Toronto Pearson SMS

safety

risk

Aviation Safety

Risks in the aviation environment are reduced and controlled to an acceptable level.

Why SMS?

- Systematic approach to managing safety, including the necessary organizational structures, accountabilities, policies, and procedures

- Data-driven

SAFETY MANAGEMENT SYSTEM

SAFETY POLICY

SAFETY RISK MANAGEMENT

SAFETY ASSURANCE

SAFETY PROMOTION

SMS Team & Regulatory Framework

Regulatory Framework

- ICAO Annex 19
- Transport Canada
- Aeronautics Act
- Canadian Aviation Regulations
- Aerodrome Operator

GTAA SMS Team

Accountable Executive
COO

Manager, SMS

Officer, SMS

Coordinator, SMS

Aviation Safety Management Policy & Non-Punitive Reporting Policy

How We Handle Your Safety Concerns: Our SMS Process

Whether you report something that might become an issue or something that already happened, every report makes a difference. Here's what happens when you report:

You Report a Concern

You report a safety concern through the Airport Operations Centre, email, or online form. This can be about something you saw, heard, or just think could be unsafe.
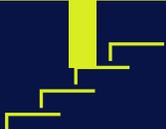
We Review and Decide Next Steps

We assess your report. Some concerns may need further investigation, and others may be resolved quickly by subject matter experts.

An Investigation Begins

If needed, we start an investigation. This helps us understand if the issue is part of a bigger or repeating problem (a systemic issue), or a one-time event.

We Collect Evidence

We gather more information by:
• Interviewing people involved
• Reviewing Reports & SOPs
• Looking at past incidents
The goal is to find patterns or root cause.

We Work with Hazard Owners

We meet with the people responsible for the area of concern to share what we've gathered and explore practical solutions together.

We Recommend and Implement Solutions

We agree on actions that can fix or reduce the risk. These might include changing a process, updating a procedure, or providing more training. Those recommendations are put in place.

We Measure Effectiveness

After some time, we assess whether the solutions were effective. Has the risk decreased? We review the data and make adjustments if needed.

You Made a Difference

Because of your report, we were able to reduce risk, prevent incidents, and improve safety for everyone.

Toronto Pearson

2025 Hazard Register Goals and Objectives

Airside Works

Hazard related to working sites going on in airside. Construction or Maintenance related.

Runway Incursions

Any Aircraft, Vehicle or Pedestrian runway incursion.

Aerodrome Ground/ Apron Lights

Hazard related to any occurrence related to AGLs and Hazards related to the lighting system in the apron (not related to AGL)

Aircraft Ground Movements

Generic hazard related to any occurrence related to aircraft moving within the aerodrome (ex. near misses, pilots entering wrong stand, jet blasts, etc.).

Vehicle Ground Movements

Generic hazard related to any occurrence related to vehicles moving within the apron, as well as within the maneuvering area (ex. near misses with an aircraft or another vehicle, collisions, etc.).

FOD Presence

Hazard related to the FOD presence within the aerodrome.

| 2025 | 2024 | 2023 | 2022 | 2021 | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 | 2014 | 2013 | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |

All Hazards | 2025 Hazards

Hazard title (gro... ✕
Vehicle ground movem...

Occurrence cate... ✕
Ground collision

Event types ✕
Collision of a vehicle wit...

Region ✕
Aircraft Parking

Area ✕
Terminal 1

Location ✕

FOD presence

Vehicle ground movem...

Aircraft ground movements

Aerodrome ground/apro...

Airside works

Runway incursion

Incident Count

Ground collision

Failure to Yield

Ground handling

Medical

Other

Fire/smoke (non-impact)

(Blank)

Aerodrome

Abrupt maneuver

Collision of a vehicle wi...

Collision of a vehicle or m...

Aircraft collision with a ve...

Collision of a vehicle/mov...

Standing or parked aircraf...

Aerodrome snow/ice rem...

Aerodrome maintenance ...

Aircraft collision with a bu...

Aircraft collision with oth...

Aircraft Parking

Airside Road

(Blank)

CDF

Apron

Security Facility

Taxiway

Airside Building

Terminal 1

Terminal 3

IFC

Cargo West

Hotel Gates

120

128

132

139

174

157

169

175

179

Vehicle Ground Movement Occurrences

Legend: (Blank) · Serious incident · Major incident · Significant incident · Incident · Unknown · Occurrence rate

Timeline years: 2014, 2016, 2018, 2020, 2022, 2024

Labeled values on chart: 19, 1, 24, 34, 4, 5, 14, 16

% Occurrence Count of Grand Total by Hour of Day

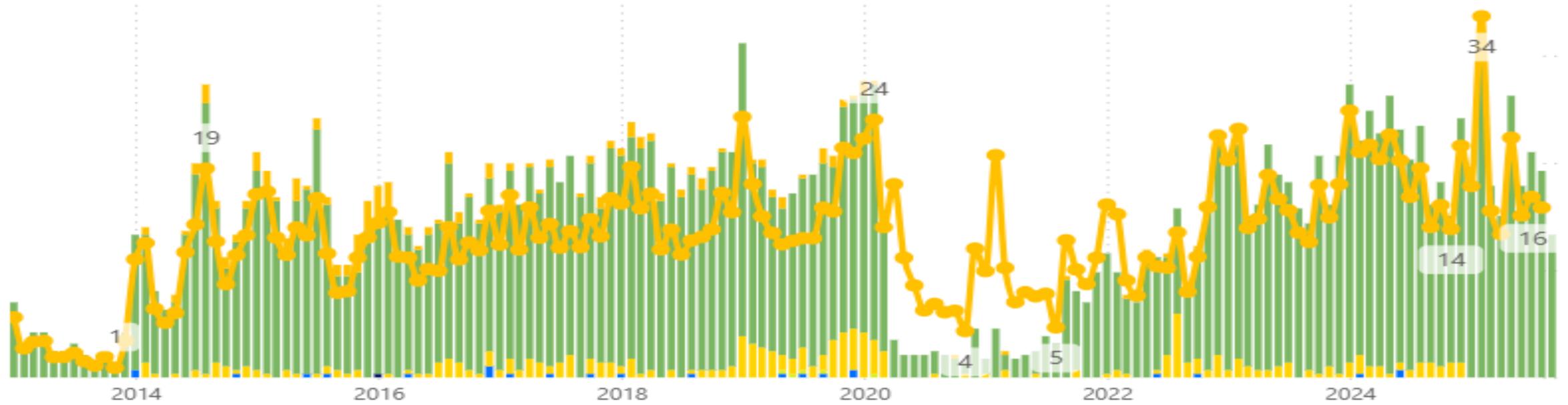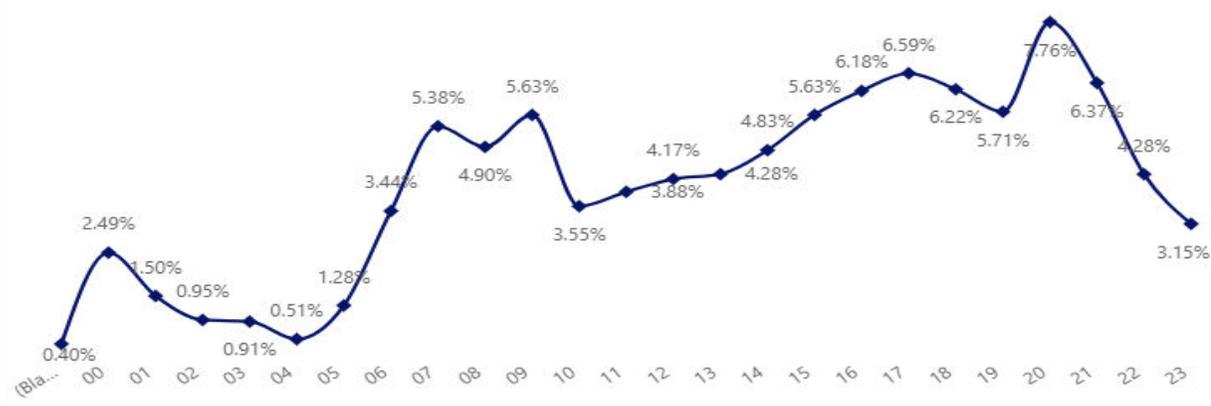Values: 0.40%, 2.49%, 1.50%, 0.95%, 0.91%, 0.51%, 1.28%, 3.44%, 5.38%, 4.90%, 5.63%, 3.55%, 4.17%, 3.88%, 4.28%, 4.83%, 5.63%, 6.18%, 6.59%, 6.22%, 5.71%, 7.76%, 6.37%, 4.28%, 3.15%

Hour axis: (Bla.. 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23

% Occurrence Count of Grand Total by Day of Week

Values: 13.83%, 14.01%, 13.39%, 14.85%, 14.81%, 14.67%, 14.45%

Day axis: Mon, Tue, Wed, Thu, Fri, Sat, Sun

Scale: 15.0%, 14.5%, 14.0%, 13.5%, 13.0%

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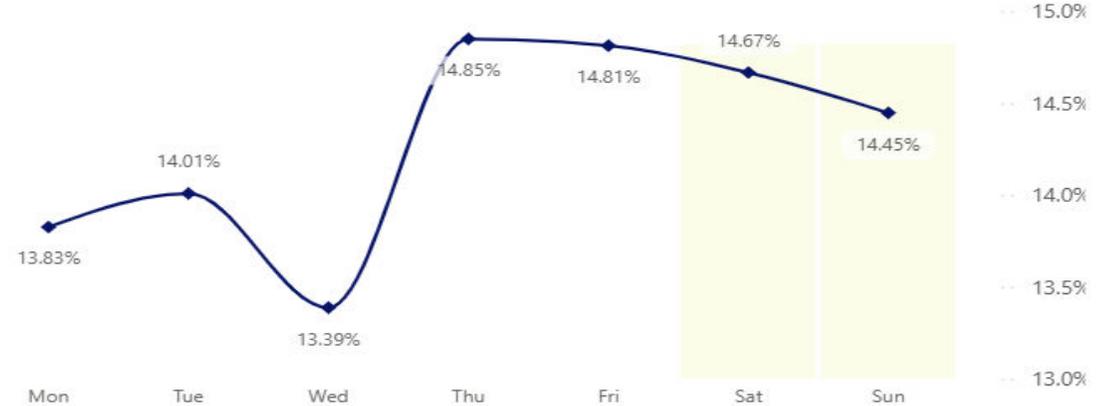
Risk Management Tool: Bowtie Analysis (example)

Threat

- Distracted driver
- Mechanical failure
- Poor lighting

Preventative Barrier

- Driver training
- Speed limits
- Mandatory vehicle checks
- Segregated traffic lanes
- Proximity sensors
- Clear signage

Top Event

Vehicle Ground Movements

Collision of a vehicle with a vehicle or movable equipment

Mitigative Barrier

- Emergency response plan
- E-stop procedures
- Incident investigation
- Public relations plan

Consequence

- Inury
- Fatality
- Vehicle/property damage
- Reputational and financial loss
- Operational disruption

Safety Promotion

SMS Foundational Pillar IV

Focuses on building **safety culture**, **awareness** and **competence** across all levels of an organization

- **Training programs**

- **Safety communications**

- **Engagement activities**

- **Reinforcement of non-punitive reporting policies**

Safety is not just a set of policies, but a **shared mindset and daily practice embraced by everyone**

Programs and resources

Reporting

It is critical that incidents are reported in real time. Learn how and when to report emergencies, hazards, proactive safety concerns, near misses and injuries.

Eye on Safety Recognition Program

A turnkey incentive program for the entire airport community! Learn about the program guidelines and how to nominate an individual or organization for their contributions to health, safety and security.

Toronto Pearson Safety Program

Find resources and ways to get involved with Safety and Security programming at Pearson

Safety Stop

Your one stop shop for tools, including posters, shift briefs, and other important information for working safely and securely in all seasons.

Policies

Find out about our policies on reporting, FOD, safety and security.

Eye on Safety Newsletter

Register for the EOS newsletter to stay up to date on information, events, engagement opportunities and safety and security programming.
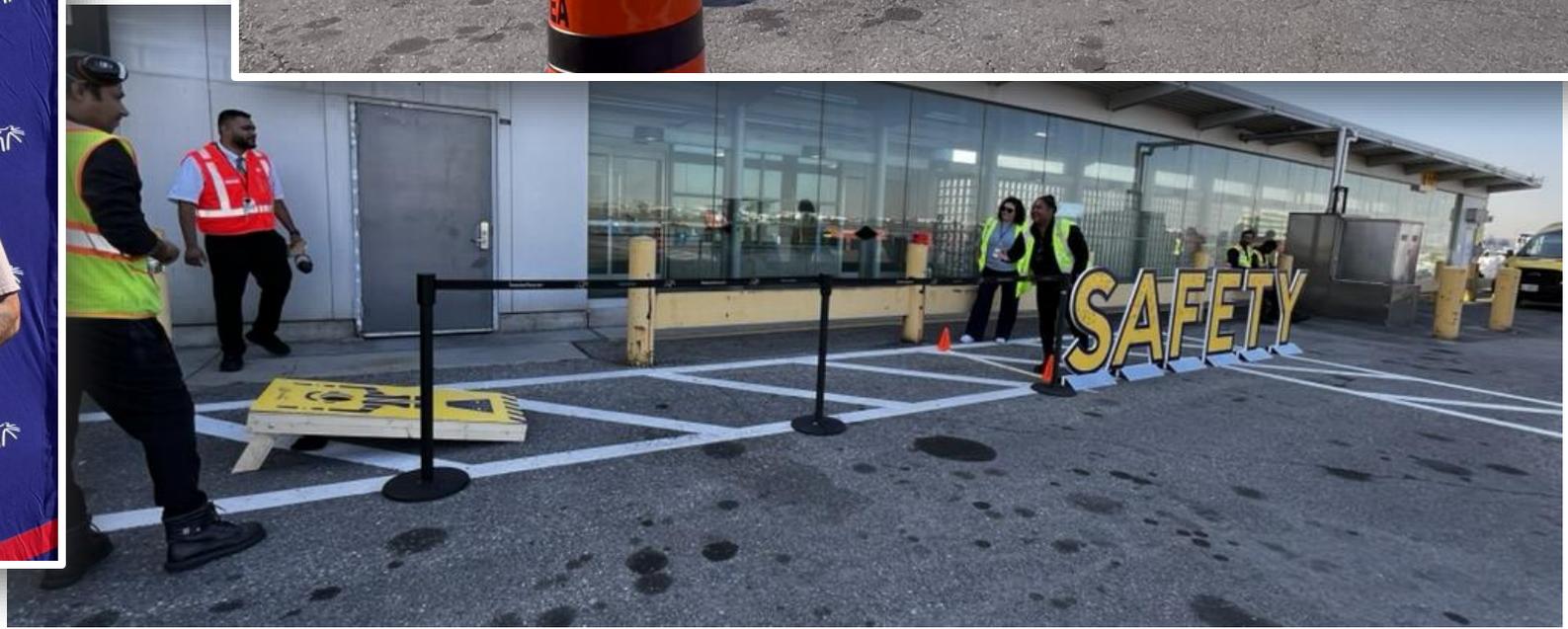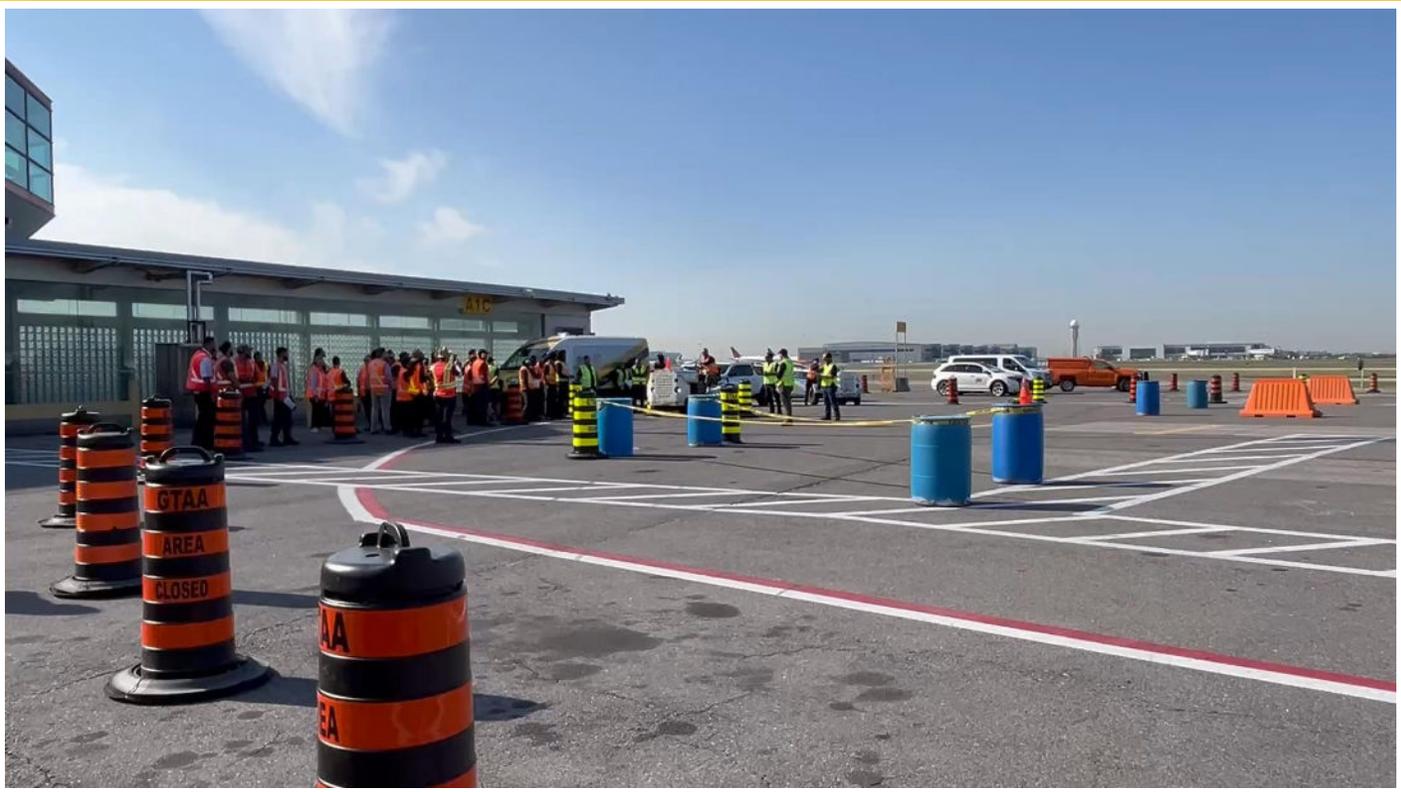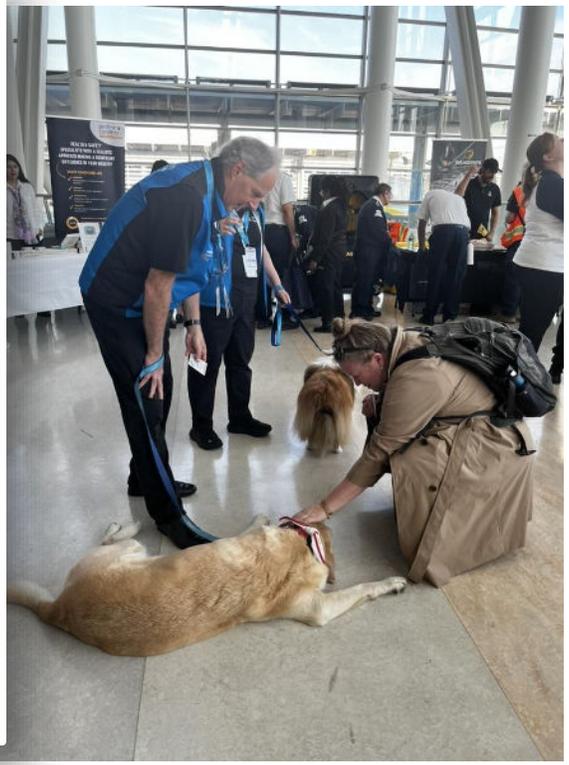
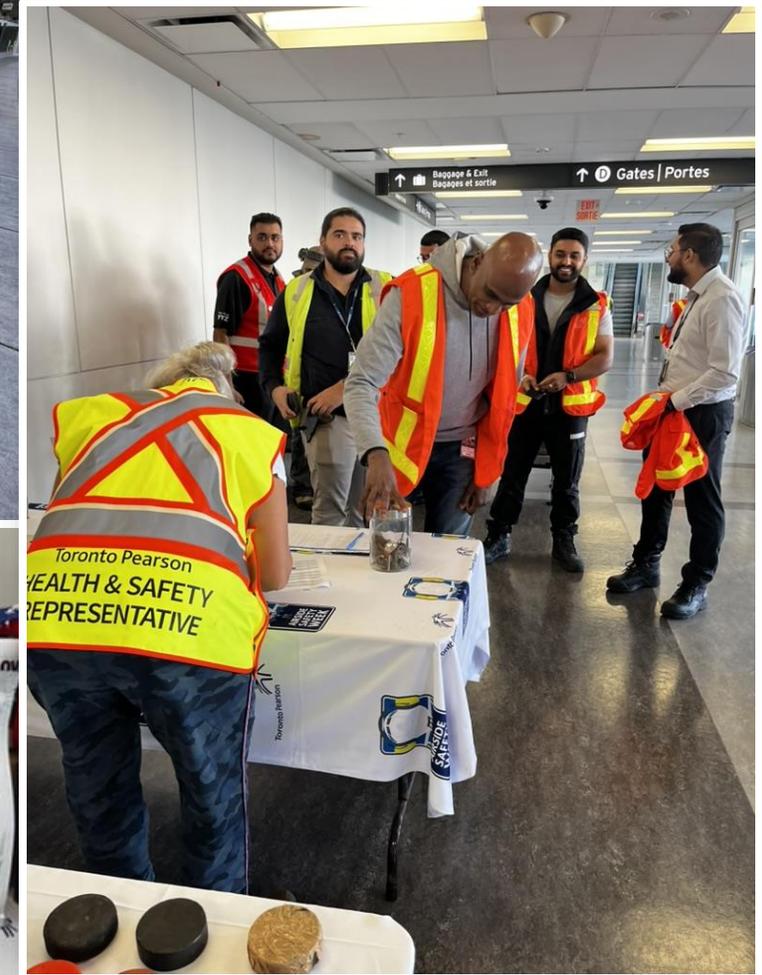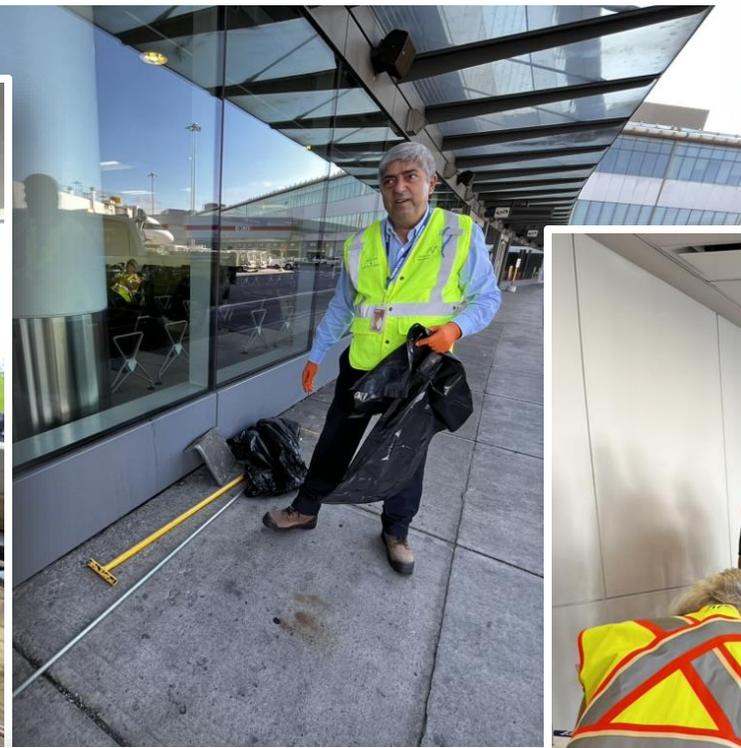13

CANADIAN
**AIRPORTS
SAFETY WEEK**

Safety Summit

Road-eo

Safety Fair

FOD-Walk Friday

Next Steps for SMS at Toronto Pearson

- Continue with new methodologies and adjust where required

- ACI SMS Gap Analysis & Maturity Checklist

- Continued and enhanced collaboration with safety partners

- Reactive -> Proactive -> Predictive

- Improvements on safety campaigns

- Alignment with other safety/security management systems

SMS program today is not (and should not) be the same as it was when first started

SCARIEST
PLACE TO BE
IS THE SAME
PLACE AS
LAST YEAR.

GROW.