HUMAN FACTORS IN COMPLEX SYSTEMS

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Video

Summary Points

- People make errors including good people – even smart, competent, well trained professional people who are committed to doing a good job sometimes get it wrong

What Kind of Errors?

ERRORS

MITIGATIONS (NOT EXHAUSTIVE)

- Slips and Lapses

- Mistakes

- Skills

- Violations

- HF environment
- Don't rely on perfection

- Training
- Secondary information

- Training
- Practice

- Education
- Solid Barriers

Summary Points

- People make errors – including good people

- Different kinds of errors require different kinds of mitigation

Complex and Automated Systems

FEATURES

- Not entirely predictable because they may behave – or fail – in unexpected ways
- May make unrealistic assumptions about human performance
- May not interact smoothly with other systems

WAYS FORWARD

- Back to basics – if the cause of the system is variable make the correction simple
- Use known data – are you relying on humans to do what we already know they are unlikely to do?
- Consideration of other systems during certification and validation technology

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- People make errors – including good people

- Different kinds of errors require different kinds of mitigation

- Complex systems need to be designed to have simple corrections