



Human Factors in Flight Safety: SMS, Risk Management and Safety Investigation

The 19th EAAP Human Factors in Flight Safety course will be held in Barcelona from 21-25 May 2013, kindly hosted by Vueling.

This course has been conducted on behalf of the European Association for Aviation Psychology (EAAP) since 1999 by Dr Rob Lee, Kristina Pollack, and Brent Hayward, and this will be just the second time it has been held in Spain (after Madrid in 2008).

Since its inception, the course has been continually modified and updated to address the human factors aspects of ongoing changes to the global aviation system. It has been well-attended by, and received very positive reviews from, personnel representing many IATA member airlines, ATS providers, aircraft manufacturers, military forces, aviation regulators and air safety investigation agencies, from many countries within Europe, the Middle East, the Asia Pacific region, and North and South America.

Course Overview

Significant changes are occurring in all aspects of international aviation. For example, ICAO is now developing the new Annex 19 that will include in one document all the safety management system requirements currently spread across various Annexes. As ICAO prepares to adopt Annex 19 in November 2013, the practical application of human factors in all SMS elements, and to the integration of the SMS, will be a focus of the 2013 EAAP HF in Flight Safety course.

The 2013 EAAP Human Factors in Flight Safety course has been revised and updated to address the human factors dimensions of these new requirements, a key aspect of which is effective risk management.

Operational experience, systemic investigation, and research have shown that human factors at both the individual and organisation levels constitute the greatest source of risk in aviation operations.

Consequently, knowledge of human factors is essential to the effective proactive management of safety in all aspects of aviation operations – including flight safety, maintenance, and air traffic services.



The 2013 EAAP course will include the practical application of human factors to aviation risk management, using the proven "Bow Tie" methodology, now applied increasingly for management of risk in aviation - for example, in the ARMS methodology for risk assessment in aviation operations.

Positive safety culture is essential to effective safety management and the course addresses this topic, including practical means of developing, maintaining and enhancing safety culture within an organisation.

This course will address critical issues of human factors and safety management, including accident

prevention and investigation, with an emphasis on practical techniques for application in the operational environment.

Informed understanding and consideration of individual and organisational human factors are critical to the effectiveness of investigation and reporting processes. Air safety investigation outcomes can have a positive impact on accident prevention programs, equipment design, operating procedures, personnel selection, training, flight standards, SMS and regulation.

Similarly, the incorporation of human factors knowledge in risk management, safety enhancement, and proactive accident prevention programs is critical to their success.

As such, an understanding of human factors in relation to safety management systems, including the components of risk management and investigation techniques, is essential.

The revised and updated 2013 EAAP Human Factors in Flight Safety course has been designed to address the critical human factors dimensions of the new challenges presented by major operational, regulatory, and commercial changes in the international aviation domain.

Course Objective

To provide participants with human factors knowledge and practical tools that can be readily applied to improve proactive safety management, risk management, and safety occurrence investigation and reporting in both civil and military aviation.



Course Content

Course content for the EAAP Human Factors in Flight Safety course has been continually updated and revised since its inception in 1999.

The 2013 course will include:

- Introduction to Human Factors
 - What is Human Factors?
 - Origins of Aviation Psychology and Human Factors
 - Human Factors in context with SMS
 - Individual and systemic approaches
- Human Factors and Systems Safety
- Human Performance Considerations
- Understanding Human Error
- Why and How do we Investigate?
 - ICAO Annex 13 International guidelines
- Conducting an Investigation
 - The role of the Aviation Psychologist/ Human Factors Specialist
- Organisational Accidents
 - Including use of Reason's 'Swiss Cheese' Model and a range of practical illustrative case studies
- Integrated Safety Management Systems
 - Human factors aspects and links
- Human Factors in Risk Management
 - The Bow Tie method, including practical exercises, &
 - Introduction to the new ARMS methodology for risk assessment in aviation operations
- Culture and Safety Management
- Applying safety investigation analysis techniques
- Data Gathering
 - Witness Interviewing ~ theory & practice
- Flight Safety tools
 - Incident reporting, safety data systems, audits, safety analysis tools
- Applied practical case studies
- Major Exercise | applied case study using the PIRATe methodology

Participants

While highly relevant to all aviation personnel, the course is aimed at aviation professionals and managers working in civil or military operations, including pilots, cabin crew, aviation psychologists and HF specialists, ATCOs, maintenance engineers, air safety investigators, aviation regulators and other safety professionals. Participants from other domains such as maritime, rail, nuclear power and health care are also most welcome.



Course Language

English.

Course Certificate & EAAP Recognition

Participants will receive a certificate on successful completion of the course, which is recognised by EAAP for contribution towards accreditation as an Aviation Psychologist or Human Factors Specialist. To receive the certificate, participants are expected

to attend all sessions and actively engage in course discussions, case studies and syndicate exercises.

More information on EAAP membership and accreditation can be found on the EAAP website: www.eaap.net





The Course Team

The experienced team of Dr Rob Lee, Kristina Pollack and Brent Hayward will present this training course. They have conducted EAAP HF courses together since 1999 and each of them has extensive practical experience and knowledge in the application of human factors concepts to enhance operational safety in civil and military aviation. This includes the investigation of major accidents and incidents, as well as the development and implementation of integrated safety management systems and applied human factors training programs.

Dr Rob Lee AO

- International consultant on human factors, safety investigation and systems safety in aviation, rail, nuclear power and health care.
 Based in Canberra, Australia.
- The first Royal Australian Air Force (RAAF) psychologist to serve on Australian military aircraft accident investigations. Currently Group Captain, RAAF Specialist Reserve.
- Director of the Australian Bureau of Air Safety Investigation (BASI) from 1989-1999, pioneering application of HF and systems safety concepts.
- Since 2000, analyst on major civil and military accident investigations in Asia, Europe, and the Middle East, including: A320, B747, B757, TU154M, Sea King, and Black Hawk.
- Works with regulators, airlines, the military and academic institutions on development, implementation and training in integrated SMS, and lectures widely on HF and SMS.
- Presented and published many papers, and co-authored Beyond Aviation Human Factors (1995), with Maurino, Reason and Johnston.
- Recipient of the Second Australian Aviation Psychology Association (AAvPA) Aviation Human Factors Achievement Award, November 2000.
- Recipient of The Guild of Air Pilots & Air Navigators (GAPAN) 2010 Australian Bi-Centennial Award "to recognise an outstanding individual contribution to Australian aviation".
- In 2012 Rob was awarded an Order of Australia for services to aviation safety.

Kristina Pollack

- International consultant on human factors, safety, risk management and accident investigation. Currently works with civil and military flight safety, nuclear power, and shipping. Based in Stockholm, Sweden.
- The first Swedish Air Force psychologist to serve as a human factors specialist aircraft accident investigator.
- More than 25 years experience as a human factors investigator on civil and military aircraft accident investigation boards with the Swedish Board of Accident Investigation. Has worked on more than 200 accident investigations in Sweden and elsewhere.
- Fifteen years working as Human Factors specialist in the Flight Safety Directorate of the Swedish Air Force.
- Former Head of Military Psychology with the Swedish Armed Forces.
- President of the European Association for Aviation Psychology (EAAP) from 1996-2002.
- Current member of the OKG Nuclear Safety Committee; the Swedish Board for Work and Organisational Psychology; and the HF Advisory Group of EASA.
- Extensive experience in aviation psychology, including selection, training (including CRM), audit, and human-system interaction.
- Recipient of the Fourth EAAP award for Outstanding Commitment and Achievement in Aviation Psychology, Budapest, September 2010.

Brent Hayward

- Managing Director of Dédale Asia Pacific, an international consultancy working in aviation psychology, human factors and systems safety.
 Based in Melbourne, Australia.
- More than 30 years working in aviation psychology, with the RAAF Psychology Service, Australian Airlines, QANTAS, and as a consultant to various airlines, ANSPs, and regulators.
- Extensive experience in the investigation of human factors aspects of aircraft accidents and incidents.
- Founding President of the Australian Aviation Psychology Association (AAvPA), 1992-2000.
- Conducts applied training on human factors, systemic safety investigation methods and safety culture enhancement in aviation, rail, health care, maritime, and nuclear power domains.
- Consults on the development and implementation of CRM training programs for the aviation, rail, and maritime domains.
- Develops safety training media and film scripts, eg., The Dryden Accident, Safety Culture Evolution, and ASSIST.
- Consults on a variety of safety related HF issues in aviation, rail nuclear and other industries.
- Author of numerous publications and conference presentations.
- Recipient of the Third AAvPA Aviation Human Factors Achievement Award in 2003.

Course Details

Course Dates

The course will run from **09:00** hrs on Tuesday 21st May through to **17:00** hrs on Saturday 25th May 2013.

Course Location

The course will be hosted by **Vueling**, at their airline headquarters and training facility at *Barcelona El Prat Airport*, just 12 kilometres from Barcelona city centre.

Hotel Accommodation

A group accommodation booking has been made at the *Tryp Barcelona Aeropuerto Hotel*, a 4-star hotel conveniently located next to the training venue.

The *Tryp Barcelona Aeropuerto Hotel* is offering an excellent EAAP Course room rate of **EUR 70** per night for reservations received by **10 May 2013**. This rate is for a Double room with single occupancy and includes full breakfast, WiFi, airport transfers and gym access. Double occupancy rooms can be reserved for EUR 86 per night. These room rates include 10% IVA tax.

A free airport shuttle service runs from BCN airport Terminals 1 and 2 to the hotel and the airport is well connected to the city centre by bus and train.

Hotel address and contact details are as follows:

Tryp Barcelona Aeropuerto Hotel Plaça Del Pla De L' Estany, 1-2 Parque de Negocios Mas Blau II Prat de Llobregat - Barcelona 08820, Spain. Tel: +34 93 378 1000; Fax: +34 93 378 1001.

It is strongly recommended that all non-local participants stay at the *Tryp Barcelona Aeropuerto Hotel*. Further information is available from the website: http://www.melia.com/hotels/spain/barcelona/tryp-barcelona-aeropuerto-hotel

To Make Hotel Reservations

To guarantee your room reservation at the *Tryp Barcelona Aeropuerto Hotel* at the special Vueling/EAAP Course rate, please tick the hotel accommodation box on the attached Registration Form and email or fax it to Brent Hayward **before 10 May 2013**:

e-mail: bhayward@dedale.net Fax: +61 3 9645 5472

Please note:

Reservations must be made by 10 May 2013 to guarantee the special EAAP Course hotel room rate.

Course Registration Deadline

To guarantee your position on this course, please complete and email or fax the attached *Registration Form* to Brent Hayward before **10 May 2013**.

Course Registration Fee

EAAP Members: EUR 1,450. Others: EUR 1,650.

The course registration fee covers all course tuition and materials, a *Course Welcome* function on the evening of Tuesday 21 May, a *Course Dinner* on Friday 24 May, and daily refreshment breaks.

Please note: While attendance at the above evening functions is voluntary, no discount or refund will be made for those who are unable to attend.

SPECIAL NOTE: An Early Bird discount of 150 EUR will apply to all registrations received by 30 April 2013.

Payment of Fees

Payment of fees should be made a soon as you register, by electronic transfer to:

Bank: Handelsbanken Lidingö Centrum

Account name: Flight Safety, EAAP Course

Account no: 347 254 128

Clearing no: 6152

IBAN: SE06 6000 0000 0003 4725 4128

Swift code: HANDSESS

Please provide the course participant's name and organisation when making payment. For enquiries on making Registration Fee payments please contact Kristina Pollack: k.pollack@swipnet.se

Further Information

For further information on the course venue or enquiries regarding hotel reservations, please contact Giacomo Faglia at Vueling in Barcelona: Tel: +34 608 482 844; or e-mail: giacomo.faglia@vueling.com

For further information on course content, course registration or administration matters, please contact Brent Hayward: bhayward@dedale.net

EAAP

Completion of this course is recognised by the European Association for Aviation Psychology (EAAP) for the purposes of contribution towards certification as an Aviation Psychologist or Human Factors Specialist. EAAP is an international, professional, independent, non-profit organisation, dedicated to the promotion of aviation safety and efficiency through aviation psychology. For more information on EAAP membership and certification, please visit the EAAP web site: www.eaap.net

COURSE REGISTRATION FORM

"Human Factors in Flight Safety, SMS, Risk Management and Safety Investigation" 21-25 May 2013, Barcelona

Please complete and send this form ASAP to Brent Hayward:

By e-mail: bhayward@dedale.net
By Fax: +61 3 9645 5472

Participant Details							
First name/s:			Family name:				
Title (Dr/Capt/Mr/Ms/other):		Job function/Title:					
Organisation / Company:							
Postal address							
City			Postcode	Cou	Country		
Tel:			Email:				
Registration Fee to be paid	d (please	select o	one only)				
Early Bird Fee * (pay by 30 April):	EAAP Member: 1,300 €			Non-Member: 1,500 €			
Standard Fee (pay after 30 April):	EAAP Member: 1,450 €			Non-Member: 1,650 €			
			Please note:				
 Payment of the Early Bird fee must be made by 30 April 2013. For Registration Fee payment please arrange electronic transfer to: 							
Bank: Handelsbanken Lidingö Centrum, Sweden Account name: Flight Safety, EAAP Course Account no: 347 254 128 Clearing no: 6152 IBAN: SE06 6000 0000 0003 4725 4128 Swift code: HANDSESS							
Please provid	de participa	nt's nar	me and organisation	whe	n making payment.		
Hotel Accommodation							
Do you intend to stay at the Tryp Barcelona Aeropuerto Hotel? Yes		Yes,	s, please send me the hotel reservation form \square No \square			No 🔲	
This EA	AP-recogn	ised co	ourse is kindly hos	ted I	by Vueling.		



