

# **Aviation Conference**

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Member, Transportation Safety Board Toronto, Ontario, 22 January 2015



#### **Outline**

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

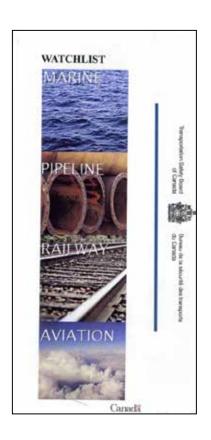
#### **About the TSB**

**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



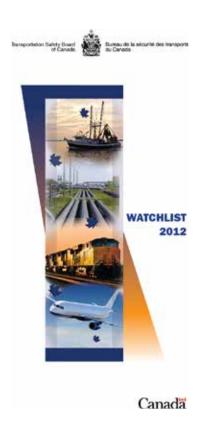
#### The Watchlist



- First published in 2010
- Identifies the issues posing the most critical safety issues
- Backed by investigations, safety concerns, Board recommendations



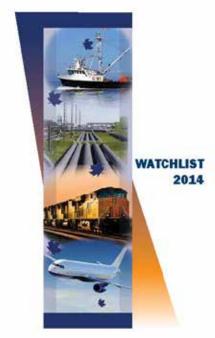
# The Watchlist: goals



- Raise public and media awareness about the safety risks
- Demonstrate how concrete action will advance transportation safety
- Deliver corporate messages about our mandate
- Build on existing credibility, stimulate dialogue and trigger action by change agents

#### Watchlist 3.0





Canada

**New issue** 

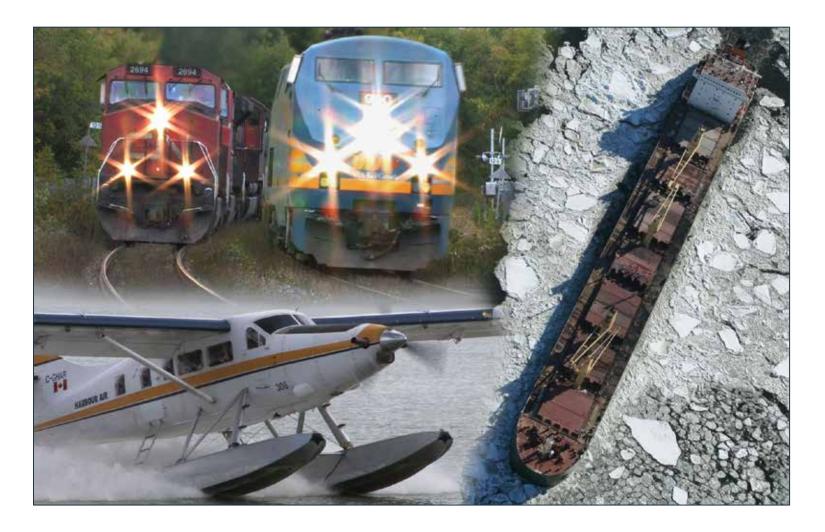
**Expanded issues** 

Issue removed

**Outstanding issues** 



# 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.



# Lac-Mégantic (R13D0054)



# Resolute Bay (A11H0002)



# Safety management and oversight (cont'd)

#### 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 intervene to change unsafe operating practices.



#### Watchlist issue removed



#### Collisions with land and water

- 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 issues



Approach-and-landing accidents



Risk of collisions on runways

# **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.

### 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.

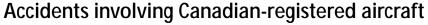
#### Solution

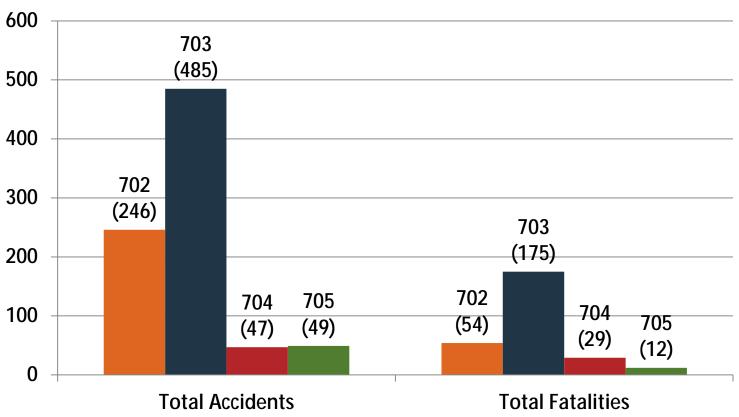
 Improved procedures and enhanced collision warning systems must be implemented at Canada's airports.





#### Air taxis — accident statistics





Total number of accidents and fatalities from 2004 to 2013 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



# Launch of Special Issues Investigation (SII)

- Terms of reference not yet finalized.
- We will be speaking with operators and industry associations to obtain input.
- We will be seeking examples of "best practices."
- The goal: identify the underlying safety issues.
- We may make recommendations to address identified systemic deficiencies.

# **Questions?**

# Canada