



IRSC 2022

INTERNATIONAL RAILWAY
SAFETY COUNCIL

SEVILLA, OCTOBER 16-21, 2022





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What I will talk about

IRSC

- Evolution of IRSC over the years
- Future of IRSC

Accidents

- Case studies: Lac Megantic, Quebec and Guernsey, Saskatchewan

IRSC Overall Intent

- Open forum, all to contribute
- Learn from safety investigations
- Forum for international experts to meet and discuss issues
- Positive achievements – break-out, tech visits
- Areas of concern - core group; Chatham House issue

IRSC 1990-1999

- Inspired by JRE
- Countries with mature networks – Far East, Australasia, Europe, North America
- Presentations included TGVs, regional commuter lines, track, equipment and operational / signals issues
- Human factors and sms were identified during this period “man-machine interface”
- James Reason mentioned
- Papers v presentations
- Memorable moment - London 2000: Safety cost of TGV

IRSC 2000-2009

- IRSC Tokyo 2001 postponed (September 11th attack)
- Developing countries and more (smaller) countries attending
- E.g. S. Africa, India, S. Korea, Ireland, Nordic countries
- 2003 Paris: Wider range of issues, including trespassing, vandalism, and worse
- Core Group rules established
- Railway associations - Sunday meeting
- Memorable moment: Mr. Kato, JRE, re future safety threats

IRSC 2010-Present

- Regulators' Sunday meeting.
- Environmental themes increasing.
- Core group – too big now?
- Chatham House Rules being followed?
- First memorable moment JRE – IRSC not in their 25 year plan.
- Second memorable moment: Dublin air safety presentation – just before B737Max disasters.
- Presentations v papers.
- Covid-19 stalls conferences.

Issues for future IRSCs

- Size of core group/ conference format
- Environmental issues / climate change
- Track / infrastructure issues
- Software issues?
- New technologies
- Safety communications and government and industry credibility



Key Issues from three major Canadian accidents

- 2013 Lac Megantic QC: 47 fatalities - issues includes corporate culture, track and locomotive condition, operating procedures, safety management deficiencies, regulatory capture.....
- 2019/20 Guernsey SK: repeated regulator warnings but no action
- Were they predictable?
- 2019 Field Hill BC runaway: longer trains, poor equipment condition, decision to proceed in cold weather conditions

Lac Mégantic, Québec, 6 July 2013



Source: CBC website



Source: Sûreté du Québec

- Runaway unmanned freight train
 - 72 wagons of light crude oil (6.7M litres)
- Derailed in town at 95+ km/h
- 59 wagons breached, 6M litres released
- 47 fatalities
- 2,000 evacuated

Guernsey Saskatchewan, 2019/20



- Two derailments within two months in same area
- Non-signalled territory
- Oil wagons, both releases approx. 1.5M L
- Speeds above 55 km/h
- Wagons included modern designs
- Dept. of Transport – 2016/2019 warnings
- SMS – highly probable no risk analysis
- If risk analysis done, why the accidents?

Field Hill BC 2019

News Headline: "Lawsuit claims TSB caved to threats by CP Rail and muzzled its lead investigator"



Sources: CPR and CBC News

Conclusions

- Corporate, regulatory and investigative failures
- Regarding Lac Mégantic, Québec:
- CEO quote: “one-man crews are safer than two-man crews because there's less exposure for employee injury and less distraction”



Source: B Bosker

Access to Information - the two most common results:

p. 22

Document released under the Access to Information Act / Document divulgué en vertu de la Loi sur l'accès à l'information

To: [REDACTED]
Cc: R19C0015 <R19C0015@bst-tsb.gc.ca>; Crawford, Don (Don.Crawford@bst-tsb.gc.ca) <Don.Crawford@bst-tsb.gc.ca>
Subject: RE: [REDACTED]

[REDACTED]

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From: [REDACTED] <[REDACTED]@cpr.ca>
Sent: Tuesday, January 7, 2020 04:17 PM
To: LeBlanc, Robert <Robert.LeBlanc@tsb-bst.gc.ca>
Subject: [REDACTED]

[REDACTED]

From: LeBlanc, Robert
Sent: Friday, December 6, 2019 03:59 PM
To: [REDACTED] <[REDACTED]@cpr.ca>
Cc: R19C0015 <R19C0015@bst-tsb.gc.ca>; Crawford, Don (Don.Crawford@bst-tsb.gc.ca) <Don.Crawford@bst-tsb.gc.ca>
Subject: [REDACTED] TSB Rail Occurrence R19C0015 - [REDACTED]

◀ 22 of 168 ▶

Pages 34 to / à 39
are withheld pursuant to sections
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19(1), 20(1)(b), 23

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◀ 28 of 168 ▶

So what can we do to improve safety?

- Use European Rail Agency suggested best practices:
- Trust and openness between industry, regulator and investigations agencies
- Be as open as possible
- Have teeth, and use them, plus:

Review the Nolan Principles (UK), which apply to any public office holder

Always be aware of Reason's philosophy (sense of unease)

and Westrum definitions of pathological organizations

Transport Canada SMS audit results

- Only one fine paid in the last 13 years related to sms audits - \$9,000 CAD paid within a month.
- One assessed fine in 2021 - \$133,000CAD - under appeal by the railway.

Areas to Think about

IRSC Conference Format and Values

Similar safety issues, and superb discussions, over 30 years, but

- What is ideal core group size?
- Is there an ideal conference size?
- Are we as open as we used to be?
- How do we define success?

Safety Professionals

- Ask how and why safety has improved over time
- Is a laissez-faire regulatory approach appropriate?
- When making changes, ask: what could go wrong?

For Today's Sessions

- Important to understand the effects of specific cultures
- How do today's presentations fit the above?
- Remember: industry and regulatory agencies all have cultural issues
- Do IRSC conferences have them?
- SMS - at what cost, for what benefit?
- Don't believe your own publicity!

Thank you!





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