

Royal Aeronautical Society

Human Factors Group

4 Hamilton Place
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1 ACTIVITY OVERVIEW

1.1 Human Factors on the Flight Deck

Human factors has been identified as the last area in which significant gains in aviation safety are possible - and vitally necessary as the pace of air travel increases each year. This has made the topic a high priority with operators, regulators and researchers.

Commercial aviation in the 1970s suffered from a number of severe accidents caused apparently by human error, similar to the situation today in the rail industry. The introduction of new technologies such as TCAS and GPWS had some effect, but the 70-80% of accidents attributed to pilot error appeared irreducible.

Crew Resource Management, initially developed in the United States, is today advocated by ICAO and others as the primary means of reducing aviation human factors accidents. The HFG is active in encouraging the development of CRM programmes and improving their quality.

In particular, the HFG has explored CRM issues relating to cultural, regulatory and operational characteristics of the multinational UK/European environment; and the broader organisational aspects of human error prevention. The HFG expects to contribute to progress in these areas by bringing together international experts, line pilots and instructors, and both large and small operators from the UK and elsewhere.

1.2 Background

The group was formed as the Industry CRM Working Group in 1990 to provide a multi-disciplinary focus for research, discussion and understanding of current and future CRM and broader Human Factors issues.

It was conceived as a non-commercial body representing all industrial sectors involved in aviation human factors training, including:

- **flight crew**
- **operational and training management**
- **cabin staff, ATC, dispatch, maintenance and ground operations staff**
- **regulators**
- **researchers**
- **governmental and inter-governmental agencies**
- **training suppliers and consultants**

In order to better address the growing range of Human Factors issues in aviation, the CRM Group in 1994 became the Human Factors Group of the Royal Aeronautical Society, the learned body for aviation in the United Kingdom. As such it has no agenda other than the academic pursuit of flight safety as part of the Society as a whole.

1.3 Aims and Objectives

The group arranges lectures, conferences, position papers, publications and visits of a standard befitting the Society's position as the UK's Learned Society for Aviation. Proceedings will be made available where possible. The committee will:

- Advise the Council and Director of the Society on relevant subjects, taking the initiative when considered appropriate
- Endeavour to represent, through its membership, an appropriate cross-section of disciplines from the broadest possible spectrum of the aviation industry
- Pursue a policy of active collaboration with other Groups of the Society and with external organisations
- Encourage participation by line pilots and other front line operational crew to ensure a balanced and representative view.

...and carry out other activities which further the aims described in the following statement:

1.4 Mission Statement

The Human Factors Group of the Royal Aeronautical Society exists to improve standards of safety in aviation by promoting better industry understanding of human factors hazards and techniques for dealing with them.

1.5 Services and Facilities

The Human Factors Group is a professional committee of the Royal Aeronautical Society. It meets in committee four to six times a year in addition to holding an Annual General Meeting.

The Human Factors Group committee plans conferences, directs research and advises operators and regulators on Human Factors issues.

The Committee establishes and co-ordinates the activities of several standing groups looking at areas of interest (CRM, ATC, Maintenance Engineering, Research) and focus teams addressing specific current issues such as Facilitator Accreditation. Individuals from the Aviation community and other suitable fields are invited to join these groups as required to achieve their aims.

2 Conferences

The Human Factors Group organises conferences and meetings on specific issues of interest to its constituency.

The miniconference series is specifically aimed at smaller operators and operational staff, providing an opportunity to share best practice with leading international experts in the scientific and flying communities.

Since 1992 the HFG has held some 18 miniconferences on topics as diverse as Altitude Deviation, Team Performance Assessment, CRM Programme Resourcing, HF in Ramp Safety, LOFT Scenario Design, Unruly Passengers, CRM Recurrent Training Implementation etc.

Miniconferences are non-profit one-day events organised by volunteers. Speakers are expected to pay their own airfares to attend. This allows registration fees to be kept to a level at which flight crew, trainers, cabin crew, ATC and other operational staff from any AOC holder can afford to attend. Typically 50-70% of delegates are flight crew.

Main conferences are held at RAeS headquarters in Hamilton Place, London W1, usually in conjunction with other RAeS Professional Groups such as Air Law, Aviation Medicine, Air Transport and Flight Operations.

2.1 Disruptive Passengers

The Disruptive Passenger conference on October 12th is a miniconference intended to allow best-practice sharing among trainers and operational workers. Policy and research issues are not on the agenda. The miniconference anticipates and introduces the main conference on Disruptive Passengers at RAeS headquarters next year which is expected to address research and policy issues.

As a scientific and professional group, the HFG has no opinion about DISPAX research except that there should be some. Nor do we have an opinion of the best way to handle unruly passengers - that is in part the reason for the miniconference tomorrow and the policy conference next year.

3 Information Resources

A number of papers and advisories are available on the HFG website reports page (www.raes.org.uk/human_factors/xconfer.htm) under the heading "Papers and Materials from the Disruptive Passengers Conference, October 1999".

We hope to post all of the presentations received for the mini-conference together with the aggregate reports from the workshop sessions.

The skyrage page will be maintained and extended in the run-up to the main policy conference on October 18th, 2000.