

GETTING THE BEST BANG FOR YOUR BUCK: AD HOC OR PRE-FORMED INCIDENT MANAGEMENT TEAMS?

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Introduction

Large fires are typically managed by Incident Management Teams (IMTs). Does it matter whether IMT members have previously worked together? This project investigates the teamwork and decision making differences between pre-formed and ad-hoc IMTs.

Research Questions

- What are the performance differences between pre-formed and ad hoc IMTs?
- What are the implications for fire and land management agencies?

Methodology

Two simulated bushfire scenarios were developed from recent Victorian incidents. Sixty participants from existing pre-formed IMTs undertook one of these scenarios as a member of both a 4-person familiar (pre-formed) team, and the other as part of a 4-person unfamiliar (ad hoc) team. Each simulation involved teams in a range of activities including predicting fire development, operational planning, media liaison, and briefings. A subject matter expert observed teams to assess the quality of decision making, teamwork, outputs, and the briefing provided to the incoming Incident Controller.

Discussion

Familiarity ratings were inspected to select teams comprised of persons who had all worked together before (5 teams met this strict criteria) and teams comprised of persons who had not/rarely worked together before (5 teams). Compared with the 5 clearly ad hoc teams, the 5 clearly pre-formed teams performed significantly better on the following. (Note: The 7-point scale used to rate teams ranges from 1 = *Strongly Disagree* to 7 = *Strongly Agree*).

• **The number of fireground events that teams effectively attended to**

The subject matter expert assessed the effectiveness of each team's responses to six scripted events in each scenario (e.g., firefighter injuries, houses under threat). The pre-formed teams responded to all of the scripted events (i.e. 100% - 30 out of the total of 30 events) usually in an effective manner ($M = 6.2$), whereas the ad hoc teams responded to 73% of the events (i.e. 22 out of the total of 30 events), and usually only partially managed each event ($M = 4.4$).

• **Quality of the handover briefing documents (SMEACS)**

Produced superior SMEACS, providing a more realistic prediction of fire development ($M = 5.8$ vs. 4.6) and better mapping of the extent and location of the fire ($M = 5.6$ vs. 2.8).

• **Situation awareness**

Developed better situation awareness and were more likely to reprioritise their activities as the situation changed ($M = 6.1$ vs. 4.4).

• **Team coordination**

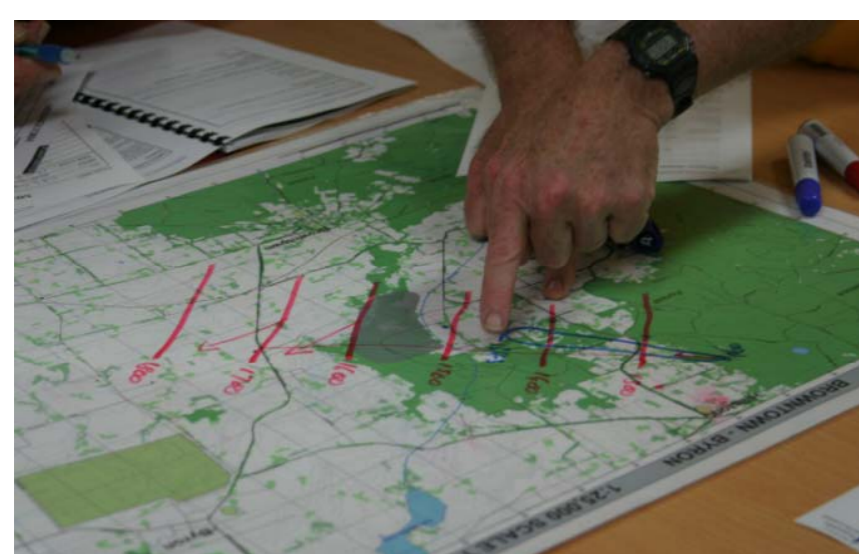
Were more coordinated – kept to schedule, followed AIMS processes, and adopted appropriate incident management behaviours ($M = 6.3$ vs. 5.7).

• **Intra-team communication**

Listened to each other more ($M = 6.6$ vs. 6.1) and provided more constructive comment to each other ($M = 6.6$ vs. 6.2).

Implications of these findings

- The pre-formed teams tended to be more coordinated, spending more time focusing on the incident rather than organising themselves.
- This study's results suggest that interventions that help develop familiarity amongst key IMT personnel may offer some additional performance benefits.
- Every effort should be made to ensure that IMT personnel who are likely to work together receive joint training and ongoing exercise opportunities.
- Regular cross region and cross agency incident management exercises may be a simple way to help enable greater familiarity.



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