



Transportation  
Safety Board  
of Canada

Bureau de la sécurité  
des transports  
du Canada



# Presentation to Canadian Airports Council OSTA committee

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Canada

# Outline

- About the TSB
- The Watchlist: an overview and update
  - Multi-modal issue
  - Air issues
- SECURITAS
- TSB investigation into air taxi operations



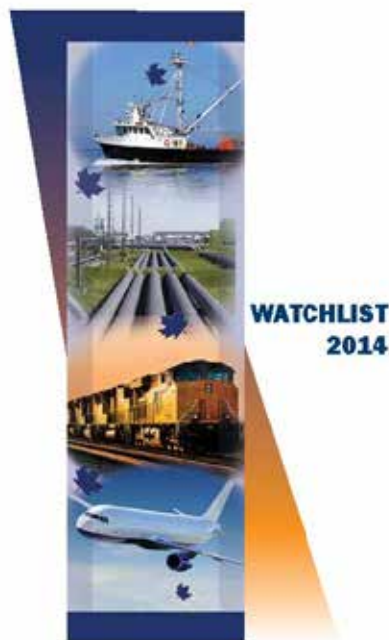
## About the TSB

**Mission:** To advance transportation safety in the marine, pipeline, rail, and air modes of transportation that are under federal jurisdiction by:

- conducting independent investigations
- identifying safety deficiencies
- identifying causes and contributing factors
- making recommendations
- making our reports public



# Watchlist 3.0 (November 2014)



Canada

New issue

Expanded issues

Issue removed

Outstanding issues

# Multi-modal issue



# Multi-modal issue: Safety management and oversight

## ***Problem:***

*Some transportation companies are not effectively managing their safety risks, and TC oversight and intervention has not always proven effective at changing companies' unsafe operating practices.*



# Safety management and oversight (continued)

## *Solution:*

- Transport Canada must expand regulations to require all operators to have formal safety management processes, and conduct regular oversight.
- Operators that are required to have safety management systems (SMS) must demonstrate they are working.
- When required, Transport Canada must effectively intervene to change unsafe operating practices.



# Air issue:

## Collisions with land and water



### Removed from Watchlist

- New regulations now require Terrain Awareness and Warning Systems (TAWS) aboard a wider range of aircraft.
- Non-precision instrument approach procedures now provide pilots with guidance to make stabilized descents.



# Air issue:

## Approach-and-landing accidents

### *Problem*

*Landing accidents continue to occur at Canadian airports.*

### *Solution*

- Measures must be taken to reduce unstable approaches that are continued to a landing.
- Transport Canada must complete its analysis and move forward with regulatory changes.
- Airports must proactively assess risk and where appropriate, lengthen runway end safety areas or install other systems to safely stop planes that overrun runways.



# Air issue:

## Risk of collisions on runways

### *Problem*

*There is an ongoing risk of aircraft colliding with vehicles or other aircraft on the ground at Canadian airports.*

### **Solution**

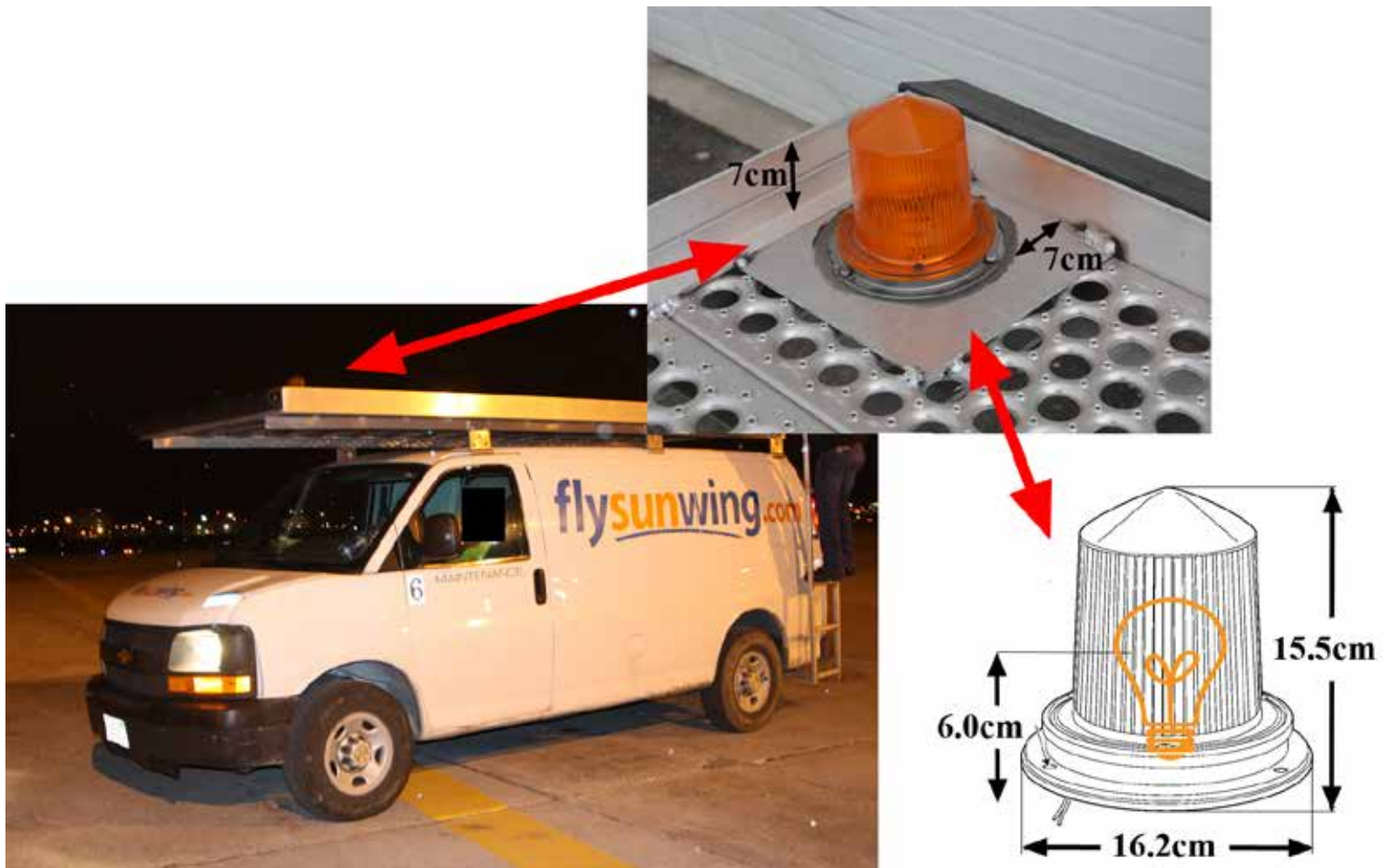
- Improved procedures and enhanced collision warning systems must be implemented at Canada's airports.



# Case study 1: Maintenance van (A1300045)



# A13O0045 (continued)



## Case study 2: Northern Thunderbird Air (A12P0034)



## A12P0034 (continued)

Although just 3.5% to 4% of approaches are unstable, **97% of these** are continued to a landing!

### Possible results:

- runway overruns
- runway excursions
- landings short of the runway
- tail strikes



# SECURITAS

## What is it?

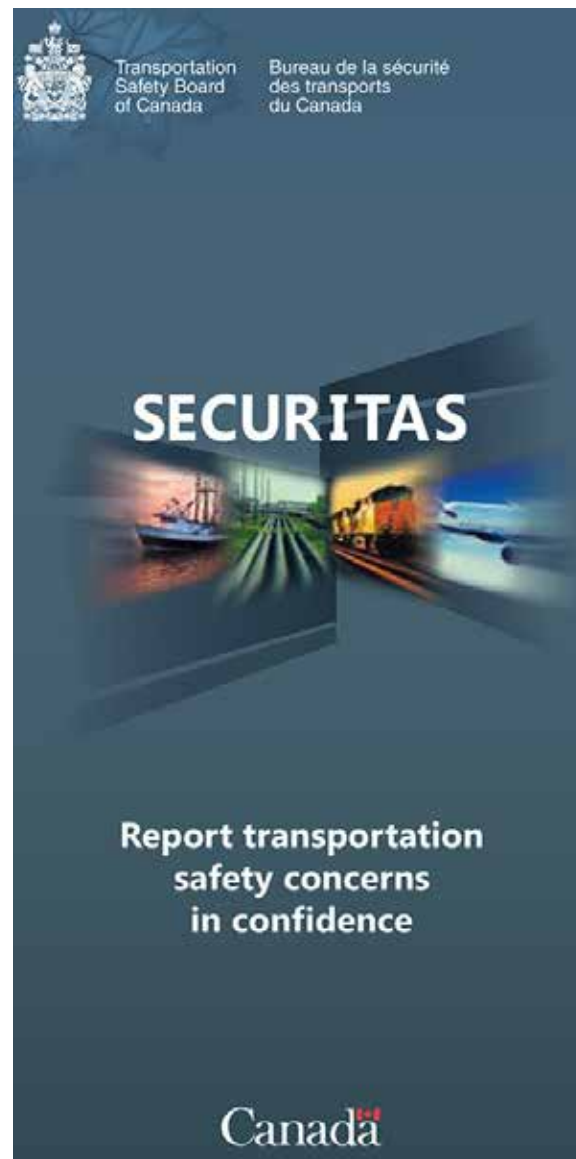
- A confidential system to report concerns in marine, pipeline, rail, and air modes
- Tell us what you see (unsafe acts or conditions)

## How does it work?

- Letter, fax, phone or e-mail
- All statements are confidential, and protected under *CTAISB Act*

## How many notifications each year?

- 30-40 e-mails
- 70-75 voice-mails



## SECURITAS: What can you report?

- Chronic lack of repair of aircraft, poor maintenance practices
- Unsafe runway or aerodrome conditions
- Poor air traffic services
- Non-compliance with airworthiness directives, minimum equipment list
- Pilots flying in excess of regulatory flight-time limits
- Shortcuts in following checklist procedures



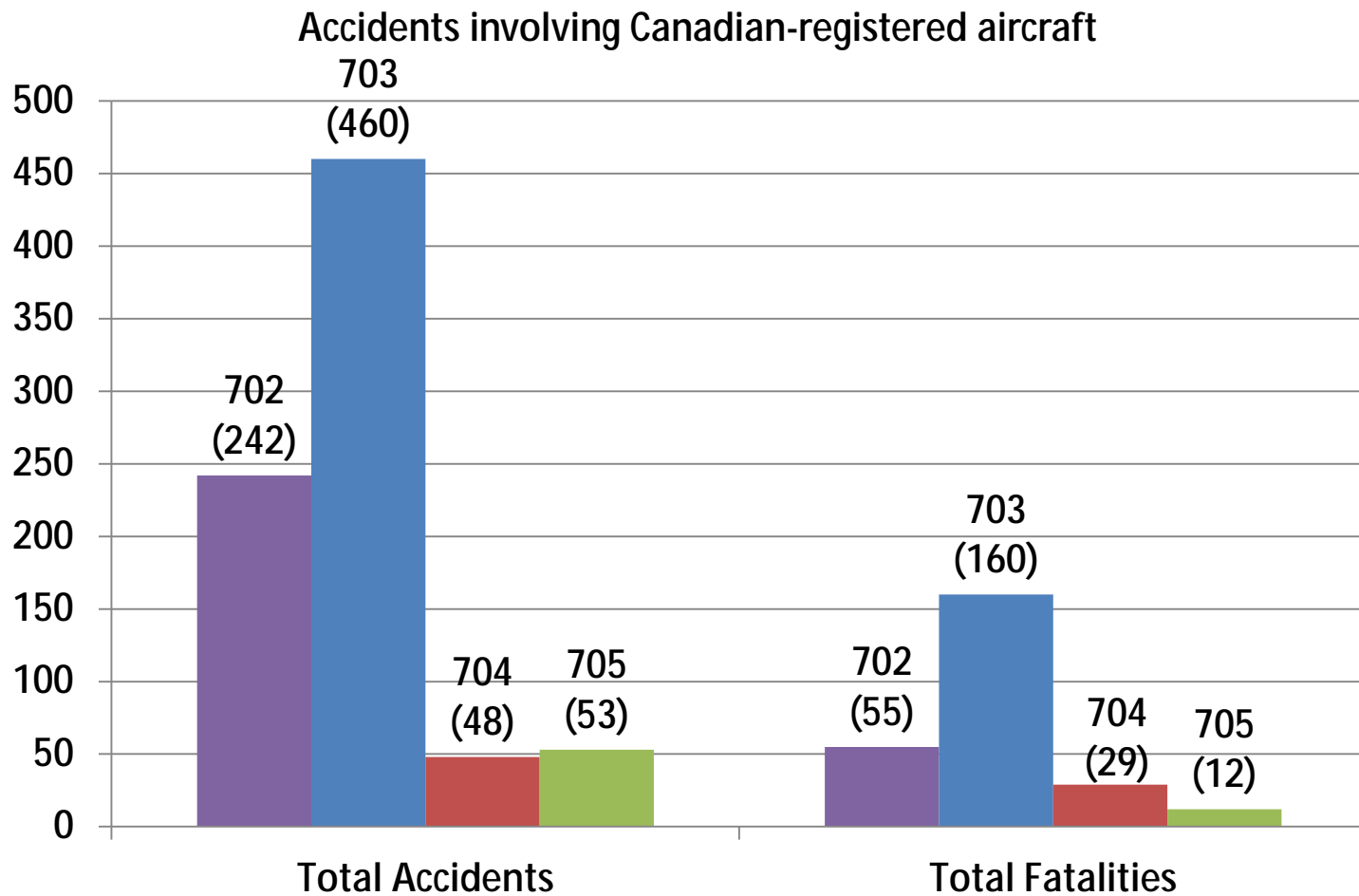


# Special Issues Investigation (SII) – Air Taxis

- Announced in November 2014.
- The goal: identify the underlying safety issues.
- Terms of reference are being finalized.
- We will be speaking with operators and industry associations to obtain input.
- We will be seeking examples of “best practices.”
- We *may* make recommendations to address identified systemic deficiencies.



# Air taxis — accident statistics



Total number of accidents and fatalities from 2005 to 2014 by operator type.



# Air taxis — Common risk factors

- Pilot inexperience
- Insufficient training
- Deficiencies in pilot decision-making
- Deficiencies in crew resource management
- Inadequate (if any) risk analysis of operations
- Crew adaptations from standard operating procedures
- Deficiencies in operational control



# Questions?



# Canada

