From Dryden to Bill C-7
Legacy and insight

Presented by
Capt Donald L Van Dyke, FRAeS
June 12, 2008

to

System Safety Society
Eastern Canada Chapter
RCAF Officers’ Mess, Ottawa, Ontario
Dryden Commission of Inquiry
Judicial roles in Canadian aviation safety
Internationalizing Dryden’s outcomes
Fokker F-28 Mk 1000 Reg. C-FONF

March 10, 1989

Accident overview
Accident overview

• Crashed on take-off due icing
• Fatalities: 3 crew/21 passengers
Accident overview

Aircraft Flight Path Profile

Tree Strikes: ●
Accident Rates by Airplane Type
Hull Loss Accidents

<table>
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<th>Airplane Type</th>
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Hull Loss Rate/million sectors – total bar
Hull loss with fatalities accident rate – lighter shaded portion

Accident overview

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Canadian Aviation Safety Board (CASB)

- Mandated to ascertain probable cause
- Mishandled Arrow Air DC-8 crash at Gander
- Methods more than just questionable
- Halted in favour of Commission of Inquiry
Dryden Commission of Inquiry

New accident investigation philosophy

Prevailing philosophy

- Pilot error
- Probable cause
- Generic culpability

New philosophy

- Other probable cause
- Contributory factors
- Attributed culpability

The Honourable Virgil P. Moshansky, C.M., Q.C., FRAeS
Justice of the Court of Queen's Bench of Alberta (Ret.)
Establishing credibility

• Independence and dignity
• Transparency
• Freedom from constraint or influence
Dryden Commission of Inquiry

Challenges to the Commission

Attempts to influence

• Sheltering evidence
• Invoking state secret provisions
• Limiting scope of findings
• Denying access to witnesses
• Questioning competence
• Trivializing recommendations
**Pilot error**
- Flawed decision to attempt take-off

**Systemic failures**
- Inadequate aviation legislation
- Inappropriate financial emphasis
- Insufficient human resources
- Inadequate regulatory oversight
Final Report

• Made 191 major recommendations

Selected outcomes

• New Aeronautics Act and Canadian Aviation Regulations (CARs)
• *Hot refuelling* prohibited
• *Clean wing concept* regulated
• De-/anti-icing processes enhanced
• Human factors training mandated
• 12 Task Groups formed to implement recommendations
• Task Groups later converted into Canadian Aviation Regulatory Advisory Council (CARAC)
Judicial roles in aviation safety

Unresolved issues

• Oversight
• Confidentiality and secrecy
• Causality
• Regulation and promotion
• Social regulation strives to abate or control risks to society

• Regulator is responsible for the delivery of obligations, not just services
Access to safety information

Needs
Balance

Protection of safety information

ICAO
Proper administration of justice

Enable people to participate more effectively in governing the State

Australia
Make persons and bodies responsible for government more accountable to the public

Encourage reporting of safety concerns without self-incrimination

Canada
To use information possessed by the Minister
Protection of safety information

Art. 37 Adoption of international standards and procedures
Art 44 Safe and orderly growth
Protection of safety information

WHAT IS PROTECTED?
Ann 13 Para 5.12 Non-disclosure of records
• Statements
• Communications between involved persons
• Medical and private information
• CVRs and transcripts
• Analytical opinions
Ann 13 Para 8.3 Incident reporting systems
• Voluntary incident reporting systems
Ann 13 Attach. E Legal guidance
• Safety Data Collection & Processing Systems

Ann 6 para 3.2.4 Accident prevention and flight safety programme
Flight data analysis programmes

PROTECTED AGAINST WHAT?
• Admissibility in judicial proceedings
• Inappropriate use
Accountability and responsibility
C-7§4.2 (1) and §4.9.c.1(i)(B)

Minister

- Develop and regulate aeronautics (§4.2 (1))
- Supervise all matters connected with aeronautics

Executive (of a Canadian aviation document holder)

- Be accountable for extent to which requirements have been met
Access to information

C-7\S5.392 (1)

To a court or similar body

In a de-identified form

At discretion of Minister

S A F E T Y  I N F O R M A T I O N
Vulnerabilities of change

- Lack of precedents
- No risk assessment performed
- No fail-safe protocol(s) established
- Insufficient provision for review of oversight performance
- Inappropriate sealing of information
- Inadequate provision for needed culture change
- Comprehensive aviation safety whistleblower protection needed
(In)famous aerospace whistleblowers

Roger Boisjoly: Rogers Commission on Challenger

Bobby Boutris/Douglas Peters (FAA): Congressional hearings on Southwest Airlines
Judicial roles in aviation safety
Effectiveness of the Judiciary

• Vested power
• Freedom and independence
• Authority to:
  – Order and subpoena
  – Compel testimony under oath
  – Hold witnesses in contempt
  – Open hearings to the public
  – Facilitate cross-examination under oath
Judicial roles in aviation safety
Dryden precursors resurrected

- Adverse economic conditions
- Diminished regulatory oversight
- Inadequate aviation legislation
  - Reduced redundancy
  - Squandered resources
  - False premises
  - Abdicated regulatory responsibilities
  - Insufficient whistleblower protection
  - Unrealistic implementation schedule
  - Reliance on biased reporting
Judicial roles in aviation safety
Oversight and safety performance linked

• Lack of regulatory oversight a causal influence in numerous accidents
• Economic pressures can lead to white-collar crime and violations of regulations
• Inadequate legislation fails to avoid subverted innovation and technology
• Linkage recognized by industry itself
Judicial roles in aviation safety
Conclusions regarding Canadian aviation safety

**Judiciary must**
- Hold system accountable to public
- Respond to public need for assurance
- Periodically check organizational vital signs

**Commission of Inquiry**
- Urgently needed
- Parliamentary action needed to enable periodic judicial review
Principle of *jus cogens*

- Norms from which no derogation is permitted

**State responsibilities**

- Ensure safety through regulatory oversight
- Especially incumbent on States with major aviation industries
Regulator responsibilities

• Give primacy to safety of air navigation
• Conduct comprehensive surveillance
• Monitor/improve safety system performance
• Implement international enhancements

Delegations and authorities

• Regulator remains accountable
• Excessive delegation leads to de-skilling
Possible judicial responsibilities:
- Periodically evaluate safety system
- Provide expert view of national needs

Requisites to act:
- Currently at the behest of the State
- Usually only when system is broken
- Participation needs to be institutionalized
Chicago Convention and Annexes:

• Enforceability limited
• Certain States have:
  – Insufficient resources and poor oversight
  – No or inadequate national regulations
  – Minimal commitment to aviation concerns
• States to faithfully implement SARPs
  – Judiciary evaluates fidelity of implementation
Conclusions

**Judicial review**
- Process to be institutionalized
- SARPs needed to internationalize concept

**Commissions of Inquiry**
- Headed by superior court judge
- Conducts periodic judicial review
- Evaluates national aviation safety
- Reports findings to State and ICAO
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QUESTIONS