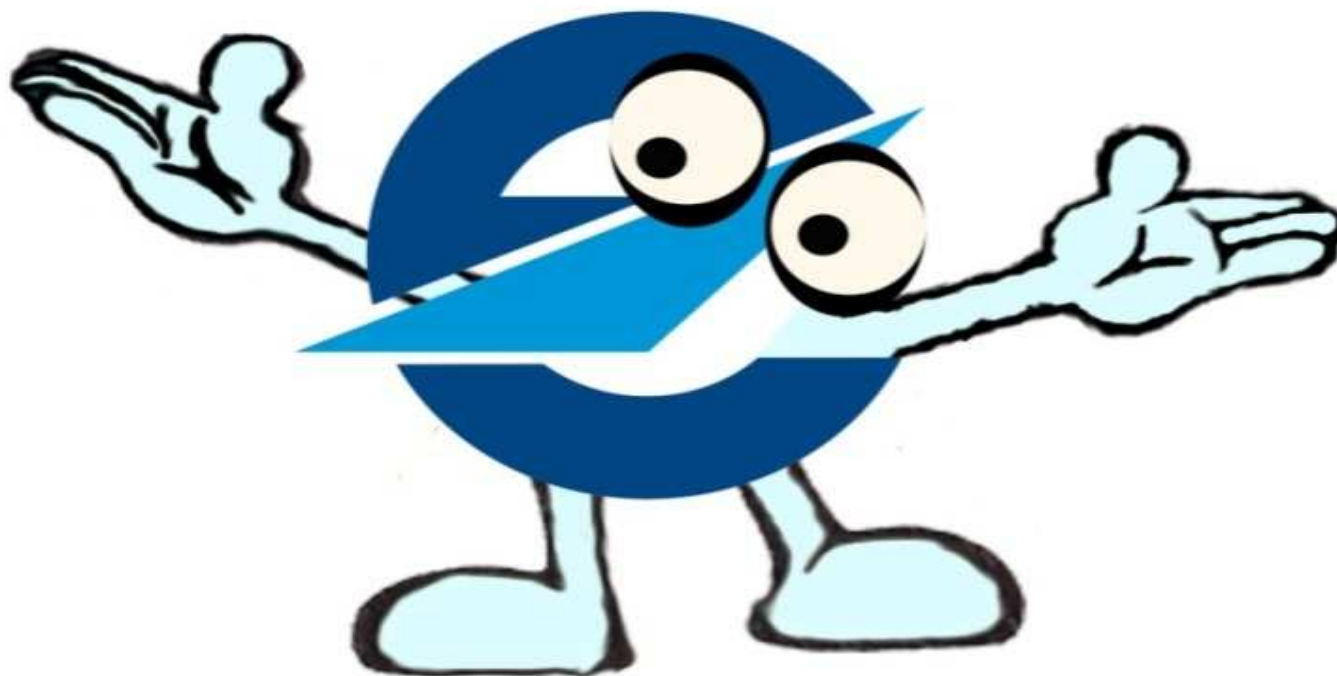


# eurocross

eurocontrol routine observation safety survey





- **Ralf Hölscher / D**
- **Process Owner**
- **Safety and Quality Agent at Eurocontrol MUAC**



- **Karl-Fredrik Spets / S**
- **EUROSS Observer/ focal point**
- **ATCO Eurocontrol MUAC**
- **OJTI-O, TRM, RT**

# AGENDA / OBJECTIVES

Safety Survey Workshop 21 November 2012

- 25 min. Presentation of EUROSS
  - Background and development
  - EUROSS practice and experience
- 15 min. Q&A / Answer to your questions about EUROSS

# Safety Surveys

- ICAO DOC 9859
  - 9.6.4 Information sources for safety **performance monitoring** include:
    - Hazard reporting – 3 methods
    - Safety studies
    - Safety reviews
    - Internal safety investigations
    - Audits and surveys
  - 9.9 **Continuous improvement** of SMS
    - Internal evaluations and audits
- IFATCA recommendation on monitoring safety in normal operations (Melbourne 2005)

## ESARR 3 REQUIREMENTS

### TO ADOPT A SAFETY POLICY

**SAFETY MANAGEMENT** - to implement a formal and explicit safety management approach  
**SAFETY RESPONSIBILITY** - everybody has an individual safety responsibility for his/her own actions  
**SAFETY PRIORITY** - over commercial, operational, environmental or social pressures  
**SAFETY OBJECTIVE** - to minimise the ATM contribution to the risk of an aircraft accident

#### REQUIREMENTS FOR SAFETY ACHIEVEMENT

**COMPETENCY – ESARR 5**  
*staff trained, motivated and competent*

**SMS DOCUMENTATION**  
*the sms is a documented system arising from a safety policy*

**SAFETY MANAGEMENT RESPONSIBILITY**  
*a safety management function within the organisation*

**EXTERNAL SERVICES**  
*dealing with externally provided services*

**QUANTITATIVE SAFETY LEVELS**  
*deriving quantitative levels wherever practicable*

**SAFETY OCCURRENCES**  
*atm operational or technical occurrences are investigated internally*

**RISK ASSESSMENT AND MITIGATION**  
*the safety of new systems and changes is to be demonstrated using a risk based approach. risk is assessed and mitigated.*

#### REQUIREMENTS FOR SAFETY ASSURANCE

**SAFETY SURVEYS**  
*safety has to be verified internally and continuously*

**SAFETY MONITORING**  
*continuous monitoring and analysis of safety indicators*

**SAFETY RECORDS**  
*records are produced and maintained throughout the sms operation*

**RISK ASSESSMENT AND MITIGATION DOCUMENTATION**  
*the results of risk assessment and mitigation processes are documented throughout the system lifecycle*

#### REQUIREMENTS FOR SAFETY PROMOTION

**LESSON DISSEMINATION**  
*disseminating past lessons within the organisation*

**SAFETY IMPROVEMENT**  
*involving all staff and implementing the improvement of safety as a continuous process*

EUROSS as a potential tool for safety surveys



# Survey of Normal Operations

The challenge of being very safe is that the usual indicators that something is becoming less safe may not be so evident.

What can we do?

D2D

# Developing EUROSS

- What is already there?
  - TEM (Threat and Error Management)
  - LOSA (Line Operation Safety Audit)
  - NOSS (Normal Operation Safety Survey)
  - D2D (FROG)
- What can we do?
  - Limited resources
  - Avoid administrative overhead
  - Get staff acceptance and commitment
  - Get management commitment



# EUROSS Goals

- Developed with external help
  - HF expertise from EUROCONTROL HQ
  - Organisational psychologist and students from university of Duisburg/Essen
- Requirements
  - Obtain quick real time data on ATM safety
  - Acceptable and sustainable scheme
  - Reinforce best practices
  - Detect evolving safety risks
  - Achieve cultural change
  - From ATCOs for ATCOs





# EUROSS Key Elements

- Include professional staff representation
- One yearly observation sheet to limit focus
- Dual observers for inter-rater reliability
- Trained and standardized observers
  - Initially mix of student and ATCO observers
- Anonymous and confidential data collection
  - Observation data stays with ATCO group
  - Only aggregated results and recommendations go to management
- Voluntary participation of observees
- Joint sponsorship from Management and EGATS

# EUROSS Implementation

- Implementation campaign
  - Note blocks
  - Staggered communication campaign
  - Clear differentiation from competency assessment
  - Posters
  - Intranet
  - Training of observers
  - Code of conduct for observes
  - Vests and mints



# EUROSS

## What is EUROSS?

EUROSS is a safety culture scheme to detect best practices during normal operations. It is based on the international NOSS standard and adapted to the MUAC needs by Maastricht University of Duisburg/Essen.

## How will I be observed?

If you are being observed, a pair of observers will observe you or beside you and will fill out a previously defined form.

## Why do we do this?

We do this to document our best practices and to improve our Safety Culture. We want to compare Safety Culture of different sectors over a period of time in order to ensure improvement.

## Who will observe me?

Two observers will observe you. There is a pilot study group consisting of 4 ATCOs per sector group. In a second phase, we will study the convenience of having external observers. Therefore there will be a group of external observers, students from the University of Duisburg-Essen, who will observe you during the observations.

## How long does an observation take?

30 minutes.

## Pilot Study: November & December 2009



If you have any more questions please contact:

daniel.martinez-pasamar@eurocontrol.int  
james.taylor@eurocontrol.int  
christiane.fricke-ernst@eurocontrol.int or  
christiane.fricke-ernst@uni-due.de

<http://intranet/euross.html>



**euross**  
eurocontrol routine observation safety survey

Coming this November

THW 330  
-170 ↓ -41

BWS 900  
-190 ↓ -21

DTD 201  
-270 ↑ +17

Feel free to visit us:  
<http://intranet/euross.html>

EGATS  
EUROCONTROL SYSTEMS

UNIVERSITY  
DUISBURG  
ESSEN  
SHARED AND  
RESEARCH  
psychology

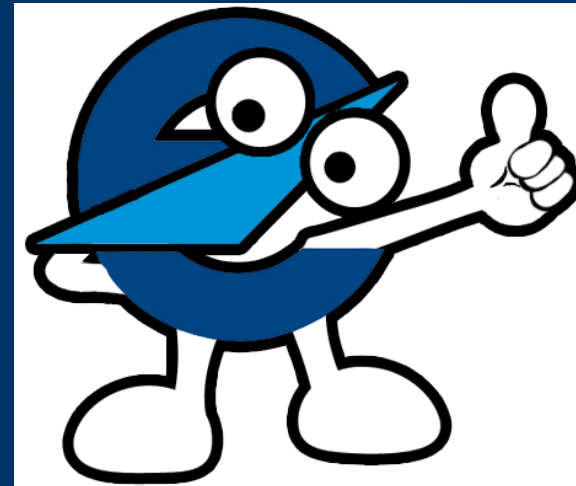
# EUROSS Cycle as part of SMS

- Prepare observation sheet for next period based on previous experience:
  - Continuous improvement
  - Focus on most pressing issues
- Promote next campaign – posters/pamphlets
- Train observers/ newcomers for next campaign
- Test observations
- Carry out approximately 75 observations during a set period
- Analyze data and finalize recommendations
- Develop presentation, deliver in refresher training sessions
- Produce result pamphlets / Intranet portal
- Gather feedback



# EUROSS Structure

- 12 observers mix of ATCOs – yearly fluctuation
- 1 Administrator - managing the scheme
- Committee - analysing results, formulating recommendations, compiling next observation sheet
  - Administrator
  - Supervisor
  - Observer
  - ATCOs
  - Guild representative
- Management
  - Process owner
  - Ensure resources and support administrator

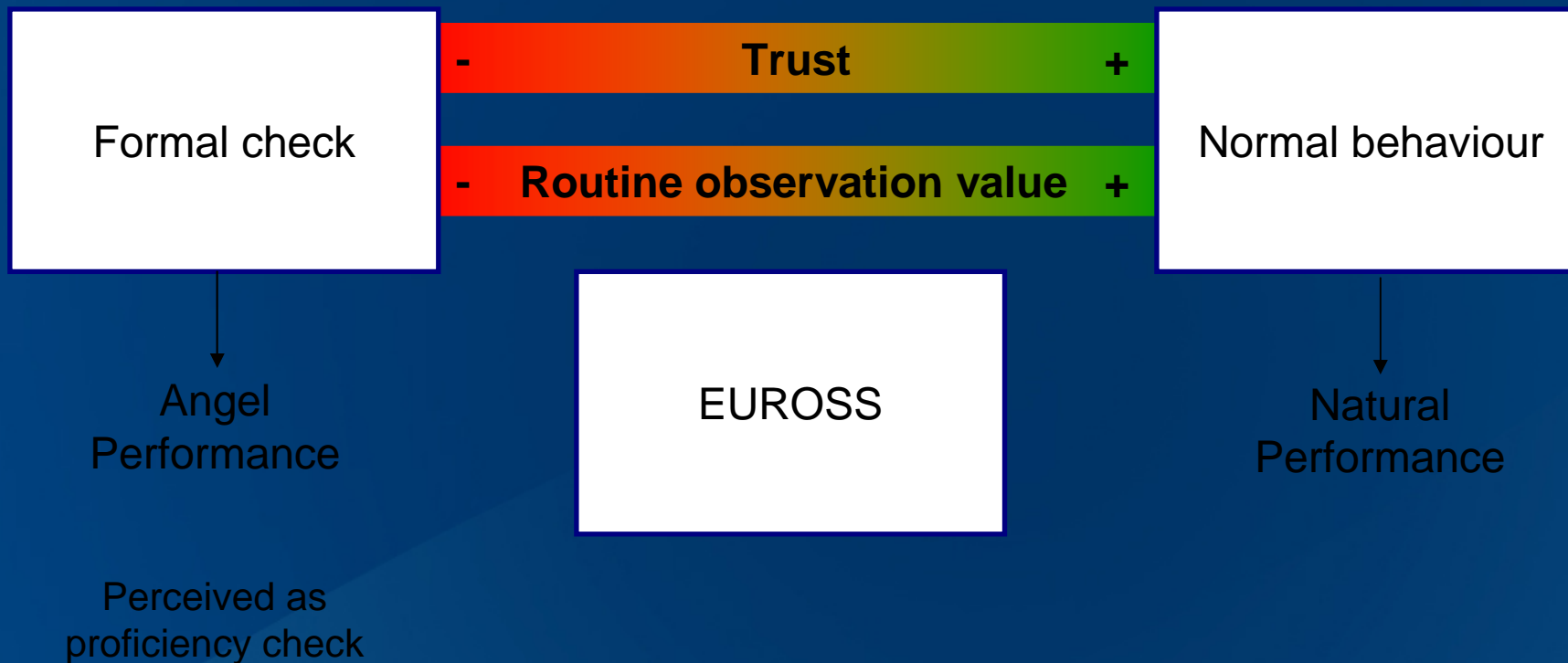


# EUROSS Practice & Experience





# Normal Operations Monitoring



# HOW EUROSS WORKS

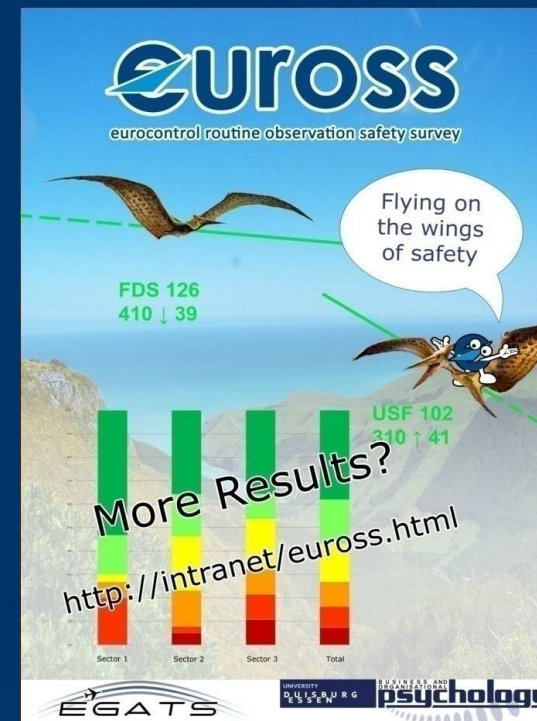
Information gathering via observations



Evaluation



Recommendations to staff,  
management, etc.



# OBSERVATIONS

## Observation Criteria

- Team Interaction
- Environment
- Information Acquisition
- Procedures

## Observation

- 2 Observers
- 30-60 minutes
- Voluntary participation

# OBSERVATION PROCESS

## Three Stages

1. Trained observers record everyday operation information on form.
2. Data is recorded and processed by a team of 2 Observers.
3. EUROSS report prepared and submitted.

# OBSERVATION SHEET

<u>Observation</u>	<u>Result</u>	<u>Comments</u>
e.g.		
Back-up system check	Yes/No	Done late-due heavy tfc
Safe & Organized hand-over		
Conflicts passed	Verbally/Electronically	one/both etc.

# OBSERVATION SHEET

- Observation sheets from 2010-2012



# ATCO PRESENTATION

The coordinating controller/ EC checks the OSDR pages on the CCTV for information



	1	2	3	4	5	6
Hannover	11	1	0	0	0	13
Brussels	9	0	3	0	0	7
Deco	4	0	0	0	0	14
Total	24	1	3	0	0	34

- Different working practices in sectors. CCTV  
-more important for Delta Sectors

# ATCO PAMPHLET

- Pamphlet results 2012

# RECOMMENDATIONS

- Results gathered into recommendations to Staff and Management
- Management follow-up
- Changes proposed and possibly implemented

# Weaknesses

- **ATCOs aware of someone observing them (although not the notion of being competency assessed)**
- **Objective vs Subjective**
- **Limitations to what items you are able to observe in an objective way**

# EUROSS GOALS

- **Positively influence safety**
- **Best practices to improve working environment**

# The Real Benefits

- Bridging Function – Safety Culture
  - INREP
  - TRM
  - Refresher Training
  - Incident Investigations
  - Human Factors



# OTHER ACTIVITIES

- Night vigilance test
- Questionnaire
- Comic Strips
- Fruit
- On-line EGATS forum

# FUTURE OF EUROSS

- Aid a Safety Culture in constant strive for improvement  
Safety Management vision/ strategy - never complacent
- Interview ATCOs?

Platforms to continue connections with:

- Team Resource Management
- Refresher Training
- Incident Investigations
- Human Factors Department/ research

# Thank you / Q&A

