



CABIN CREW FIRE TRAINING NEEDS ANALYSIS

A study carried out on behalf of the
UK Civil Aviation Authority



Study Analysts

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Acknowledgement

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Acknowledgement

In particular our thanks go to:

- The training organisations that participated in the review of cabin crew training programmes
- The organisations that helped in promulgating the online survey
- The Royal Navy, the Royal Air Force, Eurostar

Acknowledgement

In particular our thanks go to:

- The FAA, and Transport Canada Civil Aviation.
- Flight Safety International Inc.,
- And last but not least to the 2,500 cabin & flight crewmembers and trainers that participated in the on-line survey

Objectives of the Project

To evaluate current and possible future issues, and identify potential improvements in existing fire training in order to ensure that cabin crews have the most appropriate training and procedures to match current and likely future fire threats.

Structure of the Project

- Review of current cabin crew fire training programmes
- On-line Survey
- Assessment of fire training currently carried out in non-civil aviation environments.
- Review of in-flight fire occurrences and how the threats experienced might change in the future

Structure of the Project

- Identification of potential improvements to cabin crew fire training and their evaluation in the light of current regulatory material and foreign comparable regulatory material

Phase 1 – Review of Current Fire Training Programmes

- 8 UK and 2 European operators and training organisations were visited

Phase 2 - On-line Survey

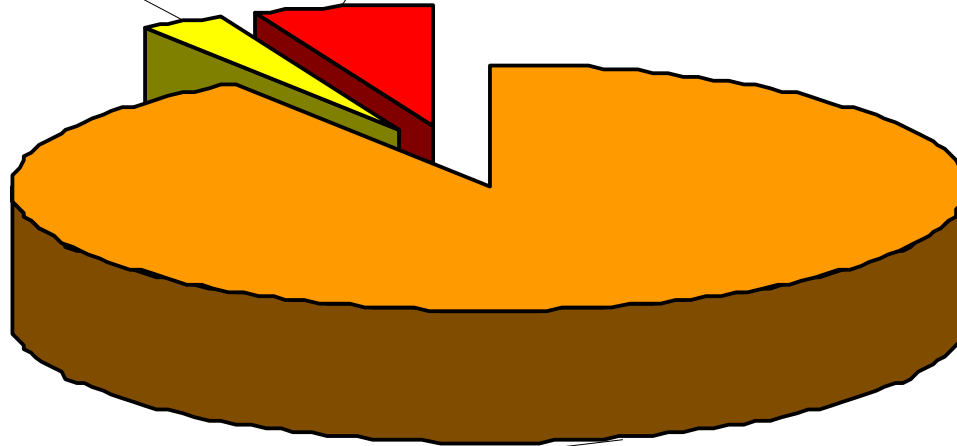
- Over 2,500 questionnaires were completed of which 2,164 were analysed
- Of the UK respondents approximately 9% had experienced an in-flight fire

Phase 2 - On-line Survey

I have:

Witnessed an
in-flight fire
47
3%

Been involved in
fighting an in-
flight fire
99
6%



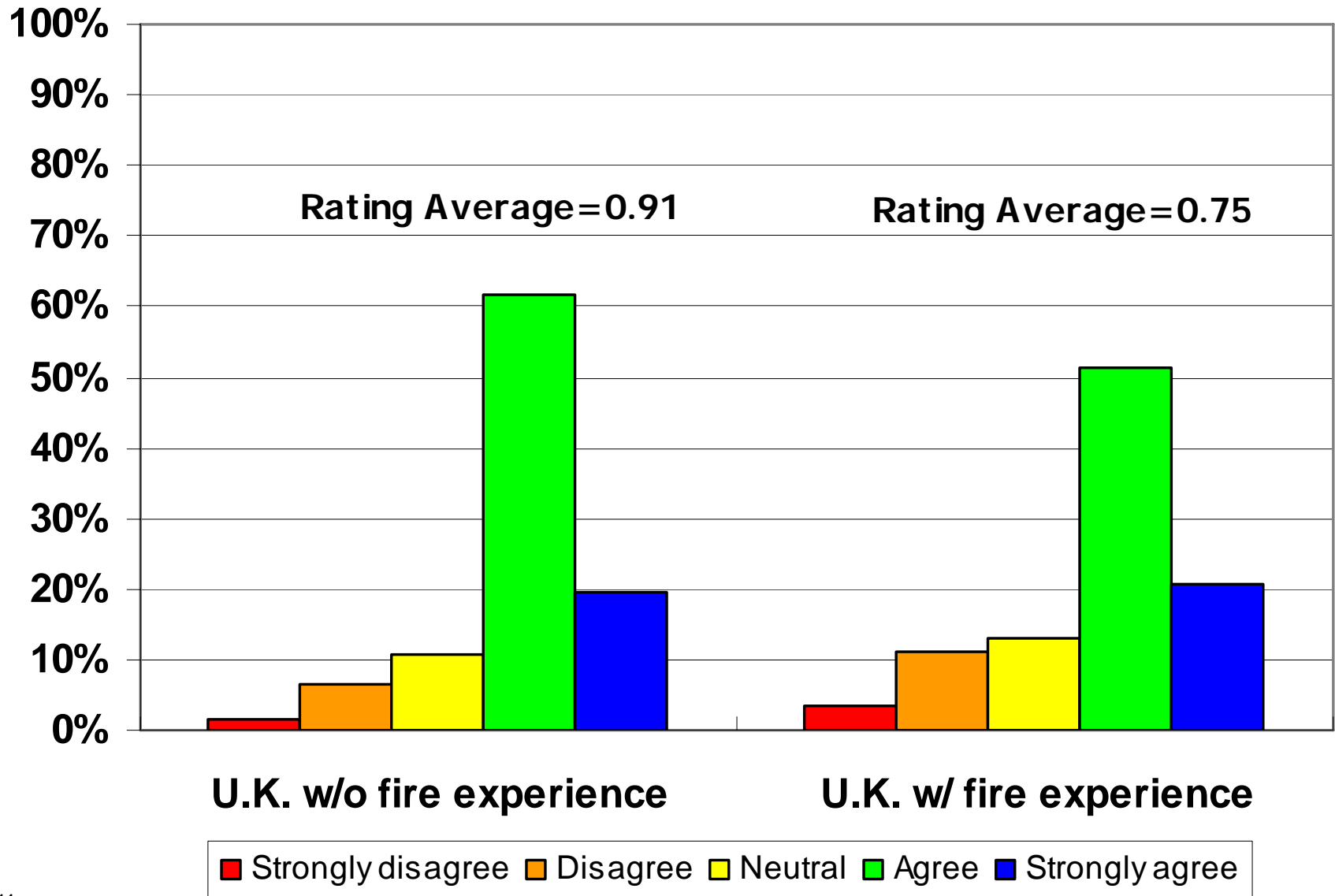
No experience
with in-flight fire
1490
91%

U.K. Respondents

QA B 14

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The fire training equips crew members to extinguish any fire visible in the cabin.



Phase 3 - Fire Protection Training In Non Civil Aviation Environments

Royal Navy, Royal Air Force,
and Eurostar crew fire training
were observed

Phase 4 - Identification Of Cabin Fire Threats

- 316 fire-related UK Mandatory Occurrence Reports were analysed
- Recommendations relating to world-wide in-flight fire accidents over the period 1967-2006 were reviewed

Phase 4 - Identification Of Cabin Fire Threats

- Future in-flight fire threats were identified by brainstorming with Airworthiness Authority Fire & Cabin Safety Specialists – supported by literature searches

Identification of Potential Improvements

- Based on the information obtained during phases 1 to 4 of the study, potential improvements were derived from a process based on the EASA Regulatory Impact Assessment approach

Identification of Potential Improvements

- Recommendations were made regarding standardisation of
 - Fire Extinguishers used in training
 - Protective Breathing Equipment used in training
 - Fires used in training
 - Smoke used in training



Identification of Potential Improvements

- Recommendations were made regarding
 - Standards for fire and smoke training facilities
 - Standards for fire training instructors
 - Evaluation criteria in Practical fire & smoke training



Identification of Potential Improvements

- Recommendations were made regarding Training in
 - Fire Prevention Measures - Theoretical
 - Communication/Co-ordination with Flight Crew – Theoretical & Practical
 - Communication/Co-ordination amongst Cabin Crew - Practical



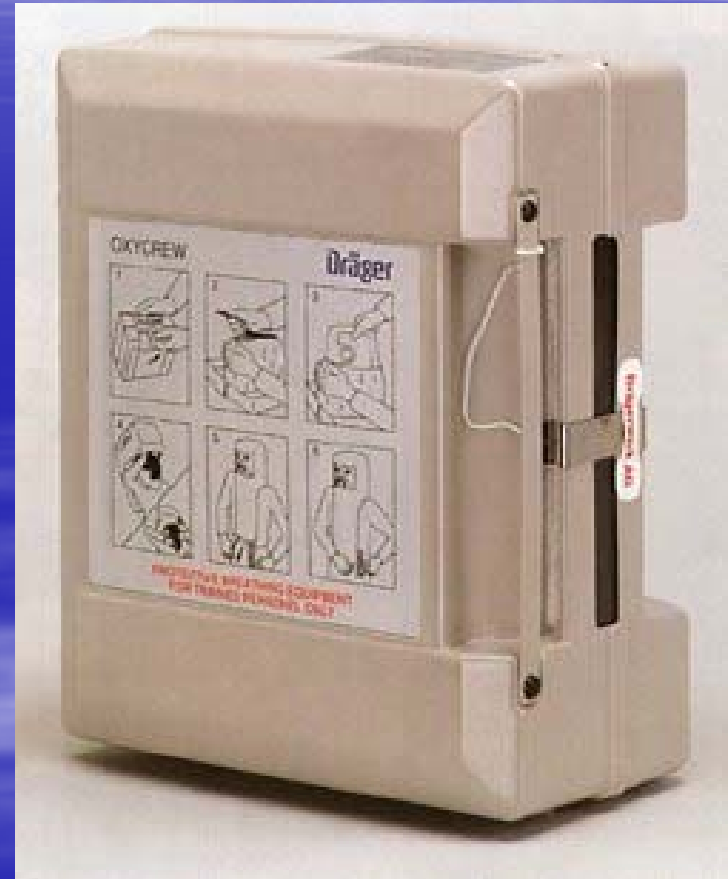
Identification of Potential Improvements

- Recommendations were made regarding Training in
 - Detecting and Locating Source of Smoke and Fire – Theoretical & Practical
 - Dealing with Hidden Fires – Theoretical & Practical
 - The Management of Passengers– Theoretical & Practical



Identification of Potential Improvements

- Recommendations were made regarding Practical Training in
 - Removing Firefighting Equipment from Stowage
 - Removing Protective Breathing Equipment from Packaging



Identification of Potential Improvements

- Recommendations were made to generate regulatory material addressing
 - Fire Scenarios
 - Firefighting using protective equipment



Identification of Potential Improvements

- Recommendations were made to generate regulatory material addressing
 - Theoretical Training in Conversion & Differences Training and Recurrent Training
 - Regulation of Training Provided by 'Third-Party' Training Organisations

Identification of Potential Improvements

- Recommendations to provide guidance for
 - Training methods in performing firefighting procedures
 - Implementing integrated fire training scenarios in a cabin environment



Identification of Potential Improvements

- Recommendations to provide guidance for
 - Training methods in emphasising the required urgency of response to in-flight fires

Next steps

- The CAA is to:
 - Publish the Training Needs Analysis as a CAA Paper
 - Arrange a Fire Training Instructors Workshop/Forum
 - Consider the need for regulatory or advisory changes