



DASE

Defence Aviation Safety Centre

**MAINTENANCE
HUMAN FACTORS –the MOD’s PERSPECTIVE**

RAeS CONFERENCE - 5 November 2004

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What is the MoD doing about Maintenance HF?

- Recognition that Maint HF is far from new and there is a long history of initiatives – but no MoD wide coherence
- Pan-Defence CRM and MHF Policy to go before Defence Aviation Safety Board 15 Nov
- DASC In-house ‘train the trainers’ course
- Local initiatives
- Fatigue Management
- Flight Safety Management Information System (FSIMS)

What is in the HF Policy?

- Based on CAP 716 Aviation Maintenance HF (EASA Part 145)
- Top level Buy-in
 - Personal commitment
 - Formal safety policy statement
- ‘Just Culture’
 - Culture change doesn’t come about by issuing a policy!
 - Evidence of Just Culture from way incidents are dealt with
 - Encourages open and honest reporting

HF Policy cont'd

- Reporting and feedback
 - 'Learning' organisation
 - Effective, responsive closed loop system
 - MF 760, MF 765 – responsive? Effective?
 - Need for a Maintenance Error Management System?
 - Scope for local initiatives
 - NOT AT THE EXPENSE OF LOSING THE BIGGER PICTURE!
- Safety Management Tools
 - Questionnaire and software based
 - None yet authorised

HF Policy cont'd even further

- Training
 - Ideally Initial training of 3 days, then Continuation training 1 day every 2 years
 - Training for all involved in aircraft support
 - Training Needs Analysis – we know what we want(?)
 - Initial training sufficient at training establishments
 - Continuation training at Units
 - Competence, Qualification, Testing, Recording
 - FUNDING!

DASC 'Train the Trainers' Course

- In advance of the policy and to save the MoD money.
- 2 days at Bentley Priory (Thu/Fri)
- Day 1 – Psychology of error (Dr Duncan Harris)
- Day2 – Service application
 - Just Culture
 - Reporting
 - Investigation
 - Fatigue Management
 - Risk Management
- 45 minute presentation to take back to Units

Local Initiatives

- RAF Lyneham
 - Engineering Survey
 - Aviation Safety for All
 - 'A Whinge'
- RAF St Mawgan (SAR Force)
 - Local MEMS
 - HF training (as part of general management and leadership training)
- RAF Leeming
 - XI Sqn
- Force Development Sqns

Fatigue management

- MoD 'Groundcrew Fatigue Management' policy based on 2002 CAA study by Prof Simon Folkard –University of Wales – 'Work Hours of Aircraft Maintenance Personnel'
- Too complex an issue to impose mandated limits within MoD, therefore becomes a Risk Management exercise.
- Additional input from Dr Drew Dawson, Director of the Centre for Sleep Studies, University of Southern Australia
- Policy paper also in staffing

Fatigue Management cont'd

- Risk Management
 - The 3 principle, 5 step approach as per JSP 551 Vol 3
- Individual responsibility
 - Individuals to turn up for work suitably rested
- Awareness training
 - Personnel and Commanders to be aware of Fatigue management issues

Flight Safety Information Management System (FSIMS)

- Originally RAF Strike Command project
- Web-based, formatted input for Occurrence Reporting
- Easier to use for aircrew and engineers
- Able to collect and analyse much more HF causal and contributory factor information
- Allows development in-service
- Trial at Linton and Cottesmore Jan-Apr 05, then roll-out to RAF later in 2005, DII depending

CHALLENGES

- To achieve approval of the Policy and gain top level buy-in to the Human Factors Programme
- Appropriate allocation of resources and priorities
- There are some enduring truths – but tailoring and refreshment will maintain the relevance
- Identify which current HF activities contribute to our goal and build on those
- Successful development of FSIMS will provide the information we need to show we are reducing maintenance error
- Combine with Aircrew CRM and Admin – at the right time

Questions.....

