EUROCONTROL

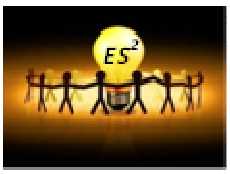
Network Manager

NMD/NOM/SAF

ESP+ Programme

ES²

Experience Sharing Enhance SMS Workshop



ES²-WS02-14

SAFETY HUMAN PERFORMANCE SYSTEM

“FROM THEORY TO PRACTICE”

24-26 SEPTEMBER 2014

TIVOLI ORIENTE Tejo Hotel

LISBON / PORTUGAL

NAV Portugal, E.P.E.

EUROCONTROL

FOREWORD

Building on the success on the 2013 Dublin Conference on Moving from Safety-I towards Safety-II, this year Conference in Lisbon is aiming to put some building blocks from Theory to Practice.

Again we are making this event a unique opportunity to hear from some the world's most respected thinkers on systems safety: Professor Chris Johnson (University of Glasgow), Professor David Woods (Ohio State University), Professor Erik Hollnagel (University of Southern Denmark), Prof. Richard Cook (Healthcare System Safety, KTH, Stockholm) and Professor David Slater (School of Engineering, Cardiff University). They will be joined by practitioners from ANSPs to exemplify through Use cases and practical examples how we can apply Safety-II in practice and in day to day operations.

For EUROCONTROL Network Manager this is the opportunity to launch the second White paper on Safety II – on **10 System Thinking Principles**. The Foundation on this latest White paper is System Focus. When one spends any time in an organisation, it is clear that people do not work in isolation. Rather, we work with and within connected and interacting systems. In a typical tower and approach unit, for instance controllers, assistants, supervisors, engineers, support staff routinely work together and with others such as pilots, drivers and airport staff. People also work with many types of technology (approach radar, ground radar, flight data display, lighting panel, etc) and information inside and outside the tower (concerning aircraft, vehicles, runway and airport information, etc).

This much can be observed quite easily. Less visible parts of the system include organisational elements (such as rosters, incentives, rules and procedures, training practices), and political and economic elements (including pressures relating to runway occupancy, noise abatement, and performance targets). The same applies when one spends any time in an area control operations room with air traffic controllers, in an equipment room with engineers, in a meeting room with managers or in a boardroom with company directors.

It is obvious that 'human performance' cannot be untangled or separated from the performance of system as a whole. So to improve system performance, we must think and act on a system level, considering the human, social, technical, information, political, economic and organisational parts.

Safety also should be considered in the context of the overall system, not isolated individuals, parts, events or outcomes. Most problems and most possibilities for improvement belong to the system. Consider the system holistically, and consider interactions between elements of the system.

We look forward to see many of you in Lisbon during 24-26 of September 2014.

SAFETY HUMAN PERFORMANCE SYSTEM

"FROM THEORY TO PRACTICE"

24th & 26th September 2014

Tivoli Oriente, Tejo hotel - Lisbon

Day 1 – 24th September 2014	
12:00	**Registrations**
13:00	**Welcome and Introduction** **NAV Portugal – *Antonio Guerra* DSEQ/SEGNA and EUROCONTROL SHP SG co-chairs *Tony Licu* – Head of Safety NMD EUROCONTROL and *Jörg Leonhardt* - Head of Human Factors in Safety Management - DFS**
13:15	**Session 1: *Prof. Richard Cook* - Professor of Healthcare System Safety, KTH, Stockholm – Only Bad Choices** *(Workers at the sharp end of practice often encounter situations where every available choice is bad. Instead of doing the right thing, they are called upon to weight the risks and benefits of different choices and to choose among these bad alternatives. Technological and social change will continue to create novel situations where there are ony bad choices. Studies of how practitioners manage these situations tell us much about how safety is created and destroyed in modern systems)* **and *Sebastian Däunert* – Safety Manager at Frankfurt Tower DFS – Limits of Safety** *(In 2011 a new Tower and Runway were taken into operation at Frankfurt airport. The presentation examines the problems encountered in safety management during and after the commissioning of these new assets and the interaction with outside influences)*
15.15	***Tea/coffee break***
15:45	**Session 2: *Professor David Slater* – School of Engineering, Cardiff University – Simple but Complex! – Even in XIXth century railway systems, unappreciated (as is) interdependencies were causing serious problems (Clayton Tunnel – a test case)**. (*This is a classic scenario where a system has been designed to function mechanically like lock work, provided all the parts work as they are supposed to. (Reliably?). To the Victorian determinists, the involvement of humans was OK provided they too worked like automatons. Then this system is simple, predictable and safe?)*
16:45	**Discussions:**
17.15	**End of Day 1**
Evening	**Dinner (with participants contributions)**

Day 2 – 25th September 2014	
09.00	**Session 3: *Prof. Chris Johnson* – Professor of Computing Science at Glasgow University. Software tools to increase the competence, consistency and creativity of ATM incident investigators**
10:15	**Session 4: *Jean Marc Flon* - Chef du service Exploitation CDG Paris DSNA – Starting to move from Safety-I to Safety-II at CDG** *(In our industry, operational staff of all kinds are constantly having to make decisions and trade-offs. Safety is at the core of their work but at the same time the demands and pressure of traffic, the systems and the operational situation mean that there are conflicting options and operational decisions have to be made rapidly. Thus, the 'safety management system' as we know it, with all its refinements, is not easy to grasp for a front-line person such as a controller or technician. Safety is part of the work and is, in a way, his or her job. On the front line, it may seem like safety management is "nothing to do with me". At the same time, they 'manage' safety – as well as efficiency – on a minute by minute basis. At CDG we try to make positive safety as part of "normal" SMS and part of the day to day operational job.)*
10.45	***Tea/coffee break***
11:15	**Session 5: *Dr. Steve Shorrock* – EUROCONTROL 10 Systems Thinking Principles – Moving Towards Safety II - with practical application on work as done vs. work as imagined** *(Safety must be considered in the context of the overall system, not isolated individuals, parts, events or outcomes Most problems and most possibilities for improvement belong to the system. Consider the system holistically and consider interactions between elements of the system)* **– with *Neil May* and *Anthony Smoker*– UK NATS – Study Cases**
13:00	***Lunch***
14:15	**Session 6: *Thomas Jäkel* Safety Manager Karlshrue UAC DFS – ATM Day to Day operations – work as done - example**
14:30	**Session 7: *Prof. Erik Hollnagel* - Professor at the University of Southern Denmark and Chief Consultant at the Centre for Quality Improvement, Region of Southern Denmark.– Safety-II in practice - Realigning work-as-imagined with work-as-done**
15.45	***Tea/coffee break***
16:15	**Session 8: *Paula Santos* Safety, Surveillance and Quality Expert NAV Portugal – Modelling day to day ATM System** *(The modelling of functional system architecture is essential not only from the business and management point of view but also for the safety activities – NAV Portugal experience in modelling ATM system looking at Day to Day Operations)*
17.00	**Discussions**
17.30	**End of Day 2**
Evening	**Dinner (with participants contributions)**

Day 3 – 26th September 2014	
09.00	**Session 9: *Radu Cioponea* – EUROCONTROL and *Christoph Peters* DFS – Weak Signals** *(A seemingly random or disconnected piece of information that at first appears to be background noise but can be recognized as part of a significant pattern by viewing it through a different frame or connecting it with other pieces of information. A Safety-II approach for the ANSPs)* ***Prof. David Woods* – professor at Ohio State University in the Institute for Ergonomics and Past-President of the Human Factors and Ergonomics Society - The Mystery of Sustained Adaptability**
11.00	***Tea break***
11.30	**Session 10: Panel and interactive session with *Prof. Chirs Johnson*, *Prof. David Woods Prof. Erik Hollnagel*, *prof. Richard Cook, prof. David Slater* and *Dr. Steve Shorrock*** **SYSTEM SAFETY & HUMAN PERFORMANCE - WHY THINGS GO RIGHT** **FOM THEORY TO PRACTICE – WHAT NEXT?** ***Moderated session by Tony Licu & Jörg Leonhardt***
13:15	**Conclusions and Closure**
13:30	**Lunch**

ADDITIONAL INFORMATION
CONFERENCE TECHNICAL COORDINATION CONTACT

Should you like to discuss this event further, please do not hesitate to contact:

Mr. Tony Licu - Head of NMD/NOM/Safety Unit,
Tel: +32 2 729 3480
antonio.licu@eurocontrol.int

Dr Frederic Lieutaud - ES² & ASMT Project Manager,
Tel: +32 2 729 3155
frederic.lieutaud@eurocontrol.int

Mrs. Chantal Mouzelard - Secretary of the NMD/NOM/SAF unit
Tel: +32 2 729 3725
chantal.mouzelard@eurocontrol.int

TIVOLI ORIENTE, TEJO Hotel: http://tivolioriente.lisbonhotels.it/