual Plan – with the annual safety goals – should be reviewed at Commission meetings.

Action items:

1. Review the SMS Annual Plan – particularly the safety goals - at the annual Commission meeting.

9. Status of corrective and preventative action(s)

- The status of corrective and preventative actions was reviewed via the CAP Safety Reporting Log and the corrective and preventative action plans (CAP) forms.
- In 2022, three CAPs were developed. All three of the actions outlined have been completed.

- These actions are outlined in the CAP Safety Reporting Log (CAPs #73 - #75).
- The safety forms for 2023 to-date - CAP #76 (animal presence), CAP #77 (procedures to return airport to operational status), CAP #78 (runway exit sign repair) - will be fully completed in January 2024 (CAP #76), February 2023 (#77), and June 2023 (#78).
- #76 - #78 are currently the only outstanding CAPs.

10. Follow-up actions from previous management reviews

- **Action items:**
 2. A “safety reporting forms are available upon request” sign will be posted at the airport.

11. Changes that could affect the SMS

- Staff are not aware of any changes that could affect the SMS as this time.

12. Recommendations for improvement

- Review of SMS goals, results, and other details should be shared at the annual commission meeting.

13. Sharing of best practices across the organization

- It was reviewed and confirmed with the Airport Contractor that he trains his employees in SMS processes and procedures, as well as other airport operations requirements.
- Understanding of the staff is confirmed through annual testing and recurrent training.

14. Review quarterly audits

- The quarterly internal audits were reviewed and confirmed as completed.

15. Review personal training forms

- The draft of the personal training forms was reviewed.

16. Discuss other SMS business

- No other SMS business was identified.

Meeting adjourned at 3:15 PM.