



# **SAFETY II - FROM THEORY TO PRACTICE**

**in a Runway Incursion Prevention  
Programme**

**EPN/Malmö, May 2015**



# MARIA LUNDAHL - WHO AM I?

## Work

- 1989 – 2002 Air Traffic controller
- 1999 – 2009 ATCO/Human Factors Instructor
- 2009 – 2014 Incident Investigator
- 2014 – Safety Coordinator
- 2015 – Head of Safety Department,

## Studies

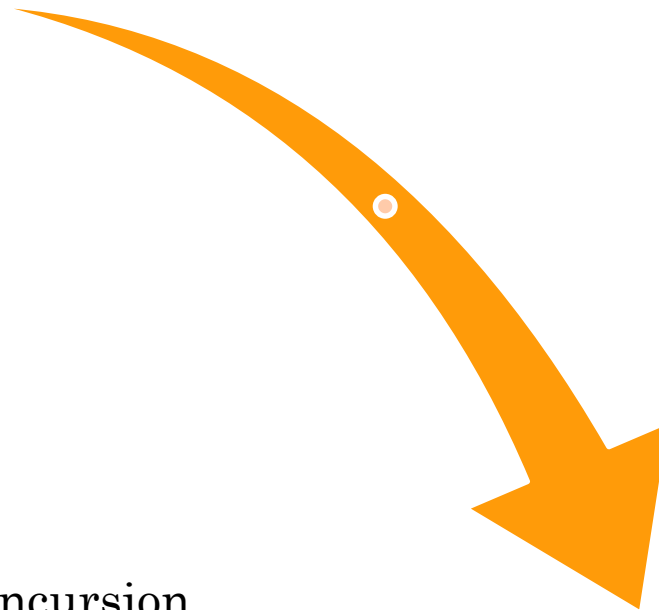
- 2007 – 2009 Master level: Human Factors & System Safety
- 2011 – 2014 Bachelor level: Psychology, Pedagogics/Teaching, Cognition



# FROM THEORY TO PRACTICE

Safety II

## Theory



Runway Incursion  
Prevention Programme

## Practice



## RUNWAY INCURSION?

- ICAO:

*”Any occurrence at an aerodrome involving the incorrect presence of an aircraft, vehicle or person on the protected area of a surface designated for the landing and take off of aircraft”*

# WHY A RUNWAY INCURSION PREVENTION PROGRAMME?



Airport - small margins

Aircraft - critical phase in flight  
- limited time/space  
for recovery

Aircraft/vehicle - Few effective  
warning systems

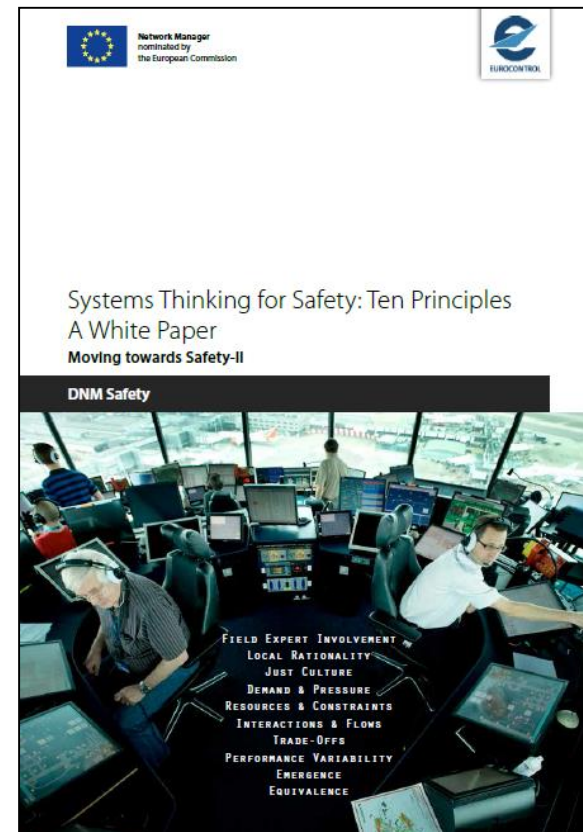
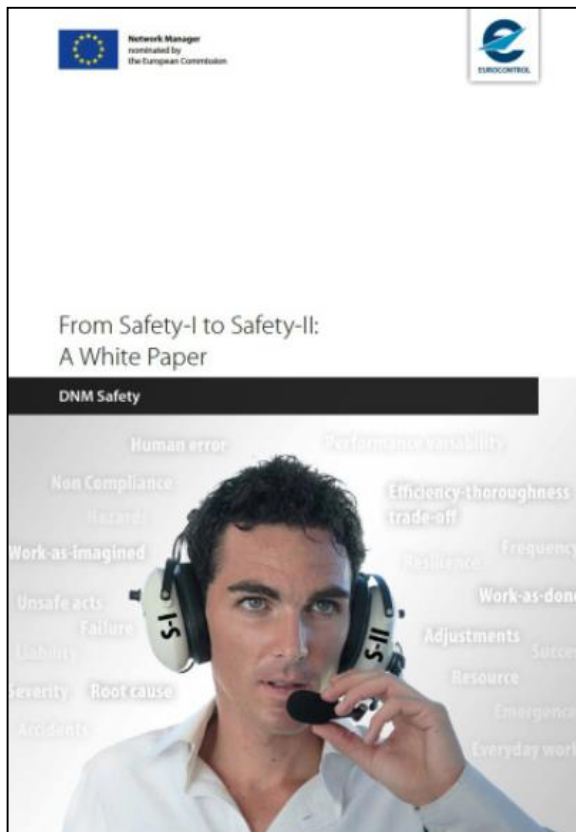


# RUNWAY INCURSION PREVENTION PROGRAMME ... AGAIN?



# WE NEEDED A NEW PERSPECTIVE ...

Lisbon, September 2014

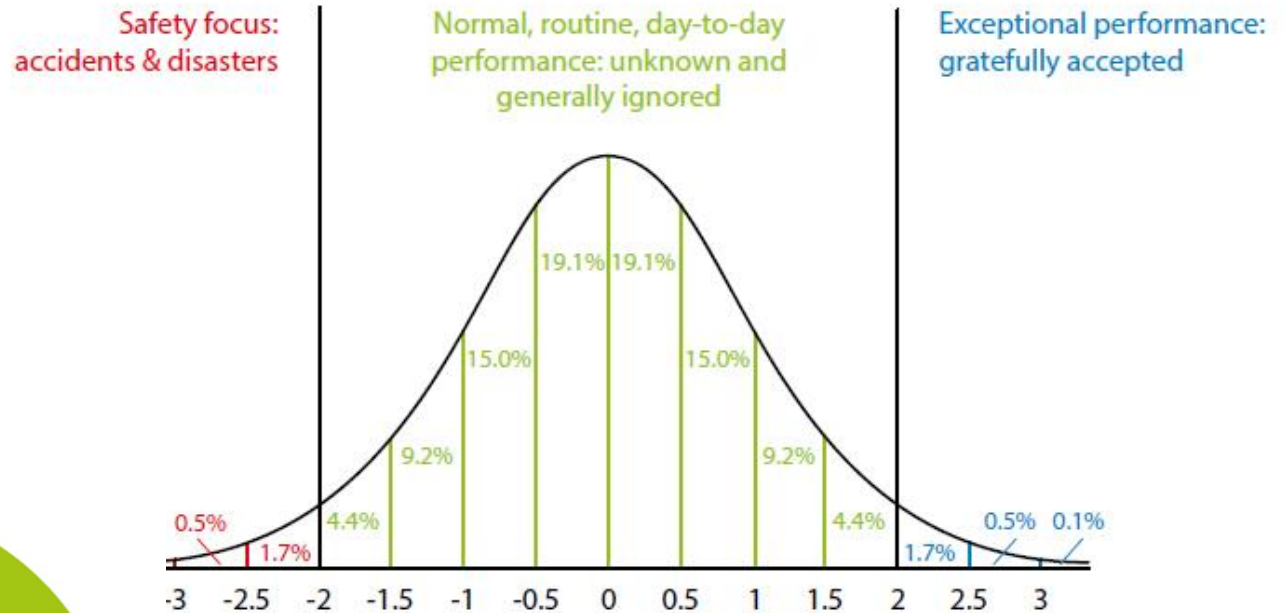


# THE 10 PRINCIPLES





# ”NORMAL WORK”?



$10^{-4}$ : = 1 failure in 10.000 events

$1 - 10^{-4}$ : = 9.999 non-failure in 10.000 events

# HOW STUDY "NORMAL WORK"?



# 1. OBSERVATIONS

- "Normal work", not adverse events
- Expert observer



## 2. INTERVIEWS

- "Normal work"
- Situations derived from the observations



### 3. WORKSHOPS

1. Have you ever been in a situation ...?  
The good example
2. Cases from reality  
slightly adjusted ...
3. Changing roles, changing perspectives
4. "Best practices"





## LESSONS LEARNED?

- Learning from normal work is quite a different thing
- Talking to field experts about normal work makes great sense
- Experts have a rather good idea of what it is they do that promotes safety
- Experts learn from sharing experience with other experts within their environment



## FINAL THOUGHTS

- The aviation industry has long been at the forefront when it comes to learning from incidents and accidents
- It is about time we lead the way forward in establishing practical methods for learning from normal work





BUT ...

## WHAT ABOUT TRAINING?

I can't help making a comparison ...

### Safety II

*Erik Hollnagel*

- Focusing on what goes right, rather than on what goes wrong ...

### Salutogenesis

*Aaron Antonovsky*

- Focusing on factors that support human health and well-being, rather than on factors that cause disease

Now there's a challenge for all ATCO training organisations ...





QUESTIONS?



Thank You!

Maria Lundahl

LFV Operations/Safety Department

[maria.lundahl@lfv.se](mailto:maria.lundahl@lfv.se)



**AIR NAVIGATION SERVICES  
OF SWEDEN**