Safety investigation versus legal proceedings

- Investigating Interests
- Criminalization Criteria
- Article 5.12 ICAO Annex 13
- Dutch Safety Board State Law
- Important Lessons
Investigating Interests

- Safety Investigation
- Judicial Investigation
- Administrative Investigation
- Lawyers
- Insurance companies
Investigating Interests

- Valujet, May 1996
- Fine Air, August 1997
Criminalization Criteria

• An organisation that has been a repeated offender of established rules;
• A decision by the top management of an organisation to intentionally conduct or omit certain acts;
• A substantial probability that the public or an individual will be harmed;
• An organisation that hinders the progress of the investigation.
Criminalization Criteria

- Public opinion
- Politics
- Media
- Next of kin
Summary Statements

• Criminal prosecution constitutes a threat for the safety culture

• Criminal justice does not discourage the making of mistakes or lapses
The Just Culture

- Knowingly violating safe operating procedures?
  - yes: Possible reckless violation
  - no: Pass substitution test?
    - yes: History of Unsafe Acts?
      - yes: Deficiencies in training & selection or inexperience
      - no: System induced error
    - no: System induced error

- Were procedures available, workable intelligible & correct?
  - yes: Possible negligent error
  - no: System induced error

- Deficiencies in training & selection or inexperience
  - yes: Blameless error corrective training or counselling indicated
  - no: Blameless Error

Coaching
- Discipline
Article 5.12 ICAO Annex 13

THE STATE SHALL NOT MAKE RECORDS AVAILABLE FOR PURPOSES OTHER THAN ACCIDENT OR INCIDENT INVESTIGATION.

Amongst others this article applies to:

• statements made in the presence of safety investigators;
• data from cockpit voice recorders.
• recordings and transcriptions of recordings from Air Traffic Control units
ICAO ANNEX 13; Article 5.12: Note:
Information contained in the records listed above [statements, cockpit voice recordings, flight recorder information etc.], which includes information given voluntarily by persons interviewed during the investigation of an accident or incident, could be utilized inappropriately for subsequent disciplinary, civil, administrative and criminal proceedings. If such information is distributed, it may, in the future, no longer be openly disclosed to investigators. Lack of access to such information would impede the investigation process and seriously affect flight safety.
After misuse of CVR data, New Zealand ALPA advised:

- Not to cooperate with any investigator
- To ‘minimise exposure’ to CVR by using hand signals
- To ‘avoid like the plague’ confidential reporting systems
Article 5.12 does not encompass complete legal immunity

Article 5.12 does not cover *internal* safety investigations
International Consensus on Article 5.12  ICAO Annex 13

• Statements made in the presence of safety investigators should be safeguarded
• Criminal justice does NOT discourage the making of mistakes or lapses
• Important to recognise and use the “immunity” principle
• Terms for “use immunity” for self critical internal investigations should be formulated
Delta Airlines Abort December 1998

- Ergonomic Aspects
- Ambiguous Radio Calls
- Communication Problems
- High Traffic Density
- Recent Runway Change
- Distraction of the Supervisor
List is ongoing: additional Dutch aviation examples:

- KLM ERA helicopters; crash into North Sea near Den Helder; December 20th 1997; one fatal casualty, probably due to supercooling
- Delta Airlines; runway incursion incident; Amsterdam Airport Schiphol, December 10th 1998
- Transavia Airlines; tail tipping incident; Rotterdam Airport; January 12th 2003
- KLM; runway excursion accident, Barcelona, November 28th 2004
The issue is not confined to aviation:

Penitentiary fire, near Schiphol airport, Oct. 26/27th 2005, 11 fatal casualties
Characteristics Dutch Safety Board

- Independent Governmental Body
- Tasked by Dutch Law
- In depth investigation
- Far reaching authority
- Multisectoral investigation
Characteristics Safety Board State Law

• Warrants independent safety investigations
• Extensive protection of investigation data and records
• ‘One way’ flow of information: Public Prosecutor must deliver, Safety Board will not deliver.
• No investigation into aspects of guilt or liability
Italy, 24 February 2004

• **05:00 LT** Flight CIT124, an Austrian Cessna Citation 500, departs from Rome Ciampino airport as a medical flight to Cagliari (Sardinia)

• **05:41 LT** Cagliari APP clears CIT124 to continue descent to 5000 ft via LEDRO for an ILS approach runway 32, to report over Carbonara VOR
Italy, 24 February 2004
Italy, 24 February 2004
Italy, 24 February 2004

• **05:41 LT** The captain reads it back, and adds: “if we have the field visually, we would like to have a visual approach”.

• **05:43 LT** “CIT 124, we have the field in sight, requesting visual approach”. They are passing FL96, about 28 NM from Carbonara VOR and about 41NM from Cagliari VOR.
Italy, 24 February 2004

• 05:43 LT APP asks: “Confirm able to maintain your own separation from the obstacles Sir, performing visual approach runway 32?”

Reply from the pilot: “Affirm, CIT124”. APP clears CIT124 for a visual approach runway 32 and asks to report passing 5000 ft

• 05:46 LT CIT124 reports passing 5000 ft, APP says: “Continue not below 2500 ft, further descent with Elmas Tower 120.6, bye”
Italy, 24 February 2004

• 05:47 LT CIT124 checks in with the TWR, “for visual approach runway 32”. The TWR provides the wind for runway 32 and asks CIT124 to report short final. This is read back by the crew, who also ask if they’re cleared to land. TWR says they’re cleared to land, which is read back by the crew.
Italy, 24 February 2004

• 05:49 LT CIT124 collides with the side of a mountain at 3300 ft. All 6 POB are killed.
Italy, 24 February 2004
Contributing Factors

- CIT124 not equipped with GPWS
- Black hole approach/unfamiliar with area
- Ambiguous R/T from ATC (“2500 ft”)
- Not using published procedures and available instruments at night
Contributing Factors

• “Get-there-itis”
• Misinterpretation of elevations in maps
• Extended period of wakefulness without adequate rest

*The two military air traffic controllers were prosecuted after the accident*
First Trial

• 17 March 2008 Two controllers sentenced to 3 years imprisonment (reduced to 2 years due to choice of shortened procedure)

• Main argument: “not supplying the pilot with all the necessary information on the orography of the land”
First and second appeal

- **18 March 2010** The Court of Appeal upholds the outcome and sentences of the first trial.

- The Public Prosecutor was the same person as in the first trial.

- **10 December 2010** The High Court rejects the appeal and confirms the sentences.
Reaction ANACNA:
Court of Appeal rewrites ATC rules: authorising of visual approaches is now a crime.

NOTAM:
LIXX (ITALY)
A) ITALY B) 16 MAR 2011 00:01 C) 13 JUN 2011 23:59
E) IFR OPERATIONS NO CLEARANCE FOR VISUAL APPROACH ISSUED.
REF AIP ENR 1.3-1 (1A1530/2011LI)
Important Lessons

Pro active

• Report Writing Aspects
• Protection of Data
• Memorandum of Understanding

Reactive

• Support from employer in court cases
• Expert witnesses arranged through employee associations