

# Information flow and Collaboration in Multi-agency Incident Management Teams

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## Project Intentions

- To work with stakeholders to improve teamwork effectiveness and subsequent organisational (and cross-organisational) learning.

## Research Questions

- What (individual and collective) work practices can be identified that enhance effective communication, collaboration and shared understanding between operators involved in ICS/IMT performance?
- What organisational structures and cultures can be identified within emergency management agencies and how do these enhance and inhibit effective ICS/IMT work performance?
- How might IMT/ICS work performance be optimised through development of new practices (e.g., protocols, training) developed for localised and specific needs?

## Benefits

- Better understanding of the ways in which the incident control system works and how IMT groups work together
- Better understanding of the ways in which information flows through organisations and the way knowledge is managed before, during and after incidents for organisational learning

## 2006/7: Four deliverables completed

- Summaries of reports and inquiries where multi-agency inter-operability has been implicated
- A review of the IMT-related literature in fire and emergency management settings
- A Taxonomy of Team-Based Work Effectiveness Indicators
- Observation Schedule for use in Phase Three

## 2007: Progress

Interviews and observations

- Implement organisational survey revisiting 2003 data for comparison and testing teamwork effectiveness and system safety indicators

## Some Preliminary Findings

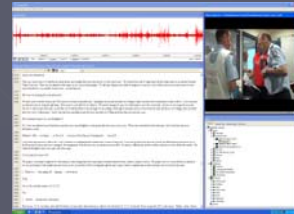
### Review of quantitative analysis National Review of AAIMS ICS- 2003

- 1157 respondents
- response rate of 65%
- 740 included in reporting
  - Incident Controller (n=188, 26%),
  - Planning officer (n= 86 12%),
  - Logistics officer (n=61 8%),
  - Operations officer (n=102, 15%).
- + field roles of Division Commander (n= 64, 9%),
- sector commander (n= 63, 9%) and
- crew leaders/officer in charge of

## Phase Three Observations

Data collection:

- 5 computer based training Sessions
- 12 real time incidents

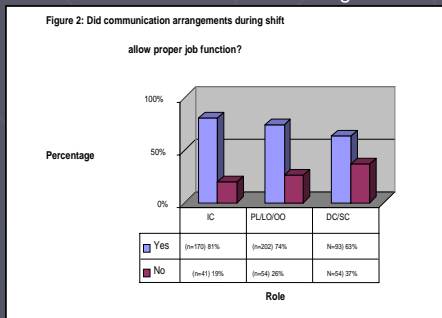


- Used 4 x digital cameras (hard drive- 5 hours); in addition miked up participants IC, planner, ops etc.

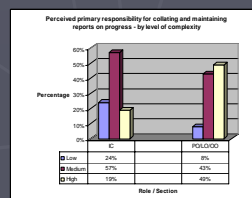
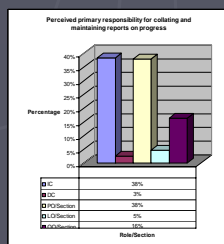
- Audio transcribed periods of 120 minutes each, sampling for high, medium, low work activity.

- Imported into Transana video analysis

## Data coding and analysis



Implications: Overall support for communications  
Empirical support for IMT-Fire-ground disconnect



Implications: When complexity of incident rises, responsibility for reporting shifts from IC to other IMT members. Need to improve IC mentoring of others at low complexity levels to improve experience for greater complexity?

## IMT Training – ways of organising



Centre configurations to support be functional information flow.

Different communication patterns emerging; different usages of tools, whiteboards/mapping to share situation awareness