The Life and Times of a CRM Course

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Need for improvement?

- "Good CRM is when the FO gets his way"

- "Only bad pilots need human factors… and they shouldn't be flying any way"

- "Human factors is common sense in disguise"

"Human Factors is common sense in disguise…"

- Examples (peer reviewed journals)
  - Accident analysis;
    - "Collisions with objects [trees, fences, power lines] took place predominantly in terrain unsuited for landing"
    - The relation between injury severity and aircraft damage was significant, 32.54, df =1, p < 0.001.

    These results were not expanded further
  - "100% of a worker's available days are lost after fatal injuries are sustained"

  - We'll come back to common sense…
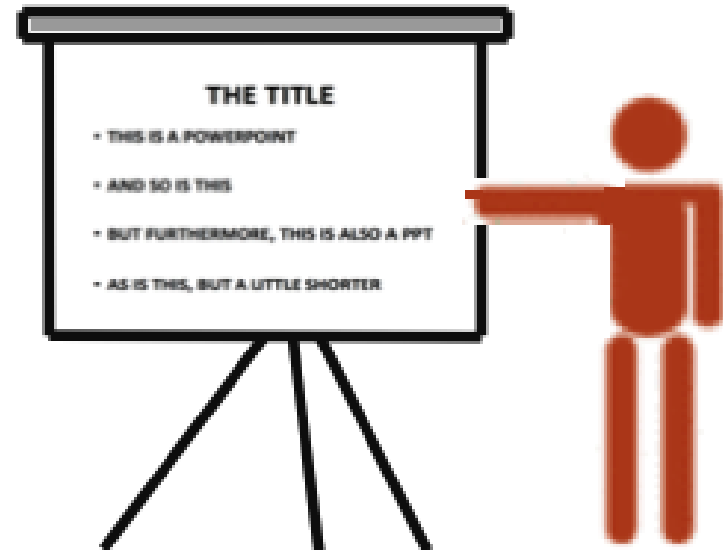
The Life and times of a CRM course

Conception

Birth

Early development

Growing up

Working life

Retirement

THE TITLE
- THIS IS A POWERPOINT
- AND SO IS THIS
- BUT FURTHERMORE, THIS IS ALSO A PPT
- AS IS THIS, BUT A LITTLE SHORTER

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- # Need for the course?

- # Objective?

Conceived through need.. ?

Safety intelligence…
- Analysis of reports
- FDM / FOQA / LOSA etc
- International trends
- Etc

- The iceburg?

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- Life chances determined?
- Type of parents?
  – Are they nurturing?
  – Will Colin stand shoulder to shoulder with the other courses?

- Framework produced (hopefully <u>bottom</u>-up) based on safety 'intelligence'

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"Where do you get the material ?"

Internet wisedom?

- Internet is bias / selective

- E.g. Automation debate….

Forums – "bring back manual flying!"

You Tube (Professionals…)

- "When low down in the circuit, and you say 'what's it doing now?", it's time for click click..

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Back to development.

Big Problem here….

At birth 'Safety Intelligence' gets summarised as **HF labels**

HF labels drive future development (top-down)

'Intelligence' is disconnected …or unintelligent

Quality of HF incident analysis
CAP 737 glossary   ISDS?

Categories

The big five:

Decision Making

Situational Awareness

Communication / cooperation

Leadership / teamwork

Workload Management

Monitoring

Automation Management

Error Management

Apply the prefix 'inadequate' to become an HF expert.

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- Bad influences?

  – Bad Scientific Inferences
  – Morph and Myth

- Teenage years

  – Fashion

  – Credibility

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- Appropriately taught / facilitated?

  - We can facilitate without any learning

  - Bad practice

The Life and times of Colin

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- Everyone's done the course

- RIP

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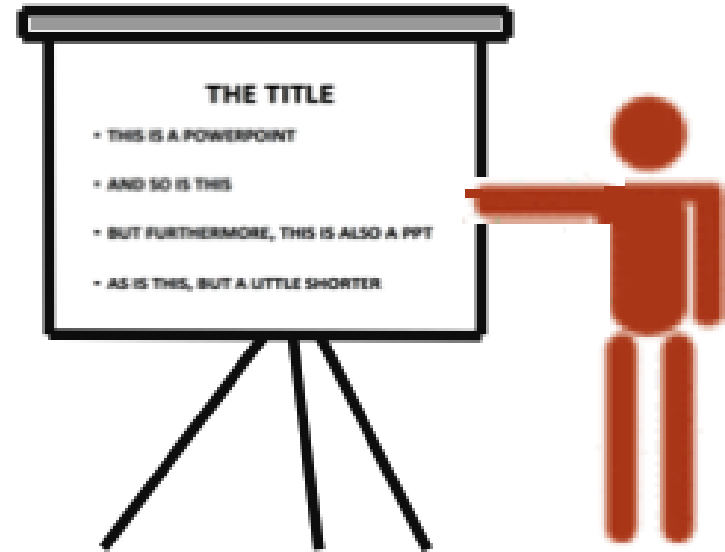
Colin

Example

- HF Incident occurs…
  - Diversion. Poor weather, night, fuel critical.
  - Generated options - Airport A, B, C
  - Talked through options together…
    - A.. long runway, wx excellent, just below min fuel
    - B.. Short rwy, crosswind, ILS available, wx changeable, nearer
    - C.. Wx poor (will improve), near, terrain issues, long rwy, hotel.
  - Chose A
  - Reviewed the choice en-route
  - Radioed A…. No answer… discovered not open, no lighting
  - Turned back, Airport B
  - One missed approach, rwy overrun
- What was wrong with the decision process?
- Subsequently seen in sims

Example – decision making

- Driving a decision by the options
  - Common
  - Appears to tick the right boxes
  - Sounds like great CRM
  - Usually works
  - DANGER….
    - Miss an important requirement / dimension because options failed to cued it.
    - Humans are bad at recognising what is NOT there
  - Need Aid Memoir, procedure, etc?

Turning it into CRM material

- Explain scenario (A, B, C), give summary sheet
- Miss some less obvious dimensions
- 3 minutes
- Facilitate a debrief;
  - What process?
  - Did anyone miss dimensions X, Y, Z?   WHY?
  - Talk through an effective process;   try again (new scenario)
  - Now generate an *Aid Memoir* for diversions….
- Can integrate into simulator practical
- No general categories.
- ***A Need*** identified and fulfilled
- Not just 'Decision Making'

The Life and times of a CRM course

Conception	Purpose?
Birth	OBJECTIVE; Safety Intelligence
Early development	Driven from same Intelligence
Growing up	Proper scrutiny of sources
Working life	Effective delivery and technical knowledge
Retirement	

Human Factors & common sense

- Everything appears to be common sense after we know why

- Good HF *should* sound like common sense

CAP 737

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The end!