



Human Factors in Flight Safety: Risk Management and Accident Investigation

The EAAP Human Factors in Flight Safety course will be held in Dublin from 21-26 May 2012, kindly hosted by Aer Lingus.

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 the second time it has been held in Ireland.

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 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. Many of these are associated with mandatory requirements for safety management systems (SMS) in accordance with ICAO Standards in Annex 6 (Operation of Aircraft and Approved Maintenance Organisations), Annex 11 (Air Traffic Services) and Annex 14 (Aerodromes). The application of SMS elements will be a focus of this human factors training course.

The 2012 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 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 2012 EAAP course includes 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 new 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 2012 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 2012 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 certification 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.





The Course Team

As in previous years, the experienced team of Dr Rob Lee, Kristina Pollack and Brent Hayward will conduct this course. Each of them has extensive knowledge and practical experience 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 in aviation and other high-tech industries, as well as the development and implementation of integrated safety management systems and applied human factors training programs, including CRM.

Dr Rob Lee

- 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, involving: 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.
- · 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 2nd 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", presented in London, October 2010.

Kristina Pollack

- International consultant on human factors, safety, risk management and accident investigation. Working with civil and military flight safety, nuclear safety, 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 accident investigation boards with the Swedish Board of Accident Investigation. 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 CAA Advisory Board for CRM Training; and the Human Factors 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 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.
- 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 3rd AAvPA Aviation Human Factors Achievement Award in December 2003.

Course Details

Course Dates

The course will run from 09:00 hrs on Monday 21st May through to 13:00 hrs on Saturday 26th May 2012.

Course Location

The course will be hosted by **Aer Lingus**, at their training facility at *Dublin Airport*, just 10 kilometres north of Dublin's city centre.

Accommodation

A group accommodation booking has been made at the *Crowne Plaza Dublin Northwood Hotel*, a nice 4-star hotel conveniently located between Dublin Airport and Dublin city.

The *Crowne Plaza Dublin Northwood* is offering an excellent EAAP Course room rate of **EUR 70** per night for reservations received by **5th April 2012**. This rate is for single occupancy and includes full breakfast, WiFi internet connection, airport transfers, hotel gym access and parking. Double occupancy rooms can be reserved for EUR 85 per night.

Daily transport will be provided from the *Crowne Plaza Dublin Northwood Hotel* to the Aer Lingus training venue and return.

Hotel address and contact details are as follows:

Crowne Plaza Dublin Northwood Hotel Northwood Park, Santry, Dublin 9, Ireland. Tel: +353 1 862 8888.

It is recommended that all course participants stay at the *Crowne Plaza Dublin Northwood Hotel*.

Course Registration

To guarantee your position on this course, please complete and send the attached *Registration Form* to Mutsumi Saga-Walsh at Aer Lingus by 11 May 2012.

To Make Hotel Reservations

To secure your hotel reservation at the *Crowne Plaza Dublin Northwood Hotel* at the special EAAP-Aer Lingus Human Factors Course rate, please tick the hotel accommodation box on the attached Registration Form and email or fax to Mutsumi Saga-Walsh at Aer Lingus before **5th April 2012**: e-mail: mutsumi.saga-walsh@aerlingus.com

Fax: +353 1 886 3885

Please note:

The above process must be followed by 5th April 2012 to guarantee the special EAAP-Aer Lingus Course hotel room rate.

Course Registration Fee

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

The course fee covers all course tuition and materials, daily return transfers between the *Crowne Plaza Dublin Northwood Hotel* and Aer Lingus training premises, a *Course Welcome* function on the evening of Monday 21 May, a *Course Farewell Dinner* on Friday 25 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 course registrations received by COB on 30 April 2012.

Payment of Fees

Payment of fees should be made 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

Note: Please provide the course participant's name and organisation when making payment.

For enquiries regarding Registration Fee payment please contact Kristina Pollack: k.pollack@swipnet.se

Further Information

For further information on course registration or enquiries regarding hotel reservations or the training venue, please contact Mutsumi Saga-Walsh at Aer Lingus: Tel: +353 1 886 2008; Fax: +353 1 886 3885; e-mail: mutsumi.saga-walsh@aerlingus.com

For further information on the course, please contact Brent Hayward by e-mail: 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, please visit the EAAP web site: www.eaap.net

COURSE REGISTRATION FORM

"Human Factors in Flight Safety, SMS, Risk Management and Safety Investigation" 21-26 May 2012, Dublin, Ireland

Please complete this form ASAP and send to Mutsumi Saga-Walsh at Aer Lingus:

By e-mail: mutsumi.saga-walsh@aerlingus.com

By Fax: +353 1 886 3885

Participant Details				
First name/s: Title (Dr/Capt/Mr/Ms/other):		Family name: Job function/Title:		
Postal address				
City		Postcode	Country	
Tel:		Email:		
Registration Fee to be pai	d (please select	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:		
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Z. i oi ikegi	Bank: Handelsbanken Lidingo Account name: Flight Safety, EAAP Co Account no: 347 254 128 Clearing no: 6152 IBAN: SE06 6000 0000 0003 Swift code: HANDSESS		idingö Centrum, Sweden P Course	
Please provid	de participant's na	ame and organisation	when making payment.	
Hotel Accommodation				
Do you intend to stay at the Crowne Plaza Dublin Northwood Hotel?		, please send me the	e hotel reservation form No)
This EA	AP-recognised o	course is kindly hos	sted by Aer Lingus.	



