

Maastricht Conference February 2005

*The creation of an Aviation Safety
Reporting Culture in Danish
Aviation*

By Peter Majgård Nørbjerg

Head of Incident Investigation, Naviair

Introduction

Prerequisites for Reporting

- *The Legal Framework*
- *Company Commitment to Safety*
- *Clear directions for Reporting*
- *Proactive handling of Investigation and Lesson Dissemination*
- *Feed-back and Knowledge-Sharing*

Points of friction

- *Breaking the law is a punishable offence, why should aviation/medicare be exempted?*
- ”**A study in danish medicine showed that the relatives of patients injured while being treated in the healthcare system, had as their primary goal for the subsequent investigation, that similar occurrences were prevented**”

Points of friction

Is total immunity possible?

Where do we draw the line?

Any non-punitive legislation can be tried
in court and potentially overturned

The creation of a "just" climate

Keyplayers

- The Political system
- The Regulatory system
- The professional organisations
- Management of participating Companies

The time before....

- Punishing of Aviation Professionals
(pilots/air traffic controllers)
- Disclosure to the Press of Aviation Safety matters

No knowledge was being gained

The Legislative Proces...

- Started from the "bottom"
- Used the Window of Opportunity (proactive political climate)

The Law

- **Non-Punitive**(exceptions: Accidents/gross negligence/substance abuse)
- **Confidential**
- **Punishable NOT to Report**

- Information from the reports cannot be disclosed(exempted from the freedom of information act)
- Regulator will publish overview statistics two times annually

Subjects of the Law

- Pilots
- Air Traffic Controllers
- Certified Aircraft Mechanics
- Certified Airports
- Pilots holding General Aviation Pilots License

Each category of personnel/coorporation has their own description of mandatory reportable situations

Reportable situations in Air Traffic Control

Samples *ESARR 2*

- Separation losses without avoiding action
- Inadequate separation between aircraft
- Runway incursions
- Aircraft deviation from procedures/clearances
- Failure in communication function
- Failure in dataprocessing and distribution function

The Implementation Process...

- Was undertaken by Incident Investigators(Air Traffic Controllers)
- Was fully supported by Management

Sufficient time and resources was allocated to the task

.... Implementation Process

- Written Statement from Management
- Briefing Campaign

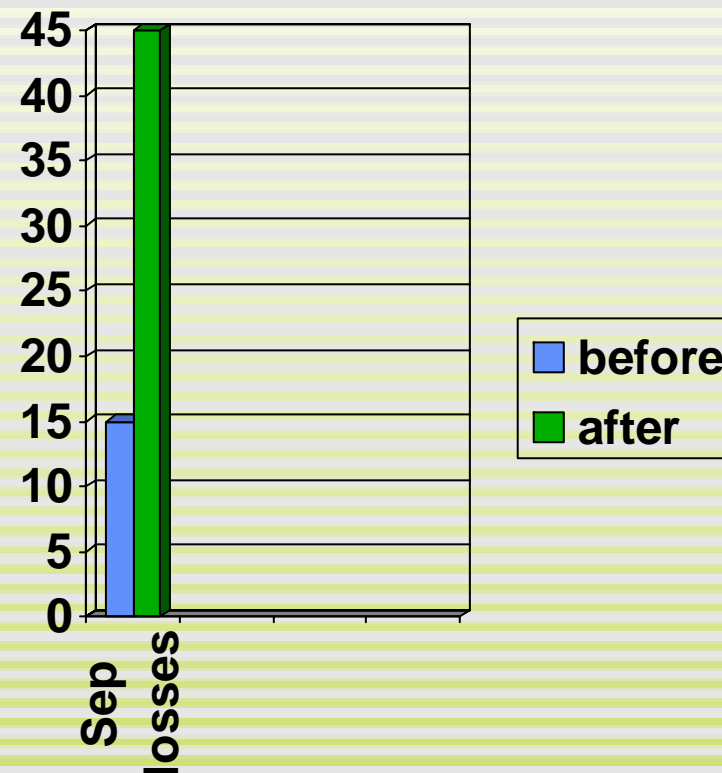
Questions like:

- *Why should we trust this?*
- *What will the information be used for?*
- *Why more non-productive paperwork?*

were being asked by the controllers.

What happened after Opening of the Reporting System (15th august 2001)

- *Massive increase in ATM reports overall (>900 the first year. Today >1000)*
- *x3 increase in amount of reported separation losses*



Total danish aviation system

Airlines, ATM, Airports, Maintenance, General Aviation



New knowledge gained from Reports can be viewed from two angles..

Safety is sliding!!

Dive for cover

Situations that have existed
and gone unreported for
years is now seeing daylight
and offering new opportunities

Face the challenge

The Milan Accident

Runway incursion was the triggering factor of the accident

- Apprx. 40 Runway Incursions was reported in Denmark by the time of the Accident
- The reports was a valuable basis for starting a thorough anlaysis of the anatomy of Runway Incursions in Danish Aviation

Air Traffic Safety Reports close the Gap

- Human error cannot be prevented!
- Safety Assessments focus on imagined Conditions/Consequences
- Operator observations (Safety Reports) reveal actual Conditions/Consequences

Flight Safety Partnership

- Air Traffic Control is only a part of the Aviation System
- Things do not happen in a Vacuum
- Share your Knowledge

Flight safety Forum

- Biannual meetings with major Danish airline operators
- Shared knowledge in investigations

Prerequisites for reporting

- Trust/Confidentiality
- Non-Punitive Nature
- Ease of Reporting
- Feed-back to Reporters
- Safety Improvement

Trust/confidentiality

- Paramount importance
- Swedish example

- Safety reports known to few people
- Names will only be revealed in isolated circumstances

Non punitive nature

- Must be guaranteed in the Legislation, to the extent possible
- Cannot be complete (Gross negligence/substance abuse exempted)

Ease of Reporting/Feedback

- Means must be easily accesible
- Feed-back for every Report to the Reporter
- Feed-back of Findings to Everybody

Lesson Dissemination

- Briefing of every Controller(in groups) minimum two times per year(Backed by recordings etc.)
- Safety Letter 4 times per year
- Information as needed

Improvements

- Latent conditions revealed - Procedural changes
- Technical "mysteries" - e.g. Enhanced Radar Performance
- "Professional" violations - Attitude change

Benefits

- Clearer Aviation Safety picture
- Enables Regulator/AO/ANSP to target latent conditions
- Statistics revealed to the public
- Open culture; we don't hide, we fix