



# DLR-PROFA- Symposium

November 12-13, 2013

Radisson Blu Hotel,  
Hamburg Airport



Dear Colleague,

You are kindly invited to the two-day DLR-Symposium on Psychological Requirements for Operators in Future Aviation:  
The DLR-PROFA-Symposium!

The main topics are future ability requirements for monitoring and decision-making as well as future requirements concerning the personality of human operators in aviation. You will gain insight into the results of recent projects at the DLR and experience demonstrations of our simulation tools.

We are also proud to announce three reviewers who will be presenting their evaluation of the results in the context of aviation research:

Prof. Lena Mårtensson  
(KTH Stockholm / SESAR Scientific Committee)

Prof. Peter Jorna  
(HFI Solutions Netherlands / EAAP-President)

Prof. Dietrich Manzey  
(TU Berlin / HFES-EC-President)

**We look forward to your registration to this unique event!**



# Key Topics

## Using eye tracking to measure monitoring performance



Testing human monitoring performance using dynamic simulations with eye-movement tracking represents a new approach for the assessment of future job requirements. In order to identify operators monitoring appropriately, eye-tracking studies were conducted with job applicants and experts. A system called MonT was used as a simplified simulation of the basic equipment for future flight operators. Eye gaze, performance and questionnaire data indicated that eye tracking is an appropriate method to diagnose operators' monitoring performance.

## Investigating pilots' and controllers' behaviour by simulating future scenarios



The impact of the transition from current to future operations for human operators in aviation is the key question of this topic. Concerning the transition from the space-based to time-based guidance of aircrafts, two simulation studies were conducted with pilots and air traffic controllers to compare current scenarios and future scenarios empirically. In doing so, the low-fidelity simulation AviaSim was used, which combines both on-board and ATC systems. Eye gaze, simulation and questionnaire data give information about requirements for future aviators

## Identifying the personality profile of future pilots and controllers



Working in the highly automated human-machine-interfaces of future aviation, i.e. in hybrid teams, will probably demand a different personality and attitude profile than working with a human partner. A simulation study combining the ATM-Scenario HINT (Hybrid Interaction) with both personality scales and risk taking experiments resulted in a compilation of personality facets which are predictive of performance in hybrid teams. Furthermore, measurements of task load and ratings for the state of well-being during the simulation were included in the study.

## SJU WP 16.04.03

The objective of project 16.04.03 in the SESAR Joint Undertaking is to investigate the impact of future systems and procedures on selection, training, competence and staffing of operators in ATM. In order to support operational improvement projects in the mandatory human performance assessment process, proactive tools have been developed. The selection requirements proactive analysis tool SELAT was tested in a large-scale baseline study across different European countries and is currently being trialed in simulation studies within SJU. This project is led by DLR on behalf of DFS Deutsche Flugsicherung GmbH.

# Organisational Details

**Times** Nov 12<sup>th</sup> 2013, 10 a.m. – 5 p.m.  
Nov 13<sup>th</sup> 2013, 9 a.m. – 4 p.m.

Participation is free of charge

**Location** Radisson Blu Hotel  
Hamburg Airport  
Flughafenstrasse 1-3  
22335 Hamburg  
Germany



**Welcome Reception** Nov 12<sup>th</sup> 2013, 10 a.m. – 10:30 a.m.

**Social Evening** Nov 12<sup>th</sup> 2013, 7 p.m.  
Informal dinner at a traditional local restaurant

**Registration** Please confirm your participation **by Sept 31<sup>st</sup> 2013**  
using the enclosed registration form

**Organizational Team** Dr. Carmen Bruder      Solveig Eschen  
0049 40 51309661      0049 40 51309665

## Travel

The venue is located at the Hamburg Airport with direct connection to Terminals 1 and 2. In addition, the sights and sounds of downtown Hamburg are just nine kilometres away.

For guests travelling by car, the airport offers 10,000 parking spaces, which visitors may utilise at the current airport parking fees. A parking card can be validated at hotel reception. Please contact Radisson Blu for further information.

## Accommodation

Radisson Blu offers special rates for symposium participants:  
140 € per night and room including breakfast, fitness club and Wi-Fi in the rooms.

Please use the following e-mail and promotional code to take advantage of the special rate:

[reservations.airport.hamburg@radissonblu.com](mailto:reservations.airport.hamburg@radissonblu.com)

Promotional Code: **DLR-PROFA-Symposium**

# Registration Form

Title: \_\_\_\_\_

First name: \_\_\_\_\_

Family name: \_\_\_\_\_

Job function / Title: \_\_\_\_\_

Organization / Company: \_\_\_\_\_

Street / Nr.: \_\_\_\_\_

City: \_\_\_\_\_

Postal Code: \_\_\_\_\_

Country: \_\_\_\_\_

Email: \_\_\_\_\_

**Please checkmark:**

- I wish to attend the DLR-PROFA-Symposium
- I wish to attend the social evening

Your signature: \_\_\_\_\_

Date: \_\_\_\_\_

Please, send your registration form by **e-mail** to [profa@dlr.de](mailto:profa@dlr.de),  
by **fax** to **+49 40 513096 8861** or by mail to



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