

Worst Case Scenarios: How post-incident interviews have advanced current understanding

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There have been a number of recent high profile bushfire incidents in Australia where a failure to consider the worst case scenario seems to have resulted in an underestimation of potential risk, which may have contributed to the tragic outcomes (McLeod, 2003; Smith, 2005). However, little research has been done on the topic of worst case scenarios. The current project attempts to address this gap and gain a greater understand of how worst case scenarios are involved in decision making processes.

Two studies have been carried out using post-incident interview methodology to determine how worst case scenarios are currently considered by decision makers during bushfire incidents. Post-incident interviews are one of the most effective methods for understanding decision making processes in real-world environments (Salas & Klein, 2001).

Study 1 investigated routine or low-severity incidents using the Human Factors Interview Methodology (HFIP; Omodei, McLennan & Reynolds, 2005), while Study 2 involved more targeted interviews concentrating on challenging fire incidents and following the Critical Decision Method (CDM; Crandall, Klein & Hoffman, 2006).

Study 1: HFIP Interviews

Interviews were carried out with decision makers in leadership roles at a range of fire incidents during the 2005/6 fire seasons. Interview analysis found that **interviewees consistently reported worst case scenarios at an average rate of over three reports per interview**. The worst case scenarios reported could be separated into three orientations: **fire focus, firefighter focus and community focus**. This suggests some commonalities in what fire fighters consider to be worst case scenarios.

Analysis also found that **in more than 40% of interviews there was an indication of a failure to consider the worst case scenarios**. Therefore, many interviewees reported both consideration and failure to consider the worst case scenarios. This interesting finding suggests that individuals are not necessarily consistent when considering worst case scenarios. This shows the complexities involved and provides scope for training to develop these skills.

Study 2: Targeted Interviews

The second stage of this research project involves interviews with highly experienced fire incident managers. **Preliminary data inspection suggests worst case scenarios are intimately involved with general scenario development and forward planning**. Constant awareness of the big picture seems to be closely linked to accurately considering the possible incident scenarios. It appears that sometimes long term scenario planning can be overlooked due to time stress and a focus on 12 or 24 hour timeframes. These findings contribute to a greater understanding of how worst case scenarios are involved in incident management and has implications for training and standard operating procedures.



References

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