

UK CAA HF Principles Training



Introduction

0900 - 1200

Examples

Several HF/CRM incidents

Reasons

Causal Factors

Regulation

Defences

Human performance

Overview

Auditing

The day job

Summary

Questions

Example

Deep Water Horizon Disaster

When?

What was said?



Example

20 April 2010

Deep Water Horizon Disaster

Obama, blasted the “scandalously close relationship” between oil companies and government regulators.



Example

Where, when and what was concluded?



Example

The regulators allowed the derivatives market to flourish leading to the practice of trading derivatives over the counter instead of through a clearinghouse



World Financial Crisis
(2008)



Example

Another issue – but what was the cause?



Example

11 March 2011

Fukushima Tsunami

Regulators simply didn't see it as their role to pick apart the utility's raw data and computer modelling to judge for themselves whether the plant was sufficiently protected from tsunami.

Example

A little closer to home – where, when and what was the cause?



Example

Sumburgh, 18 Oct 2013. The UK's regulatory philosophy is founded on the absolute responsibility for safety resting with the helicopter operator, nevertheless, comparison with the Norwegian governance structure leads us to conclude that a stronger CAA leadership role should be established based on the Norwegian model



Reasons

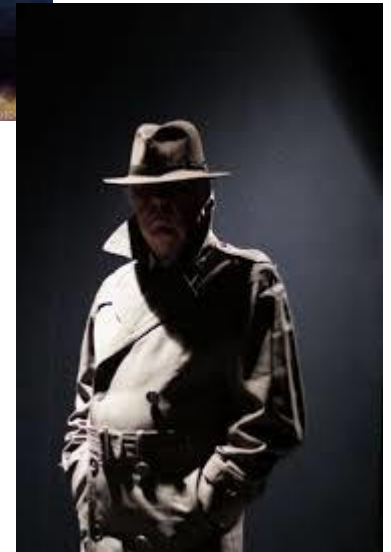
If you were to put a frog in a pot of cold water and slowly raise the temperature of the water in increments, the wee frog will swim about quite comfortably in the water, not noticing the subtle changes as the temperature rises, until such time as he's not noticing anything at all, having been boiled alive.



Why do I need Human Performance Principles for my work?



What is the role?



Regulation

15 References to HF Principles in ICAO Annex 6 (see ICAO DOC 9683)
EASA AMC2 ARO.GEN.200(a)(2) Management system



Regulation

EASA AMC2 ARO.GEN.200(a)(2) Management system

QUALIFICATION AND TRAINING — INSPECTORS

(a) Initial training programme for inspectors should include:

- (1) aviation legislation organisation and structure;
- (2) the Chicago Convention, relevant ICAO annexes and documents;
- (3) the applicable requirements and procedures;
- (4) management systems, including auditing, risk assessment and reporting techniques;
- (5) human factors principles;**
- (6) rights and obligations of inspecting personnel
- (7) ‘on-the-job’ training;
- (8) suitable technical training

Regulation

ICAO DOC 9683

Lately, the study of human error has broadened to include the influence of senior, high-level management performance on aviation safety

To wish people were better is futile – the wish needs to be backed up with recommended remedial action, supplemented by training with the objective of positively influencing human performance

AMC3 ARO.GEN.200(a)(2) Management system

QUALIFICATION AND TRAINING — CREW RESOURCE MANAGEMENT (CRM)

For the oversight of the operator's CRM training, the inspectors of the competent authority should be qualified and trained as follows:

(a) Qualification

To fulfil the qualification provisions, inspectors should:

- (1) have adequate knowledge of the relevant flight operations;
- (2) have adequate knowledge of human performance and limitations (HPL);**
- (3) have completed initial CRM training;**
- (4) have received additional training in the fields of group management, group dynamics and personal awareness; and
- (5) have experience in the assessment of the effectiveness of training programmes and management systems.

(b) Training

The training of inspectors should be both theoretical and practical, and should include:

- (1) in-depth knowledge of the CRM training elements as laid down in Part-ORO; and**
- (2) specific skills for the oversight of the operator's CRM training including the assessment of non-technical skills using proper techniques and methodologies.

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GM3 ARO.GEN.300(a);(b);(c) Oversight

CHECKLIST FOR CRM TRAINING OVERSIGHT

The following list includes the major elements for the monitoring of the operator's CRM training:

- (a) development of CRM training considering the operator's management system;
- (b) content of the CRM training syllabus;
- (c) qualification of CRM trainer;
- (d) training facilities: including classroom; flight simulation training device (FSTD); aircraft; and cabin training device;
- (e) training methods:
 - (1) classroom training (instructions, presentations and behavioural exercises);
 - (2) computer-based training (CBT);
 - (3) line-oriented flight training (LOFT); and
 - (4) check or test;
- (f) training analysis:
 - (1) pre-course reading and study;
 - (2) integration of the different training methods;
 - (3) competence and performance of the trainer or instructor;
 - (4) assessment of flight crew members; and
 - (5) effectiveness of training.

Human Performance

Influencing people
Competence and limitations
Flight safety Concept
Managing People
Communication
Stress
Fatigue
Decision Making
Co-operation



SEE CAP 737 Chapter 4

Influencing People

Welcome any disagreement

Distrust the first instinctive impression

Control temper

Listen first

Look for areas of agreement

Be Honest

Think over ideas of others and study them carefully

Thank others for their interest

Don't rush decision making

'The only way to get the best out of an argument is to avoid it'

Dale Carnegie

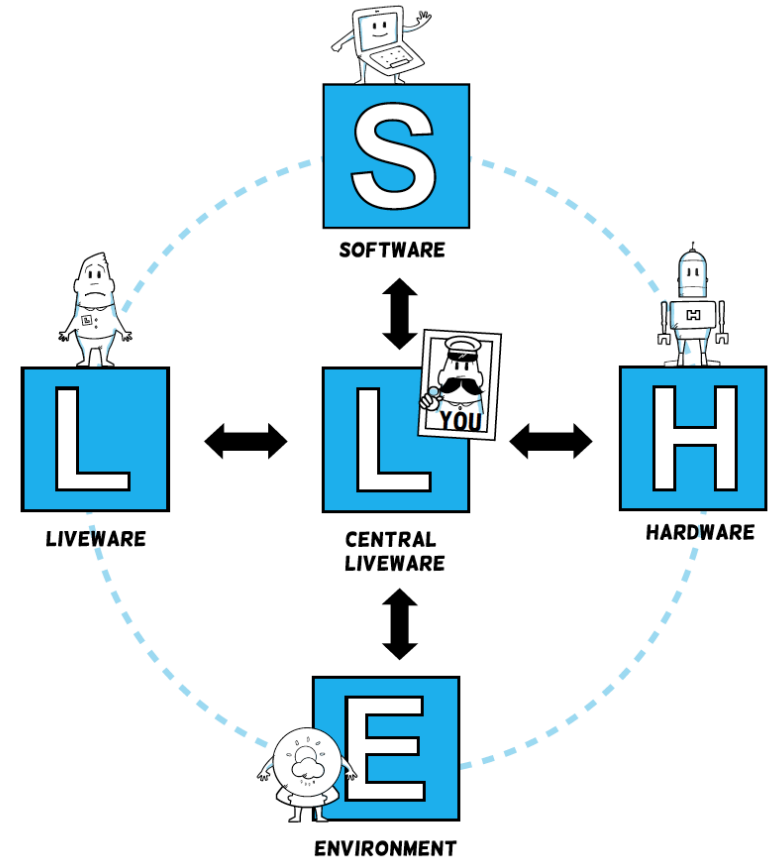


Competence and limitations

Define the roles played by various participants in aviation activities with respect to flight safety and limitations of individuals and organisations

Flight Safety concept

SHELL model



Managing People

What are your rights?

What are your responsibilities?



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I have the right to be treated with respect
I have the right to state my own needs
I have the right to express my feelings
I have the right to express my values, opinions and
ideas, which may or may not be different from other
peoples
I have the right to make mistakes
I have the right to change my mind
I have the right to refuse a request and say 'No'
without feeling guilty
I have the right to ask for more information when I
don't understand
I have the right to ask for what I want
I have the right to decline responsibility for other
people's problems
I have the right to say and do the things that are
important to me without being dependent on other
people for approval
I have the right to decide not to assert myself



Managing People - Co-operation

Co-operation and co-action

Define “Group”

Explain “synergy”, “cohesion”, “Group think” and “risk shift”

Conditions for good team work

Persuasion compliance

Conformity obedience

Team “leadership” VS “followership”



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Communication

'I know that you believe you understand what you think I said, but I'm not sure you realise that what you heard is not what I meant'



Why do some messages fail?

Communication

The imparting or exchanging of information by speaking, writing, or using some other medium.

Four basic components of interpersonal communication

Interpersonal communication is inescapable

Interpersonal communication is irreversible

Interpersonal communication is complicated

Interpersonal communication is contextual

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Interpersonal communication is inescapable

We can't not communicate.

Interpersonal communication is irreversible

You can't really take back something once it has been said.

Interpersonal communication is complicated

No form of communication is simple.

There are really at least six "perceived people" involved

Interpersonal communication is contextual

Communication does not happen in isolation. There is:

Psychological context, Your needs, desires, values, personality, etc.,

Relational context, which concerns your reactions to the other person

Situational context deals with the psycho-social "where" you are.

Environmental context deals with the physical "where" you are,

Cultural context includes all the learned behaviours and rules that affect the interaction.

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Communication

PAC

Parent is our 'Taught' concept of life

Adult is our 'Thought' concept of life

Child is our 'Felt' concept of life

Communication

To analyse a transaction you need to see and feel what is being said as well.

Only 7% of meaning is in the words spoken.

38% of meaning is paralinguistic (the way that the words are said).

55% is in facial expression.

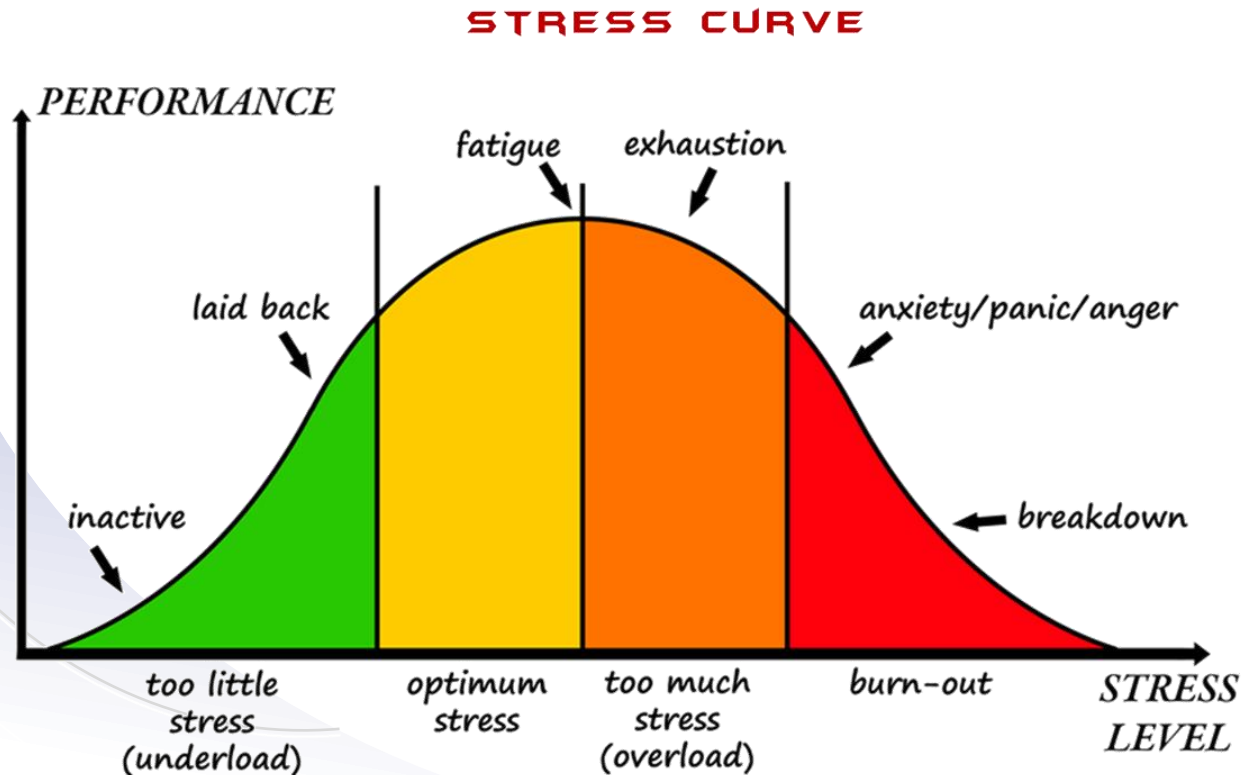
(source: Albert Mehrabian)

Stress

Worry, concern, apprehension, apprehensiveness, consternation, unease, fearfulness, fear, disquiet, perturbation, fretfulness, agitation, angst, nervousness, edginess, tension, tenseness, stress, misgiving, trepidation, foreboding, suspense;

All indicate anxiety - a feeling of worry, nervousness, or unease about something with an uncertain outcome.

Relationship between stress and performance



Three Phases of Stress Response

The General Adaptation Syndrome describes the body's response to stress:

Alarm Stage

Activates fight or flight response system, and releases the “stress” hormones such as adrenaline, noradrenaline and cortisol.

Resistance Stage

Your body's defences become weaker, as it needs to allocate energy to lower the production of the stress hormones.

Exhaustion Stage

The body starts to lose its ability to combat the stressors and reduce their harmful impact because the adaptive energy is all drained out.



Fatigue

What is it?

I'm tired of crying.
I'm tired of yelling.
I'm tired of being sad.
I'm tired of pretending.
I'm tired of being alone.
I'm tired of being angry.
I'm tired of feeling crazy.
I'm tired of feeling stuck.
I'm tired of needing help.
I'm tired of remembering.
I'm tired of missing things.
I'm tired of being different.
I'm tired of missing people.
I'm tired of feeling worthless.
I'm tired of feeling empty inside.
I'm tired of not being able to just let go.
I'm tired of wishing I could start all over.
I'm tired of dreaming of a life I will never have.
But most of all, I'm just tired of being tired.

Create something at LiveLuvCreate.com

Auditing

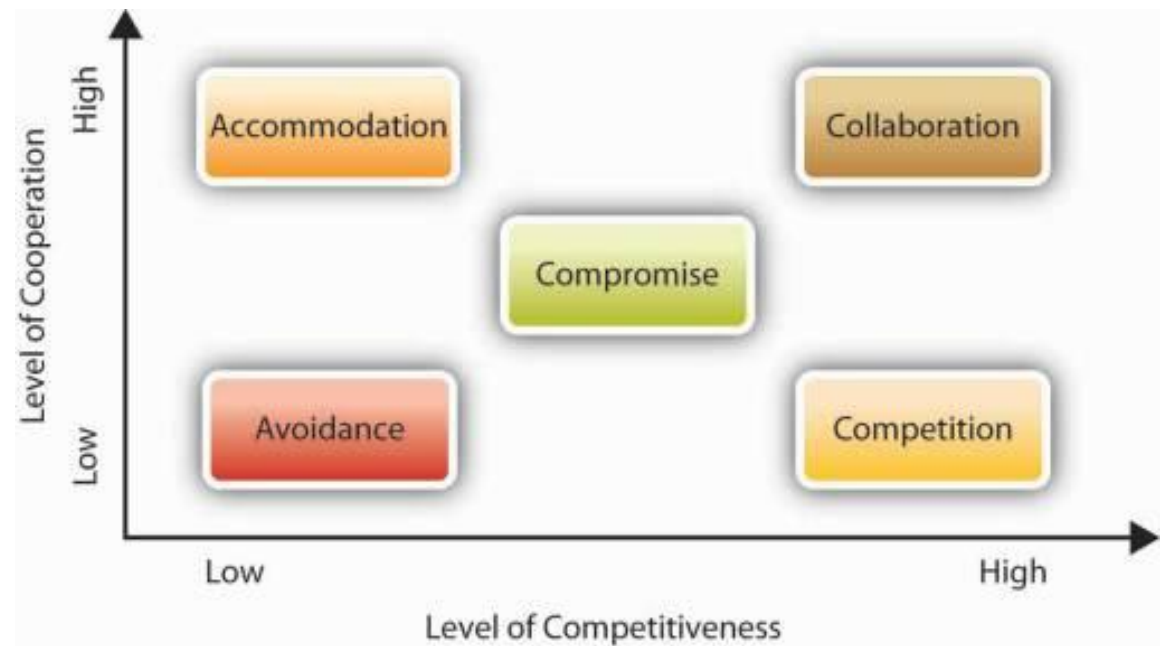
- Face to face
- Brief/Debrief
- Setting up for a fall
- Facts vs disagreement
- Negotiation
- Conflict management



Auditing

Negotiation

Conflict management



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Summary

What has been covered

What was the learning

Future development

Questions