

Integration of Human Factors in Investigations

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What do we gain?



GREATER UNDERSTANDING
OF THE *WHY*



OPPORTUNITY TO IDENTIFY
SYSTEMIC ISSUES



OPPORTUNITY TO INFLUENCE
INDUSTRY WIDE CHANGE

Adding (systemic) value - example

- Aircraft departing Melbourne – tailstrike on take off
- Result of data entry error (transposition error)
- Error slipped through 8 independent checks
- 4 crew on the flight deck, none caught it
- Would have been easy to say it was ‘pilot error’

Figure 1: Location of damage

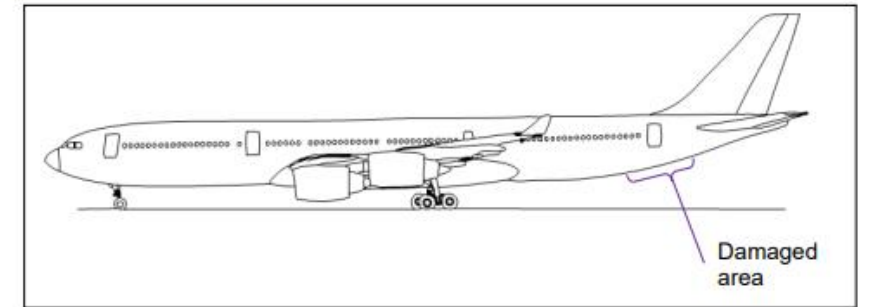


Figure 2: Skin abrasion



Adding (systemic) value - example

- Range of influencing factors on non-detection
 - ‘normal’ to see these figures on departure from Melbourne
 - Different aircraft types/speeds/thrust settings
 - Electronic Flight Bag – 4 years use, and it was ‘always right’

Figure 10: Typical contact marks on runway, stopway and grassed areas



HF Influence

- Systemic review of similar events found:
 - At least 30 events globally in a 20-year period
 - Independent of aircraft type, location or airline
 - Could happen in paper or electronic flight planning format
- Many Australian airlines recognised the potential for it to happen to them
 - Introduced this as a case study in yearly recurrent training
 - Updated procedures and flight plan forms to mitigate against this error
 - Used this for input to design of electronic flight bags



Australian Government
Australian Transport Safety Bureau

Tailstrike and runway overrun Airbus A340-541, A6-ERG

Melbourne Airport, Victoria | 20 March 2009



Investigation

ATSB Transport Safety Report
Aviation Occurrence Investigation
AO-2009-012
Final

How do we
integrate
HF?

Many
different
approaches

No one 'right'
way