



THE INALA ROAD ON-SITE LEARNING FIELD RIDE

FINAL REPORT PREPARED FOR THE TASMANIA FIRE SERVICE

Dr Sue Stack and Dr Christine Owen

University of Tasmania





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**Dr Sue Stack and Dr Christine Owen,
Bushfire Co-operative Research Centre**

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Attachments are included in an electronic zipped file accompanying this report; this file is now available for Steering Committee Members of the TFS.

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The Inala Road On-site Learning Field Ride

Background

On 9th and 10th July 2013, six months after the devastating Inala Road Fire, the Tasmania Fire Service (TFS) conducted an on-site learning field ride (The Ride) for 40 participants from TFS, Forestry Tasmania and Parks and Wildlife, to hear the stories of key fire-ground personnel who were on the fire-ground during the 3rd and 4th January when the Inala Rd fire escalated and took its run. The purpose of the Field Ride was to better understand what fire ground personnel faced, their experiences, challenges and decisions in order to draw out key lessons that would strengthen organisational capacity to deal with future large scale and catastrophic events. The Ride involved a process of working with the original fire- ground personnel to draw out their stories while, at the same time, remaining sensitive to the ongoing psychological impacts of this process, given the extraordinary nature of the event in their lives.

This report summarises:

- the process of the Field Ride including the objectives for TFS
- the lessons captured from the two stages of the Ride program – both from the fire ground personnel and the participants of the second Ride; and
- the insights gained and resources required for running a program of this nature to help in the development of future Field Ride events.

What is a Ride?

The design of *The Ride* drew from the processes and format of the “Staff Ride” – a highly regarded program used by the Wildfire Lessons Learnt organisation in the USA (Sutton & Cook, 2003) and recently trialled in Australia by the Parks and Wildlife Service, Tasmania (PWS) at Narawntapu and the Department of Sustainability and Environment, Victoria (DSE) at Cobaw. The ride is a highly experiential and immersive learning program which revisits the ground of an incident and enables a walk-through of what happened. It aims to foster reflection in a non-blame environment, by encouraging participants to understand the reasons behind their decision-making. By hearing the narrative of a complex and dynamic event as revealed in detailed stories of the personnel directly

The Inala Rd Fire

According to local reports, the Inala Rd Fire was a catastrophic fire that “did not act like a normal fire.” It commenced on Thursday 3rd January, burning in the inaccessible Redhills area off the Arthur Highway. With a weather change around 1pm Friday it took off quickly, reaching and devastating the township of Dunalley and other coastal townships, before moving through the Tasman Peninsular. It was declared contained on January 27, and handed back to local control with the incident being considered complete on March 20th. The fire caused the following damage: 193 dwellings, 116 out buildings, 70 vehicles, 22 caravans, 18 boats, power infrastructure, businesses, 1 school and 24,000 hectares. There were minor injuries to fire fighters and civilians and 1 fire

Format of the Field Ride:

Phase 1 – pre-study

Phase 2 – orientation and field trip

Phase 3 – integration and capturing of lessons

involved, it is possible to see things that might not normally be visible to participants, thus providing alternative ways of examining and reflecting on an event.

Objectives of the Ride Program

The objectives of the Ride Program were as follows.

1. To conduct a Field Ride with key crew leaders and decision-makers who were directly involved on the Dunalley Fire-ground during January 2013, in order to reflect and draw out lessons from that experience and to identify potential learning opportunities for others.
2. To conduct a second Field Ride for a wider audience to learn from the challenges facing personnel on the ground.
3. Both Rides were designed to promote and to build capacity in reflective inquiry *with an environment of no-blame*, in order to enable honesty and openness in discussion about what happened. The intention was to build a learning culture based on trust where reflective learning is valued and sought after.

Key areas of interest for TFS from the after action review ride with fire ground personnel

- Decision-making and human factors
- Effectiveness of operational command structures on the fire-ground
- Fire-ground safety
- Impact of operational priorities on decision making
- Effectiveness of operational priorities
- Communication Flows
- Liaising with stakeholders
- Impact of training and development

The Steering Committee (listed on page 7), established to guide the development and facilitation of the Ride, also suggested eight key areas of interest that might be explored (see text box above).

Learning Outcomes from the Ride

The insights from the two Rides are contained in a *Synopsis of lessons learned addressing key themes identified by TFS (Attachment 1)*, and *Notes from the second Field Ride Integration phase (Attachment 2)*. Both provide insights and suggestions for organisational learning and improvement. Table 1 below provides a summary of the selected insights and lessons captured in the synopsis. For more details and explanation, see *Attachment 1*.

Table 1: Extracts from the lessons learnt, addressing TFS themes

TFS theme areas	Key insights (selected)	Lessons identified
What they were confronted with-	Participants discussed having “30 years of fire-fighting experience and 1 day of facing catastrophic fire-weather conditions.” Participants gained their situation awareness of the changes and the escalating conditions at different times, depending on where they were on the fire-ground. They sometimes had trouble convincing other crew members and community stakeholders of what they were about to face (see below).	Time compression-significantly impacted on decision-making. Crews need to better understand what catastrophic fire conditions are like and to understand how this is different from routine fire-ground operations.
What were their insights from fighting a fire that was out of control and impacting on a community?	Some community members were “in denial” about what they were facing. They made comments like “it won’t be that bad”. This placed particular stress on fire-ground leaders who felt they needed to “negative triage” people who were refusing to either take them seriously or to leave. It also took valuable time away from other activities	Greater attention is needed to engage the community in understanding what catastrophic fire weather potentially means and what actions they need to take.
Were crews directed to places that were safe?	Participants asked the counter-question “ <i>what constitutes a safe place under catastrophic fire weather conditions?</i> ” Fire-ground leaders said they had no real-time detailed knowledge of fire-spread, except what they were directly experiencing and learning from one another. Knowing where was safe, either in the present or in the future, was particularly challenging.	Attention should be given to what constitutes safety and safe places for crews under catastrophic fire weather conditions..
Did they feel they were able to speak up and raise any concerns or issues?	This matter was raised briefly by personnel who were on the fire-ground. They reported that in some cases it was difficult for joining crews to integrate and to come to grips with the conditions they were facing. This led to shock on the part of inexperienced crew members, especially when those crews had no local knowledge.	Need to assist joining crews in their preparedness and to integrate them better. Increased awareness is needed about safety and risks under volatile conditions.
Were there any safety issues?	There were a number of life-threatening conditions that fire-ground leaders and some crews experienced. There is also a concern on the part of this report’s authors about risk-taking and battle hardening – see authors’ comment, Attachment 1.	Communication between the crews is needed so they can keep in touch. Communications should be built into PPE.
Fire-ground-IMT information flows: what were these like?	Participants noted that these kinds of information flows were lacking and that they did not feel supported by the IMT, nor did they feel confident that the IMT were looking out for their safety.	Radio operators who appeared to not pass on messages need training. It is also important when facing these kinds of fire conditions to anticipate that communications are likely to fail.

The Ways forward (see Table 2) were developed from the second Field Ride's small group exercises, as part of the **integration phase** of The Ride. The notes from the small group discussions during Day 2 of the integration phase can be found in *Attachment 2*. Participants also nominated to continue working on areas identified for ongoing continued improvement. The key themes are summarised in Table 2.

Table 2: The ways forward

Lessons Captured Theme	Ways forward	Responsible
Safety and Wellbeing	<ul style="list-style-type: none"> • Develop improved Individual capacity to make decisions and make appropriate assessments. • This requires skills knowledge and training, and culture change. 	Di Wilkinson (Presenter); Steve Willing
Decision-making and communications	<ul style="list-style-type: none"> • Confirm and maintain existing ICS and key operational priorities. • Develop better means of communicating operational priorities internally and externally. • Improve understanding of what fire ground crews want. • Create real-time incident action planning. 	Hugh Jones (Presenter) Gavin Freeman, Damien Killalea
Community Preparedness	<ul style="list-style-type: none"> • Improve connections between the prevention and preparation parts of the organisation, and the response parts of the organisation. • Gain greater clarity (internally and externally) regarding key community preparedness programs and understanding e.g. is there a better way of explaining what community alerts mean? 	Chris Collins (Presenter) Peter Middleton, Andrew Skelly, Damien Killalea; Shannon Fox (PWS)
Local Brigades and Priorities	<ul style="list-style-type: none"> • Recognise and support local brigade flexibility in operational and work priorities. • Assist local brigades to recognise the trade-offs and potential conflicts in implementing priorities within local communities. 	Dean Sheehan (Presenter) Damien Killalea; Robyn Pearce; Jeff Harper
Training and capability	<ul style="list-style-type: none"> • Support a dedicated interagency training unit with budget, resources and training plan. • Identify agreed 'core' training at all levels. • Facilitate an understanding of and respect for differences within and between agencies. • Move toward pre-formed multi-agency IMTs across all disciplines (vols SES etc.). 	Shane Batt (Presenter)- Adele Wright Neil Brooksbank and other members of the existing multi-agency training committee

The importance of the integration phase as an opportunity to critically reflect on insights that are based on personal values and inner motivations, and to integrate these with systems-thinking was

summed up by one participant who commented: *“It is no good developing policy without understanding how people are making decisions on the fire-ground – what is motivating them.”* For more information on the issues discussed by participants and the lessons captured, please see *Attachment 2*.

The rest of this report outlines how the Field Rides were conducted so that the 3rd TFS objective, to build capability in this type of reflective learning, can be recorded and resources developed for use in the future.

Development of the Ride

The TFS sought assistance from Dr Christine Owen and Dr Sue Stack in the development and facilitation of the Ride program. This process was aided by the Bushfire CRC, who had been associated with the Narawntapu and Cobaw Staff Ride programs in Australia (Stack et al., 2010, Stack and Owen, 2012). A Steering Committee was established which included the following TFS personnel –Jeremy Smith, Chief, Southern Region; Steve Willing, Coordinator Organisational Development; Damien Killalea, Director Community Safety; and Sandy Whight, Manager, State Fire Management Council. Following discussions which included undertaking a risk analysis and identifying indicators of success, the committee agreed on the program structure (see *Attachment 3*). The TFS program objective had two clear stages as summarised below.

1. **Conducting a Ride as an on-site after- action review for the original fire-ground personnel** – this provided an opportunity for these personnel to share their experiences and together build a more coherent view of what happened across the fire-ground. It aimed to capture their experience and thinking, create a narrative for their reflection, help them extract key lessons, consider assumptions and provide recommendations to the organisation, so that others could learn from their experiences. The fire-ground personnel were then given the opportunity to opt out or to continue to the next stage, which was participating in a Ride for a wider audience consisting of personnel from the various fire management organisations (TFS, Tas Parks, Forestry). In considering whether the original fire-ground personnel wanted to participate in this wider organisational learning initiative, they were invited to articulate the kinds of boundaries and support they would need so that they would be comfortable to participate. This was considered important, given the recency and scale of the event.
2. **Developing and conducting a Ride learning event for a wider audience** – this required careful design, framing and orchestration, with a variety of options considered. It required attention to the vulnerability of the fire-ground personnel in disclosing their experiences and motivations, and attention to the sensitivity and needs of the audience, many of whom had also been involved in the event in roles such as IMT and the Regional and State Fire Operations Centres (RFOC, SFOC). It aimed to take participants through a process where they could begin to see their hidden assumptions and to capture their insights that would be useful in organisational learning.

Potential of the program

In scoping out the objectives, the researchers and the steering committee discussed the potential secondary affordances (or benefits) of the two-stage program (see Table 3).

Table 3: Potential affordances and outcomes of the two-stage program

Potential Affordance	Outcomes
To trial the field-ride format giving Tasmanian personnel the opportunity to experience this type of learning program	As discussed above the two versions of the ride, were trialled. The first, an on-site after-action review for the fire-ground personnel three months after the event, was reported as highly valued by the participants in helping them make sense of what had happened. In reflecting on the after action review, the fire-ground members reported that they felt this process would be useful for others engaged in the fire-fight to help them reconcile their experiences. Some were keen to share the narrative with their brigades to help them process what had happened to them. The second field ride enabled key personnel across TFS, Parks and Wildlife and Forestry, including non-operational personnel (human resources, community, safety divisions), to experience this type of learning.
To draw out lessons from the experience of the fire-ground personnel that could be used to strengthen capacity for future catastrophic and large scale events	Based on the first ride and the fire-ground personnel's experiences and issues, Owen and Stack prepared a narrative and synopsis addressing the key themes identified by TFS (see above). This paper addressed the research questions that had been put by the Steering Committee. The second ride also generated "insights", through small-group work by the participants, as part of the integration phase in the Field Ride.
To encourage a culture of productive reflection within the organisation, by assisting it to move towards a high reliability culture, and by fostering adult development. To look for opportunities that would be effective in developing leadership capabilities.	Comments from participants involved in the Second Field Ride suggest that the experience was one that provided opportunities for considerable reflection in a non-judgmental environment which led I to a better understanding of the human factors elements. As one participant noted in the post-field ride survey: <i>The event provided a rare opportunity to think not just about processes and solutions, but how we think and feel, revealing a whole new perspective on the event. I learnt far more from the field ride than I have from any debrief in the past, and as a result, I have positively changed my attitude towards how I will do things in future.</i> Both the first and second staff rides have identified areas for leadership development. See <i>Attachments 1 and 2</i> .
To develop organisational capacity to develop similar programs in the future.	The opportunity to develop internal capacity to conduct future Field Rides depends on having key people from the TFS on the Steering Committee to assist in thinking through the different aspects and complexities of doing the field ride. However, it is recognised that this requires considerable resources.
The organisation to consider developing the resources generated out of the Rides for future training purposes.	The narrative developed from the fire-ground personnel's accounts is a valuable resource that could be further developed into case-studies for training purposes. In addition, the material provided to TFS includes resources for assisting in Running future Field Rides.

Running the two Rides – Lessons Captured

The first Field Ride occurred in April 2013 and involved 10 personnel involved on the fire-ground (see *Attachment 4*). The Field Ride commenced with a meeting of the participants to discuss the potential parameters of conducting the Ride as an after-action review. Following an initial meeting with participants, it was agreed to conduct a two day workshop. The first day consisted of explanation and discussion about the intent of the ride; the human factors considerations about working under conditions of complexity; and some strategies to avoid falling into judgements that are based on hindsight bias, as well as, some strategies to detect error traps. This was followed by travelling to and walking the fire-ground, so that participants could tell their stories of what happened. The second day was spent drawing on the comments made during the ride and scoping out the broad structure of the narrative. Time was also spent identifying potential lessons that could be learned. The narrative was then further developed in follow-up interviews with the people involved.

The narrative developed from the Fire-ground personnel's experience gives a nuanced account of the conditions, challenges and dilemmas facing operational personnel on the fire ground as the fire escalated. It helps us understand what was non-routine about the weather, the fire conditions, the way houses burnt, how community members were behaving and the scale of the task. The narrative also gives a doorway into the inner motivations of the fire ground crew as they improvised beyond their normal experience. Particularly difficult for local crews, with long term affect, were the ethical decisions they faced between who to put first and what to save. The TFS priorities assisted personnel in their decision-making, though there were still cognitive and emotional struggles to be overcome. These were because personnel were most familiar with enacting the priority of saving houses and rarely in the past have had to consider the option of leaving houses to burn in order to protect and warn communities. The structure of the operational priorities was a useful tool that guided personnel in the processes of difficult decision-making. The narrative makes visible some of these more systemic vulnerabilities, such as, how the priorities worked; the effectiveness of teamwork structures; the span of control; and the challenges, including communication with the IMT. A copy of the narrative is provided (see *Attachment 5*).

Lesson's Captured Resources:

- Synopsis report (Att 1)
- The ways forward - Second Ride insights and ways forward captured thematically (Att 2)
- Narrative (Att 5)
- Impact of escalating conditions on priorities (Att 7J)

The synopsis organises learnings from the narrative into the eight key areas of interest identified by TFS. For each of these areas the synopsis highlights what worked well and where systems were vulnerable. It also summarises the suggestions made for organisational strategies that could help strengthen these systems. (See *Attachment 1*)

A second Field Ride was then developed after the Progress report was approved by the Steering Committee (see *Attachment 6*). A program and some resources were developed for facilitators, along with a set of resources for use in the second ride, including a participant pocket book and power-point presentations (see *Attachment 7*). Second Field Ride participants were sent the narrative as their pre-reading (see *Attachment 5*). They were also asked to complete a survey before the Field Ride to capture their reflections on the pre-reading and their expectations. After the Field Ride, participants were again asked in a survey to comment on their insights based on the experience (see *Attachment 8*).

Feedback from participants about the second Ride

As stated above, the participants of the second ride were asked to complete pre-ride and post-ride surveys (see *Attachments 8 and 9*). The purpose was to capture their insights and learning; determine what they valued about the program and what could be improved; and to get an indication of how they saw the culture of the organisation.

Feedback from participants of second ride resources:

- The blank surveys (Att 8a, 9a)
- Collated data from the pre-ride survey (Att 9a)
- Collated data from the post-ride survey (Att 9b)

Key findings included:

- strong endorsement for the value of the Field Ride as a means of holding an after- action review and capturing lessons to be learned for the organisation; and
- it had a strong impact on many attendees (as indicated in Figure 1).

***To what degree has the on-site learning field ride had an impact on you?
(Please rate on a scale from 1 to 7 where 1=low and 7=high.)***

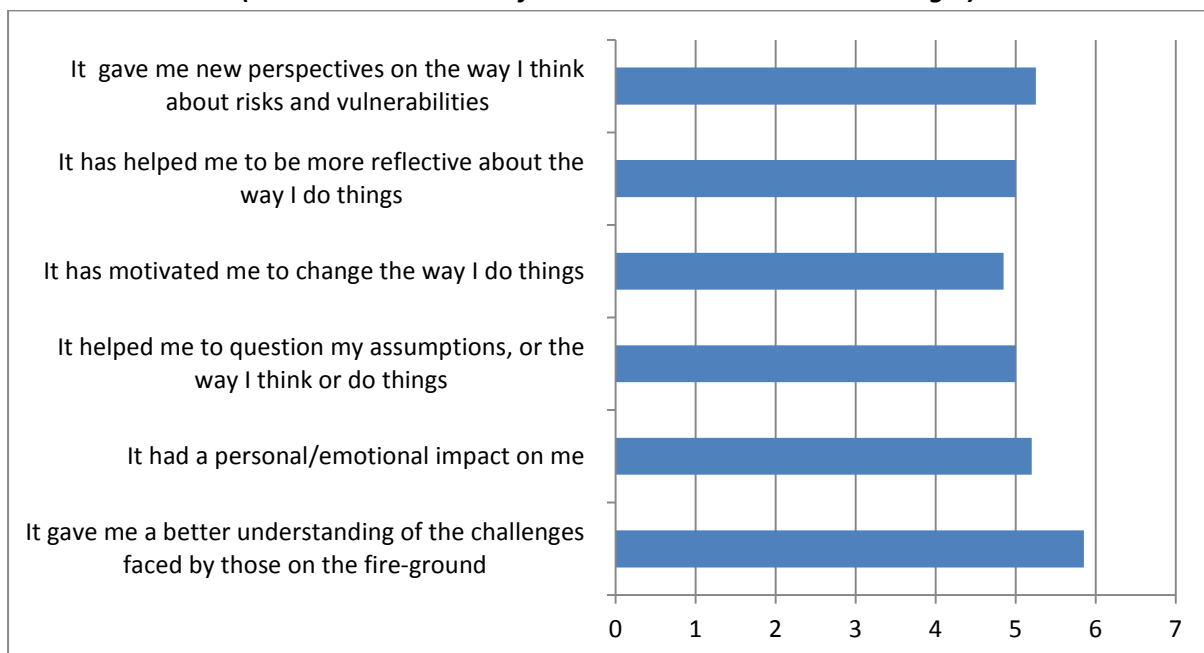


Figure 1: Post-survey result - To what degree has the on-site learning field ride had an impact on you?

- As one survey participant noted: *Very effective, it takes commitment and a lot of trust by the crews to learn the real details and get to live the event from their perspective. Having been allowed into their world I feel privileged, and in my mind returned to several events I have attended in a less enlightened time.*
- There was strong interest in participating in another Field Ride, including a willingness to share similar experiences and stories (see Figure 2).

To what extent would you be willing to participate in another Field Ride: (please rate on a scale of 1 to 7 where 1=not at all and 7=definitely)

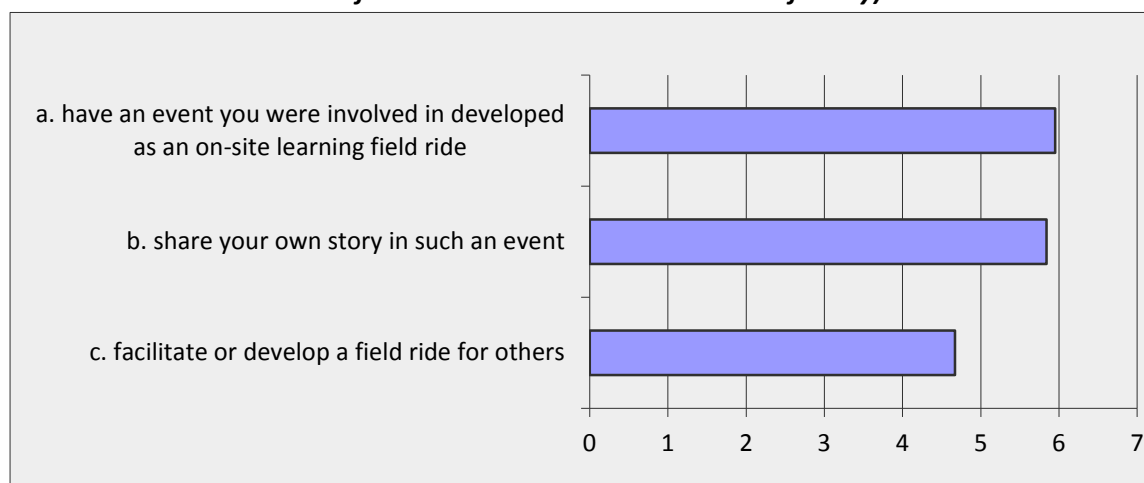


Figure 2: Post-survey result - To what extent would you be willing to participate in another Field Ride

A number of participants nominated to continue their involvement by participating in a future Field Ride or by integrating the identified issues into the second Field Ride (for details, see *Questions 10 and 11, Attachment 9b*).

It is also important to note that feedback about the Second Field Ride was not universally positive. The emphasis of the stories from personnel on the fire-ground had an a negative impact on some of the participants who were also working on the fire event e.g. members of the IMT and some felt that their contribution was not valued. There were three comments indicating disappointment that the focus had not included these stakeholders and one expressed concern that the comments made by the fire-ground personnel about the IMT were wrong. Prior to conducting the second Field Ride, the Steering Committee discussed these boundaries and concluded that the focus should be on the experiences of the fire-ground crew leaders. Now that this experience has, for the most part been a positive one, it is possible for TFS to revisit this particular Ride from the perspectives of others involved and later broaden the focus to include various stakeholders involved in the event.

Insights and resources from running the program

The two rides succeeded because there was considerable trust-building with the fire-ground crew and sensitivity to the recency of the event.. As a result of engaging with the running of these two ride programs, TFS has now developed considerable understanding, capacity and resources for running

Running a Ride resources:

Original proposal (Att 3a)

Framework for program with risk analysis and indicators of success. (Att 3b).

Materials prepared for the first field ride (Att 4):

- program,
- information sheet

Materials prepared for the second field ride (Att 7):

- program,
- info sheet,
- invitation,
- pre-reading - narrative,
- running sheet for the ride,
- pocket book,
- facilitator guide,
- Power Points,
- handouts for exercises,
- logistics

future rides based on the Inala Rd incident, or for developing new rides.

Many field rides are designed years after incidents and usually around events that involved major errors or mistakes, or breakdowns in communication and coordination and in some cases, fatalities. The design of the rides has had to balance the generation of effective learning with the risk of any possible repercussions, as well as sensitivity to the fire-ground personnel and others who were impacted. Although no-one died directly in the Inala Rd fire, it devastated whole communities, was very recent, and is continuing to involve different layers of Government and industry inquiry. The people involved in the fire or in subsequent ones of that season are still processing their experiences.

The purpose of conducting the two TFS Field Rides was not about learning specifically from “mistakes”, but rather developing a better understanding of what occurred in an extraordinary situation. The organisational leadership acknowledged that the personnel on the ground did an “amazing job” and that it was important to learn as much as possible from this event for others who may face these conditions in the future. The leadership therefore wanted to provide support and assurance that whatever was revealed would be respected. This positive climate was crucial in enabling fire-ground personnel to engage with this process so soon after the event and in the context of other inquiries.

Given this complexity, it was critical to set up a planning framework that addressed the sensitivities, articulated the risks, gave people the choice to opt out, and provided counselling support (see *Attachment 3b*). This process was a complex one, requiring adaptability to what might emerge. A key feature was the building of trust between the fire-ground personnel and Stack and Owen, with continued assurance and support from TFS leadership.

Considerable learning has been gained around the issues that arose from helping people to talk about and reflect on their experiences. The narrative was a significant product that helped the fire-ground personnel reflect on and have control over their stories. However, it was time consuming and emotionally demanding for all involved, which is not surprising considering the nature of the event. The engagement in this process has encouraged several of the fire-ground participants to value and seek counselling to help them to deal with the incident.

Conclusion

The Ride has provided an opportunity for TFS staff in different capacities (organisers, developers, facilitators, fire-ground personnel, second ride participants) to be exposed to and engaged in the Ride philosophy, processes and learning culture. It has generated a number of resources for TFS and an interest in continuing to build and develop a learning culture. To this end we believe that both the original objectives as well as the secondary affordances have been met. A number of lessons have been identified and have been included in the attachments to this report. In addition, there is a strong commitment by the participants, to use the insights identified and the lessons learnt to build capability for the future. We wish the Tasmania Fire Service and their fire-management stakeholders every success in the future with their continued work as a learning organisation.

Christine Owen and Sue Stack

Further reading and resources

Stack, S., Owen, C., Whight, S., Pyrke, A., Duggan, P., & Staier, E. (2010) *Designing the staff ride: A vehicle for learning from wildfire and prescribed burning operations in Australia*. Bushfire CRC.

Retrieved on 12/02/2013 from <http://www.bushfirecrc.com/resources/guide-or-fact-sheet/designing-staff-ride>

Stack, S., & Owen, C. (2012). *Evaluation Report: 2012 Cobaw staff ride program*. Bushfire CRC

Sutton, L & Cook, J. (2003) *Wildland Staff Ride Guide* Retrieved 27/02/2013 from <http://www.wildfirelessons.net/SearchResults.aspx?q=staff%20ride>

Attachment 1 Dunalley On-site Learning Field Ride- Synopsis of lessons learned addressing key themes identified by TFS

Area and questions	Synopsis	Lessons identified	Strategies for Lessons Learned
Decision-making and human factors			
<ul style="list-style-type: none"> What they were confronted with; what decisions did they need to make? 	<p>Participants discussed having “30 years of fire-fighting experience and 1 day of facing catastrophic fire weather conditions”. Participants gained their situation awareness of the changes and escalating conditions at different times, depending on where they were on the fire-ground. They sometimes had trouble convincing other crew members (and community stakeholders- see below) of what they were about to face. Participants faced a number of life threatening situations and believe that they made the right decisions with the information they had available to them at the time.</p> <p>Critical decision moments:</p> <ul style="list-style-type: none"> Red Hills – could they control it with a back burn? Dunalley School Vs. Pub- triage where the people were Boat ramp- crew tasked to look after people- discipline Triage in general- knowing what to triage and when- issue of ‘negative’ triage Staying “in front” of the fire to give warnings 	<ul style="list-style-type: none"> Time compression- normally you might have had 30 minutes to do something- but that compressed into 2-3 minutes Crews need to better understand what catastrophic fire conditions are like and to understand how this is different from routine fire-ground operations 	
<ul style="list-style-type: none"> What information did they need? 	<p>There was variable information available on the fire spread and only some personnel had information about expected changes in weather.</p> <p>Some thought they needed to know what the IMT knew in terms of fire behaviour predictions anticipated fire spread, and anticipated weather changes</p>	<ul style="list-style-type: none"> Consideration of potential options for alerting “red flag” warnings as used in Victoria- although noting that in some places this message will not be received and cannot be relied upon 	
<ul style="list-style-type: none"> What were their 	<p>Critical was being able to shift priorities quickly and to</p>	<ul style="list-style-type: none"> Greater attention needed to engage community in 	

insights from fighting a fire that was out of control and impacting on a community?	communicate shifts to one another so that community protection/warning efforts were coordinated Some community members were “in denial” about what they were facing making comments such as “it won’t be that bad”. This placed particular stress on fire-ground leaders who felt they needed to “negative triage” people who were refusing to either take them seriously or to leave. It also took valuable time away from other activities.	understanding what catastrophic fire weather potential means and what actions they need to take.
Fire-ground safety		
<ul style="list-style-type: none"> Were crews directed to places that were safe? 	In relation to this question, participants asked the counter-question “ <i>what constitutes a safe place under catastrophic fire weather conditions?</i> ” Given that the fire-ground leaders had no real-time detailed knowledge of fire-spread (except what they were directly experiencing and learning from one another) knowing where was safe (now or in the immediate future) was particularly challenging. Many of the crews were directed into the Dunalley pub and organised to protect the people and the various assets (e.g., caravans) from ember attack. This strategy was reported to be particularly effective.	<ul style="list-style-type: none"> What constitutes safety and safe places for crews under catastrophic fire weather conditions is in need of attention
<ul style="list-style-type: none"> What was the communication climate like? 	There appeared to be considerable trust between the fire-ground leaders on the fire-ground and each other, which enabled succinct and clear communications. This meant that even though they did not spend a lot of time speaking to one another they understood each other’s intentions Calm on the radio – people kept coms straight and to the point	<ul style="list-style-type: none"> Communication between career and volunteers was reported to be very good Technical difficulties with coms- radio only good for about 3 kilometre distances – also see below re other comms issues

	<p>Frequent briefings on the morning facilitated the development of shared mental models and team trust.</p> <p>Head's up anticipation that this may be the final briefing and instructions given about how to operate autonomously when fire impacts and if comms lost</p>	
<ul style="list-style-type: none"> • Did they feel they were able to speak up and raise any concerns or issues? • Did they feel happy to say no to any directions? Was this expressed? What happened? 	<p>These were raised briefly with one another. The observation was made that it was in some cases it was difficult for joining crews to integrate and to recognise what they were in fact facing, which led to shock on the part of inexperienced members of these crews, and in particular when those crews had no local knowledge.</p> <p>This was not discussed.</p>	<ul style="list-style-type: none"> ○ Need to assist joining crews in their preparedness and to integrate better. ○ Increased awareness needed on safety and risk under volatile conditions
<ul style="list-style-type: none"> ○ Were there any safety issues? Did they deploy any safety processes (e.g., blinds)? 	<p>There were a number of life threatening conditions that Fire-ground leaders and some crews experienced. In one case of a house entrapment the participant noted that, although he could not find his way out of the burning building, he used his training to locate a window.</p> <p>There were other instances where crews were separated and thought that others had died.</p>	<ul style="list-style-type: none"> ○ Communication between the crews needed so they can keep in touch- communications built into PPE. ○ Breakdown of communication between fire ground and communications; and seemingly between communications staff and operational unit of the IMT ○ Some crews were not aware of the comms to evacuate to the pub because they were not in their trucks and did not hear the radio message ○ The Deputy played an important role in bringing in crews

	<p>There were a number of other instances where Fire-ground leaders and crews experienced fire directly impacting on vehicles and sometimes for extended periods of time (e.g. driving through fire for considerable kilometres). The Fire-ground leaders note that at no time did they feel overwhelmed or afraid. These emotions may however have been experienced by other fire fighters on the fire ground.</p> <p>There were crews arriving on the fire ground that reportedly, no-one knew were coming.</p> <p>Over the whole fire-ground, when crews were on the fire ground it was not possible to get an accurate picture of their location and who was with what crews</p>	<p>and showing them their position.</p> <ul style="list-style-type: none"> ○ A Meredith used his own T-card system to log crews <ul style="list-style-type: none"> ○ Make radios part of PPE ○ Ensure the staging area properly set up to log incoming crews. ○ Use capability in trucks to provide locator status
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Information and communication flows

<ul style="list-style-type: none"> ○ Fire-ground-IMT information flows: What were these like? ● Did the fire-ground personnel feel that the IMT was looking out for their safety? 	<p>The participants noted that these information flows were lacking and that they did not feel supported by the IMT. Nor did they feel confident that the IMT was looking out for their safety. There were some instances where this may have been the case; however, because communications completely broken down, the Fire-ground leaders were unaware. For example, when the electrical power poles were coming down crews were reportedly trapped between live power lines. In other instances, fire-ground leaders took educated guesses that the power lines were not live in order to move through them, only to find that in another location (due to a secondary feeds) that there were still areas with live electrical feeds.</p> <p>The Fire-ground leaders felt that they did not receive productive information from the IMT, despite numerous attempts to do so and despite their attempts to provide useful situation updates to the IMT.</p> <p>There is a perceived disconnect between the IMT and the fire ground. Fire ground leaders felt that they were not listened to; that the IMT was detached from the fire ground, which in turn resulted in their perceptions that the IMT had poor situation awareness about the conditions on the fire-ground and what personnel needs might be. The IMT also gave out hours old and inaccurate directives to the crews, leading to a loss of trust that the IMT had accurate situation awareness and loss of credibility in</p>	<ul style="list-style-type: none"> ○ Radio operators appeared to not pass on messages. These were also not in FIRM. ○ Establishment of technologies and processes to support communications between fire ground and IMT needs attention ○ IMT-Fire ground disconnected- needs redressing ○ The training of communications staff needs to be undertaken ○ Mobile comms could be dropped from a helicopter ○ Training of communications operators needed. Operators also need to use FIRM ○ Anticipate that comms will fail:- ○ Mobile repeater coms to be heli-dropped into safer locations. ○ Streamline triggers for heli-repeater deployment so that action can be taken quickly when comms fail ○ More effective logistics units in IMT that can properly address fatigue, health and welfare needs of crews
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	<p>what the IMT was saying.</p> <p>According to participants, an IAP was not produced or received until the 3rd day.</p> <p>In addition crews, who were working very hard, were left in some places without food or water for 24 hours, and without relief.</p> <p>Fire ground personnel change-overs happened too late and in the dark, limiting ability to provide situation awareness of the conditions because they could not be seen</p>	<ul style="list-style-type: none"> ○ Consider what instructions are needed to support crews under conditions when IAPs cannot be produced
<ul style="list-style-type: none"> • Fire-ground-stakeholders: what was their experience of liaising with others? (e.g., police; community members) 	<p>Experience on the ground with police and other stakeholders was good. Fire-ground leaders made the observation that within the police service there appeared to be some hierarchical barriers and challenges to getting the message through to the Police leadership that resulted in lags in timeliness and local capacity for responsiveness. For the most part community members were responsive, though there were also a reasonable proportion of the community who failed to understand the gravity of the situation. This added additional challenges to fire ground leaders.</p>	<ul style="list-style-type: none"> ○ Understanding community priorities good- needs to be undertaken with all communities and community priorities need to be conveyed to all on fire ground ○ On the Saturday in Dodges Ferry the local fire station became a community hub. ○ Continue local relationship building to support preparedness ○ Consider how to strengthen this local bridge community hub role (also was used in QFRS floods as part of a Mission Command process)- could share insights

Operational guidance: Effectiveness of operational priorities; Impact of operational priorities on decision-making

<ul style="list-style-type: none"> • Were operational priorities met? Were there any impediments? Did the operational priorities help with decision-making? Do they need to be revised (i.e. better defined; re-ordered)? Are they well-understood? • Triage: Was it conducted? How well did it work? • Effectiveness of operational command structures on the fire-ground 	<p>Having the operational priorities was a real strength. The fire-ground leaders felt that they were well understood. They do not believe there is a need for these to be changed.</p> <p>They used the operational priorities as a decision-making tool to know when to switch their strategies. Conveying that switch in strategy to other crews however was at time challenging. (i.e., to convince crews that they needed to leave a house that was involved in fire and move on)</p> <p>Having had the experience of the fires leading up to the Dunalley impact aided a number of the Fire-ground leaders to gear up so that a they felt that they had hit the ground running. It was challenging for others to quickly get up to the speed needed to manage on the day.</p> <p>Newly arriving crews also overloaded the span of control of the leaders on the fire-ground. There was a real challenge for new crews arriving to develop the state of vigilance and situation awareness needed</p> <p>The role of “freelance” liaison between crews performed by Claudio and was important as it enabled information to be passed between crews and other major stakeholders (e.g., conveying to the police officer at Primrose Sands that it was now too late to evacuate the</p>	<ul style="list-style-type: none"> ○ More training needed about strategies to aid in decisions to shift priorities and in efficient communications between crews about triage ○ There was concern that if sufficient resources may have been deployed in the first instance it might have been possible to have suppressed the fire. This represents the dilemma of crews in trying to understand the bigger picture in terms of state-wide prioritisation. ○ Adds also to the dilemma of whether newly arriving crews should be kept together or split up. ○ Bring in crews with their own leaders to ensure 1:5 span of control maintained. At one point on the fire ground span of control had expanded to 1:10 ○ The operational command structure on the ground was self-described as “loose”, but necessarily so in order to be fluid and flexible enough to manage these demanding conditions. ○ Need to anticipate ahead of time that this is likely and anticipate where sector size may be reduced. ○ Need to recognise double edge of crews operating in their own location. Strength- locale knowledge. Potential weakness- getting drawn in to personal
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	<p>residents.</p> <p>Sectors continued to expand and became too large.</p> <p>Limited radio channels used- led to alternative use of mobile phones (operating outside the system)</p> <p>Reshuffle of crews to enable, where possible, crews to operate within their own locale.</p>	<p>support for residents leading to loss of more strategic picture.</p> <ul style="list-style-type: none"> ○ Ensure local knowledge placed with newly arriving crews ○ Ensure briefing to new crews appropriate to the conditions ○ Consideration needed about fire-ground coordination roles needed under catastrophic fire weather conditions ○ Need to develop training in anticipation and worst case scenario thinking (both at IMT level and on fire ground)
Training and Development		

<ul style="list-style-type: none"> • Did they think their training helped them? • Leadership lessons- what leadership lessons may be captured and passed on to others • Based on the experiences of personnel involved, what are the leadership and development needs and opportunities? 	<ul style="list-style-type: none"> • The fire ground leaders showed particular resilience in managing frustration initially but this had its limits leading to frustration fatigue • Fire-ground leaders believed that had the credibility, trust and respect of crews and of each other- this assisted them in keeping discipline and a shared understanding about the priorities • Local leaders were included to bring in local knowledge and this was a strength • Leaders had a clear idea of the command structure on the fire-ground • There is a need for better mentoring • There is a concern regarding the ability to build experience which is hampered by concerns about paying over-time. • There is a concern that the training volunteers receive for fighting wildland fires is insufficient. • There is also a shift occurring where in the past, career staff more typically would be engaged in urban structural fires and volunteers involved in bushfires. Now career fire fighters are also more involved in bushfires. Is their training sufficient? Has the training of people operating in the IMT given them the requisite skills to understand the complexities of wildfire? 	<ul style="list-style-type: none"> ○ There was a strong sense of teamwork and leadership ○ Having locals in cab provided needed local knowledge ○ Relationships between various stakeholders (e.g., police and fire fighters) worked well in this event, in part because of informal existing relationships- these need to be strengthened and systematised. ○ Need to have included in training discussions about the subtle differences between freelancing and acting autonomously in keeping with a Mission Command approach ○ Training needs to include recognising shifts in tempo and escalation signalling a change in priorities. These shifts in decision-making priorities need to be included in training ○ There is a need to include human factors and decision-making training so crews will recognise the dilemma and trade-offs they are likely to face in catastrophic fire weather days. ○ Multi-agency training is also needed so continue to build strong relationships between the stakeholders, especially between fire fighters and police.
<ul style="list-style-type: none"> • What steps can 	There is a need to overcome the cultural divides created by historic “us-them” barriers. The participants	

<p>be collectively learned from this experience to step toward a culture of learning?</p>	<p>recommended:</p> <ul style="list-style-type: none"> - removing lines on maps that designate particular brigade locales. These reinforce some of the territoriality that can sometimes occur as well as the career/volunteer divides. -overcoming some of the historic IMT-Fire ground separations. Each needs to better understand the respective needs, demands and strengths in order to work more effectively together, <p>Authors note: The Fire-ground leaders worked effectively together to get out warnings and to prioritise their actions. The tool for operational priorities helped in this regard. There were, however, a number of near misses and some are reported here and in the narrative. It is important to learn as much as possible from these near misses because others, facing similar circumstances may not have the collective skill and good fortune that resulted, in this instance, in no deaths and limited injuries. In the future others may not be so lucky. While it is important to acknowledge the role of “battle hardening” it would be unfortunate if this turned into a reluctance to more closely reflect on circumstances that lead to fire fighter vulnerability and to learn from these events. Doing so however will change culture, only after the potential culture of downplaying fire safety issues is changed.</p>
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Other:

- The claim was made that fires need to get to a certain size before additional funds can be used to deploy more resources. Participants felt that this was a structural impediment to being able to attack.

Attach 2

Notes from Day 2 of the Second Field Ride workshop.

Reviewing insights from the Panel at the end of Day 1

Revisiting the evening Panel – what would the fire ground personnel hope TFS takes away from the Field Ride

- More support for volunteers and fire officers after big events.
- More information provided to crews on the ground.
- Provide a scribe for sector commanders (for accurate record).
- Good crew leader and sector commander training.
- How do we prepare and put systems in place?
- Capture learning from interstate air ops.

Day 2 workshops

This occurred in two phases

Phase 1: Participants were asked to review the key insights captured the preceding evening

Discuss the key ideas collected last night on the core theme and present a synthesis back to the rest of the group. Summarise:

- 3 lessons captured
- 2 issues arising (e.g., challenges, barriers, concerns)
- 1 way forward and/or 1 big question

In some instances questions were captured as part of the broader group discussion and are listed at the end of these workshop notes.

Phase 2: At this point some of the groups joined up (noted below). Participants were then asked to consider the following question:

Take the *moving forward big idea/key question* and – using the 4-quadrant integral thinking tool – consider what are the implications of this for the future?

“when it happens again, what do we want in place?”

- What do we want to have kept?
- What do we want to have brought in?

The notes are summarised below for each of the groups.

Safety and well-being (crew/ff/operational)

Sticky notes

- Fatigue management recognised but what to do? -Locally organisationally.
- How can crew change overs and time spent on the ground be better managed?
- 'Interim' fatigue management approaches, are they practical?
- No fatalities, no injuries to fire-fighters.
- How was discipline maintained? How do we teach instinct?
- A few moments of we'll try this-hope it works-if not we're stuffed!
- Why didn't vehicles burn? Rokeby- Adam going to Murdunna- what can we learn from design or tactics used?
- Risks taken by crews to protect 'mates' places. Safety community protection.
- Clinical approach to setting priorities.
- Re-evaluation of situation –following the 'rules'.
- Situation awareness.
- Sector leader concern for crews, fatigue, food, accommodation, resources-fuel.
- Concern for crews exposed to catastrophic fire conditions will be adversely affected, leading to non-aggressive tactics in controllable conditions in future.

Lessons captured

- 1 Resourcing earlier, use task force where from south → south; use of N NW resource –back up
- 2 High risk –trying to be in front of the fire
- 3 Forward knowledge – political decisions impact on road closures etc.
- 4 Experience mix on fire ground
 - a. Inexperienced/experienced
 - b. Local/other

Issues

- 1 Fatigue management
- 2 Local brigade – use of training and preparation

What do we want to keep?

- Individual capacity to make decisions and assessment
- Skills knowledge and training

What do we want to bring in?

- Training
 - Simulated experience

- Tactical experience
 - Coaching
 - Personal behavioural training –team training
 - Training from day one plus volunteers
- Culture change
 - Briefings incorporate direction
 - boundaries

Decision making and Comms IT groups combined

Decision making, escalation and priorities

Sticky notes

- Fires were behaving erratically before Christmas -recognising 'red flags'.
- Effective leadership/decision making.
- Decision making –timely-confident.
- Importance of local brigade knowledge (must engage as Sector Commander).
- Strategies for best outcomes (e.g., campervans stay at Dunalley when evacuating to Nubeena).
- Making decisions mindful of the rapidly changing situation.
- Intelligent information (AIIMS 4).
- Self-sufficient.
- Priorities were set early and well known by the crews. Allowed for autonomous decision making.
- The closer the personal relationships, the more relationships impacted on decision making.
- Identifying triggers for engaging the priorities.
- The sense of benign fire actually early on Friday led to a delayed understanding of the potential severity of the fire when conditions worsened.
- Actual spread of the fire taking people by surprise and forcing them into spontaneous action.
- How do IMTs assist in change strategies in most timely way? Was this, or was this not a problem on January 4?
- There were several decisions about 'going forward' (in front of the fire) and these proved to be good decisions. Was the IMT aware of these movements? Was aerial observation (or even command) considered?
- Use of resources to gain maximum outcome (i.e., save people).
- Moving the public to safe zones.
- The priorities on the red poster were applied with good discipline and worked well.
 - They can be improved- how to transition to them, a when; how they can be used- flexibility; how they can be more widely known.
- How much time spent door to door?
- When/how did IMT transition?
- The time of the day when tactics changed from containment to evacuation.
- Air Ops transition from fire fighting to asset protection to life safety appear to have happened in sync with ground troops.
- Some Sector Commanders appear to have made decisions with Divisional Commanders decisions and then carried them out.

Lessons captured

- 1 field commanders needed briefing on weather and fire prediction at the start of day
- 2 brief early, brief often-up and down (e.g., emergency warning top down)

- 3 think and act further in front based on predicted conditions (depends on 1 and 2)
- 4 earlier strategy transition

Issues

- 1 more timely incident action planning for current ops period
- 2 break down in communication

Way forward

Practical system improvements needed for briefing situation, IAP, strategies up and down in real time

Communication (IMT-F/G)/technology

Sticky notes

- Cohesiveness of diverse groups all working together (i.e., police, brigades from other parts of the state).
- Good on ground communication from start was a key.
- Going forward –making the community aware of their safety zones.
- Strong clear command structures resilient enough to withstand chaos.
- Vulnerability of the communication systems to be compromised by either physical disruption or multiple parties competing for air time (overload).
- Air –ground intelligence
- How would better communications with IMT change decision making? – understand fire spread, manage fatigue, feed crews.
- How can technology help us more – communication. Resources, command structure.
- No log for incident.
- No experienced radio operators taking word back.-frustrations emanating from passing information through less experienced radio operators resulting in some confused decision making.
- Look for where communications relationships can be strengthened (IMT/Ground/interagency)- Relationships formal/informal.
- Disconnect between IMT/fire ground – how can it be improved?
 - Fire ground working in real time, IMT to a certain extent is reactive to situation.
 - IMT staff can develop an insulated view or understanding of the conditions as they are developing.
 - How could the IMT build up situational awareness of the crews?
 - Leaders from all agencies on the fire ground and their troops need access to the latest intelligence on weather forecast, prediction modelling and access to IMT IAPs.
 - How does the passing of information and requests from the fire ground get handed and dealt with at the IMT?

Lessons captured

- 1 Monitor and manage span of control
- 2 Vital comms triggers missed
- 3 In experienced comms operators in IMT

Issues

- 1 Comms break downs of SA in the IMT
- 2 Overload on individuals

Way forward

Rigorous and strategic comms plan

Psychology

Build relationships

ITS

- Span of control
- Inexperienced IMT radio operators missing triggers
- Resourcing IMT radios
- Comms plans
 - Text messages
 - smart phones
- Build robust systems best practice for div coms
- AVL system
- Contingency systems

Combined

What do we want to keep?

- Maintain ICS
- Key operational priorities – review and communicate
- Maintain fire ground IC autonomy
- Consistent terminology between agencies and other stakeholders

What do we want to bring in?

- Seek better understanding of what fire ground crews want
- Better communication of operational priorities internally and externally
- Strategic communication plan and contingency plans
- Systems for identifying new technology and incorporating into incident management
- Real-time IAP
- Capability and training

Community Preparedness and Alerts

Sticky notes

- Community under/unprepared.
- Community need to understand our 6 operational priorities.
- Verification of public information and emergency alerts.
- How do we convince people to go?
- Community needs to understand our capabilities.
- The language we use to describe 'nearby safer place'.
- Need to link bushfire education with response.
- Evacuation plans for townships, etc. are underdeveloped. Despite this, evacuation of people at risk seemed to work well, and without loss.
- Nearby safer places-what can we learn from this fire about what worked? (e.g., Boomer Bay – where did people survive?)
- Predications: could/should they have been used to better plan and inform the community?
- Many website/media alerts were issued and emergency alerts delivered for the Inala Rd fire on the Thursday and Friday. How did the Div Com influence or initiate these to the IMT?

Lessons learned

- 1 Continuing and expanding preparedness, programs that are multi-faced.
- 2 Community expectation/understanding of fire agencies priorities.
- 3 Terminology not well understood.

Issues

- 1 Connecting preparedness with programs and response.
- 2 Meeting the need of different people in the community. What about people that don't want to prepare?

Way forward

- 1 Keeping the pressure on! Linking preparedness to response.

Big Question

???

When it happens again, what do we want in place?

CPP Community alerts I We	CPP Community alerts IT ITS CPP Community alerts Bushfire ready neighbourhoods program
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What do we want to have kept?

- Community alerts- continue to review and monitor how effective alerts are
- Community Protection and Planning – continued development of
- Bushfire ready neighbourhoods could be a vehicle for Community Protection and Planning

What do we want to have brought in?

- Clarity internally and externally regarding key programs and understanding- is there a better way of explaining what community alerts mean?
- Stronger links between prevention/preparation parts of the organisation and response parts of the organisation
- Closer look at skills sets in organisation and how used in an operational response – people have expertise that can be utilised

Leadership team orientation and local brigades (combined)

Leadership and team orientation

Sticky notes

- Remaining disciplined. Everyone knew what the mission was and stayed on task.
- Cooperation.
- Excellent support from career staff to volunteers.
- It is critical to have the right people in the right roles.
- Weather condition of that nature need the 'A' team.
- Teamwork – same page- trust- structure.
- Mutual respect.
- Strong relationships and networks.
- Things work better on the fire ground when key people know each other and their capabilities. This creates trust, teamwork and confidence.
- The importance of the leadership team.
- Div Comm have more responsibility with remote IMT.
- Active fire ground leadership.
- Note takers needed to support leadership roles.
- Autonomous – trust – following orders.
- Relationships and trust established prior to January 4 amongst field leaders seemed to make a positive difference.

Lessons captured

- 1 Early -Clear communication of the task
- 2 Discipline in support for one another –trust in each other
- 3 Conflicting moral issues in implementing organisational priorities

Issues

- 1 How do we get new crews up to speed?
- 2 Keeping track of crews - dynamic situations

Way forward

Raise awareness in organisations of moral issues in implementing priorities

Local brigade engagement and improvisation (moral dilemmas) pluses/minuses

Sticky notes

- Importance of local knowledge.
- Local brigade remain within local community.
- Moral dilemmas with decision making
 - Tension for local crews- whose assets to save.
 - Choices to protect 'certain' properties. Local defending locals.
 - Personal issue serving decision making process- pluses/minuses.

Lessons captured

- 1 Use local knowledge (whether TFS or not)
 - a. Need to be able to influence decision/outcomes that affect their community
- 2 Recognise moral dilemmas for local brigades in decision making (whose assets to save)
- 3 Local brigades need involvement emotionally but some individuals not physically capable under catastrophic conditions

Issues

1. Conflict between organisational priorities, non- local expectations, locals priorities
2. Potential loss of teamwork and command structure in other circumstances.

Way forward

- 1 Start talking about this (conflict between organisational priorities and local priorities; potential loss of teamwork and command structure) with local brigades
- 2 Need for research to understand psychology and potential strategies

Combined groups

What do we want to keep?

- TFS operational priorities
- Keep local brigade flexibility to deal with local dilemmas
- Broader community support of local brigade decisions and understanding
- Developing member welfare strategy

What do we want to bring in?

- Legitimise local brigade flexibility so it is recognised and supported
- Raise awareness/ shift culture re moral dilemma with TFS values roll out, DVD, conferences, group meetings
- Ways to support local brigades in dealing with individual community complaints
- Work with local government to assist in building community resilience and understanding of local brigade priorities/ responses

Training and capability

Sticky notes

- TFS training.
- Talented strong mix of skill, knowledge and experience.
- Ground crew acting independently.
- Competent, calm connected approach.
- Situation awareness.
- Not fazed by situation.
- Do need to celebrate what we do well.
- Total reactivity-burning out of control.
- Well trained.
- Practice until discipline is the go to reaction.
- Human factors – emotions.
- Learning the lessons from this fire and applying them.
- Tactics for fighting fires in towns impacted by multiple spot fires are not yet developed.

Lessons captured

- 1 Innovative, dynamic way of thinking
- 2 Introduction of Human Factors into training programs
- 3 'train as you fight' –practise until we can't get it wrong

Issues

- 1 budgetary constraint, time poor
- 2 lack of interagency strategic training and development plan to address capacity and capability
- 3 lack of opportunities

Way forward

Dedicated interagency training unit with budget, resources and training plan

What do we want to keep?

- Multi-agency approach
- Common standard for qualification, meeting some minimum standard
- Agreed 'core' training at all levels
- Understanding and respecting differences within and between agencies

What do we want to bring in?

- Quality inter-agency training, planned regular
- Allocated resources, funding and commitment
- Pre-formed multi-agency IMTs across all disciplines (vols SES etc.)
- Technology to support

Big questions

Participants were also asked to note any “big questions” that may still be in need of attention

- What if there had been deaths?
- How do you balance action under catastrophic fire weather conditions and vulnerability?
- How do we balance relationships and strategic decisions?
- Can we do it again this summer?
 - Comms will fail
- How do we support community and people in the aftermath?
- How do we measure success at an incident?
 - TFS values
 - Personal priorities
 - Span of control
 - Comms plan
 - IAP
 - Resourcing
- We talk about transitioning up, what about transitioning down when people need to get back into homes to milk cows?
- What motivated fire-fighters to use high-risk behaviour (in front of the fire)?
 - Expectations, obligations, warn people-tunnel vision
 - Not trained well enough in catastrophic/ extreme conditions
 - Lack of knowledge of what info had gone out
 - Not-confidence it had to be done
 - Experience-positive- confirmed behaviour
 - Individual units-situational

Proposal for the Staff Ride Tasmanian Fire Service: Dunalley fires

Stage 1: Those crew leaders and decision-makers directly involved on the Dunalley Fire-ground, January 2013 (n=6-12) engage in a staff ride for both the purpose of:

- making sense of the experience,
- identify lessons that can be learned for participants and
- building a second Staff Ride for others to learn from.

Stage 2: The development and facilitation of a second Staff Ride for stakeholders, who can learn from the experiences of those involved in decision-making on the Dunalley fire ground.

Purpose :

- To understand the experiences and decisions made by those personnel on the ground so that they and others may learn from their experiences of this kind of fire experience. Key themes that might be explored are:
 - Decision-making and human factors
 - Effectiveness of operational command structures on the fire-ground
 - Fire-ground safety
 - Impact of operational priorities on decision making
 - Effectiveness of operational priorities
 - Communication Flows
 - Liaising with stakeholders
 - Impact of training and development
- To do this in an environment of reflective inquiry *with no-blame* in order to enable honesty, openness in discussion about what happened and the emergence of deeper understanding about the challenges faced when working under the conditions that were confronted. To help build an environment of trust where these sort of reflective learning occasions are valued and sought after by TFS members as part of an emerging learning culture.

Both staff rides will utilise the three phases of the Staff Ride format: (i) an orientation to human factors in decision-making and a no-blame culture; (ii) a field trip (to hear the experiences) and (iii) a Lessons Learnt Integration workshop session to enable deeper analysis by the participants of the ride and the identification of lessons that can be learned that may need organisational change.

Questions gleaned from discussion to date with stakeholders to learn from personnel experiencing this fire include:

- What they were confronted with; what decisions did they need to make?
- What information did they need?
What were their insights from fighting a fire that was out of control and impacting on a community? What would they like to see learned from their experience so that others may be better prepared?
- **Fire-ground safety:**
 - Were crews directed to places that were safe?

- What was the communications climate like?
- Did they feel they were able to speak up and raise any concerns or issues?
- Did they feel happy to say no to any directions? Was this expressed? What happened?
- Were there any safety issues? Did they deploy any safety processes (e.g., blinds)?
- **Operational guidance:**
 - Were operational priorities met? Were there any impediments? Did the operational priorities help with decision-making? Do they need to be revised (i.e. better defined; re-ordered)? Are they well-understood?
 - Triage: Was it conducted? How well did it work?
- **Fire-ground-IMT information flows:** What were these like? Did the fire-ground personnel feel that the IMT was looking out for their safety?
- **Fire-ground-stakeholders:** what was their experience of liaising with others? (e.g., police; community members)
- **Training and Development**
 - Did they think their training helped them?
 - Leadership lessons- what leadership lessons may be captured and passed on to others
 - Based on the experiences of personnel involved, what are the leadership and development needs and opportunities?
 - What steps can be collectively learned from this experience to step toward a culture of learning?
 -

It is important that the Staff Ride be viewed for Dunalley-fire participants and observer-participants as an opportunity to learn from the experiences so that better insights can be gained to enhance organisational capability in its personnel and processes. While many of these issues are likely to emerge in the Lessons Learnt discussions it is crucial that through all of the phases and especially during the field trip the original participants of the incident do not feel that they are being interrogated to address different audience needs for answers. Careful design of the Staff Ride will help to focus on the key areas identified above.

Attachment 3b Framework for the Inala Rd Fire Ride program

Days	Component – What CO and SS will undertake to do	Risks	Indicators of Success
1 day, SS, CO	Steering group <ul style="list-style-type: none"> TFS to establish Steering Group Liaise with key TFS leaders (Operations, Community, Learning and Development) during project to determine objectives, determine roles and tasks, provide feedback on the process. 	<ul style="list-style-type: none"> Unclear or competing objectives This process may compete with other AAR processes Lack of clarity on roles and responsibilities Not including people in the process that can help with buy-in and sustainability of the program (should that be desired) 	<ul style="list-style-type: none"> Steering group established with main stakeholders Agreement by TFS on Staff Ride Process Clarification of roles and responsibilities Continued engagement by the group in the process
3 days SS, CO	Data Capture from original incident <ul style="list-style-type: none"> Build relationships with the key players from the incident – clarifying intent Gain agreement with participants of the key questions and processes to gain data capture Get narratives from different viewpoints Unpack narratives and provide feedback to the group Determine key moments/chapters (stands) for a field trip Determine with participants what expertise or information is needed to tell the story Liaise with TFS to ensure suitably qualified and trusted counsellors are involved. 	<ul style="list-style-type: none"> Key players from the incident unavailable or not willing to engage with the process Time taken to build relationships of trust – this may require extra resourcing Need for undertaking by TFS of protection for those involved – what is said in the room stays in the room unless want to share. Reliving the trauma creates deep stress and is too close to the incident. (The need for trauma counselling support) 	<ul style="list-style-type: none"> Commitment from participants to participate in the Staff Ride program Obtained brief narrative of stories and decision-making experience Outline of chapters/stands for the field trip developed. Contextual information needed is identified.
2 days SS, CO	Preparing for first Field trip <ul style="list-style-type: none"> Liaise with TFS for information on incident (weather, radio transcript, photos, video, reviews, fire behaviour, maps etc) and determining need for 	<ul style="list-style-type: none"> Lack of access to information Lack of allocation by TFS of resources to help with the logistics 	<ul style="list-style-type: none"> Key background information materials or expert commentary provided from TFS Preparation of facilitation processes and materials for each

	other expertise (eg. Fire behaviour expert) <ul style="list-style-type: none"> • Prepare materials for the field trip including Human Factors and Decision Making orientation • Design Lessons Learnt Facilitation • Liaise with TFS in terms of logistics – accommodation etc • Organise with potential participants 		phase of the Staff Ride <ul style="list-style-type: none"> • Time frame for staff ride phases determined.
1 day SS, CO	Doing the first Field Trip <ul style="list-style-type: none"> • Run orientation session • Facilitate the visit to the ground with key people telling their story, working closely with Andrew Skelly 	<ul style="list-style-type: none"> • Lack of availability of key people • Reliving the trauma creates deep stress (The need for trauma counselling support) 	<ul style="list-style-type: none"> • Orientation session and Field trip completed • Field trip narratives and key learning moments summarised
1 day SS, CO	Lessons Learnt – integration workshop <ul style="list-style-type: none"> • Facilitate the group to develop a shared narrative and to stand back and reflect on their experience to draw out key lessons for themselves and others. • Get a commitment from the group about what they are happy to share with others. 	<ul style="list-style-type: none"> • Timing might be critical (the morning after the field trip or an evening later that week) • The group may not want to share their experience to wider audiences 	<ul style="list-style-type: none"> • Workshop conducted • Participants develop further learning from the field trip • Further learning for the organisation identified • Commitment by key participants to be involved in second staff ride • Narrative and stands of second staff ride scoped
2 days SS, CO	Creating a narrative <ul style="list-style-type: none"> • Develop a narrative from the field trip and lessons learnt session, highlighting relevant themes • Get feedback from original participants in the incident and revisit what they are happy to share with others • Provide to Staff Ride Steering Group for feedback 	<ul style="list-style-type: none"> • The field trip may throw up the need for wider input of information sources to help build a more coherent case study - further interviewing may blow-out time. 	<ul style="list-style-type: none"> • Further development of narrative for second staff ride developed • Agreed by participants • Reviewed by Steering group
2 days CO, SS	Preparing for Second Staff Ride <ul style="list-style-type: none"> • Design the intent, structure and learning moments 	<ul style="list-style-type: none"> • It is crucial to have a clear sense of learning objectives for the field trip and to develop effective discussion 	<ul style="list-style-type: none"> • 3 phases of the second staff ride organised • Participants are identified and

	<p>of the Staff Ride in consultation with TFS steering committee</p> <ul style="list-style-type: none"> • Liaise with TFS to determine who might be key facilitators or experts required in addition to CO, SS and the original players. • Brief speakers and facilitators • Liaise with TFS regarding the logistical organisation of the ride – which they will undertake. • Design Pre and Post surveys to aid transfer of learning and to gain evaluation data about effectiveness of the ride • Ascertain from TFS commitment to develop these staff ride materials for ongoing use. If commitment then require a "learning" liaison person to undertake this role and to work with us. 	<p>questions for the Integration - Lessons Learnt phase.</p> <ul style="list-style-type: none"> • Suitable resources to mount the staff ride and provide staff support for organisation of logistics need to be found by TFS. 	<p>invited (by TFS)</p> <ul style="list-style-type: none"> • Preparatory reading and background material is distributed by TFS • Pre-survey to participants distributed • Facilitators identified • TFS logistics organisation clarified and liaising staff identified • Logistics arranged
2 – 3 days CO, SS	<p>Doing the Second Staff Ride</p> <ul style="list-style-type: none"> • Brief organisers, facilitators and speakers • Work as part of a team to deliver the components of the staff ride • Facilitate orientation session • Co-facilitate at the stands • Co-facilitate at the Integration - Lessons Learnt phase 	<ul style="list-style-type: none"> • Original participants may not want to participate • Requires commitment by TFS supporting participant attendance overnight to maximise learning. • Requires different people in TFS to be on top of different organisational or facilitation tasks – requires some organisational resourcing 	<ul style="list-style-type: none"> • Staff Ride conducted
2 – 3 days CO, SS	<p>Evaluation and Finalisation</p> <ul style="list-style-type: none"> • Analyse surveys, determine how participants valued the experience • Provide to TFS brief report on outcomes. • Work with the TFS "learning" liaison person to ensure any materials that could be used for further learning purposes are captured. 		<ul style="list-style-type: none"> • Survey data analysed • Synopsis of the staff ride experience, participant reactions and lessons learnt presented to the steering group

Onsite Learning Field Ride Program 22nd and 23rd April

Revisiting the Dunalley and surrounds fires of the 3rd-4th January 2013

TFS Cambridge

Program

Monday 22nd April	
10 am	Orientation to the program – TFS Cambridge <ul style="list-style-type: none"> • Coffee and introductions • Orientation to the Field Ride: intent and purpose • Creating a climate for critical reflection and no-blame
11 am	Setting the scene of the fire <ul style="list-style-type: none"> • Season briefing, build-up, what is happening around state • Developing an overview of the fire and where groups were operating at different stages for the Thursday 3rd and Friday 4th January
12:00 noon	Lunch
12:30 – 5:15	Field trip – Mini-bus. Opportunity to visit key sites and decision-making points. People tell their stories. Drawing out the nuances.
5:15 – 7:30	Integration – meal at Dunalley pub, making sense of it informally. Return to TFS Cambridge.
Tuesday 23rd April	
9 am	Integration and reflective analysis – TFS Cambridge <ul style="list-style-type: none"> • Revisiting the narrative. • Drawing out key themes, considering critical decision-making moments, what can we learn?
Morning tea	
11:30 am	Capturing Lessons Learned <ul style="list-style-type: none"> • What does group want to report for others learning? • What might happen next? Documenting the field trip and discussing 2nd Field ride potential.
12:30 pm	Lunch

On-site Learning Field Trip - Information for participants

What is an On-site Learning Field Trip?

This is an immersive learning program which revisits the ground of an incident and enables a walk-through of what happened. It gives an opportunity for the different people involved to tell their stories from their perspectives within a no-blame environment in order to see a more fuller picture and to draw out learning.

By walking the ground and hearing what happened with some detail, it is possible to see things that might not normally be visible. It is then possible to reflect on themes that may emerge, such as decision-making, human factors, leadership, safety, command structures, operational priorities, stakeholder liaison, communication flows, organisational culture, or training.



Fire entering Dunalley – taken from helicopter

Some of the learning may include:

- Collectively building up a larger understanding of what might have happened through hearing other's perspectives, though it is recognised that a "God's eye view" is not possible;
- Identifying critical decision-making moments and their trade-offs, considering alternatives and their likely consequences;
- Drawing out lessons learnt for self and others, such as recommendations for improvement, or providing a narrative of what it is like to operate under catastrophic conditions.

Onsite learning ...

Captures the complexity, avoiding simplicity

Recognises that situations are high stakes, high risk, rapidly changing, with few things that can be controlled, many things are unknown and multiple goals might conflict

Understands that decisions involve trade-offs and have to be made quickly

The format

The format of this on-site learning program has a well-established history. It is a tool used in the USA Wildfire Lessons Learnt program under the name of the "Staff Ride". It has three stages:

1. **Orientation and preparation** – introduction to the purposes and processes, consideration of relevant theory, overview of the incident, including relevant resources.
2. **Field Trip** – visit the site and hear stories of key people involved, reflecting on what is emerging. The focus on the incident will be between Thursday 3rd Jan and Friday 4th.

3. **Integration** – opportunity to make sense of the experience, reflective analysis, drawing out lessons learnt. Integration is typically done through an informal dinner and/or a workshop session.

Sensitivity

Revisiting the scene of a major incident may cause a re-living of the experience that may evoke strong emotions. TFS have indicated that counsellors are available and at any time participants can opt out of speaking or participating.

This process is aimed to be confidential. What is said here stays here. However, the TFS is hopeful that because of the significance of the event that the group will decide to share some of their learnings with others. This is up to the group and you will have final say on what becomes available for others' learning and how you want to take this forward, such as being part of an on-site learning experience for others.

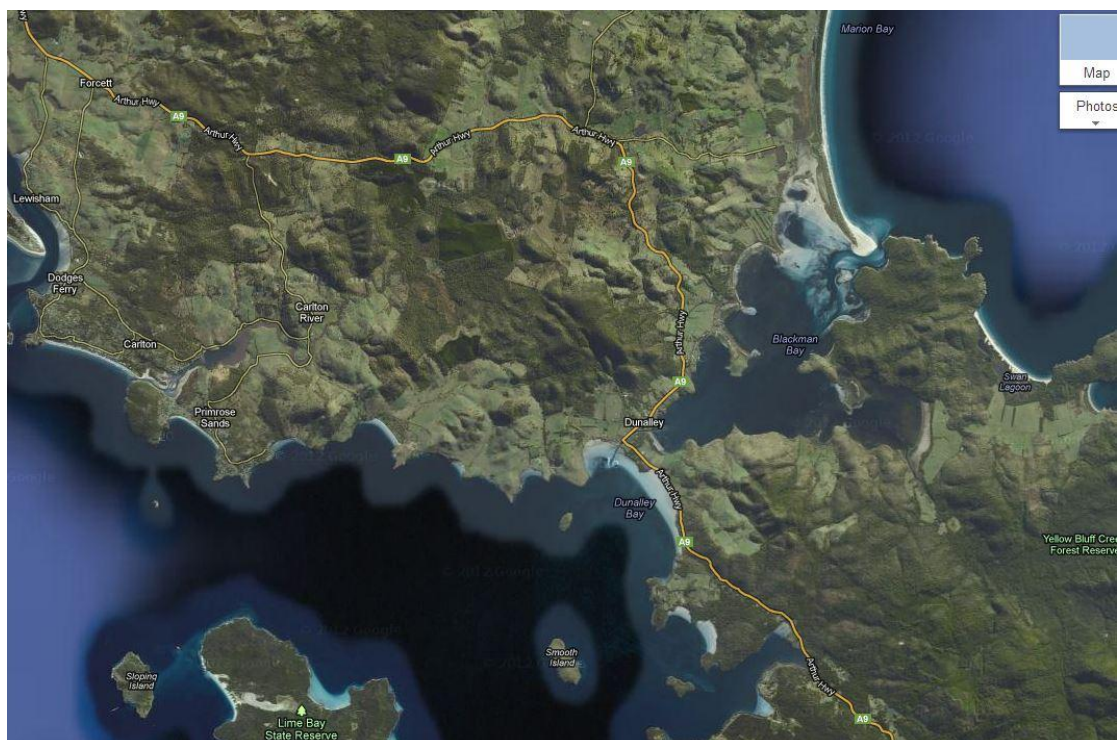
What to bring

Writing materials, pictures or video that you want to share, casual clothes and wet weather gear if raining.

Preparation

Reflecting on the incident:

1. Recalling what was your experience between the Thursday 4th and Friday 5th. Where were you, what were you seeing, experiencing, thinking, doing?
2. What are key moments that stand-out for you? E.g. conditions, challenges, things that went well, key decision-making moments...
3. What do you think it would be good for others to learn from your experience?
4. What do you want to hear about?



Inala Rd Fire - Thursday 3rd and Friday 4th January 2013

What can we learn from people on the fire-ground in catastrophic conditions to strengthen capability for future events?

The Inala Rd Fire was a catastrophic fire that “did not act like a normal fire.” It commenced on Thursday 3rd January, burning in the inaccessible Redhills area off Arthur Highway. With a weather change around 1pm Friday it took off quickly, reaching and devastating the township of Dunalley and other coastal townships before moving through the Tasman Peninsular. It was declared contained on January 27, and handed back to local control with the incident being considered complete on March 20. It caused the following damage: 193 dwellings, 116 out buildings, 70 vehicles, 22 caravans, 18 boats, power infrastructure, businesses, 1 school and 24,000 hectares. There were minor injuries to fire fighters and civilians and 1 fire fighter died.

The following sequence and narrative aims to describe the experiences and decision-making of key fire ground personnel, representing a vertical slice of the leadership structure, during the 3rd and 4th of January when the fire transitioned from normal conditions into catastrophic. This document is intended for learning rather than a critical review. The quotes have been paraphrased from the fire ground personnel’s accounts and aim to give a vivid account of what was happening, capturing the spirit and essence of what they might have been thinking or feeling at the time.



Disclaimer - Accuracy of Account

The following sequence and narrative has been developed from the accounts of key fire ground personnel who attended an Onsite Learning Field trip to share and review the events of the 3rd and 4th January. The sequence is likely to hold errors as those participating in the events have different senses of time and perspectives of the events, with many situations still being hazy. Further, I am also likely to have made errors of interpretation and piecing it together. All participants have had the opportunity to revise and refine their accounts.

Prepared by Dr Sue Stack, Bushfire CRC. June 2013

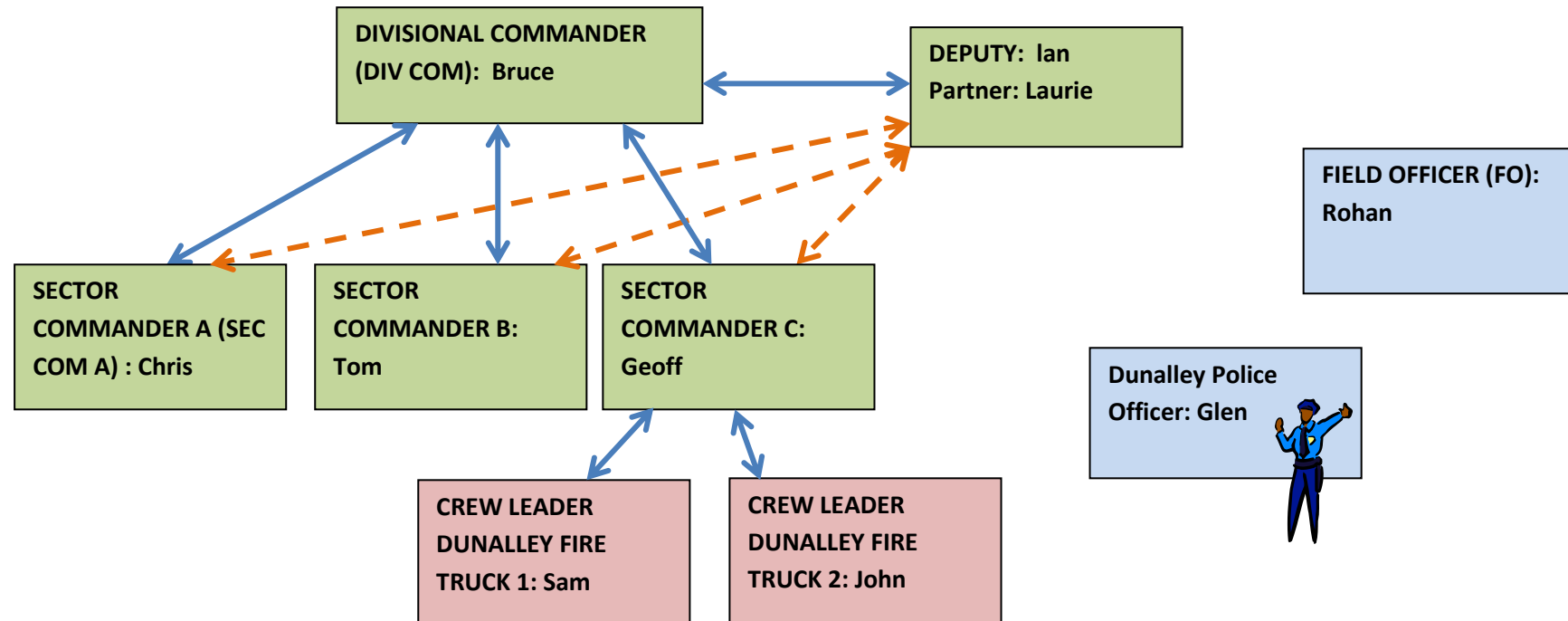
Susan.stack@utas.edu.au

Key players referred to in the narrative (please note that names have been changed)

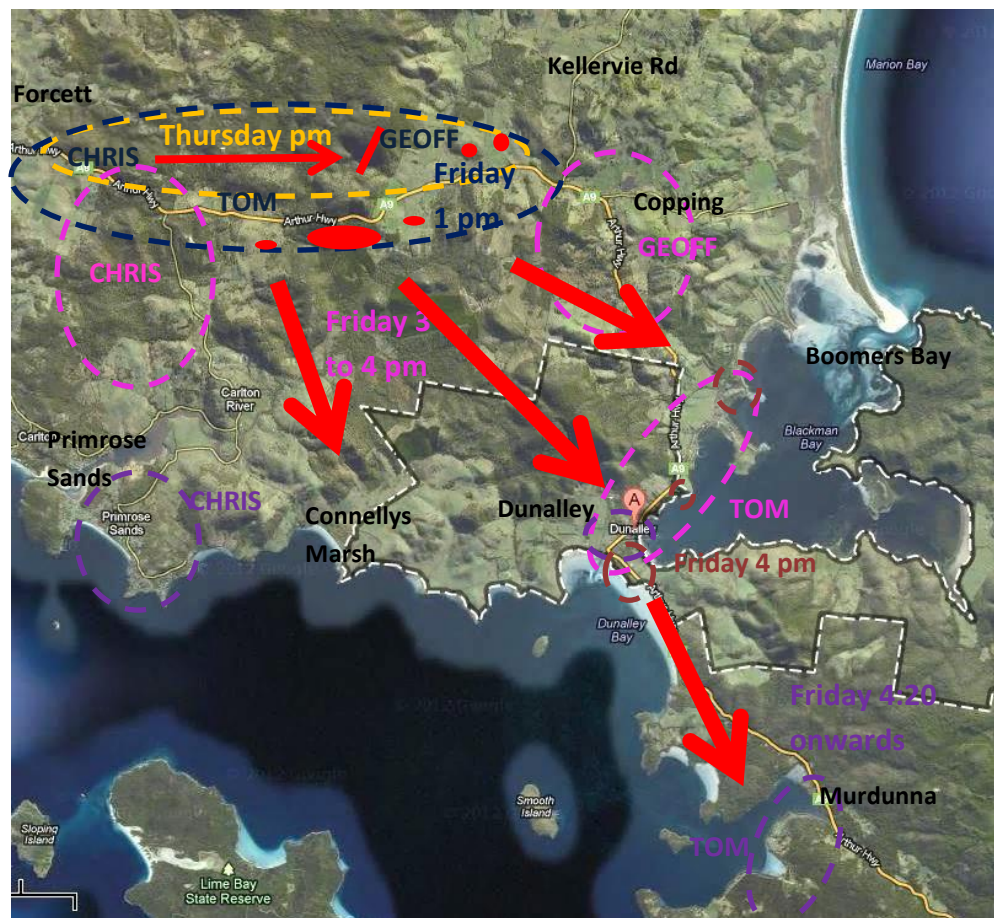


AIR ATTACK

SUPERVISOR: David



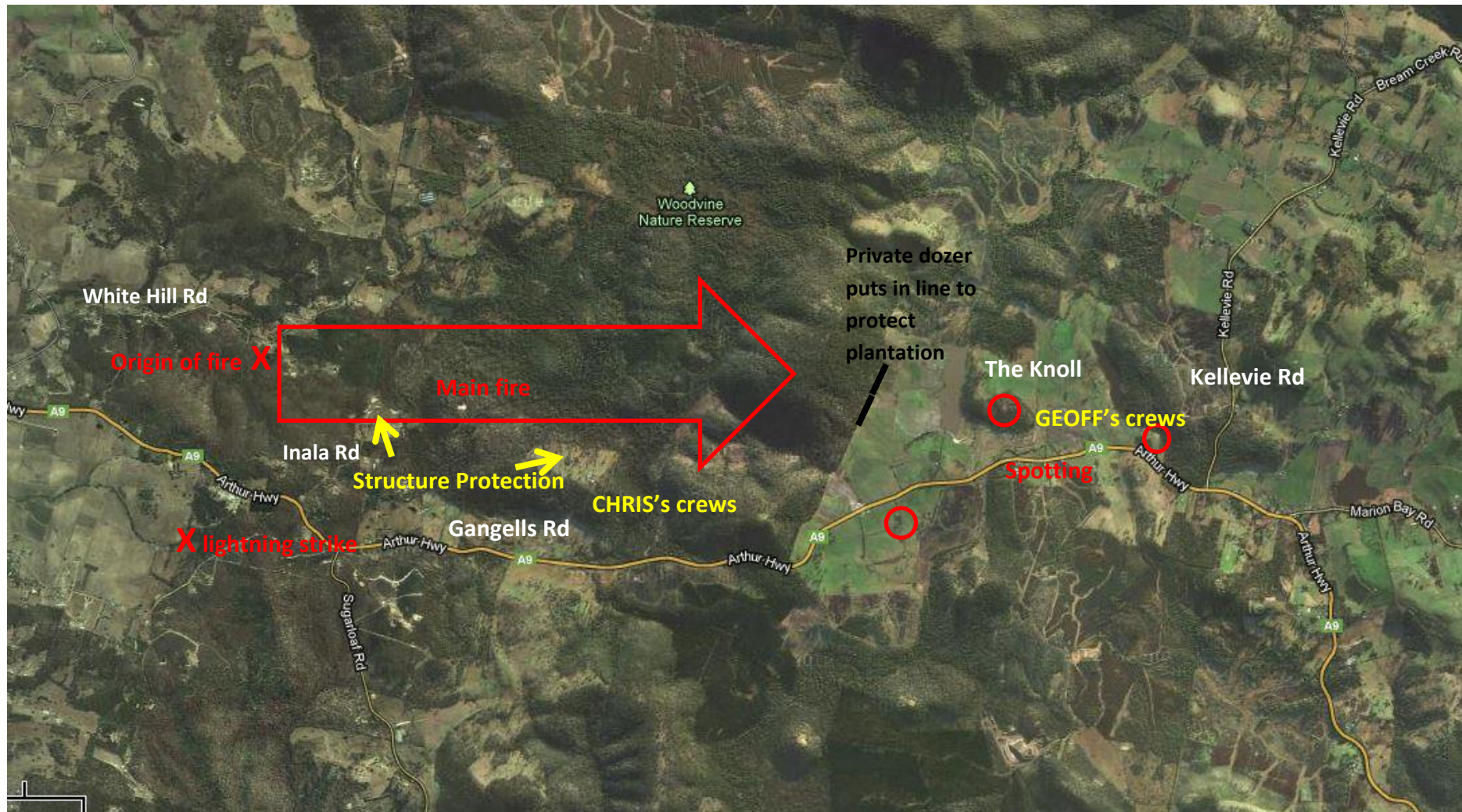
Overview – Crew general location indicated by dotted lines



Background: The bad weather had been forecast well in advance. Permits were suspended on January 2, and a total fire ban declared for January 3 & 4. There were three Level 3 IMTs in place across Tasmania, though the third one didn't start until January 5. There was one level 2 IMT operating out of Strahan. The IMT for the Inala Rd Fire was located at Cambridge.

1. **Thursday pm** – Wind westerly. Fire in inaccessible bush (Redhills area) above Arthur Hwy moving easterly from Forcett area. Spots towards Kellervie Rd. Bruce establishes initial command structure with Chris and GEOFF as team leaders. Fire impossible to put out. *Warnings, structure protection, control spot fires.*
2. **Friday Morning.** Wind northerly. Three sector commanders – Chris, Tom and Geoff. Fire impossible to put out and anticipation of worsening conditions. *Warnings, structure protection, control spotting.*
3. **Friday 1 pm – Transition from normal into catastrophic conditions.** Wind strong hot north westerly. Fire spots over Arthur Hwy into dry paddocks and plantation. Not controllable. Very hot. Fire behaviour outside normal experience. *Warnings, evacuation, triage asset protection.*
4. **Friday 3 - 4 pm – Transition of scale.** Fire takes off and heads very fast into Dunalley, Boomer Bay and Connelly's Marsh. Bruce and Tom's Crews head into Dunalley area before fire front. *Evacuation, triage people, triage structure protection.* Geoff and Chris on each side of the flank, which is acting like fire fronts.
5. **Friday 4 pm** – Fire front comes through Dunalley. Most of Tom's crews evacuate to protect people at Dunalley pub. Crews at Potters Croft and Boomer Bay. *Protect people, Crew Safety.*
6. **Friday 4:20 pm onwards** – Fire continues to Murdunna. Tom takes 2 crews to Murdunna- *warnings, evacuation, triage asset protection, crew safety.* Chris trapped at Primrose Sands. *Structure protection.* Rohan fills gap by working with crews in Carlton River area.

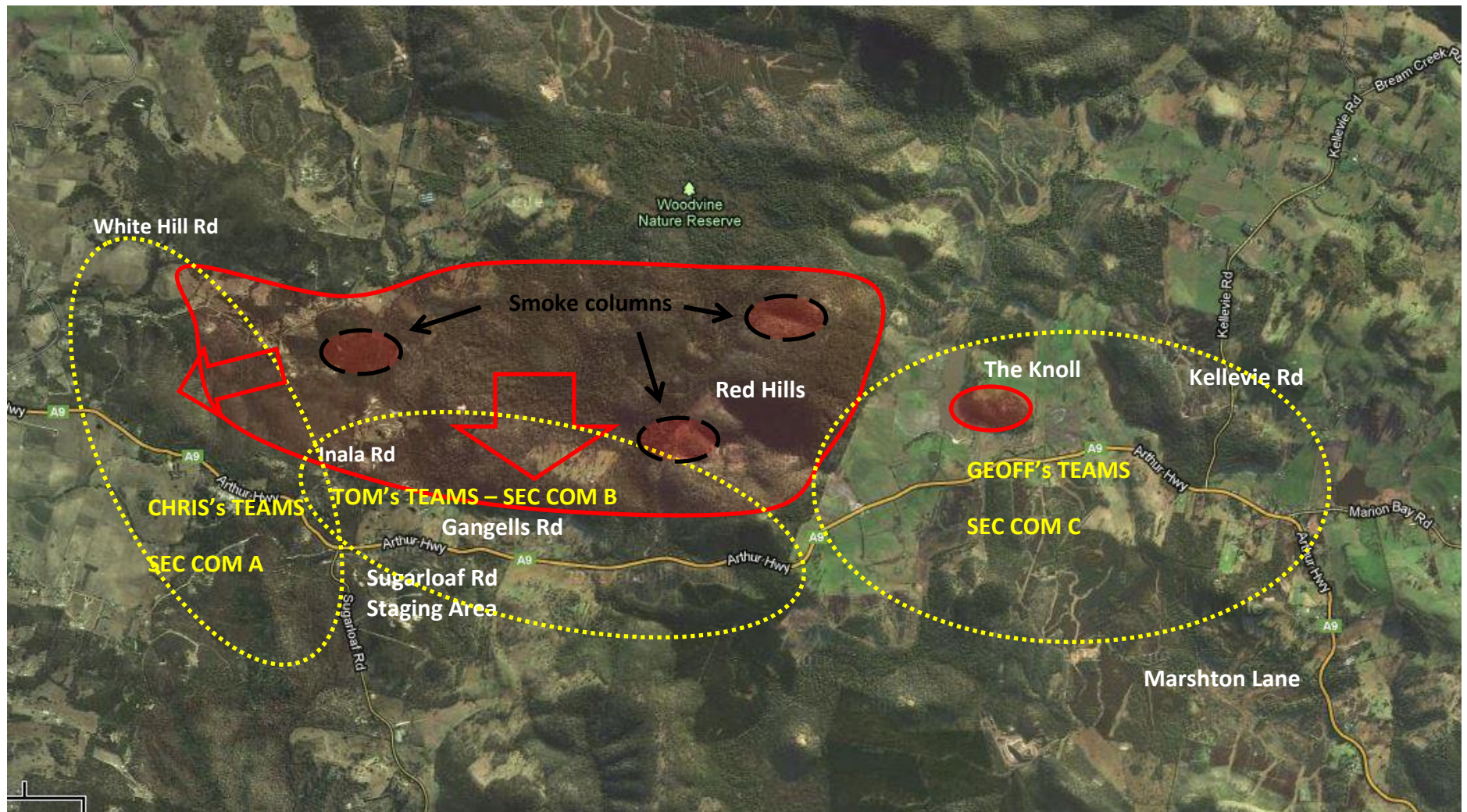
Thursday pm – fire moving easterly and spotting



Timeline	Comments/narrative	themes
<p>Thursday 1:30 Water bomber helicopter 721 redeployed from Repulse fire to Forcett fire on approach observed two columns of smoke – Richmond and Forcett.</p> <p>Police Officer and volunteer Brigade Chief, IAN, on scene at Forcett as on-ground Incident Controller.</p> <p>2 to 3 pm BRUCE arrives on scene as Divisional Commander with CHRIS and GEOFF as Sector commanders in dual cabs. BRUCE makes IAN his deputy.</p> <p>Westerly wind pushes fire through inaccessible bush terrain.</p>	<p>DIV COM: “One of the things that helped us all was the strong leadership team structure that was set up from the beginning. We had strong relationships with each other and were on the same page. I knew IAN – he was the Brigade Chief of Dodges Ferry – and I knew I needed to utilise his expertise so made him part of the decision making structure. I picked up a very experienced local volunteer to come with me in my cab, he had been Incident Controller at a previous fire I was in, he knew the area, knew the roads and knew how we might access and get a view of the fire. We could not get in to the terrain to fight it. His local knowledge was to be crucial.” BRUCE</p> <p>“As Dodges Ferry Brigade Chief I was able to organise 3 Dodges Ferry Crews within 10 mins, with more volunteers ready to come out on the fire front. I didn’t think it was going to be a normal fire, that could be wrapped up in a few hours. I was thinking fatigue management so I told the others not to come, but be ready the next day. It pissed a lot of them off but it meant on Friday morning we were able to field fresh crews.”</p>	<p>Building a strong team from the beginning – based on strong previous relationships</p> <p>Anticipation of demand on personnel</p>
<p>Thursday late afternoon/evening The fire progresses from White Hill Rd area easterly through a ridged creek area into the Red Hills – difficult terrain - which is not accessible or amenable for direct fire fighting. Housing protection around Inala Rd, Gangells Rd and Red Hills area.</p> <p>1.5 – 3 km spotting occurs east of main fire front at several spots including the Knoll and GEOFF teams are deployed to try to suppress spotting and create control lines. This is made difficult by the Carlton River limiting access.</p>	<p>DIV COM: “At this stage we had crews to do structure protection. We had several units or more on a house. When spotting occurred I knew that even if we could get in to do a back burn that we wouldn’t be able to contain it.” BRUCE</p> <p>SEC COM: “I deployed crews to suppress the two spot fires east of the Red Hills. The plan was to try and jump on spot fires fast. The way the wind was blowing we were thinking it was going into Kellervie Rd and Weilangata. We wanted to keep the access to Kellervie Rd open.” GEOFF</p>	<p>What does it take to suppress a fire like this from the beginning?</p> <p>How do you recognise the early warning signals that fire suppression is a losing option?</p>

<p>Police Officer, GLEN, and IAN give warnings to residents on Kellervie Rd to put in place fire plans. BRUCE and GLEN meet and swap contact details and discuss situation.</p> <p>Smoke column is strung out west to east. Several vehicles patrol overnight.</p> <p>IMT Fire behaviour analysis late Thursday pm predicts if wind changes to strong North Westerlies at midday as forecasted then fire is likely to run into Dunalley region. The maps are not seen by Fireground personnel.</p>	<p>"We were advising people to put in place their fire plans and they just looked at us and asked, what is that."</p>	<p>Community preparedness and attitudes</p>
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Friday morning – fire moving south towards Arthur Hwy, spotting



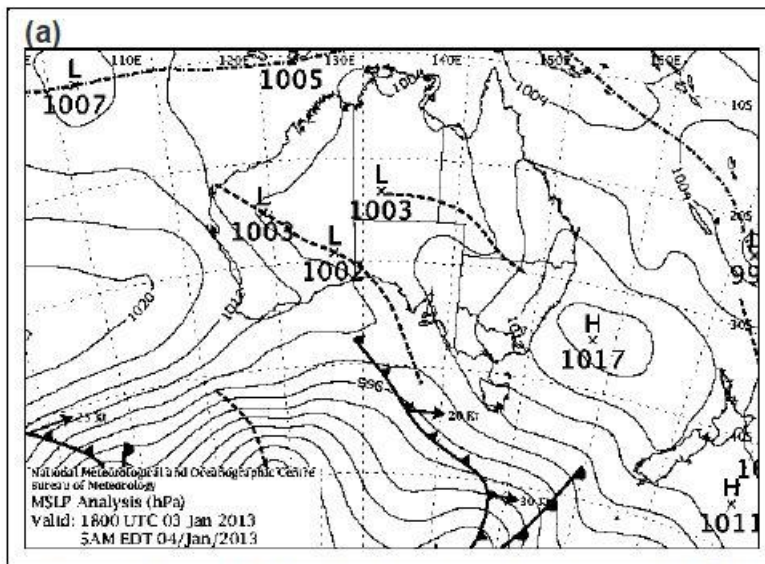
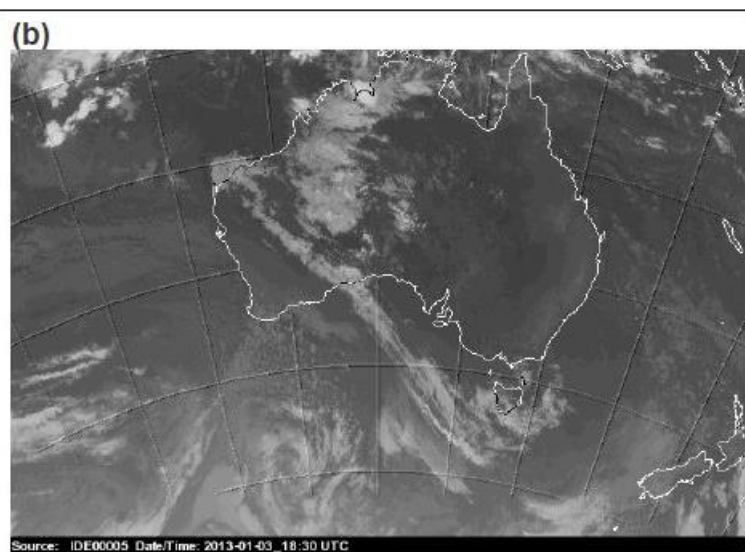


Figure 5.1: (a) MSLP chart analysed at 5 am 4/1/2013;



(b) Infrared satellite photo around 5 am 4/1/2013.

Weather Forecast for Friday 4th January

IDT31010

Australian Government Bureau of Meteorology

Tasmania

Spot Fire Forecast for Forcett

Issued at 8:20 am EDT on Friday 4 January 2013.

OBSERVED CONDITIONS at Sorell

Local Time	Temp (C)	Dewpt (C)	RH (%)	Wind (km/h) Dir Speed Gust
	22.9	8.7	40	NW 26 37

WEATHER FORECAST starting 0900 hours Friday 4 January 2013

Hot, cloud clearing during the morning. Fresh and gusty northwesterly winds.

Assumptions and uncertainties associated with the forecast

Cloud may not clear until afternoon. Gusts may be stronger than forecast.

30 HOUR FORECAST

DROUGHT factor: 10


Local Time	Temp (C)	Dewpt (C)	RH (%)	10m Wind (km/h) Dir Speed Gust	1000m AGL Wind (km/h) Dir Speed	FFDI
0900	26	6	28	NW 30 45	WNW 80	23
1200	34	7	19	NW 35 65	WNW 70	46
1500	35	6	17	NW 40 65	NW 60	57
1800	34	5	16	NNW 35 55	NW 55	51
2100	27	7	28	NNW 25 45	NW 60	21
0000	25	12	44	NW 25 40	NW 70	11
0300	16	14	88	SSW 20 30	NW 50	2
0600	15	14	94	SSW 15 30	WNW 40	1
0900	17	13	77	SW 20 30	W 40	2
1200	20	11	56	SW 20 35	W 35	6
1500	22	10	46	SSW 25 45	W 30	10

AGL-Above Ground Level, RH-Relative Humidity, Dir-Direction, Dewpt-Dew Point

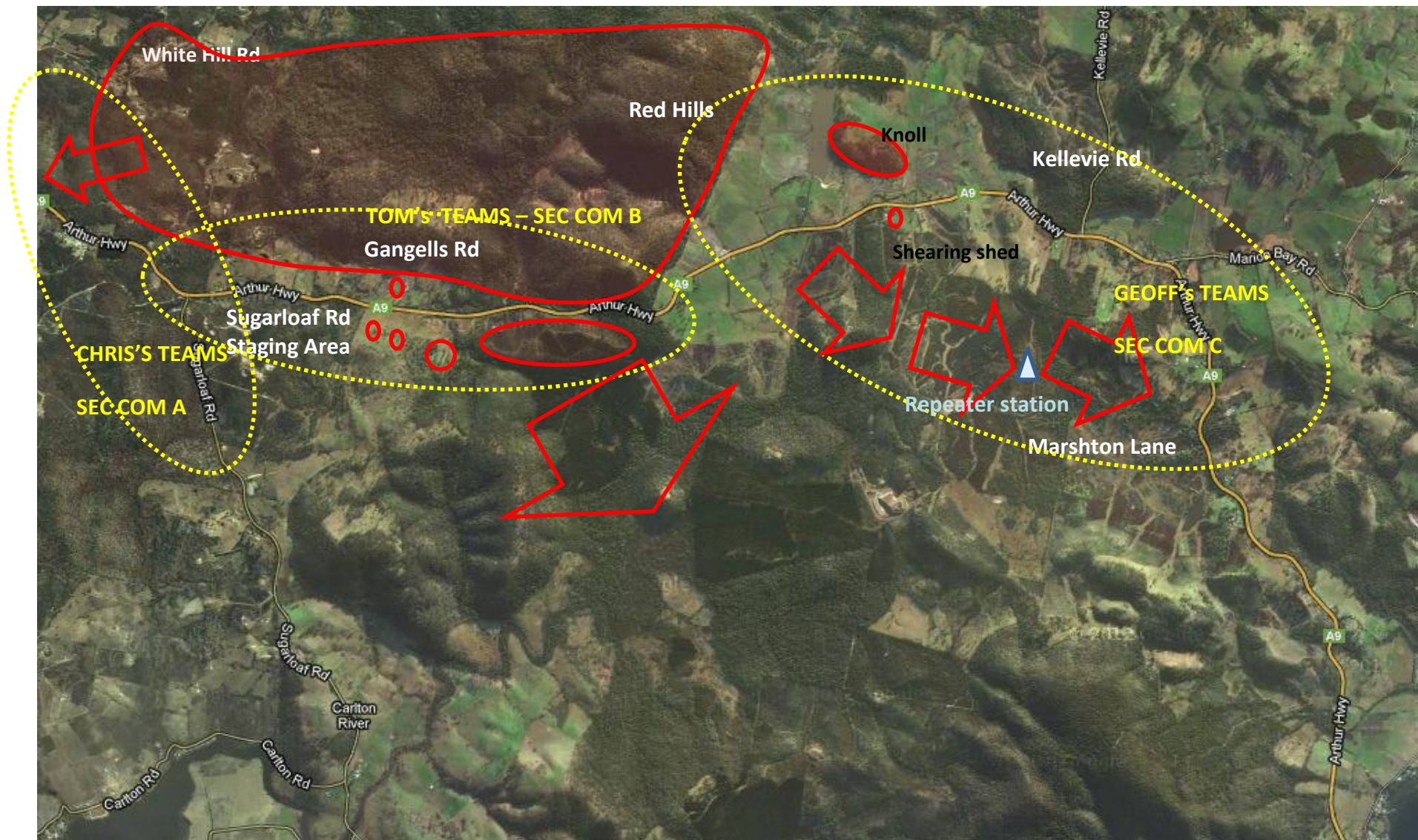
OUTLOOK for Saturday

Mostly sunny day. Winds northwesterly to southwesterly 20 to 30 km/h tending northwest to northeasterly 15 to 25 km/h in the late evening. Max T about 25. Min RH about 40%.

Friday morning	Narrative	Themes
<p>Cambridge briefing for IMT and Divisional Commander.</p> <p>Separate briefing at Cambridge for Southern Air Ops group to plan priorities across the fires in the south (nine assets available.) The group discussed what might evolve in the Forcett fire. Initial priorities for the Forcett fire were to provide direct attack on fire impacting structures with an extra focus on properties that were occupied. Provide Intel to IMT and ground crews. IMT allocated air support initially of three water bombers -two rotary, one fixed wing and an observation helicopter to provide air supervision.</p> <p>BRUCE sets up three sectors with leaders CHRIS (SEC COM A), TOM (SEC COM B), GEOFF (SEC COM C), building on the previous day's command structure. The sector commanders brief their crews and allocate responsibilities.</p> <p>At 10 am IAN picks up the three sector commanders from their locations in a helicopter and briefs them from the air, flying the rough boundaries of the sectors and the edge of the fire. IAN outlined their access and fall back points and they were able to identify some of the local dwellings in the bush.</p> <p>Incoming crews are deployed throughout the day slotting into the sector teams. IAN acts as a liaison showing new crews where to go. Span of control moves from 4 to 9 per sector at different times.</p> <p>Clearing at Sugarloaf Rd/Arthur Hwy Junction used as a staging and briefing area for ground crews.</p> <p>All teams are engaged in the area around the Arthur Hwy from Forcett to Kellevie Rd: SEC A - around White Hills Rd and Inala Rd,</p>	<p>DIV COM: "I knew the forecast but did not see the fire weather behaviour predictions. We knew it could get bad. At the briefing we were told it could go all the way to Dunalley. Jeremy told us that protection of the Dunalley bridge was the first priority for asset protection." BRUCE</p> <p>SEC COM C: "At the Friday morning briefing I shifted my thinking when we were told that the weather conditions were going to worsen and that the fire could reach Eaglehawk Neck. My mindset went from controlling the fire to dealing with spot fires, structure protection if possible and removal of people and crew safety. However when I briefed my crews they did not believe me and wanted to put in back burns." GEOFF</p> <p>AIR ATTACK SUPERVISOR: " Early Friday morning I had a chance meeting with Chief Brown indicating that the weather will be worse than forecast. I knew that controlling the fire was not possible and that air operations may have little to no effect on suppression. We would be operating to provide key asset protection and protecting people." DAVID</p> <p>SEC COM B: "We had a northerly wind, pushing the fire from the hills towards the Arthur Hwy. We couldn't get in and fight the fire, we had to wait til it came to us. It was now putting at risk a number of properties between my sector from Inala Rd and Red Hills. I had several crews on houses, helping to make them defensible. There was one house that had wood piles up to the fence. We told them it was not defensible and that they should leave. They refused. We couldn't dedicate the number of crews to a single house that would save it." TOM</p>	<p>Anticipation and moving towards different priorities.</p> <p>How to build crews' awareness?</p> <p>Protecting structures under "normal" conditions – moving from having enough crews on a house to beginning to triage property.</p>

<p>SEC B - at Inala and Gangells Rd, SEC C- from Red Hills to Copping, where they continue throughout the morning evacuating and protecting structures and aiming to suppress spotting.</p> <p>The fire on the knoll is burning strongly and crews find it difficult to control.</p>  <p>3 big smoke columns.</p> <p>Helicopter Intel at 11:10am “Top is OK, edges are OK.”</p> <p>Road closure sought by BRUCE at 10am but tourist coaches still coming through to Port Arthur – finally road closed at 12:44pm.</p> <p>BRUCE and GLEN (police officer) meet, discuss situation, consolidate relationship. This assisted later at Dunalley when critical decisions were made regarding the public. On first name basis.</p>	<p>CREW LEADER DUNALLEY 2: “We knew Copping was at risk and planned to put in a back burn to the west of the town. But the property owner refused. He had no sense that this could save his entire town.” JOHN</p> <p>SEC COM B: “We knew it was going to get bad. I briefed the crews roughly every hour in the morning. Reinforcing the priorities. Where were the fall back zones. In the last briefing I said to them to be prepared to run by themselves, without needing the radio.” TOM</p> <p>AIR ATTACK SUPERVISOR: “The fire was maintaining a run along the ridge-line and was behaving as you would expect, exhibiting normal fire behaviour. It was burning really hard but it wasn’t in the crowns and it wasn’t spotting at that stage.” DAVID</p>	<p>Dealing with public who are not recognising severity</p> <p>Ramping up, helping crews to anticipate</p> <p>Importance of getting road closure early</p>
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Friday 1 – 2:50pm – Fire spots over Arthur Hwy and takes off through paddocks and plantations – Transition

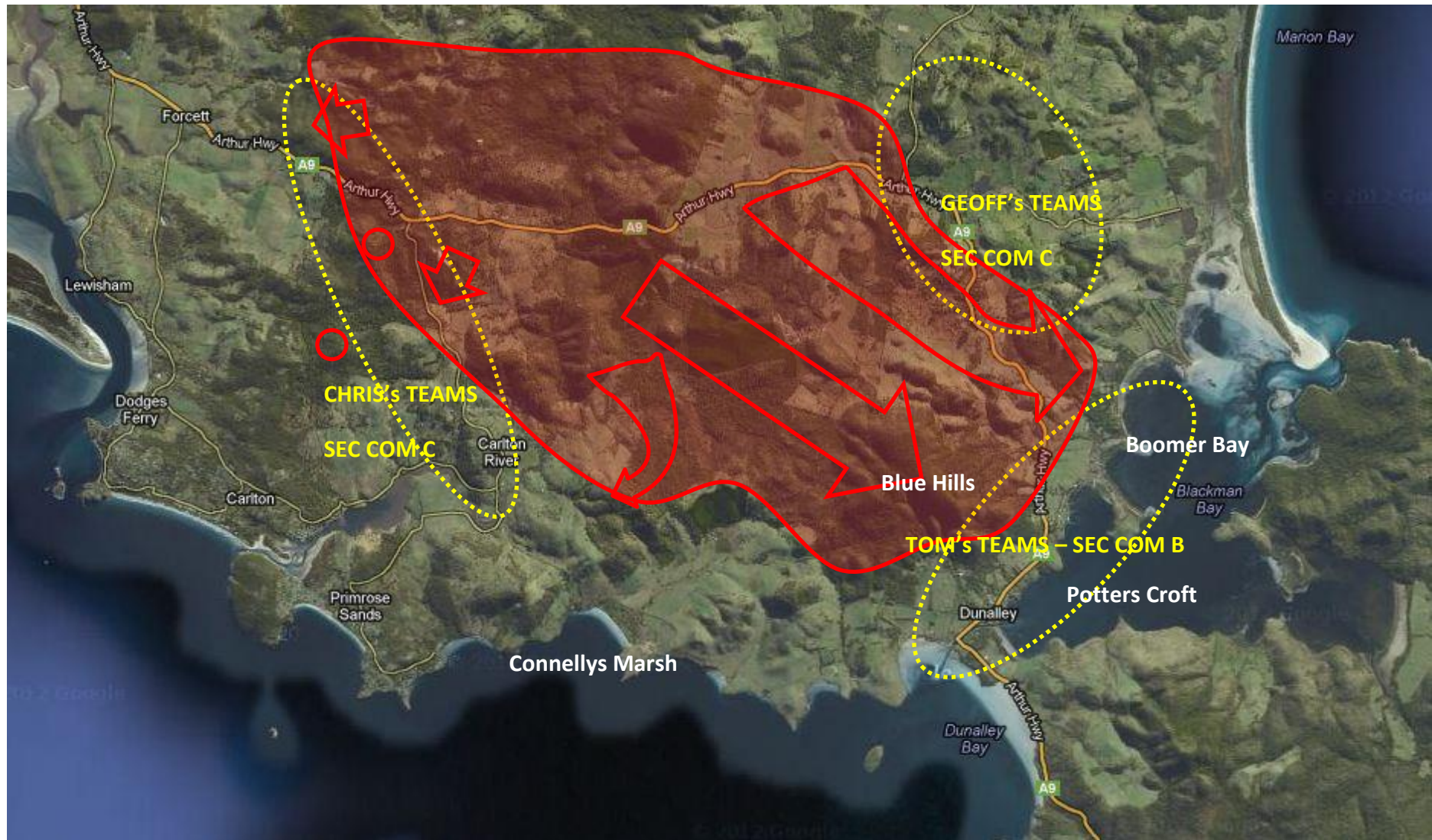


Friday 1pm - 2:50	Narrative – Transition into catastrophic conditions	Themes
<p>Spotting near intersection of Gangell Rd and Arthur Highway. Crews deployed to put out spot fire and protect property.</p> <p>New crews coming in and managed by IAN. Air support provided to assist their passage to where was needed.</p> <p>2pm Spotting across Arthur Hwy into plantation near Red Hills. Wind change from NW pushes fire through plantations and forested areas on line with Dunalley.</p> <p>DAVID moves from Water bombing helicopter to Air Attack Supervisor helicopter. Priorities shift - protection of life, to provide timely and accurate intel to ground crews, support of ground crews and if on an individual basis, if it was appropriate, try asset protection (houses.)</p> <p>Two other distinct spot fires on southern side of Arthur Hwy – around Sugarloaf Rd area and between Kellervie Rd/Marshton Lane area</p> <p>2:40 Northern strike team of 10 trucks arrives. IAN splits them into 3 and</p>	<p>SEC COM B: “At Friday 1 pm we thought we had a chance of containment with 2 helicopters and a bulldozer. But the situation changed when spots jumped over the Arthur Hwy. I put crews on to deal with them but there were locked gates and no bolt cutters. When a spot landed in a grazed paddock and a helicopter was unable to put it out I knew that this was a game changer. There were now separate fire fronts. We did not have enough trucks now to protect property. We were giving warnings, helping to make houses defensible if we could, encouraging people to evacuate if we couldn’t. Crews had to leave houses on fire. It is not something that a firey is used to doing. We were now triaging property.” TOM</p> <p>DUNALLEY CREW LEADER 1: “I was working on the knoll, putting in a bulldozer track when the fire spotted 3 spots 30m apart in seconds. It went from a beautiful day, to hotter, to the fire going like a tram. We had to fall back to Arthur Highway, going from containing the fire to structure protection.” SAM</p> <p>DIV COM: “Spotting occurred over the Highway into a plantation and then took a run. The owner wanted us to put a back burn around it but it was too late for that.” BRUCE</p> <p>AIR ATTACK SUPERVISOR: “At one stage we were holding it. Then I could feel a distinct change in the weather – it got very hot and windy. The fire behaviour changed. The fire escaped, took a run, it was impossible to contain or control. It spotted into grazed paddocks and water bombing had no effect. We were putting 1400 litres every 90 seconds. Normally we would expect to see some steam when the water hits the fire, but the water was steaming before it reached there.” DAVID</p> <p>CREW LEADER DUNALLEY 2: “I was in a crew and we tried to protect the only sheep shed for the district, we thought we saved it and left, but it later burnt down.” JOHN</p> <p>“There was a point where the Highway was smoke and fire on both sides and I knew</p>	<p>Indicators that the fire characteristic was shifting.</p> <p>Shift in priorities, required mental shift.</p> <p>Public expectations. Change in working with public (can’t provide the resources they expect.)</p> <p>Fire Behaviour in catastrophic conditions</p>

<p>delivers them to each sector command.</p> <p>Helicopters give intel that fire is moving towards Dunalley. BRUCE does reconnaissance towards Dunalley and observes smoke column heading south east. Returns to discuss with GEOFF (SEC COM C).</p> <p>BRUCE requests TOM's crews to move into Dunalley. Reshuffling of crews into sectors (e.g. Dunalley brigade moves from GEOFF to TOM).</p> <p>GEOFF's crews spread out along Arthur Hwy and Copping township.</p> <p>Repeater station on hill at Marshton Lane impacted by heat causing loss of mobile and radio coverage. Spot coverage only.</p> <p>Fire backing into Forcett.</p> <p>CHRIS's teams focus on structure protection at Inala and Sugar Loaf Road areas.</p> <p>There are now three distinct fires and fire fronts with sectors becoming increasingly isolated.</p> <ol style="list-style-type: none"> 1. Forcett/Sugar Loaf Rd 2. Dunalley/ Murdunna, 	<p>we had lost it. We radioed in to get an emergency alert. 10 minutes later a householder got a text message to leave."</p> <p>SEC COM B: "As new crews came in they slotted into the structure. We were reassigning crews across the sectors and it was difficult to keep track of all of them. There was no log of people coming in – I was using T-cards for crews coming into my section. That would have helped to have had something at the staging area. Our lack of resources actually saved the crews – we couldn't manage what we had, let alone extra crews. With the extra crews coming in our span of control moved from 1 -5 to 1 -7. It is OK if we are in one area, but we became spread out and with loss of radio contact it was difficult. We needed another sector command leader to take on the extra crews." TOM</p> <p>DEPUTY: "When the northern strike team came in it seemed there were a lot of trucks for one leader. I decided to split them into 3 and share them between each sec com because they needed more crews. I then showed them where they needed to go." IAN</p> <p>DIV COM: "On the fire ground we were very reactive. It was deal with what was in front of us. We knew around 11am that it was likely to head into Dunalley but at that stage the fire was still on this side of the Arthur Hwy, a long way from Dunalley – we don't think we could have convinced anyone in the town that it was going to get there. I was still thinking if we can jump on the spot fires we will be OK." BRUCE</p> <p>AIR ATTACK SUPERVISOR: "I could get a good overview of what was happening. First I was directing the helicopters to water bomb houses that were occupied and aiming to control the fires, then there become a point where the priority shifted from protecting houses to protecting life. I had to go past houses that were in initial stages of burning, which normally we would have been able to put out, and moved on to where people were and protected them. We were dumping water on fire trucks or on people in cars. There came a point where I had a realisation that people will die. I watched some incidents where I thought people had perished. One was where the fire came out of the bush at a crown height into an open paddock and</p>	<p>Radio and communications</p> <p>Managing crews – keeping track of crews when switching command and new ones coming through</p> <p>Should strike teams stay together? What is best span of control?</p> <p>How far should people on the ground be looking ahead? Role of IMT?</p> <p>Amazingly lucky that people didn't perish</p> <p>Quickness of the fire front – reactive – attempting to keep in front of the fire front to give warnings</p>
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<p>3. Marshton lane/Copping</p>	<p>continued towards a double story house at the height of its roof. There were wood piles around the house, the backyard on fire, 5 people standing with garden hoses. The fire front hit and got within 5 metres of the property, stopped and changed direction, didn't impact the house, with the residents uninjured." DAVID</p> <p>SEC COM C: "I was at Marshton Lane for a while. The fire was coming through the plantations at tree top height – not even touching the ground – the paddocks weren't burnt. It was creating its own weather, unpredictable, swinging around, going at right angles. The fire was jumping 3 or 4 km. My crew were spread out and it was difficult to get communication. The radio and mobile had dropped out because a repeater station was impacted by heat. We were aiming to do asset protection, aiming to keep up with the front. We had some difficulty with a householder. Around 3pm power lines were falling down and our access was difficult – we had to leave." GEOFF</p> <p>"If we could have had a repeater helicoptered in it would have been of immense help."</p> <p>AIR ATTACK SUPERVISOR: "I let BRUCE know how the fire front was moving. My aim was to keep ahead of the fire front, to find appropriate targets for the water bombing aircraft especially where fire trucks couldn't get through, eg. Connelly's Marsh where people were trapped on a beach." DAVID</p> <p>DIV COM: "Because of the helicopter intel I didn't need to go up myself to get an overview, I could stay on the ground. I headed down the highway past Copping towards Dunalley and got a view of the smoke column and the fire in the hills taking off on a NW to SE track – looking like heading straight for Dunalley. I went up back the road to talk to GEOFF, and then pulled TOM's teams down to Dunalley. We needed to stay in front of the fire front." BRUCE</p>	<p>Should repeaters be on standby ready to be flown in when one goes down?</p> <p>Importance of helicopter intel to help anticipate next phase</p>
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Friday 3pm – Fire heading into Dunalley, Boomer Bay and Connelly's Marsh





Friday 3 pm – Fire heading into Dunalley (population 5000)



Friday 3 pm – 4 – Fire heading into Boomer Bay, Potters Croft, Dunalley and Connelly's March	Narrative – Transition of scale	Themes
<p>BRUCE arrives in Dunalley area before TOM's reassigned teams.</p> <p>There is a column of smoke on the Blue Hills.</p>  <p>Both BRUCE and TOM separately talk to the police officer, GLEN, to get evacuation to Nubeena of the cars in the town which had been building up as a result of the Arthur Hwy closure.</p> <p>Several crews go past sawmill to give warning to evacuate.</p> 	<p>DIV COM: "When I arrived in Dunalley it just looked like a large car park. The most important thing was to get these people to safety. It would have been good to get IMT advice on the best location but the communications had broken down. The safest place I could think of was Nubeena. I went to a vantage point to see where the fire was and there was a smoke column in the Blue Hills. It seemed about 30 minutes away. I thought we had time to regroup, plan, but there was no time. We had just gotten out of the vehicles for the briefing at the fire station when we got the call about the spotting on the footy oval. I told the locals to look after their own, and the rest to ensure residents were warned. We literally jumped back into the trucks and all headed off in different directions. In hindsight I realise that this was where the game changed up another level. I knew it was important to keep composure – if we had lost it, not stayed calm and clear – things would have gone to shit." BRUCE</p> <p>"I thought we had 30 minutes, we had 2 to 3 minutes."</p> <p>SEC COM B: "I was concerned that we had pushed people to Nubeena with no info in terms of whether it was safe and whether there would be anything there for them. I asked Fire Comm to send someone down there." TOM</p> <p>"At the footy oval the air was so hot that it was igniting on its own gases."</p> <p>DUNALLEY 2 CREW LEADER "We thought we had an hour before the fire front hit Dunalley. We went straight up to the sawmill to warn the occupants, filled up with fuel and then headed to the fire station for the briefing, and then were on our way to Boomer Bay within minutes. Already spotting was happening in the town." JOHN</p>	<p>Very fast moving fire. Multiple fronts and spotting. Changing conditions.</p> <p>Scale shift - From individual properties to whole town.</p> <p>Reduction of time windows</p> <p>Importance of maintaining composure</p>

<p>IAN brings in 4 crews from the northern strike team and their leader through kilometres of fire and smoke on the Arthur highway.</p> <p>BRUCE calls everyone in for a briefing at the fire station.</p>	<p>DEPUTY: "I headed up to the sawmill because there was no way that was going to survive. I know it was an important asset for the town – a major employer – but there were wood piles everywhere. The people didn't believe me. They thought they could stay and defend." IAN</p> <p>AIR ATTACK SUPERVISOR: "One of the helicopters landed at the sawmill and said you have to evacuate. I think a helicopter telling them sounded a lot more serious and they got organised to leave. However, one of their trucks broke down and they had to pile onto another one." DAVID</p>	<p>Warnings not taken heed of</p>
<p>During the briefing helicopter intel is that spot fire has just hit the football oval and there is spotting in the town. BRUCE sends crews out to ensure people are evacuated and where possible spotting put out. He advises local crews to look after their families and property.</p>  <p>Spotting continues to escalate. Crews successfully evacuate most people, but some refuse to go. Some people try to defend property. Crews attempt to put out spot fires and assist those defending. Some of the public staying realise as the situation escalates that is too dangerous to stay and go to the jetties along the canal.</p>	<p>SEC COM B: "When I was heading into Dunalley I was thinking we could do an urban interface where truck crews shield behind houses and run out their hoses. But then I thought, this will never work." TOM</p> <p>SEC COM B: "The northern crews were dumped right into the deep end. They just weren't mentally prepared – some were wandering around in a daze, taking video. Some had no helmets or jackets. There were many young, inexperienced guys – little training. They had no local knowledge – it would have helped to have mixed some locals with them. It was brought home to me when I told them to retreat to the pub and they said "where is that?" One crew was putting out vegetation on a small verge while houses and fences were lighting up around them. They had no sense of what was happening around them. There needed to be a better crew to leader ratio. But over time they began to ramp up – we already had the lead in throughout the morning to help us to ramp up to what we faced here – they came in cold." TOM</p> <p>DIV COM: "In hindsight I should have kept the northern crews behind at the fire station and ensured they had a sufficient briefing or assigned local knowledge." BRUCE</p> <p>DIV COM: "At this stage each crew was looking at who they could save and what they could save – they were autonomous, but it felt that we were all on the same page, all understanding the priorities – to save people, then property. In hindsight</p>	<p>What are strategies to protect a town?</p> <p>Poor preparation of the incoming strike team</p> <p>Coping ugly</p> <p>Team work</p> <p>Working</p>

 	<p>though I realise that I was still thinking that the town could be saved if we could put out the spotting before the fire front, and after the fire front had gone through. I knew the sawmill was at risk but I felt that that the large paddocks would protect the town.” BRUCE</p> <p>DIV COM: “At one point north of Florence street the town was enveloped in thick smoke, there was a quick moment where I thought I had killed all the crews. The wind had got significantly stronger, embers and debris were getting blown horizontally, hitting my car like a hail storm, I thought the windows would get broken. I met with IAN and LAURIE outside the school, they had just come down from the sawmill, I described that we were in a tornado and made the decision to move the crews from the school back to the pub as conditions was getting worse, at the same time TOM called over the radio for his crews (further north in the town) to relocate to the pub. Shortly after the smoke got completely black stopping any travel through the town, I was driving by watching the white paint markers on the road, but they just disappeared in to a wall of black smoke. It felt like a junction zone with the fire moving in all directions.” BRUCE</p> <p>SEC COM B: “We were keeping in contact with crews by doing loops of the area, on the phone or the radio. It was quick 30 second conversations through the window. I had two vehicles call in that they were involved in a burn over. I thought they would die. I was on the phone to them regularly until I could get there. They were OK, they were in a paddock and didn’t have to deploy their shields.” TOM</p> <p>DIV COM: “At some stage I lost communications to the IMT via radio. I was receiving a flux of 000 calls from Firecomm that shouldn’t be coming to me but they could not get through to the IMT. Firecomm was also passing on Ambulance calls including a women that had gone into labour, there was lots of calls for people stuck in Boomer Bat and Connelly’s Marsh, I had to tell Firecomm that we could not get into those areas due to the fire and downed power lines. When I could get through on the radio, the messages were not being passed onto IMT because of the amateur radio operators. I had to ask them to put me through to people directly by name, otherwise the message would get lost. I was also trying</p>	<p>autonomously using agreed priorities</p> <p>Tornado conditions</p> <p>Changing priorities – needing to let go of putting out fires to moving to safety considerations for crews.</p> <p>Entrapments</p> <p>Loss of communications and the impact on information flows.</p>
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Two vehicles stuck in paddock near junction of Boomer Bay Rd and Arthur Hwy call in a burnover and TOM goes to fetch them.

Two vehicles at school.

Fireball hits a row of houses in the Esplanade.

Truck protecting the bridge.



As the fire front moves closer there is sustained ember attack, horizontal wind tornadoes, flying debris, goes dark.



to ring key contacts in the IMT on my mobile phone. I had limited knowledge of what was happening elsewhere – I lost communication with CHRIS and GEOFF. However I was checking in with TOM and IAN – 30 seconds here and there, through the window of the cab or by mobile phone, and we were independently making the same decisions – it was good confirmation – we were on the same page and knew what each other would be thinking.” BRUCE

“Locals were helping with water carts, dozers, pointing to where dams were that we could fill up. ”

“A fireball hit the houses on the esplanade. Power lines were coming down.”

“It was getting so dark I said to my partner to put his seat belt on in case we ran into something. The next minute we had to swerve to miss a car.”

AIR ATTACK SUPERVISOR: “It was difficult co-ordinating the air attack– the fire was generating its own weather –turbulence and wind – I spewed my guts out. One minute we were over the land and the next minute we had been pushed several kilometres out to sea. It was difficult keeping visual of the air resources. The pilots were in constant communication to ensure we weren’t trying to occupy the same air space. One helicopter was in Boomer Bay. What made it difficult was that other aircraft were also coming into the area and it just was not safe. There needed to be better coordination of these. The smoke got so bad that it was unsafe for the craft to keep breathing it – they would become flame throwers. The quality, age and experience of the pilots ensured our safety – they knew how far they could push things. As it progressed we felt more and more detached from what was happening on the ground.” DAVID

DIV COM: “I realise I had shifted into negative triage in terms of warnings and evacuations. It got to a stage where each of us were telling the same people to leave again and again. I tagged buildings so could go back to in order to see if they had left. In the end you just had to give up and spend your energy on something that you could have an impact on. Even at the last minute a surfer was in his car

Local assistance

Conditions

Control of the airspace

Difficulty of shifting people out to a safer place

Three trucks at Potters Croft aiming to protect houses. The crew are separated and shelter inside different houses as the fire fronts hits.



on the canal road and refused to leave saying he would jump into the canal if needed - it took three goes to get him to move. People were on the jetties and had got into boats. The police were instrumental in getting people out. There has been some suggestion that one strategy would have been to pull the fire fighters out of the town earlier and then come back in when the fire front had passed, but we didn't have a choice – people were still in their homes.” BRUCE

CREW LEADER DUNALLEY 1: “I was pleased when BRUCE said to do what I thought needed doing at the briefing at the fire station. I knew the people in the town – it was my town and I was keen to help them. I went to the outskirts of the town at Potters Croft, following the spot fires, thinking that these houses would be first in the line of fire. The householder was still in the house planning to defend and had sent his wife and grandchildren to the jetty (The pictures of the grandmother under the jetty that went viral.) I told him to leave. We thought we could defend the two houses, but when the fire came through we had to shelter inside them. The worst part at Potters Croft was running from the fire and feeling the radiant heat before we got to shelter behind the buildings. We didn't intend to put ourselves at risk – the risk overtook us. Two crews were separated. The fire was coming in under the door. The radio was in the truck – we had no way of communicating. I was so relieved to hear the other crew out and about after the fire front had passed through and the conditions had abated enough so we could go out and put any spot fires out. We have now bought face mikes. I realised that I wasn't aware of what was happening on the radio, and did not hear the advice to evacuate to the pub. We were focussed on the task. I had turned to asset protection with total focus on outlying assets, not thinking the fire would impact on Dunalley the way that it did. I have wondered whether we should have even attempted to protect the house. If we had gone into the town we may have helped to evacuate more people.” SAM


CREW LEADER DUNALLEY 2: “I left the fire station and we headed into Boomer Bay at the request of a crew member. Fires were already beginning to spot into Dunalley. We found ourselves going through a fire front with no place to turn around – the safest option was to go as fast as possible ahead. The road was

Human factors – e.g. tunnel vision effect

Changing level of risk

How to communicate when out of truck?

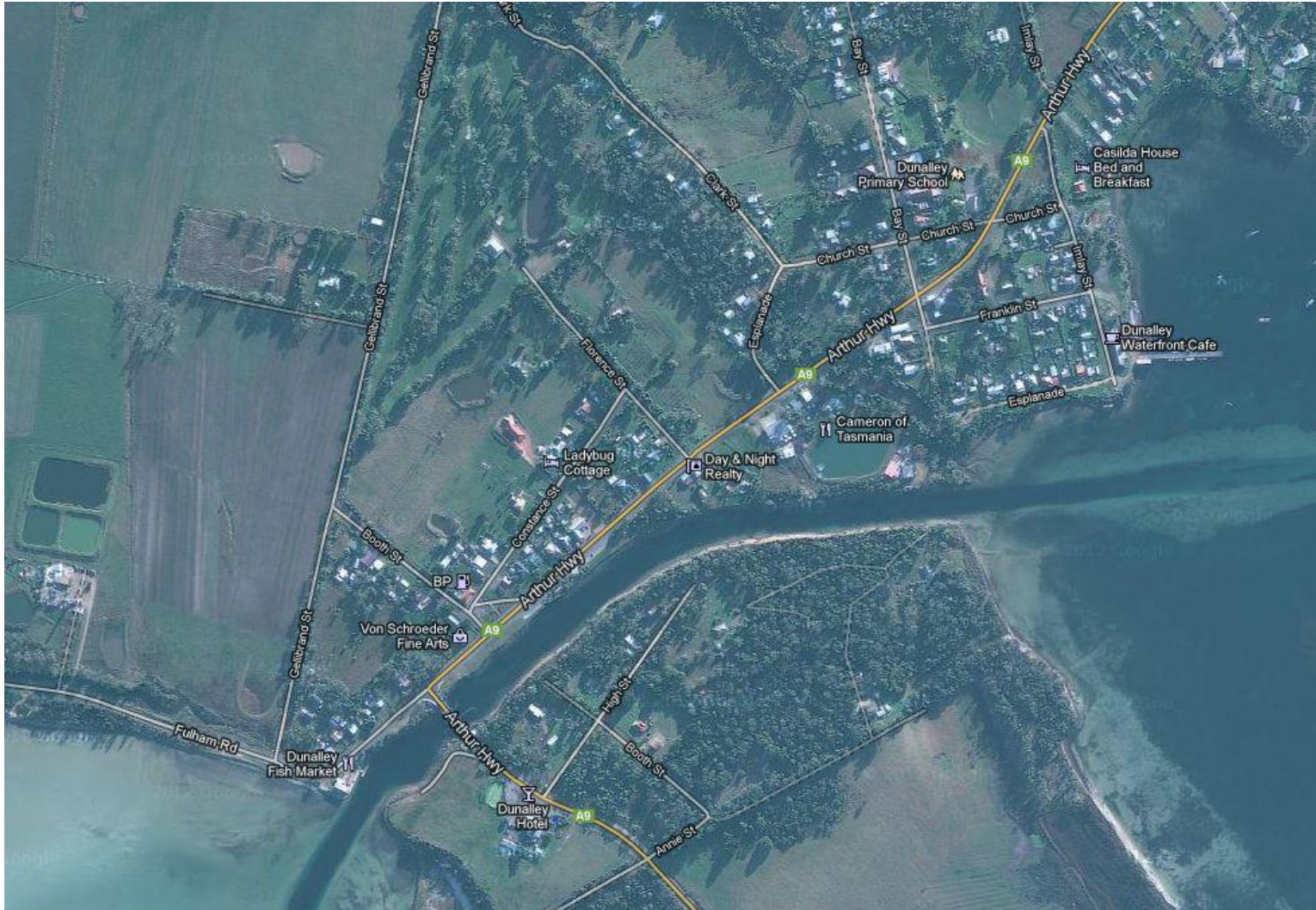
Importance of local knowledge

<p>Two crews on road to Boomer Bay heading through fire, protecting people at jetty and houses.</p> <p>Most crews retreat to the pub paddock. BRUCE and TOM advise for all crews to evacuate to the pub. However, some are not in a position to do so and bunker down at Potters Croft.</p> <p>BRUCE stays in town doing loops and seeing if anyone left, and advising some people still in cars to evacuate to the pub.</p> <p>Police continue to evacuate people.</p> 	<p>completely dark – day had turned to night - and the trees on either side of the road were on fire. I knew the road like the back of my hand so kept going, hoping there would be no debris. I led another crew there. Later I realised that we had gone through a fireball that had attacked Potters Croft – if I had known the intensity I would not have attempted this. Later I discovered that our suction hose melted. When we arrived at Boomers Bay houses were already alight, the fire had hit hard. We found people sheltering at the boat ramp and some trying to defend houses. We checked that people were OK around the boat ramp and then assisted in the defence of houses. However, the conditions were such that fires kept relighting. We saved two houses but were unable to make any headway on others. Later one was lost when an ambulance helicopter landed to pick up an elderly woman and blew embers into it. Later we heard that cars, a caravan and an oyster shed burnt down at the boat ramp – we had thought they were safe. In hindsight, I should have realised the futility of trying to save houses, and spent more time with the people. I was at that stage still concentrating on putting the fire out.” JOHN</p> <p>DIV COM: “The pub seemed like the safest place to retreat to – over water, some paddock around it. But I didn’t have a community protection plan for the area – if I had it would have made it easier to know where to send people. I was concerned about Connelly’s Marsh but the road was a narrow one and with power lines and debris I was concerned that sending crews there would put them at risk. People were moving to the jetties and getting on boats.” BRUCE</p>	<p>Safety</p> <p>No community protection plan.</p>
<p>CHRIS’s Sector - Inala Rd, Sugarloaf Rd.</p> <p>3pm spotting occurs at Sugar loaf Rd and takes off.</p> <p>Crews have difficulty in getting around sector. Spot fires, power lines down.</p>	<p>SEC COM A: “I was after a bit of direction from the IMT about what they would like us to do – whether to go to Connelly’s Marsh or Primrose Sands. IMT said “Can’t really help you – leave it up to you.” I got hold of DAVID in the helicopter and asked him what he thought. He said initially that we should go to Connelly’s Marsh but a few minutes later he said that he didn’t think we could get through. I knew the fire was heading towards Primrose Sands, it was part of my extended sector and I knew that there was no one down there that could protect houses and people. I made the decision to go into Primrose Sands. ” CHRIS</p>	<p>Who has best knowledge to make decisions?</p>


Some images sourced from: <http://www.guardian.co.uk/world/interactive/2013/may/26/firestorm-bushfire-dunalley-holmes-family>

Friday 4pm – multiple fire fronts come through Dunalley, Boomer Bay and Connelly's Marsh

Dunalley






Friday 4pm – multiple fire fronts come through Dunalley, Boomer Bay and Connelly’s Marsh	Narrative	Themes
<p>Dunalley</p> <p>TOM sets up an urban interface at the Dunalley pub with the crews that managed to evacuate there. Gives briefing. Sets priority to protect the pub rather than put out other fires. The remaining cars and trailers are marshalled together with the fire trucks forming a perimeter.</p> <p>The fire jumps the canal, burns out vegetation and property and swings around from the north east to the pub. This provided a fire break when other fire fronts came through.</p>	 <p>SEC COM B: “I decided to set up an urban interface at the pub. In normal conditions the school might have been a safe place. But there was no-one there. It was just a building. There were already people at the pub and it was an important place for the town. For me the pub was the safest and best option. However, when the house over the road from the pub caught fire, we had to be disciplined to not go and fight it. Some of the crews were a bit shell shocked, needed to have a breather – it seemed like every house was on fire on the other side of the canal.” TOM</p> <p>SEC COM B: “Even with more resources we could not have saved the town. If anything we would have had more safety incidents – crews would have died. Deciding to pull out to the pub was the safest thing to do. In general the crews did not panic. They were all concentrating on what they needed to do.” TOM</p>	<p>Safety</p> <p>Discipline</p> <p>Triage</p> <p>Knowing when to retreat strategically</p>
<p>SECTOR C - GEOFF’s Sector – Copping Area – Fire Flank (9 trucks)</p> <p>Vehicles protect houses where people have chosen to stay as the fire front comes through the Copping area.</p> <p>Some of GEOFF’s teams try to push into Boomer Bay ahead of the fire front but power lines on highway prevent this.</p>	<p>SEC COM C: “We were engaged on the flank of the fire. It was not burning like a normal flank – it was acting like a fire front with similar intensity and spotting. The fire skirted the outskirts of Copping – it didn’t get into the town. Once the fire had gone through we were able to put bits out. However, properties in the line of the fire front further down the road were lost. ” GEOFF</p>	<p>Non-normal fire conditions</p>

<p>SECTOR A - CHRIS's sector - Sugarloaf Rd / Primrose sands</p> <p>East Coast District Field Officer, ROHAN, comes onto the fire ground to assist where possible. He determines whether there is enough time to evacuate Primrose Sands before the fire front.</p> <p>CHRIS's teams come down SugarLoaf road, get to Primrose Sands but are cut off to Connelly's Marsh because of debris and power lines on road.</p>	<p>FO: "I was Incident Controller for the Richmond fire and had been working since 5am in the morning. After the Richmond fire was under control, I came into the area around 3pm in a dual cab to assist where possible. Because the fire was still around the Arthur Highway I headed through Dodges Ferry and Carlton river to Connelly's Marsh still ahead of the fire front. I didn't get through to Dunalley as I saw smoke and fire just prior to Dunalley and decided it was too dangerous to go there. I had spoken to BRUCE and knew he had called a retreat of the fire crews to the pub. I headed back and met a police inspector at the intersection of Sugarloaf Road and Carlton River Road. He was concerned about whether or not to evacuate Primrose Sands. I advised him I would check out where the fire front was. I headed along Sugarloaf Road to the Arthur Highway intersection. Locating the fire front in this area, and finding the fire had crossed over on the Northern side of Sugarloaf Road I decided it was too late to evacuate Primrose Sands as by the time people were evacuated they would be heading into a head fire. I returned and advised the Police Inspector not to evacuate. I did feel comfortable with this decision but at the same time there was an element of concern if it was right. We decided to utilise the police resources to evacuate residents along Sugarloaf Road as it was inevitable the Fire would impact on their properties. I was on Carlton River Road when CHRIS's crews came past heading into Primrose and we waved to each other." ROHAN</p>	<p>Roving support</p> <p>Communication</p>
<p>Connelly's Marsh</p> <p>Helicopters working to protect people at Connelly's Marsh by water bombing. People on beach.</p>	<p>AIR ATTACK SUPERVISOR: "We could see quite a few people on the beach so we focused on dropping water to help them. There may have been people in the houses but it was about working on what we could see and was most obviously needed." DAVID</p>	<p>Trade-offs</p>

Friday 4:20 onwards – Fire front moves towards Murdunna and Primrose Sands





Friday – 4:20 Front moves towards Murdunna, Connelly’s Marsh, Primrose Sands, Copping	Narrative	Themes
<p>Dunalley aftermath – into late evening</p> <p>Some crews assigned to continue to protect pub and other crews move into town to suppress house and fence ignitions where possible.</p> <p>Conditions dense smoke and flame.</p> <p>Crews rotate and have breather at pub or go to the fire station for oxygen when necessary.</p> <p>School burns down from ember attack under roof.</p> 	<p>Dunalley</p> <p>DIV COM: “I was in Dunalley when the fire front went through. I was doing loops of the town to check whether there were any people left. I then went over to the pub and grabbed some crews to patrol the town with the aim to put out spot fires and prevent house to house ignitions. We were triaging buildings so they didn’t cause other house to house ignitions. Where houses were too far gone we left them. Crews would put out one fire and then it would reignite again, it became impossible to put anything out. The grass on fences acted like a wick, lots of houses had stacks of dry firewood. Crews did a great job to save the BP store. Some houses had considerable effort put into them only to reignite later. On my second loop I noticed the fence next to the school alight but the building seemed safe. The next loop it was fully on fire. I lost the skin on my hands 3 weeks later from holding the steering wheel.”</p> <p>BRUCE</p> <p>DEPUTY 2: “We were doing loops of the town as well. The school was fine. Then the third time round it had caught fire through ember attack in the underside of the ceiling. It just was not possible to put out.” LAURIE</p> <p>“We were running out of water and having to use salt water. “</p> <p>DIV COM: “I felt at this stage that it more strategic for me to stay at Dunalley rather than head off to smaller outlying areas like Connelly’s Marsh or Boomer’s Bay with the risk of being cut-off by fallen power poles. I trusted others like TOM and IAN to get to places under threat, and to use their initiative to work out where these were. I was envisioning the fire would keep to the North East side of the Arthur Highway and didn’t expect it to affect Summers Bay or Eaglehawk Neck. In future it would be good to have an excavator and chainsaw crew to clear roads after the fire has gone through. ”</p> <p>BRUCE</p>	<p>Repeating ignitions – 100+ properties lost</p> <p>What does it mean for buildings to be more resistant to ember attack, not just radiant heat?</p> <p>How many resources needed to save a town in the aftermath?</p> <p>What is strategic at this stage?</p>

	<p>afterwards.” JOHN</p> <p>DUNALLEY CREW LEADER 1: “This time was just a blur, I couldn’t tell you what I did. If a house was not burning we left it – what can you do? If a house had caught fire then it was too late to save it – what can you do? We were checking the school and the golf course – major assets. I remember being in a house and losing my way because it was so full of smoke, finding a window to exit. In normal conditions we would have been able to go in and put the fire out. The smoke conditions were highly dangerous and it was important to be in full PPE gear with masks and gloves. We went to the fire station and got oxygen but then it was back out into things. In hindsight I would say to others – don’t be overcome by the moment. Take a breath and work out a systematic plan. Keep safe until you can do something. If this should happen again I would say, do not underestimate the fire, be prepared as early as possible – get roads closed and people out before the fire hits.” SAM</p>	<p>Boundaries of what is safe are changing</p> <p>Strategies to overcome entrapment</p> <p>Importance of strategies to help not being overcome by the moment so can act more strategically</p>
<p>Murdunna into late evening</p> <p>4:20pm TOM and IAN head into Murdunna through the fire front to check out the situation, set up evacuation plan with police then return to Dunalley back through the fire front.</p> <p>4:45pm TOM brings two crews into Murdunna</p> <p>Spot fires jump the bay</p> <p>5:40pm power lines down and car trapped</p> <p>Crews providing structural protection. Some residents choosing to stay and defend. Some requiring assistance in evacuating when too late. Summer Bay Rd bridge reigniting.</p>	<p>Murdunna</p> <p>DEPUTY: “We had been at the pub for about 10 minutes when I saw the fire had spotted south of the pub. I was concerned about the people in the path of the fire and the need to give warnings. I was thinking that it was important to stay in front of the fire front. I talked to TOM and we decided to take a punt on getting through. We passed through the fire front, had to put up our coats and lean into the cab, but once through we were able to give warnings and evacuate people.” IAN</p> <p>DEPUTY 2: “There were a couple of blokes on a veranda in shorts drinking tinnies. They intended to watch the fire come to them.” LAURIE</p> <p>SEC COM B: “I was concerned about where the fire was going next and who it would impact on. I let BRUCE know that IAN and I were going down to Murdunna to check it out. I left the Northern Strike Team Leader in charge of the pub - told him he was on his own. We had to pass through the fire front to</p>	<p>Why is it important to stay in front of the fire front?</p> <p>Unprepared public</p>

<p>7 pm Dunalley truck arriving to protect shop</p> <p>TOM requests IMT to send crews from south. Some PWS crews and six southern peninsular trucks arrive to help protect Murdunna from 7:40pm onwards. TOM managing 9 crews in total.</p> <p>10:40pm Houses still burning in Murdunna – crews patrolling and protecting structures where possible. TOM directs Eaglehawk Neck crew to go to Eaglehawk Neck and Nubeena crew to Taranna to give warnings ahead of the fire front, followed by other crews later.</p> <p>12 midnight Fuel sought from local to fill up trucks</p> <p>2am Fire front threatens Eaglehawk Neck.</p> <p>4:50am Aurora clearing powerlines</p> <p>5:30am Saturday Arthur Hwy open from Dunalley to Murdunna</p>	<p>get Murdunna. We gave warnings and set up a plan for the police to evacuate people to Nubeena. The main Murdunna asset was the shop. I thought about creating an urban interface but decided against it. We headed back through the fire into Dunalley and picked up 3 trucks. One truck (Carrick) got stuck with a fallen power line and went back to Dunalley. We only had two units (Rokeby and Prospect) then to protect the whole town. I put one at the shop to provide structural protection and one to protect holiday houses at Sunset beach when the fire jumped the bay. Although we aimed to evacuate people to Nubeena some people refused to leave – about 10% - who wanted to defend their homes. We helped people protect houses, boats and vehicles and then escorted them when they decided to leave. At one stage we stayed at the boat ramp while the worst was happening, we had access to water and could protect some plant there, while keeping relatively safe. It was something we could do. Helicopters couldn't get to us because of the smoke. The bridge to Summers Bay kept igniting and needed to keep putting it out. If I was doing this again I would have taken more resources with me.” TOM</p> <p>AIR ATTACK SUPERVISOR: “About 30 minutes after the fire hit Dunalley I headed south to Murdunna in the observation helicopter. About 5 kilometre south of Dunalley some holiday shacks were already burnt out with iron roofing lying on the ground. I could see the occupants were OK. Spot fires started attacking Murdunna and I then worked with TOM in identifying them so their crews and later the water bomber could try to control.” DAVID</p> <p>CREW LEADER DUNALLEY 1: “I came down to Murdunna after working several hours protecting houses in Dunalley after the fire had gone through. TOM called me down to protect the Murdunna shop – my shop. I felt pretty guilty just sitting there, when my town was burning, but I knew that it was important to do what was asked – to have discipline, to do my role in the command structure.” SAM</p>	<p>What resources are needed to run with the fire front – to warn, evacuate, protect?</p> <p>Identifying key assets</p> <p>Discipline and staying in role</p>
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	<p>SEC COM B: “Later that evening, I realised that the last time we had eaten or drunk anything was at around 12 noon. Our water bottles were very hot. I called IMT asking for food but it wasn’t going to happen. We were lucky that a local organised some food for the crews. The Rokeby crew was exhausted – they had been in the thick of it all day. At around 11:30 I asked IMT to organise accommodation and they said couldn’t do it. I was googling accommodation on my phone – got the Fox and Hounds – they were fully booked up, but asked if they had floor space for the men to sleep on – they found 6 mattresses.” TOM</p> <p>DEPUTY: “After helping to evacuate Murdunna I headed up to Dunalley with LAURIE and continued to direct and work with crews around the town. At around 6pm I realised that no-one had eaten and headed into Dodges Ferry to get food. I got through OK and I packed the cab up but the road was blocked on the way back and we couldn’t get back down. I teamed up with ROHAN and LAURIE went to check out his family.” IAN</p> <p>“We needed to know whether the power was turned off. I thought it had been, but there were two feeds in. And when I saw a light I wondered if the second feed was going.”</p> <p>SEC COM B: “At 11pm my biggest consideration with the fire heading down Eaglehawk Neck way was where we were going to evacuate residents. I wasn’t aware of a community protection plan for Eaglehawk Neck. I sent the Eaglehawk Neck crew down, then followed up by going down myself, before sending more crews. Around 2-3am we made the decision to send people still in Eaglehawk Neck to the Boat Ramp.” TOM</p>	<p>Who is responsible for logistics (food, accommodation)?</p> <p>Long hours</p> <p>How long the fire threatens houses well after fire front through</p> <p>Power lines</p> <p>Community Protection plans</p> <p>Who is thinking two hours ahead at this stage? Who has a sense of where fire is likely to track? What might fire fighters on the ground be missing?</p>
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	<p>was already situated there, the priority being preventing the bridge from burning.” ROHAN</p> <p>FO: “We worked along Carlton River Road issuing warnings and evacuating people. The fire front was heading into Homewood Drive so crews were placed to protect properties. The helicopter was able to assist by dropping a couple of loads but had to leave due to fading light. As the fire front was coming through Homewood Drive and power lines were coming down I pulled the crews out purely for safety and to prevent them becoming trapped by downed power lines. The fire was also starting to come around underneath crews and enter into heavier fuels. I directed crews back into the Carlton River Road area after the fire went through with these crews being able to extinguish any fire that was impacting on properties. We were able to prevent all but one house from being lost. I have no doubt the action of returning crews prevented the loss of many homes along Carlton River Road and surrounding roads. I had sporadic radio communication with CHRIS whom was requesting crews. I was unable to provide him with these crews as I was led to believe the road to Primrose was not passable.” ROHAN</p> <p>FO: “We continued to work back along Carlton River Road and into Joseph’s Road, warning residents and planning methods of attack on the fire to protect people, property and ultimately the fire impacting Carlton. Later there was a wind change which saved Carlton and Doges Hill area, also giving some reprieve to all fire fighters in this area. IAN and I spent the rest of our time, throughout the night responding to calls of assistance and prioritising these calls dependant on level of threat. We covered from Carlton River/Sugarloaf Road through to the Arthur Highway via Dodges Ferry, Copping and into Boomer Road. One of the biggest challenges was it was extremely difficult to keep up with all direct verbal requests from the public, emergency services, together with answer all radio and phone calls directed at me. Without the assistance of IAN it would have nearly been impossible. ” ROHAN</p>	<p>Strategic withdrawal of crews when fire front goes through and coming back in then saved houses</p> <p>Overload of emergency requests from public</p>
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<p>Boomer Bay to Marion Bay Approx 4:20 pm GEOFF brings two vehicles into Boomer Bay via Marion Bay.</p> <p>2 am - houses in Craig Hills Rd (between Boomer Bay and Marions Bay) are under threat. Dunalley Crew 2 and ROHAN's teams work together to save properties.</p>	<p>SEC COM C: "I was concerned about reports of people stranded in Boomer Bay and brought in two vehicles that had oxygen and resuscitation gear. It was dark, hot, smoky and windy, with power poles dropping down and properties alight. One truck was able to get to the boat ramp before power lines dropped down and prevented us from getting through. Our radios were only working sporadically. The crew were able to give assistance to people that were sheltering at jetty – there were a couple of elderly people. We then moved back along the road checking that people were not left in homes. We had limited water and it was not possible to put out the structural fires because of their intensity. We couldn't do anything more and I returned to Copping, via Marion Bay – the long way around- to work with the other crews. I left one crew in the Boomer Bay area." GEOFF</p> <p>DUNALLEY CREW LEADER 2: "At around 2 am spotting was beginning in Craig Hill Rd (between Boomer Bay and Marions Bay) and the fire was behaving badly. At that stage there were 15 houses and we had to triage. We were buggered and had to look at what was possible – perhaps save one house. But which one? I radioed for help and 4 new crews arrived and we were able to put in a back burn and save most of the houses." JOHN</p> <p>FO: "IAN and I arrived at Craig Hill RD after requests for assistance were made by JOHN. It was very evident JOHN's crews were fatigued and understandably so, they had worked in extreme conditions for an exceptionally long period of time. IAN and I were able to provide support in identifying priorities and directing the crews to assist where necessary. In some cases just some reassurance was all that was required to prevent the loss of another property. We were also able to direct some fresh crews from Hobart into the area to assist." ROHAN</p>	<p>Focussing on people</p> <p>Power lines</p> <p>Fatigue</p> <p>Too few resources</p> <p>Making difficult choices</p> <p>Providing timely strategic advice</p>
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FIRE WEATHER BULLETIN

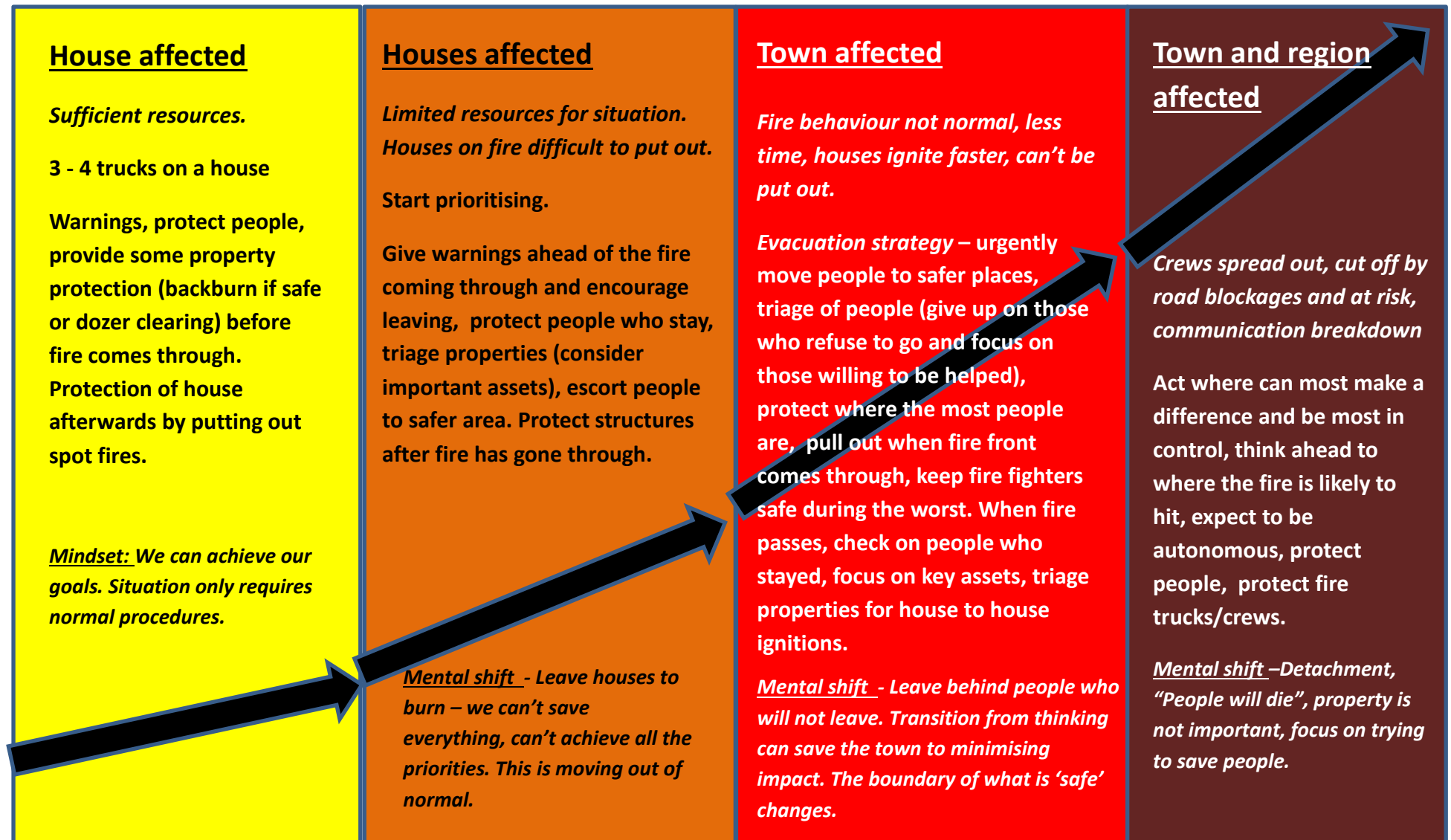
**Bureau of Meteorology
Tasmania**

At 2345 EDT on Friday, 4 January 2013

Station	Dt Fr	Current Observations							Max FDI since 0730 EDT						
		Time EDT	T	Td	WD	Sp kt	G kt	FDR/FDI	Time EDT	T	Td	WD	Sp kt	G kt	FDR/FDI
Campania	10	2330	29	11	360	14	20	H 20	1500	40	6	330	30	41	CAT 118
Tunnack	8	2330	24	10	360	16	22	H 12	1330	35	7	330	27	40	SEV 63
Dunalley		2336	31	11	360	19	29								
Dennes Point		2330	19	14	350	2	4								
Hobart Airport	10	2330	30	8	360	16	24	VH 29	1308	39	4	300	25	38	EXT 92
Hobart City	10	2330	32	7	340	15	28	VH 34	1500	40	3	300	27	45	CAT 110
Mt Wellington	7	2330	22	6	330	30	42	H 20	1530	28	5	320	36	48	SEV 50
Grove	10	2330	31	6	350	8	13	VH 25	1406	39	2	330	19	32	SEV 74
Geeveston									1500	39	23	310	17		H 23
Scotts Peak	4	2342	17	12	260	17	30	L-M 2	1600	33	9	330	45	56	VH 49
Hartz Mtn	7	2330	19	10	260	16	25	L-M 5	1245	30	7	310	37	47	SEV 56
Warra	6	2330	22	11	330	9	13	L-M 4	1330	34	8	310	17	29	H 24
Cape Bruny AWS	8	2330	17	13	270	13	22	L-M 2	1830	34	7	300	30	40	SEV 62
Dover									1500	39	10	290	24		SEV 63
Bushy Park	10	2330	28	10	350	10	13	H 16	1421	39	6	350	37	47	CAT 149
Maydena									1500	37	10	340	18		VH 42
Ouse	10	2330	25	10	340	6	9	L-M 10	1530	39	7	300	21	32	SEV 71
Butlers Gorge	7	2330	18	11	230	2	5	L-M 2	1550	31	6	320	15	27	H 23
Liawenee	8	2330	20	10	360	12	21	L-M 6	1600	28	6	330	17	30	H 24
Mount Read	3	2330			340	13	22								
Strahan Airport	7	2330	16	14	340	4	5	L-M 1	1500	34	11	330	26	35	VH 36
Low Rocky Point	6	2330	16	14	330	10	13	L-M 1	1100	32	10	330	32	48	VH 38

Catastrophic fire weather conditions
reached at 3 pm Friday at nearby
Campania

Summary of how the priorities and mindsets of the operational people changed as the scale and the severity of the conditions escalated



Progress report for Tasmanian Fire Service- Dunalley Onsite Learning Field Ride

Meeting 7th May with Jeremy Smith ;Sandy Whight; Steve Willing, Damien Killalea

- Christine Owen and Sue Stack met with the key participants involved in the Field Ride on Monday/Tuesday 22nd/23rd April 2013.
- Participants involved were:
 - Andrew Skelly
 - Adam Salter
 - Adam Meredith
 - Mark Suhr
 - Claudio Muench
 - Adam Hall
 - Gavan Rainbird
 - Brad Westwott,
 - Kev Daly
 - Marcus Skelly
- The program (Attachment a) and Onsite Learning introductory information (Attachment b) had been previously circulated and were discussed. A number of participants had also brought along their own (or team member's) logs to aid in recall of events.
- Attachment c provides an outline of the narrative gleaned from the discussions and highlights key chapters and potential issues that can be discussed in a future (second) more public On-Site Learning Field Ride.
- In addition, the questions (Attachment d) canvassed at our previous meetings were also circulated and discussed by the participants throughout the two days.
- Attached (Attachment e) is a synopsis of the discussion in relation to these questions.
- Second opportunity for Onsite Learning Field Ride – the participants are all keen to conduct the second on-site learning field ride and would like to do so as soon as reasonably possible.

Agenda for meeting 7th May Tasmanian Fire Service

- Overview of the first Dunalley On-site Learning Field Ride (Attach a & b)
- Discussion of the narrative (Attach c)
- Discussion of the key questions, lessons identified and suggested strategies for organisational learning (to date) (Attach d & e)
- Discussion about on-site learning field ride (refer original proposal for key activities and issues for resolution).

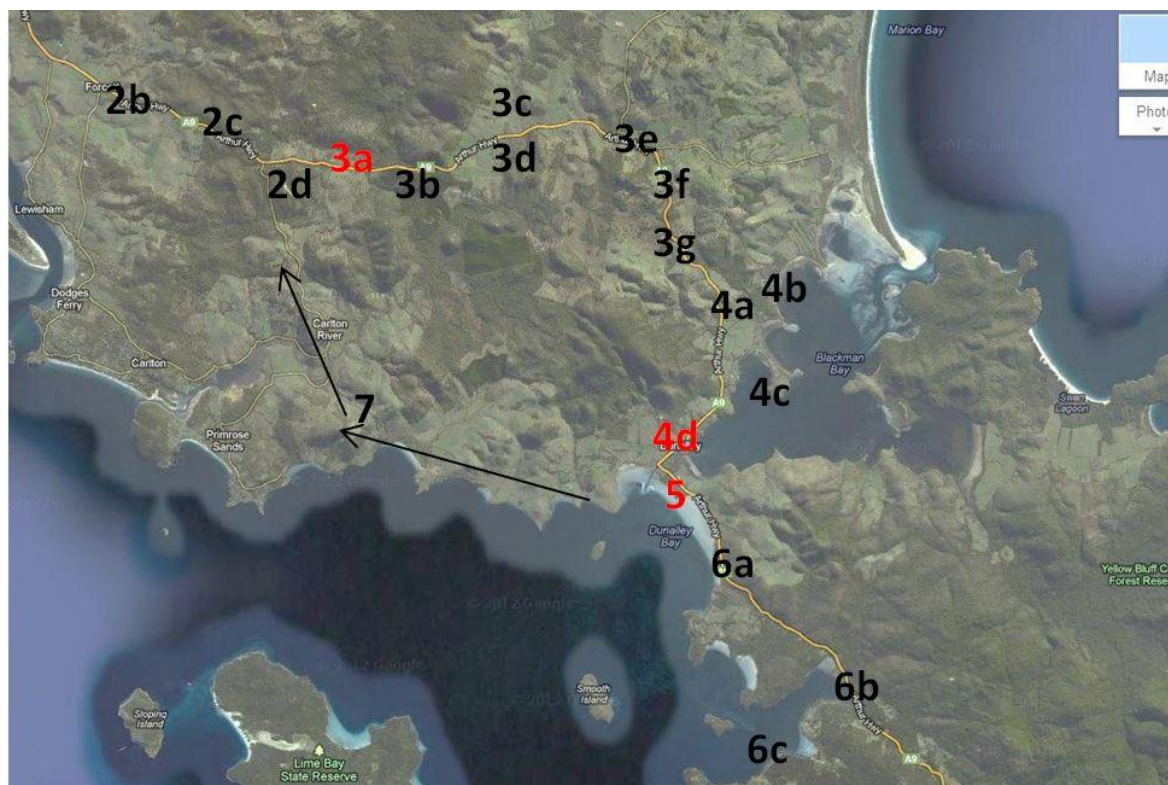
Onsite Learning Field Ride Program 9th/10th July

Revisiting the Inala Rd fire for the days of 3rd-4th January 2013

Tuesday 9th July	INTENT: <i>To capture lessons that can be learned from catastrophic fire weather conditions to strengthen capability for future events.</i>
10:30 am	Arrive and morning tea
10:50	Orientation to the program – TFS Cambridge <ul style="list-style-type: none"> • Introduction by Mike Brown • Dr Christine Owen - Orientation to the Field Ride: intent and purpose, key questions that we want to explore, creating a climate for reflection and no-blame, be aware of hindsight bias.
11:20 am	Setting the scene of the fire <ul style="list-style-type: none"> • What was your lead-up to the season? Did you anticipate it would be different? Where were you on the 3rd and 4th of January? • Andrew Skelly provides an overview of the fire and where groups were operating at different stages for the Thursday 3rd and Friday 4th January. • Introduction to Stage 1 - Thursday pm
12:00 noon	Groups: Lunch Introductions. Where were you? Sharing stand-outs of the narrative. Questions.
12:30 – 5:30	Field trip – Opportunity to visit key sites and decision-making points. People at the incident tell their stories. Drawing out the nuances.
5:40 – 8:00	Integration – back at the venue Groups: What were your insights? Panel of fire ground personnel: what did we learn, challenges, aftermath?
6:45	Dinner
Wed 10th July	Integration – Lessons Learnt
9 am	Orientation to the day – Dr Christine Owen Reflection – identifying insights and core themes Drawing out key themes Group discussion around identified themes
10:30	Morning tea
10:50 am	Group discussion around themes (continued) Capturing Lessons Learned - Identifying what needs to be strengthened and what needs to change. Report back to the whole group.
12:10 pm	Closure – Where to next? What are people taking away from this? Commitment to doing post-survey.
12:30 pm	Lunch

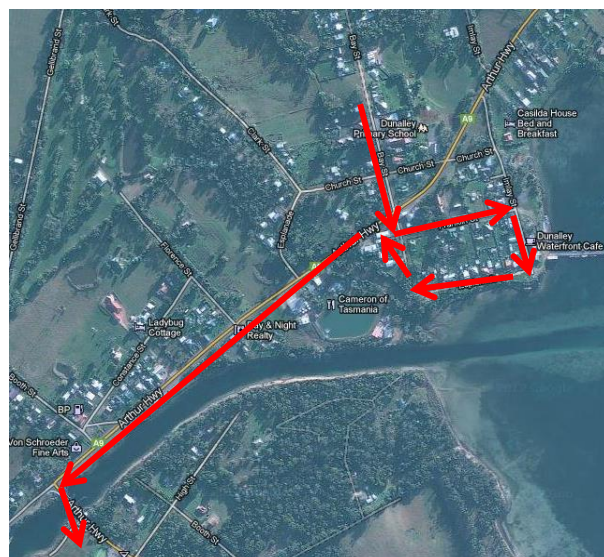
We are aware that events such as this can be distressing and would like to remind you that support can be found by contacting Tim Sanderson (Converge) on 0447 246 947 or Critical Incident Stress Management on 0427 181 207.

Field Ride locations



Stages	Location	Theme
1. Thursday 3 rd January - fire started at Inala Rd	Cambridge <i>In groups</i>	Setting the scene
2. Friday 4 th morning – fire above Arthurs Highway	In coach along Arthur Highway	Anticipation, preparing the crews, structural protection
3. 1 pm Friday - Fire jumps Arthur Hwy	Gangells Road – <i>in groups</i>	Transition in conditions, shifting priorities
4. 3 – 4 pm Friday - Fire front coming through Boomer Bay and Dunalley	Boomer Bay in coach, walk through Dunalley <i>in groups</i>	Game changing conditions, coping ugly
5. 4 pm Friday – retreat to pub	Dunalley pub – <i>in groups</i>	Reflecting on strategic decisions
6. 4:20 pm Friday onwards – Fire front into Murdunna	Drive into Murdunna	Follow the fire front
7. 4:20 onwards	In coach	The flank of the fire

Walk through Dunalley from Fire station to Waterfront café to pub



Inala Rd (Dunalley and Surrounds) Fire - On-site Learning Field Ride

Information for participants

What can we learn from people on the fire-ground in catastrophic conditions?

The Inala Rd Fire

The Inala Rd fire was a catastrophic fire that “did not act like any normal fire.” Starting on Thursday January 3rd it was burning in the inaccessible bush of the Redhills area above the Arthur Highway. With a weather change around 1pm Friday it quickly reached and devastated the town of Dunalley and surrounding coastal townships before commencing through the Tasman Peninsular. How did the personnel on the Fire-ground respond to the key transition points – the rapid change in conditions, speed and scale of the fire? What were the conditions like and how did their training and command structures assist in dealing with these? What were key challenges? What would they now do differently?



Fire entering Dunalley – taken from helicopter

What is an On-site Learning Field Ride?

This is an immersive learning program which revisits the ground of an incident and enables a walk-through of what happened. It gives an opportunity for the different people involved to tell their stories from their perspectives within a no-blame environment in order for participants to draw out learning.

By walking the ground and hearing what happened with some detail, it is possible to see things that might not normally be visible. It is then possible to reflect on themes that may emerge, such as decision-making, human factors, leadership, safety, command structures, operational priorities, stakeholder liaison, communication flows, organisational culture, or training.

Onsite learning ...

Captures the complexity, avoiding simplicity.

Recognises that situations are high stakes, high risk, rapidly changing, with few things that can be controlled, many things are unknown and multiple goals might conflict.

Understands that decisions involve trade-offs and have to be made quickly.

The format

The format of this on-site learning program has a well-established history. It is a tool used in the USA Wildfire Lessons Learnt program under the name of the “Staff Ride”. It has three stages:

1. **Orientation and preparation** – Each participant will be given a *time-line and narrative* of the fire incident to familiarise themselves with prior to the on-site ride. On the day of the field trip there will be an introduction to the field trip and the processes we will use, including an overview of the incident.
2. **Field Trip** – We will visit the site and hear stories of key people involved, reflecting on what is emerging. The focus on the incident will be between the start of the fire on Thursday 3rd January and Friday 4th January when the fire swept through Dunalley and surrounds.
3. **Integration** – We are enabling two opportunities for integration – dinner after the ride to share insights and questions with others, and listen to a talk on human factors. The following morning there will be an opportunity to make further sense of the experience, draw out key themes and then workshop what learning the organisation might be able to take away.



Sensitivity – non-blame

The participants in the original incident are keen to share their experiences and thinking processes at the time so others can understand the challenges and dilemmas they faced, helping to build greater anticipation of what is needed for future events. *“In 30 years experience of bushfire I have now 1 day experience of catastrophic bushfire conditions. We need to learn from this. It is very different to normal operating conditions.”* However, for these people the situation is still very raw and each time they tell their story it brings up strong memories. In hindsight, there may be things they might now do differently but at the time they were dealing with non-normal situations where we expect decision making to be effected by “human factors.” It is critically important that the participants feel that they can share their stories within a non-blame and thoughtfully inquiring environment.

Revisiting the scene of a major incident may cause a re-living of your own experiences that may evoke strong emotions. TFS have counsellors that are available for consultation.

What to bring

Writing materials, time-line and narrative sequence, casual clothes and wet weather gear if raining.

Preparation

1. Where were you on January 3rd and Friday 4th?
2. Read the time-line and narrative sequence. What are key things that stand-out for you?
3. What do you want to hear about?

Where:

TFS, Cambridge

When:

Tuesday 9th July

10:30 for 10:50am start.

Lunch.

12:30 pm Coach trip.

Dinner.

Finish at 8:30/9:00pm

Wednesday 10th July -

9 am start.

Lunch.

1:30pm finish.

From: Christine Owen
Sent: Friday, 28 June 2013 10:36 AM
To: Jeremy Smith; Helen Lynch
Subject: FW: dunalley materials

Dear Jeremy and Helen,

Please find attached the proposed wording for your email to participants- feel free to ignore or change whatever!

I've also updated the survey link- can you check it works for you?

All the attachments need to be emailed.

Could you please also print about 10 copies of the Dunalley Fire Sequence (colour) so that Sue and the guys can refer to if needed?

Dr Christine Owen

Bushfire CRC Project Leader: Organising for Effective Incident Management

Faculty of Education

Email: Christine.Owen@utas.edu.au | Tel: +61 3 6226 2555 | Fax: +61 3 6226 7839

Web: <http://www.utas.edu.au/educ>

Mail: University of Tasmania, Private Bag 66, HOBART, TAS 7001

Congratulations on securing a place at the upcoming Onsite Learning Field Ride. This is an opportunity to learn first-hand from those involved in the Inala Road fire and who faced catastrophic fire weather conditions. This Field Ride aims to capture lessons learned for managing fire events such as these in Tasmania. I attach a program and some introductory material on the processes to be used during the Field Ride.

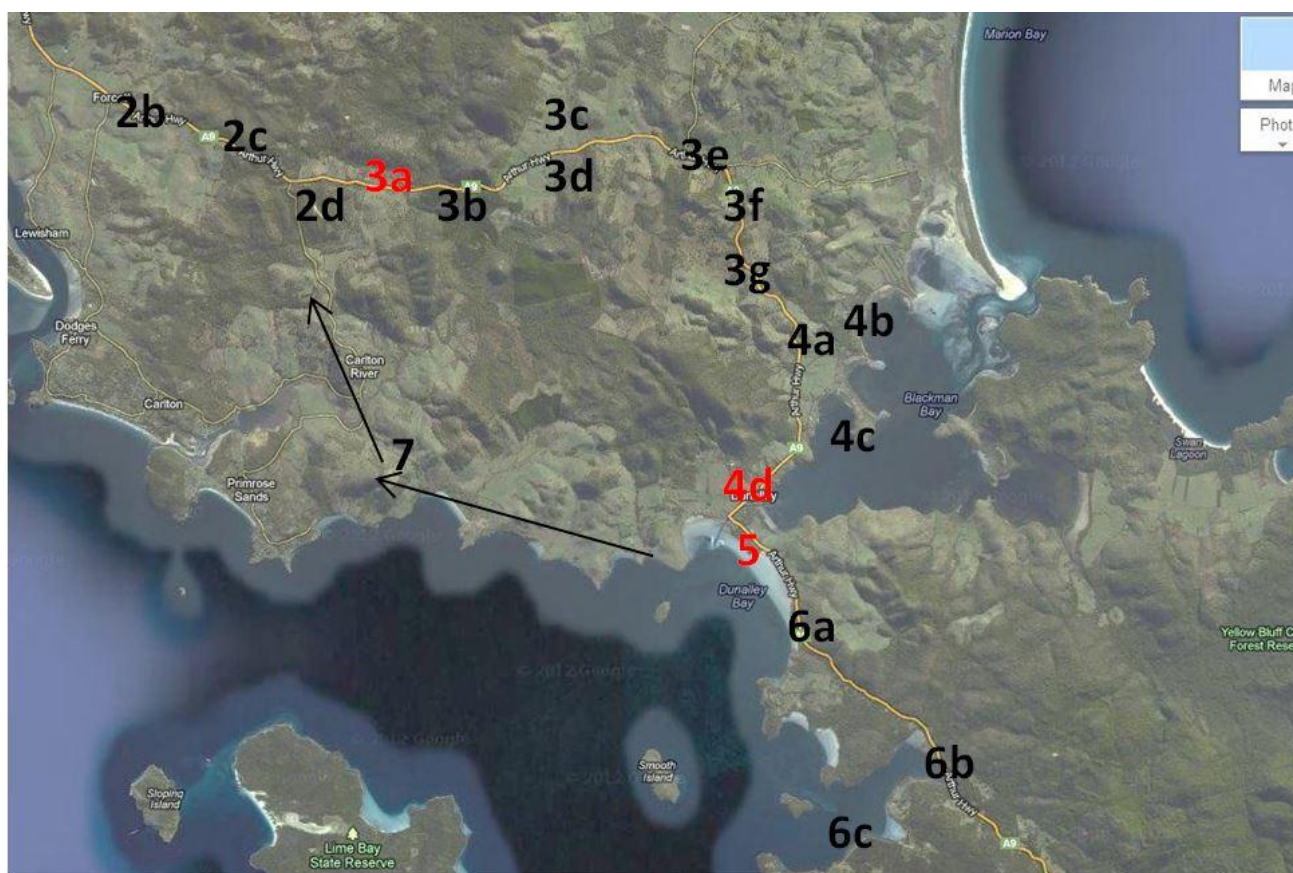
To ensure the best outcomes for the event, agreement to participate requires you to commit to the following:

1. Reading the pre-reading fire sequence narrative (attached). This is a narrative compiled in consultation with the key fire-ground participants and prepared by Dr Sue Stack, Bushfire Co-operative Research Centre. This should take you approximately 30-60 minutes.
2. Complete the preparatory survey by clicking on the link below. This survey has been designed to assist you to prepare for the event. This survey has been designed by Dr Christine Owen and Dr Sue Stack to assess the effectiveness of these kinds of learning events. This should take approximately 5-10 minutes of your time.
3. Participate in the event which includes the full program (attached) including dinner on night one.
4. Complete a post- field ride survey which will also take approximately 5-10 minutes.

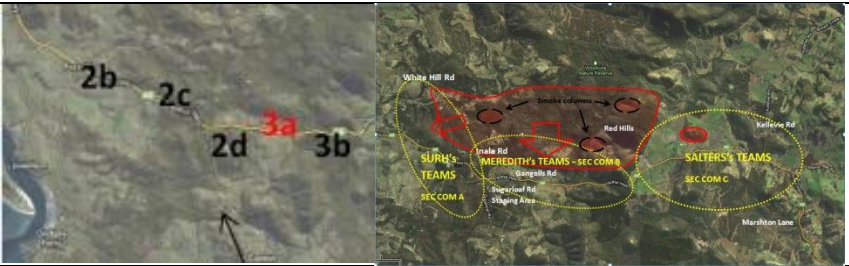
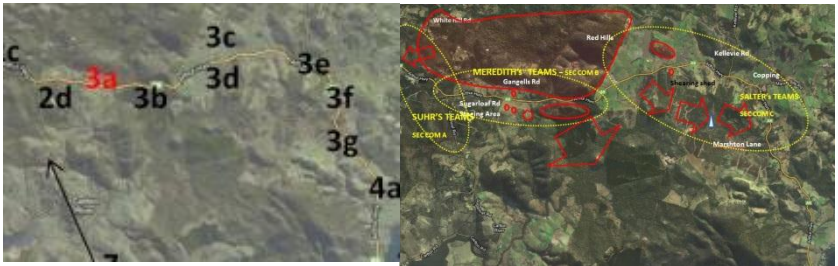
Failure to properly prepare and participate will severely limit your learning and the capacity of your organisation to learn and prepare for future events. If you cannot commit to full participation, or if you are unable to attend please advise [insert here email address] so that your place may be offered to someone on the reserve list.


Dress code: is neat casual. There will be some on-site walking so be prepared for inclement conditions.


On site Learning Field Trip – Inala Rd Fire

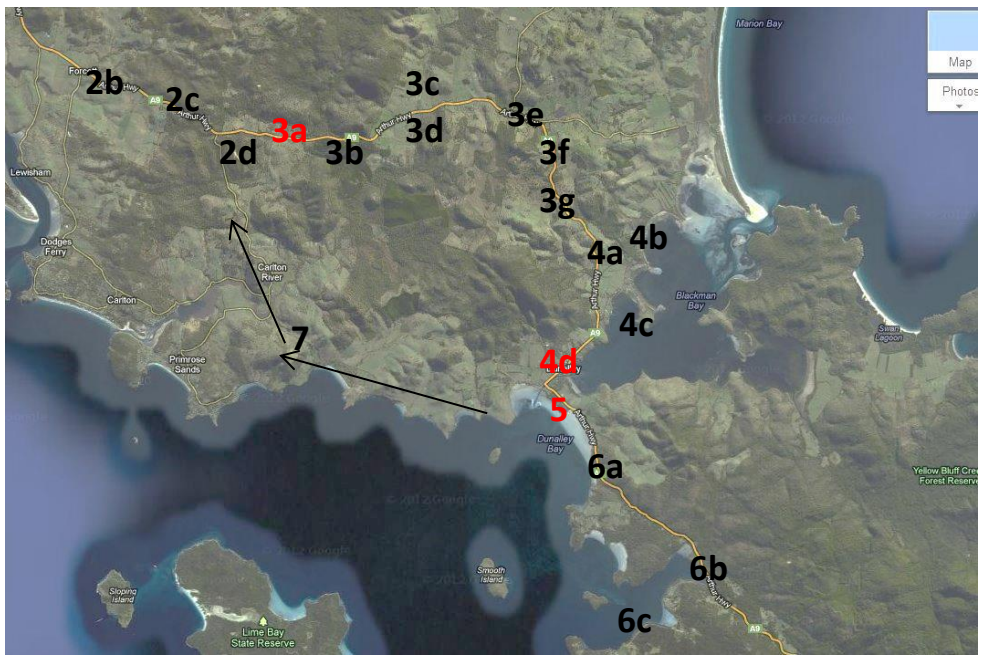


Approx Time	Map	Location	Time of incident and themes	Speakers
11:20am	1	Cambridge Main room SETTING SCENE	<p>Introduction of team Overview of fire with key transition points as per narrative sequence</p> <p>Thursday pm (introduced here) What people were seeing, thinking – Adam Hall as Incident controller Marcus – view from helicopter Andrew – coming onto scene Andrew explaining why not possible to fight fire directly, nor put in backburns. Importance of establishing the team, local knowledge and relationships with police.</p>	<p>Andrew Skelly</p> <p>Adam Hall Marcus Skelly Andrew Skelly</p>
12:00 over lunch		Cambridge 4 Break out rooms – GROUPS	<p>Group Discussion: <i>Introductions,</i> <i>Where were you at the time (3rd/4th Jan)?</i> <i>What were you anticipating?</i> <i>What has stood out for you with your reading of the narrative of the event?</i> <i>What questions do you have?</i></p>	<p>Facilitators: Christine, Sandy, Steve, Jan</p>

STAND 2 – FRIDAY MORNING – fire above Arthur Hwy Anticipation				
12:30 pm	(2a)	Leave Cambridge IN COACH While Touring	Friday morning briefing – what was in the briefing to different people. Weather forecast. Anticipation. Where expecting fire to go. Preparing the crews.	Andrew Skelly, Adam Meredith Marcus Skelly Mark Suhr
12:50	2b	White Hills Rd	Point to origin of fire. Part of sector A. Structure protection. Conditions.	Adam Hall
	2c	Inala Rd	Point to where structure protection happening.	Mark Suhr
1.00 – 1:05	2d	Sugarloaf Rd junction STOP. IN Coach.	Staging area – discuss crews coming in and crew management. Taking leaders up in helicopter for reconnaissance Part of Sector A. Then point to where sector B starting.	Adam Hall
STAND 3 – FRIDAY 1pm – key transition point. Describe before and after.				
1:10 – 1:55	3a	GANGELLS RD OUT of COACH – speakers then GROUPS.	BEFORE 1pm Friday Look at landscape. Describe conditions. Couldn't fight fire. Controlling the spotting. Warnings and structure protection. Number of appliances working on houses. Pulled out. Impact on people. Waiting until fire came to us. Seeking road closure. House with woodpile and wouldn't leave. What it looked like from air. AFTER 1pm Spotting across the road into paddocks and plantation, locked gates. What conditions were like. What were indicators it was different. Working on the knoll. Grazed paddocks alight, water from helicopter steaming before hitting. Marcus – observing fire on house thinking people had died.	Andrew Skelly, Adam Meredith Marcus Skelly Kev Daley <i>Allow 15 minutes for speakers and 5 minutes for questions</i>

			Group discussion: <i>What are you noticing? How is this different to normal? What would you be thinking, doing, seeking more info? How would you be thinking about the priorities? What is standing out for you?</i>	Groups - 15 minutes
1:55	3b	Through Red Hill area Touring	POINT to Plantations on the right Point to the red hills on the left Red hill paddock line	Andrew Skelly
	3c	Knoll area	Point to where spotting occurred Thursday evening and continued on Friday.	Andrew Skelly
	3d	Shearing shed	Point to shearing shed and explain choices.	Kev Daley
	3e	Copping	Wanting to put in a backburn to protect the town	Kev Daley
	3f	Towards Marshston Lane	Repeater station failing. Powerlines down. Lost communication. Fire in crowns not touching paddocks. Householder not willing.	?Andrew?
	3g	Past Marshston lane	Helicopter intel ASKelly reconnaissance of fire as beginning to move fast. Talked to Adam Salter and then Adam Meredith – bringing crews into Dunalley, meet at fire station and then crews departed to work where the front was first coming through – Boomer Bay end. Bringing northern crews through – what were the conditions - Adam Hall	Marcus Skelly Andrew Skelly Adam Hall (quick soundbites)
STAND 4 – Friday 3 – 4:00 pm fire fronts into Dunalley, Boomer Bay and Potters Croft COPING UGLY, GAME CHANGING				
2:10	4a	Junction of Arthur Hwy and Boomer Bay	Point - Burn over reported in paddock	Adam Meredith
2:15 – 2:22	4b	Boomer Bay STOP In coach	Driving through fire front, tackling houses, people on jetty, later ambulance helicopter – focussed on saving houses.	Kev Daley
2:25 – 2:35	4c	Potters Croft STOP In coach	Wanting to protect houses first in line of fire. Fast. Told man to get out. Picture of grandmother under jetty. Radiant heat. Lost contact over radio.	Brad Westcott
2:40 – 3:50	4d	Dunalley – drive around past football oval – Stop at Fire station.	Fire entering Dunalley area. Evacuation, police, safer places? Briefing at fire station interrupted by spotting on oval Bringing in new crews - preparedness.	Andrew Skelly to whole group <i>Speakers assigned to different groups</i>

	6b	Murdunna shop IN COACH	Structure protection of shop	Adam Meredith
4:20 - 4:30	6c	Murdunna, Jetty IN COACH Stopped Go via Summer Bay Bridge	Spotting over the bay Evacuation and unpreparedness of residents. Important assets. Too little resources. Limited effectiveness. Fatigue, food, communications. Thinking ahead – where is fire going next?	Adam Meredith
FRIDAY 4:20pm onwards – western flank				
4:30 – 5:25	7	Drive back to venue via Connelly's Marsh and Sugar Loaf Rd <i>Or back by main road</i> IN COACH	Meanwhile - what is happening on the flanks. Connelly's Marsh, Primrose, Carlton, Dodges Ferry. Flank fire acts as fire front. View from the air. Suhr movement to Primrose and trapped there Claudio deciding not to evacuate Primrose, picking up crews to work in Carlton area. Hall going back for food and is stuck on way back. <i>Quiet reflection – you will be asked to share an insight with your group when you get back at the venue.</i>	Claudio Muench, Mark Suhr Adam Hall Marcus Skelly
5:40 – 6:10		Cambridge Groups Drinks, nibbles BREAK OUT ROOMS	<i>Q. What is one key insight that you can share with the group? Quiet reflection and writing more ideas on sticky notes, put on butchers paper.</i> <i>Discussion.</i>	
6:10		Main room	PANEL – all original participants – what did we learn, challenges, aftermath? Questions from the audience.	everyone
6:45 – 8:10		Dinner	<i>Opportunity to add ideas/insights/questions.</i>	



Facilitator Guide – Inala Rd Fire

Group 1: 12:10 – 12:25 Tuesday - in break out room – *setting the scene*

Get lunch and bring back to room. Have to board bus at 12:30 so need to give time for loo break.

What they will have heard:

- Overview of the 3rd and 4th,
- What was happening on Thursday 3rd.

Questions for the group:

- *Where were you at the time (3rd/4th Jan)? What were you anticipating on those days?*
- *What has stood out for you with your reading of the narrative of the event?*
- *What questions do you have?*

Objectives:

For the group to meet each other and introduce themselves

To ground themselves in the event through recalling their own experience.

To recall the narrative pre-reading and share some of their thoughts.



Remind them to use pocket book to capture insights

**Group 2: 1:35pm - Gangell's Rd (15 mins) –
key transition point , shifting priorities**

After listening to presentations in whole group call your group over and walk down Gangells road to an isolated spot for discussion. When finished - 1:50 pm -walk to bus at end of road.

What they will have heard/seen:

- The key transition point when things went from normal to catastrophic – key time was 1 pm when things changed
- The difficulty of the terrain to get a picture of what was happening

Questions for the group:

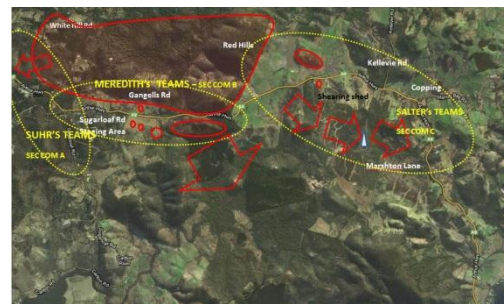
- *What are you noticing? What is standing out for you?*
- *How is this different to normal?*
- *What would you be thinking, doing, seeking more info?*
- *How would you be thinking about the priorities*

Objectives:

To understand the nature of conditions as the shift in weather occurred.

To understand the difficulty on the fire ground to shift thinking. What do the priorities mean for the people on the fire ground?

To start thinking about what were the signals that things were shifting.



Be alert to hindsight bias and judgemental comments – if heard consider:

- *“is that because you’re able to look back with 20/20 hindsight”?*
- seek alternative perspectives

Group 3: 2:55 to 3:50pm – Dunalley Fire station to Waterfront Café to Pub—*game changing conditions, coping ugly*

After afternoon tea collect your group and the fire ground speakers to walk down to the Waterfront Café. Invite your speaker to stop at relevant points and tell a story of what was happening for them.

Prompts to speakers: what did they face, what were they feeling and thinking, what were they doing?

NOTE: the school which burned down and the hall. At the waterfront Café get them to talk about the people on jetties and boats. Swap over your speakers. Continue to the pub.

Allow 25 minutes for walking and 30 minutes for stopping. It will take 15 minutes to get from waterfront café to pub.

If raining we will do walk to café then pick up people in coach there.

Optional if things go quiet: For those speakers who were not in Dunalley you could ask them what they were doing/facing at the time- and if they had any sense of what was happening here; whether that might have changed their perspective.

What will the participants hear – what you might need to encourage:

- Accounts of what was happening as fire ground people arrived in Dunalley between 3–4 pm Friday 4th prior to the initial fire front – evacuations, people not leaving (some in denial), triage of people, safer places, fight structure fires, conditions, problems with communications, thinking crews dead, people on jetties and on boats, preparedness of new crews.
- Accounts of what was happening after the initial fire front went through – people still in houses, have to stay to protect people, fight structure fires, repeating ignitions, triage houses, breathing masks in fire station, extreme fatigue, how many houses saved versus lost, school burning down despite patrols, change in risk environment, crew safety.

Objectives:

To get a sense of the scale, complexity, challenges and reflect on how they are different to normal.

To begin to see some of the vulnerabilities in operating systems and procedures.

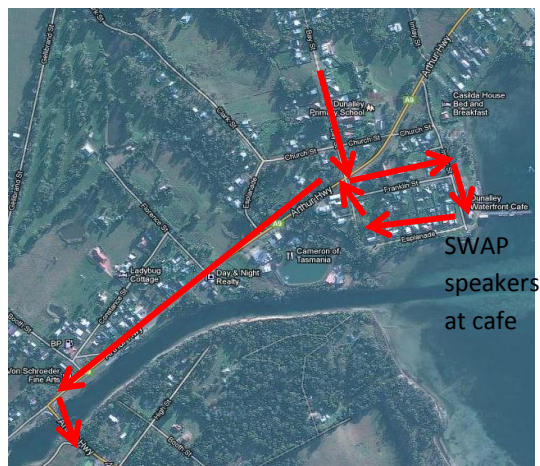
To get a sense of how people on the fireground were adapting.

To have the opportunity for more intimate conversation along the way.



Possible Questions:

- *What would you like to know more about?*
- *What are you noticing?*
- *What is game changing about this?*
- *What would you be thinking or doing in this situation?*
- *Where are priorities?*
- *What are important decisions?*



Group 4: 4:00pm (10 minutes)– Dunalley pub - *being strategic*

After the whole group listens to the speakers call your group aside for a brief discussion.

What they will hear:

Some of the decisions that were intentionally made, why and the challenges. (eg. Retreat to pub, moving in front of fire front, DIV COM choosing to stay in Dunalley, school not being continuously protected, choosing safe place for evacuation.)

Possible questions:

- *What are you noticing?*
- *How is this different to normal?*
- *What strategies/tactics were important? What else might have happened that could have changed the game?*
- *What were challenges and distractions?*

Objectives:

To understand some of the strategic decisions that were made and those that could have been made.

To reflect upon what might be strategic at this point.



Group 5: 5:40 pm (30 minutes)– Venue – *reflections and insights*

People should have drinks and make sure you have grabbed nibbles for your group if any left.

*Give people some quiet reflection time to look at their notes/pocket book and begin to draw out some insights that they put on **sticky notes**. Suggest they go over their notes and circle/highlight anything now that stands out for them. Refer them to the key questions and themes on the pocket book to jog thinking.*

Ask them to choose a key “Inala Rd moment” to share with the group, no discussion, as everyone has a turn.

Objectives:

To help people begin to integrate what they have heard

To capture tentative insights so far - put into themes

To sustain an open, reflective stance willing to see from alternative perspectives

How are people making sense of it all? What questions do they have?

Open up for discussion, encouraging people to be open and reflective, to consider things from new perspectives, to ask speculative questions, consider assumptions, begin to think about implications. Invite people to capture insights throughout the discussion.

Organising themes – What themes are emerging? Start to organise sticky notes into themes on butchers paper.

Move to plenary – have spare sticky notes handy for them to write more insights during the plenary session which will be a panel.

Bring butchers paper with themes and sticky notes into plenary.

[illegible]

A map of the Blue Hills area, showing various locations and team territories. The map includes labels for 'MENCH' (blue dashed line), 'SALTER'S TEAMS SEC COM C' (yellow dashed line), 'SURREY'S TEAMS SEC COM C' (yellow dashed line), 'SKELLY (DIV COM) - SOME OF MEREDITH'S TEAMS' (yellow dashed line), and 'MEREDITH + 2 crews' (red solid line). Other labels include 'Parson', 'Amherst', 'Craig Hill Rd', 'Boomer Bay', 'Macdonald Bay', 'Blue Hills', 'Connelly's Marsh', 'Dumfries Bay', 'Manion Bay', 'Joseph's Rd', 'Carlton River Bridge', 'Dodd's Ferry', 'Carton River', 'Cassidy', and 'Dunsmuir'. The map shows a network of roads and a river, with the Blue Hills area being a central focus.

[illegible]

- What are you noticing?
- How is this fire different to normal conditions?
- What is working well?
- What current practice and systems are vulnerable in these conditions?

- **Intent:** To capture lessons that can be learned from catastrophic fire weather conditions to strengthen capability for future events.
- **Rules of Engagement:**
 - To learn from walking in the shoes of the people who were there—*what did they face, what were they experiencing and thinking?*
 - Imagine how you would be acting and thinking.
 - Avoid falling into the trap of 20/20 hindsight bias and judgement .

Inala Rd Fire

White Hill Rd

Woodburn Nature Reserve

Private dozer puts in line to protect plantation

Kellevie Rd

Salter's crews

Spotting

SUHR's crews

Gangells Rd

Structure Protection

Inala Rd

Lightning strike

Main fire

White Hill Rd

Woodluna Nature Reserve

Smoke columns

Red Hills

Inala Rd

Gangells Rd

SURH's TEAMS

SEC COM A

SEC COM B

SUGARLOAF RD STAGING AREA

Kellewie Rd

SALTERS'S TEAMS

SEC COM C

Marshton Lane

The aerial map displays the following features:

- Meredith's Teams - SEC COM B**: Yellow outline covering the central and upper right portions.
- Suhr's Teams - SEC COM A**: Red outline covering the left and lower central portions.
- Salter's Teams - SEC COM C**: Green outline covering the right portion.
- Geographical Labels**: White Hall Rd, Red Hills, Kellevie Rd, Gangells Rd, Sugarloaf Rd, Shearing shed, Coppington, Marston Lane, Galloway Hwy, Main St, Carleton Place, Carleton River, and Carleton Rd.
- Other Features**: A blue triangle marker near Marston Lane, several small red circles, and a large black rectangular area in the center.

[illegible]



Onsite learning field ride (Dunalley)

Dr Christine Owen

Australasian Bushfire CRC Project Leader, Hobart

Dr Sue Stack

Australasian Bushfire CRC, Hobart

Military training

- Revisit the sites of battles

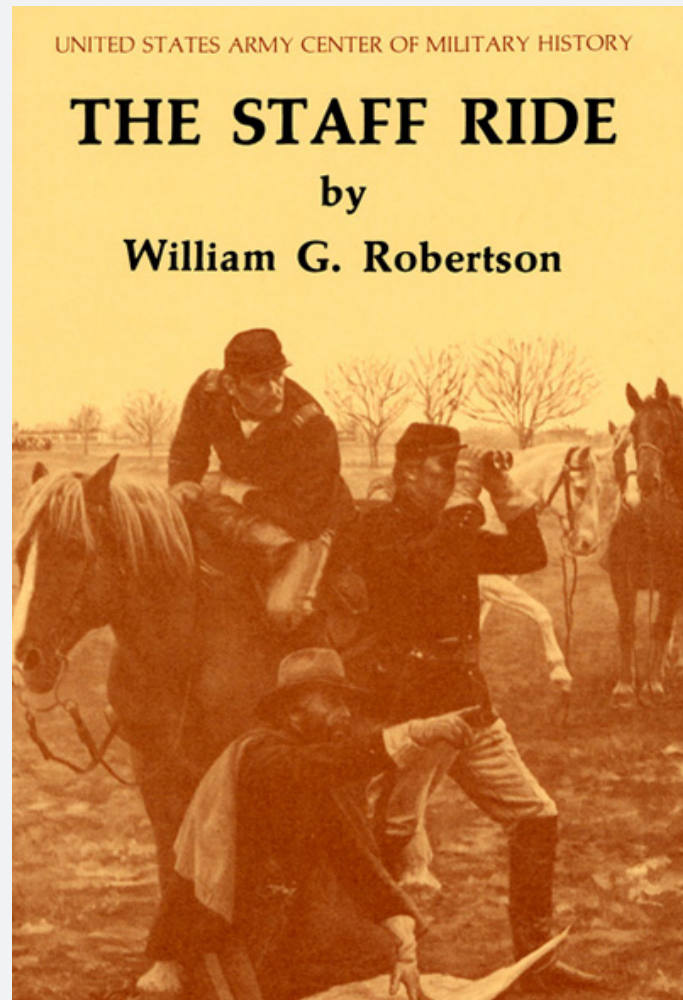


THE STAFF OR FIELD RIDE

- differs from a guided battlefield tour:
- Educational purpose
 - study leadership,
 - decisions taken and
 - whether alternatives could have been employed,
- requires active participation, to [see] the view on what occurred in the battlefield



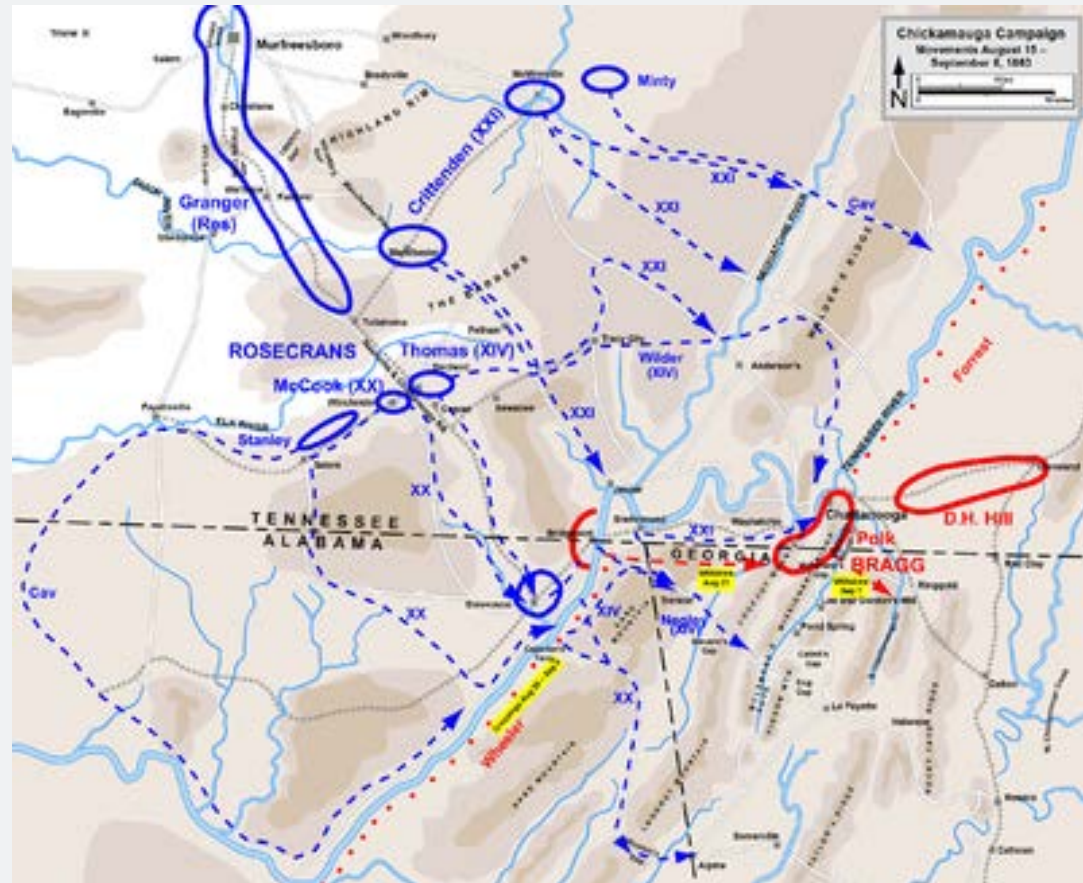
WHAT IS AN ON-SITE LEARNING FIELD RIDE?



ON SITE LEARNING FIELD RIDES

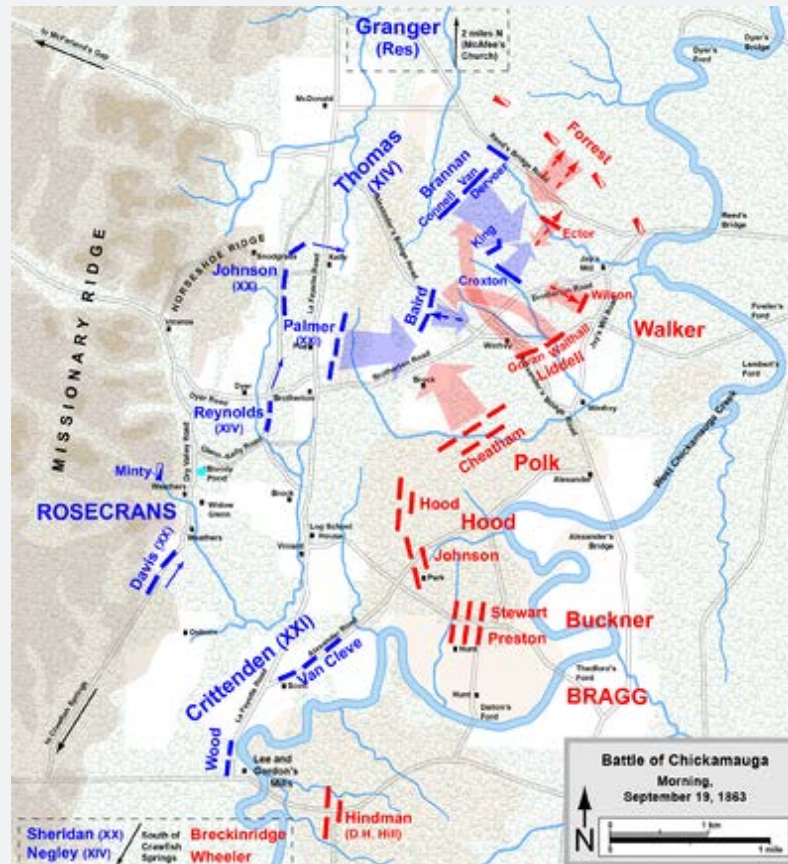
To walk in the
shoes of
participants

Push past just
“what
happened”



ON SITE LEARNING FIELD RIDES

Examine deeper questions of human factors and decision-making and leadership



RECENT FIELD RIDES IN THE US: CENTRE FOR WILDFIRE LESSONS LEARNED



Purpose: To capture lessons learned by

- Avoiding over simplification
- 20/20 hindsight bias and easy judgement

- Better understand first hand experiences
- Looking for weak signals of potential failure
- Capturing and learning from the near miss



Nearly failure free performance

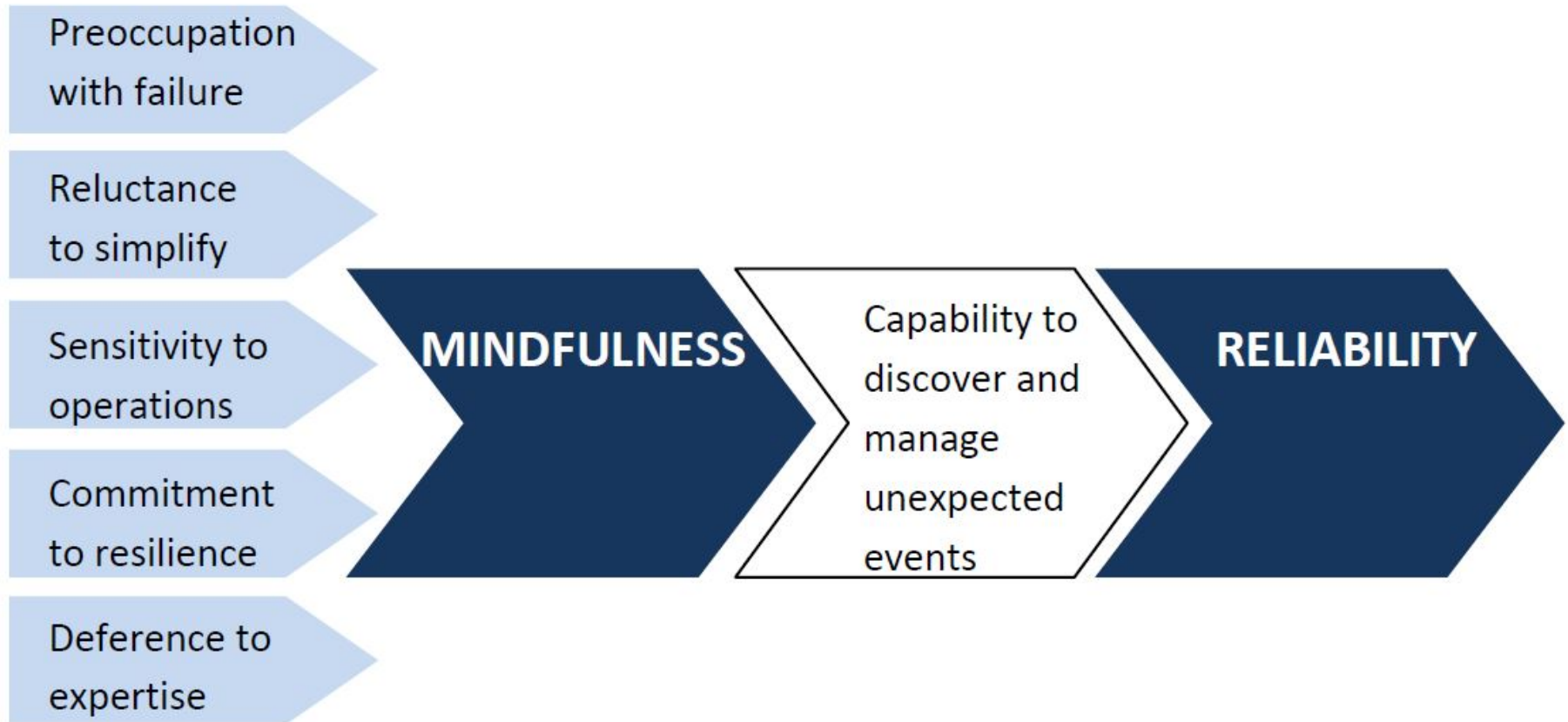
- Identify specifics that will unbalance normal operations
- Look for early warning signs of thing going wrong
- Develop broader capabilities for recovery

Nearly failure free performance

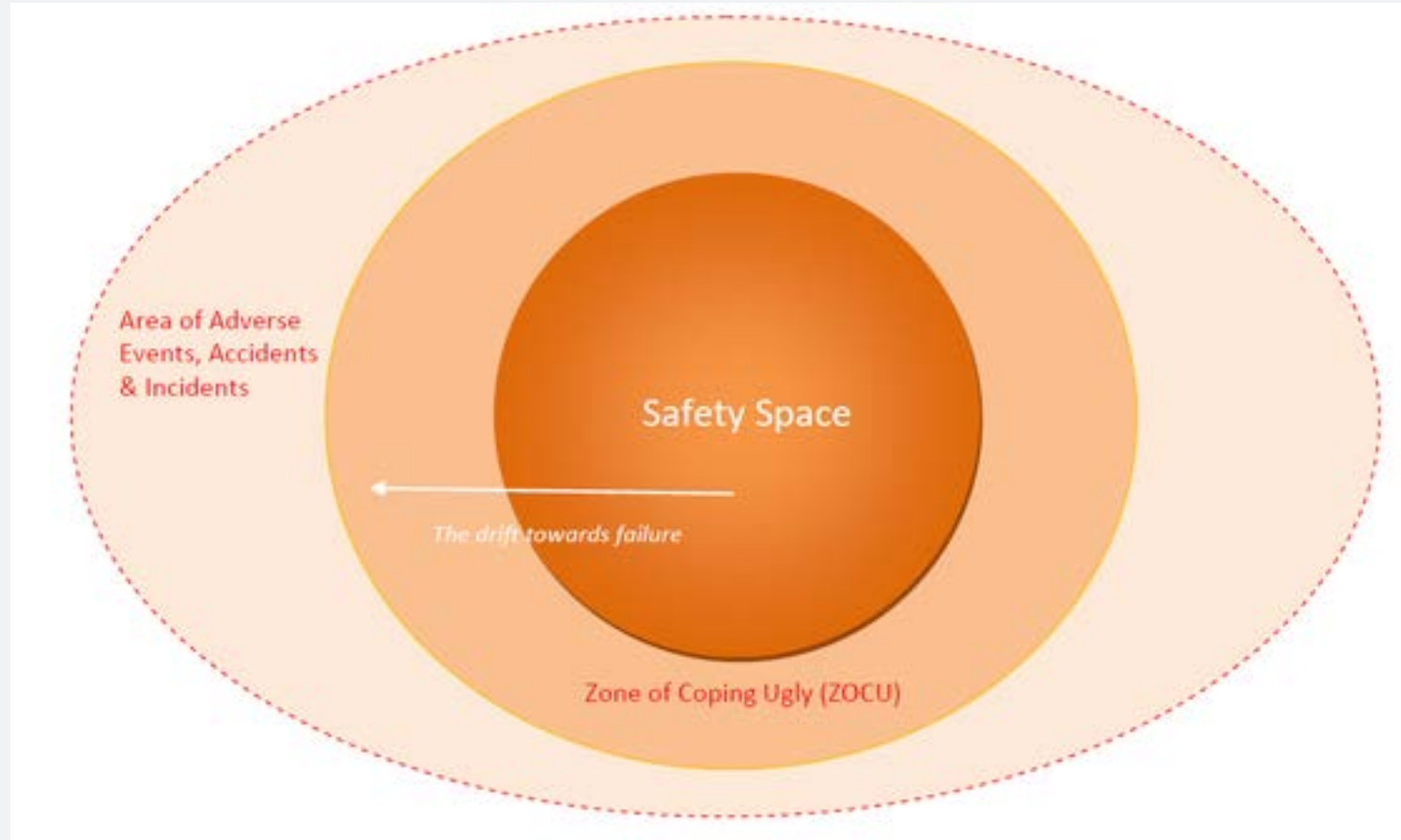
- Identify specifics that will unbalance normal operations
- Look for early warning signs of thing going wrong
- Develop broader capabilities for recovery

Sense-making

HIGH RELIABILITY PRINCIPLES



ZONE OF 'COPING UGLY'



Ben Brooks,
Bushfire CRC

1. Tasmanian Parks and Wildlife Service - Narawntapu
2. DSE/CFA - Cobaw

3 phases-

- Orientation
- Field ride
- integration



Walking in someone else's shoes can be initially difficult

From

to

"I **wouldn't** have done that"

"they **shouldn't** have..."

"why did they do that?"

"why wasn't xx doing xx?"

Judgement

Sense-making

Testing assumptions

Walking in someone else's shoes can be initially difficult

From

to

"I wouldn't have done that"

"Was that hindsight bias?"

"they shouldn't have..."

"I can imagine why ..."

"why did they do that?"

"what assumptions did they make?"

"why wasn't xx doing xx?"

"what does this mean for"

"what patterns are we seeing?"

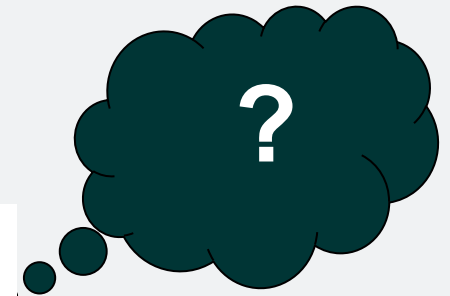
Judgement

Sense-making

Testing assumptions

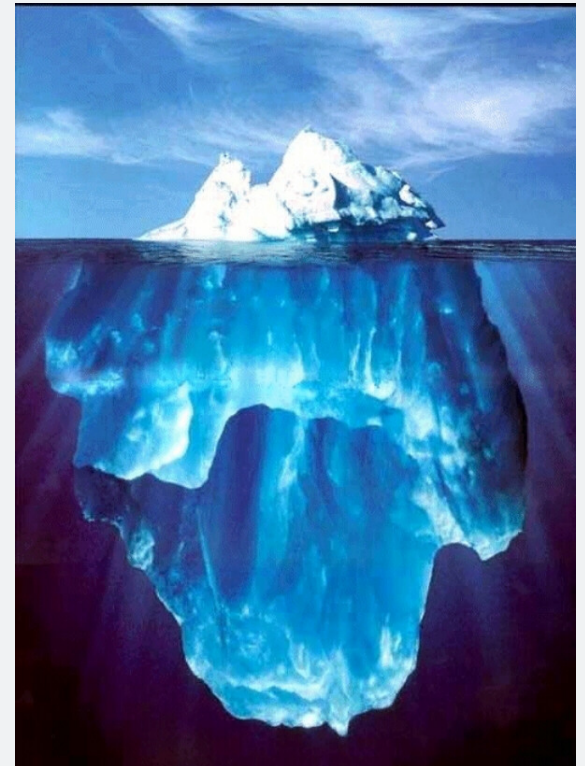
PRACTICING META-COGNITIVE THINKING

1. Awareness of your own thinking
2. How your experience is both a strength and a weakness
3. The impact of emotion stress/fatigue



PRACTICING META-COGNITIVE THINKING

1. Awareness of your own thinking
2. How your experience is both a strength and a weakness
3. The impact of emotion stress/fatigue



SEEING; HEARING AND THINKING

1. Is what you hear really what you hear?
2. Is what you see really what you see?



COLOUR BLINDNESS



EYES WIDE OPEN? (CHANGE BLINDNESS)



THE CHALLENGES OF HEARING

**HOW CAN WE STRENGTHEN
CAPABILITY FOR FUTURE EVENTS?**

BIAS ALERT!!!!!!

- What are you noticing?
- What is working well?
- What current practice and systems are vulnerable in these conditions?

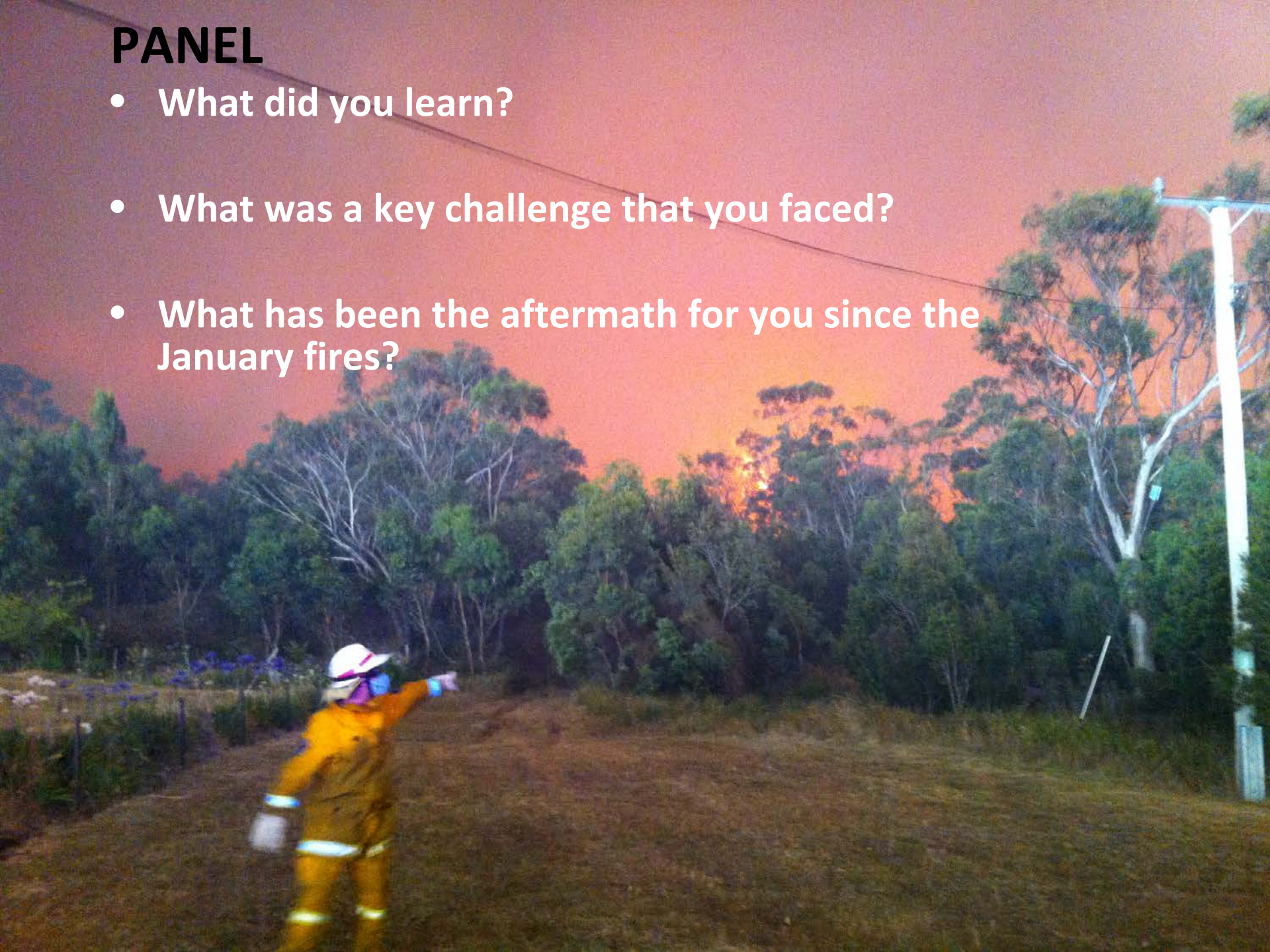
HOW CAN WE STRENGTHEN CAPABILITY FOR FUTURE EVENTS?

- What are you noticing?
- What is working well?
- What current practice and systems are vulnerable in these conditions?



PANEL

- What did you learn?
- What was a key challenge that you faced?
- What has been the aftermath for you since the January fires?



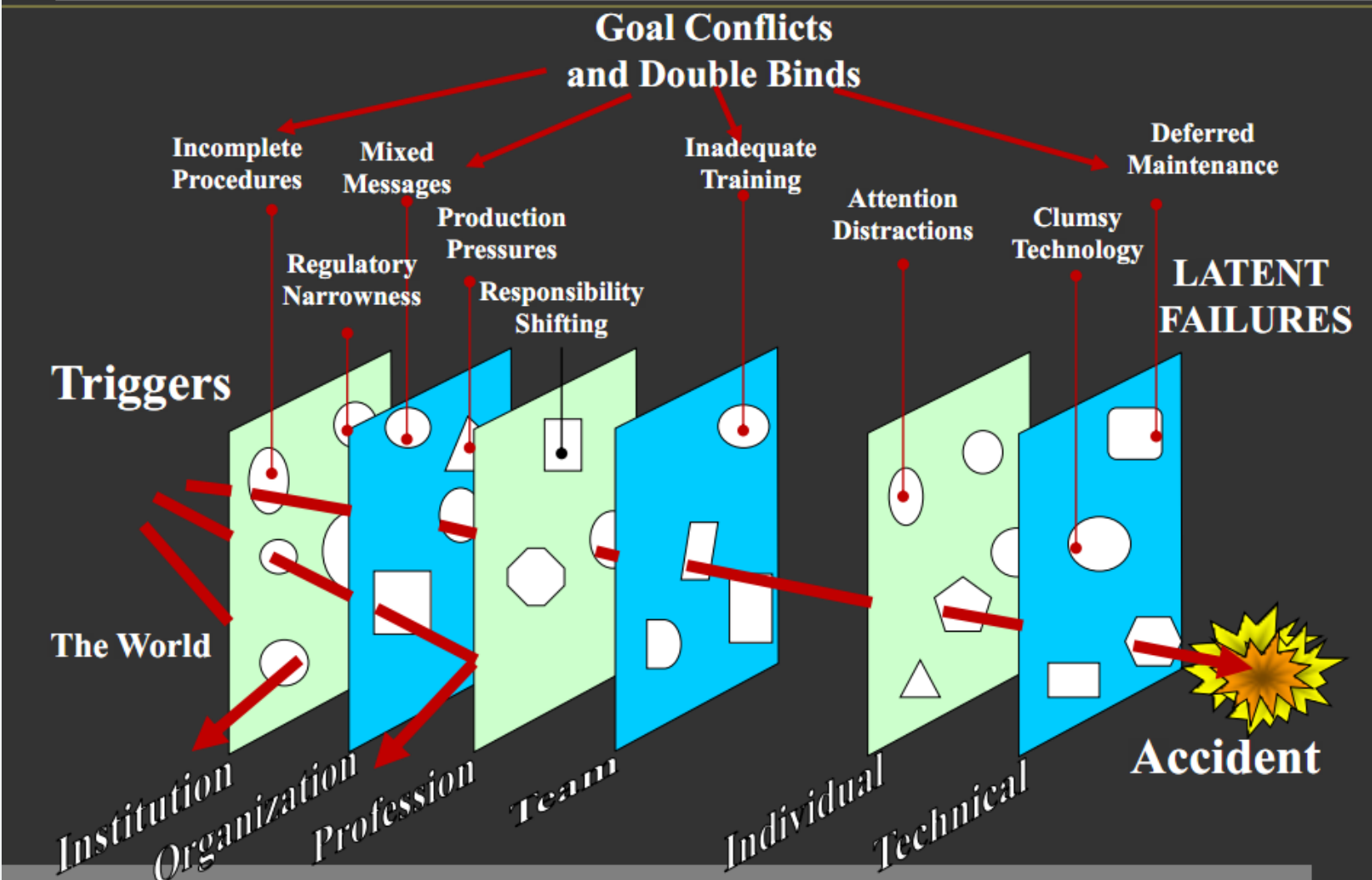
- 1. What words/images do you remember from yesterday?**
- 2. What surprised or worried you?**
- 3. What are the implications of the above for you at work?**

Challenges of managing emergency events



Interpersonal Aspects:
Teams, Groups, and culture

THE “SWISS CHEESE” MODEL OF ORGANISATIONAL FAILURE



House affected

Sufficient resources.

3 - 4 trucks on a house

Warnings, protect people, provide some property protection (backburn if safe or dozer clearing) before fire comes through. Protection of house afterwards by putting out spot fires.

Mindset: *We can achieve our goals. Situation only requires normal procedures.*

Houses affected

Limited resources for situation. Houses on fire difficult to put out.

Start prioritising.

Give warnings ahead of the fire coming through and encourage leaving, protect people who stay, triage properties (consider important assets), escort people to safer area. Protect structures after fire has gone through.

Mental shift - *Leave houses to burn – we can't save everything, can't achieve all the priorities. This is moving out of normal.*

Town affected

Fire behaviour not normal, less time, houses ignite faster, can't be put out.

Evacuation strategy – urgently move people to safer places, triage of people, protect where the most people are, pull out when fire front comes through, keep fire fighters safe during the worst.

When fire passes, check on people who stayed, focus on key assets, triage properties for house to house ignitions.

Mental shift - *Leave behind people who will not leave. Transition from thinking can save the town to minimising impact. The boundary of what is 'safe' changes.*

Town and region affected

Crews spread out, cut off by road blockages and at risk, communication breakdown

Act where can most make a difference and be most in control, think ahead to where the fire is likely to hit, expect to be autonomous, protect people, protect fire trucks/crews.

Mental shift – *Detachment, "People will die", property is not important, focus on trying to save people.*

GROUP DISCUSSIONS ON THEMES

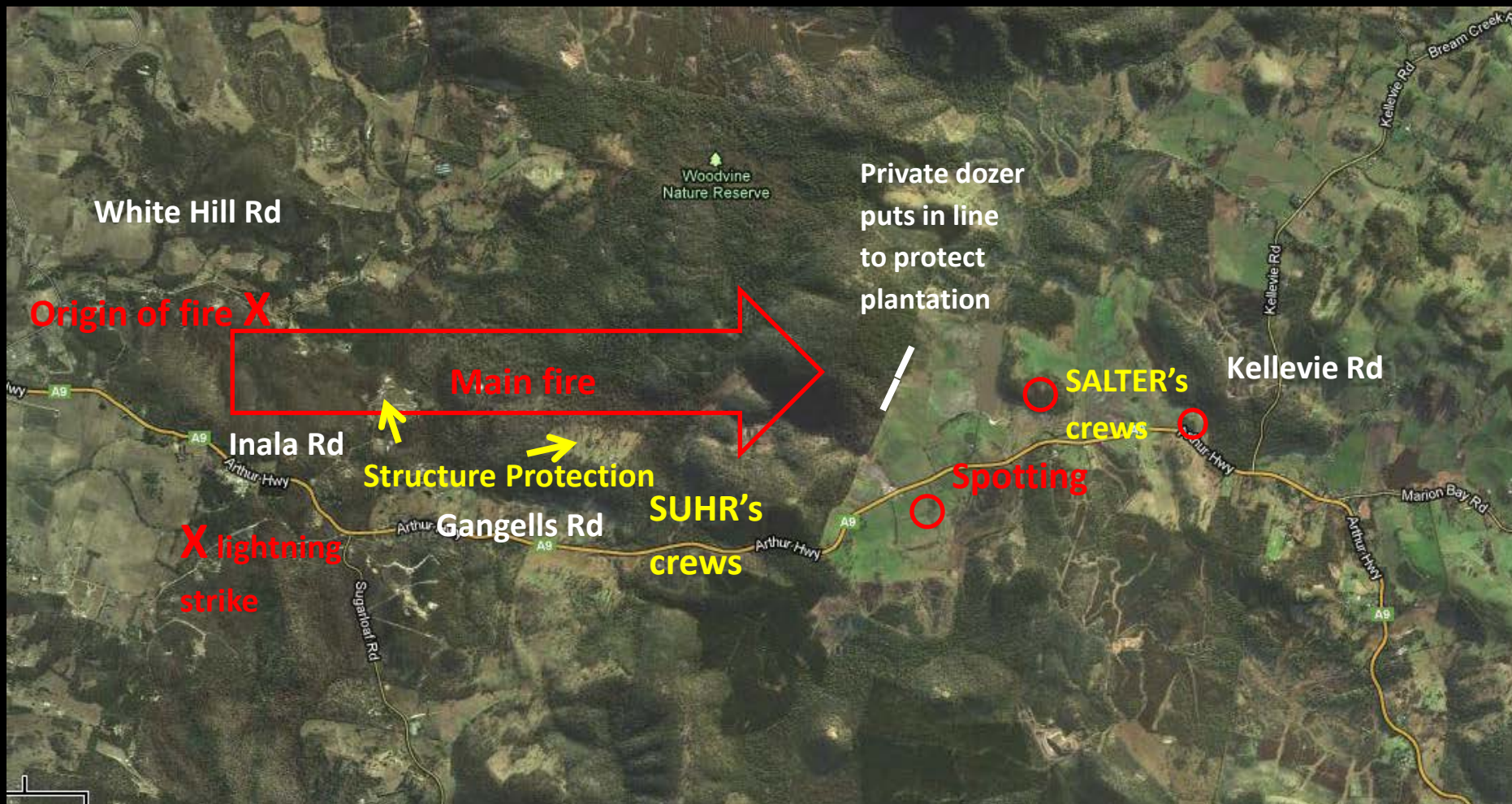
1. Look at the “insights” on this theme.
2. What were things that were done well, where were the vulnerabilities in current practice and systems?
3. What are common assumptions in this area?
(with no discussion write assumptions on the butchers paper and respond to others assumptions)
4. How can we find new ways to frame this issue or question in light of the assumptions? (consider the multiple layers of the Swiss Cheese model.)
5. How can we take this forward? Recommendations back to whole group

Inala Rd Fire Dunalley and surrounds

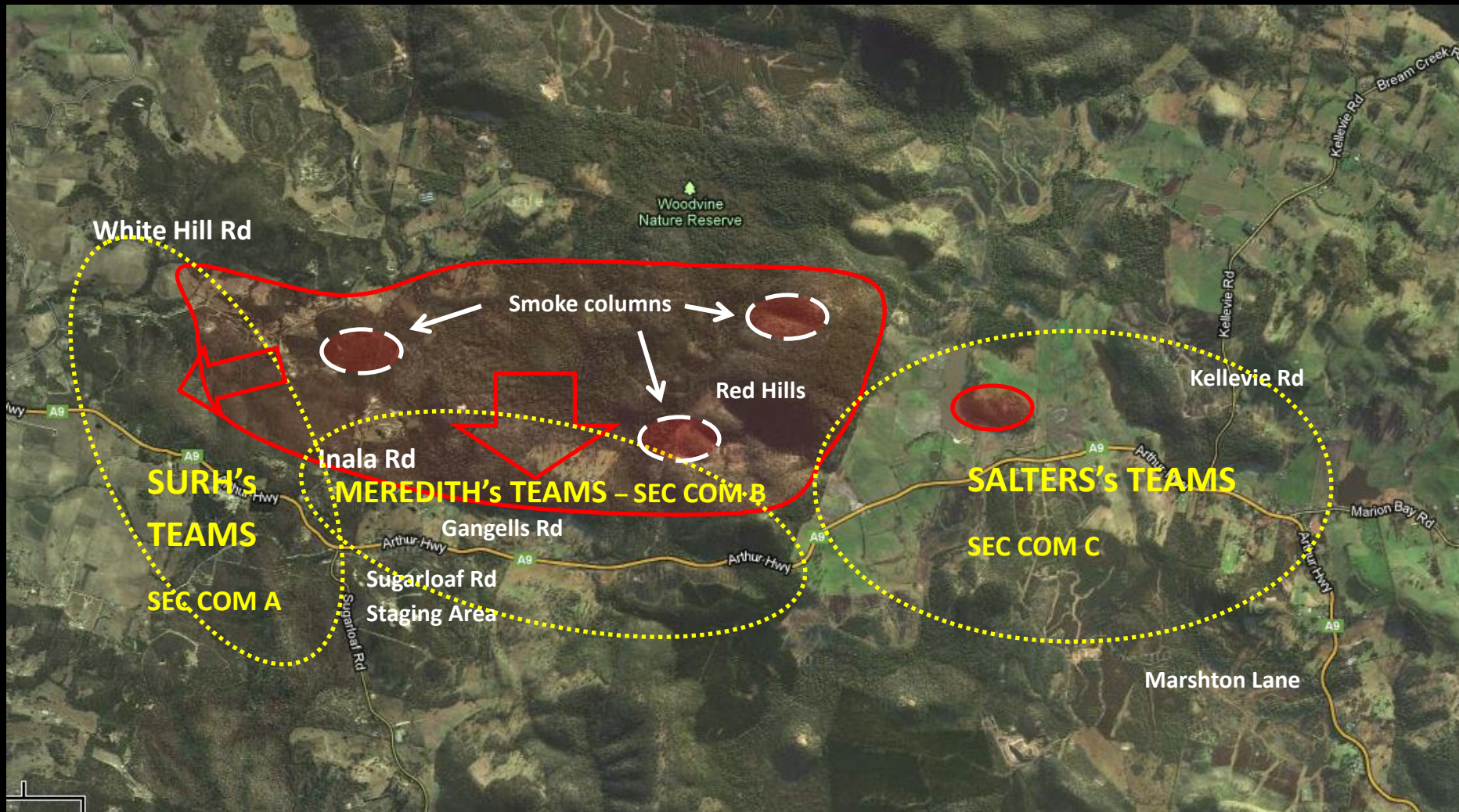
Sequence 3rd and 4th January



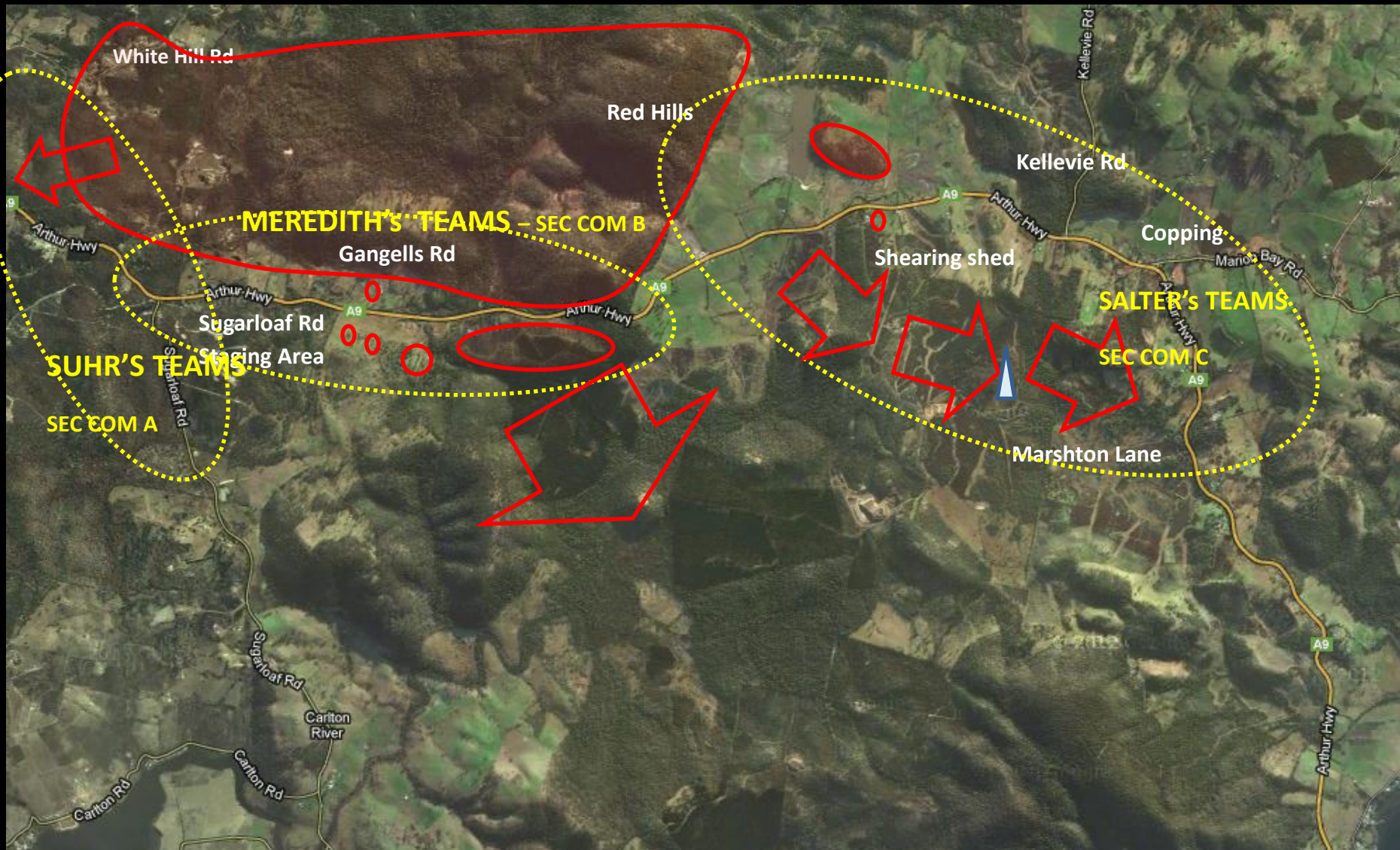
STAGE 1 : Thursday pm – fire moving easterly and spotting



STAGE 2 : Friday morning – fire moving south towards Arthur Hwy, spotting



STAGE 3 - Friday 1 – 2:50pm – Fire spots over Arthur Hwy and takes off through paddocks and plantations



STAGE 4 - Friday 3pm – Fire heading into Dunalley, Boomer Bay and Connelly's Marsh



STAGE 5 - Friday 4pm – multiple fire fronts come through Dunalley, Boomer Bay and Connelly's Marsh



STAGE 6 - Friday 4:20 onwards – fire front into Murdunna



STAGE 7 - Friday 4:20 onwards – the flanks



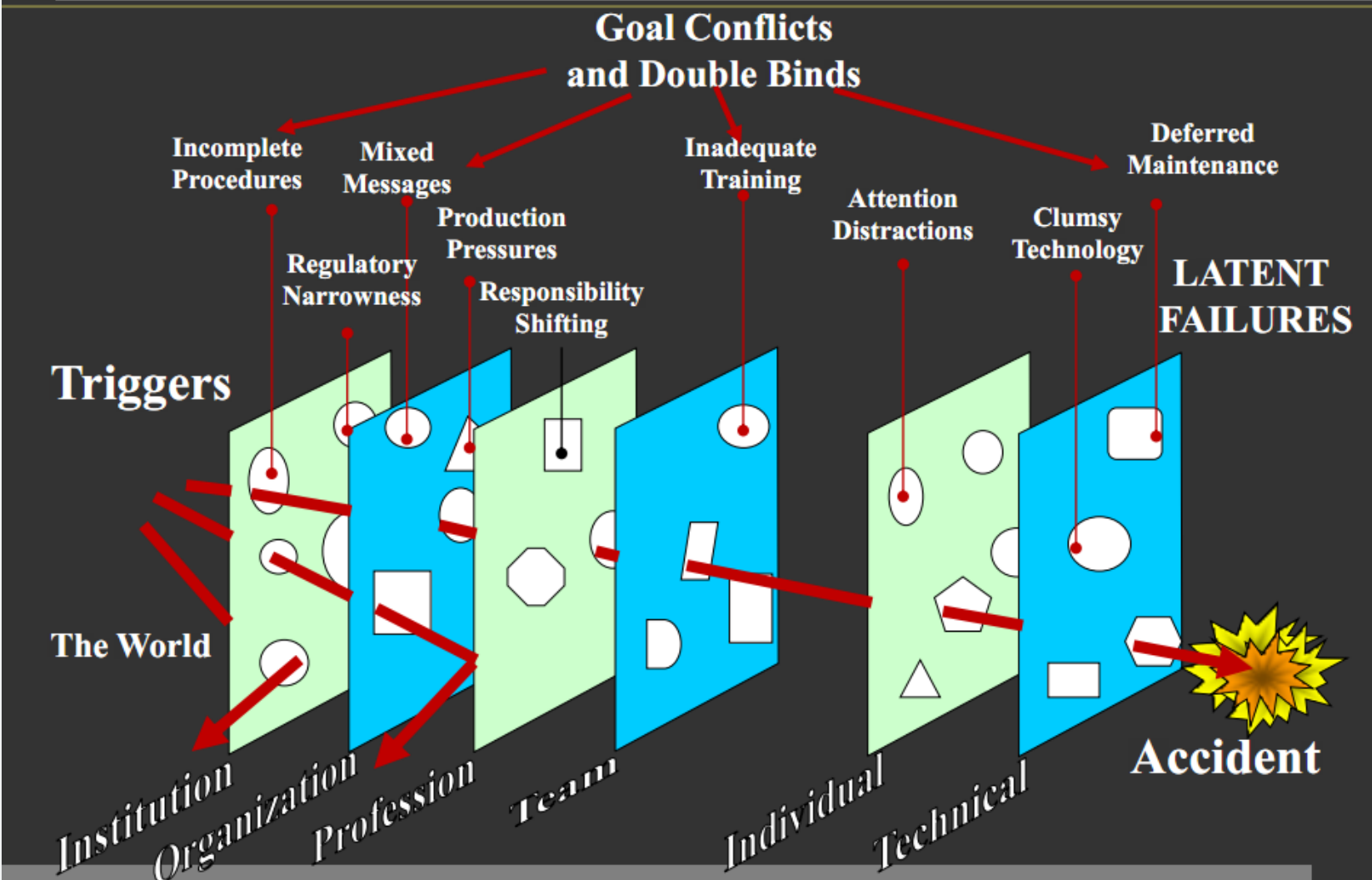
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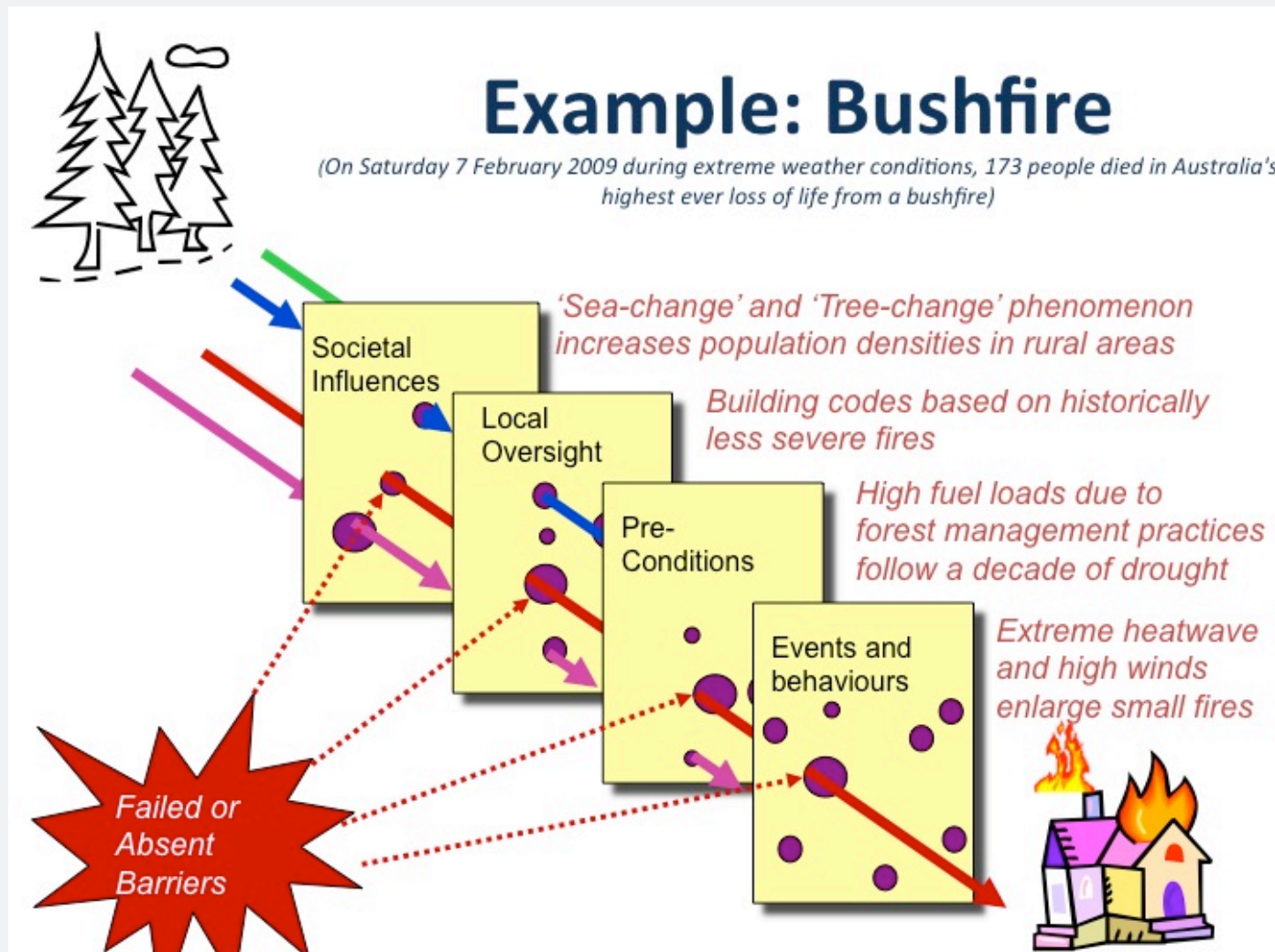
1. Sense-making
2. Implications
 - Discussion using a 4-quadrant tool
 - Considerations for the future

“when it happens again, what do we want in place?”

- What do we want to have kept?”
- What do we want to have brought in?

THE “SWISS CHEESE” MODEL OF ORGANISATIONAL FAILURE





Integral 4 Quadrant Model

Individual

Inner (subjective)

Outer (objective)

<p>I – Psychology</p> <p>How I experience, feel, think and believe.</p> <p>Why</p>	<p>IT – Facts, conditions, behaviours</p> <p>What happened, how it appears, how it behaves, what can be measured.</p> <p>What</p>
<p>WE – Shared meaning, morals, culture.</p> <p>Our shared intentions, ethics, values and cultural behaviours that shape our actions and quality of relationships.</p> <p>Why</p>	<p>ITS – Systems, policies, structures, dynamics</p> <p>How things connect and relate dynamically to other parts. The processes that determine how systems function.</p> <p>How</p>

Collective

House affected

Sufficient resources.

3 - 4 trucks on a house

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Mindset: *We can achieve our goals. Situation only requires normal procedures.*

Houses affected

Limited resources for situation. Houses on fire difficult to put out.

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Town affected

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Evacuation strategy – urgently move people to safer places, triage of people (give up on those who refuse to go and focus on those willing to be helped), protect where the most people are, pull out when fire front comes through, keep fire fighters safe during the worst. When fire passes, check on people who stayed, focus on key assets, triage properties for house to house ignitions.

Mental shift - *Leave behind people who will not leave. Transition from thinking can save the town to minimising impact.*

Town and region affected

Crews spread out, cut off by road blockages and at risk, communication breakdown

Act where can most make a difference and be most in control, think ahead to where the fire is likely to hit, expect to be autonomous, protect people, protect fire trucks/crews.

Mental shift – *Detachment, "People will die", property is not important, focus on trying to save people.*

Sense-making

Distilling Key insights from the Field Ride

Your task:

Discuss the key ideas collected last night on the core theme and present a synthesis back to the rest of the group. Summarise:

- 3 lessons captured
- 2 issues arising (e.g., challenges, barriers, concerns)
- 1 way forward and/or 1 big question

Please appoint a

- Scribe
- Salesperson to sell the way forward

Please write down all important points as they will be collated after the workshop

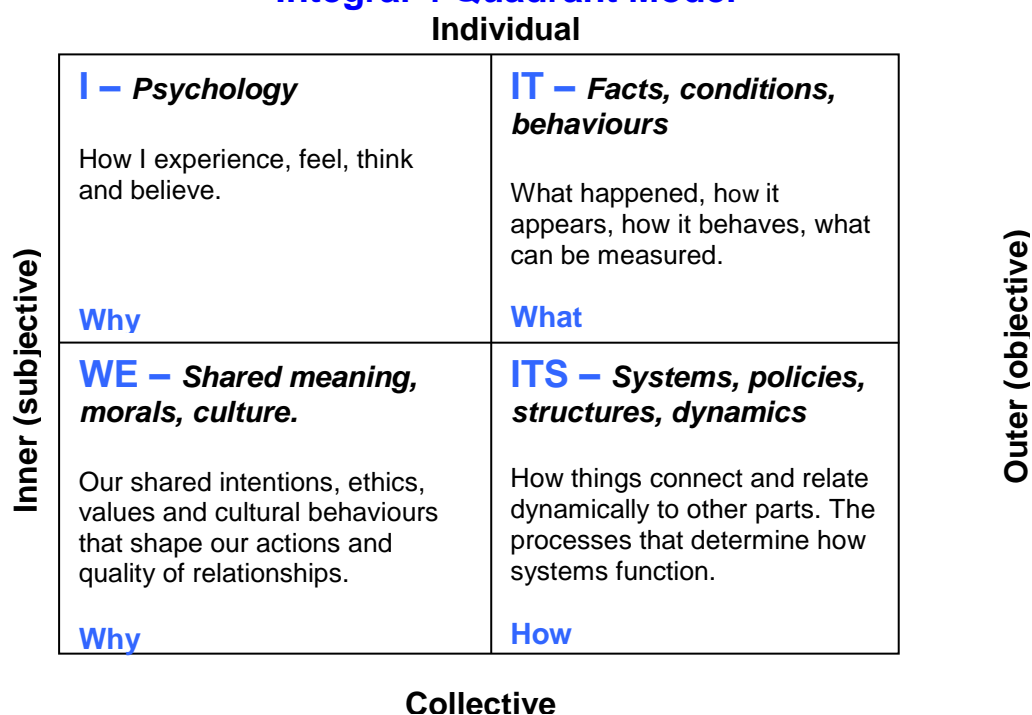
Implications for change

Your small group task:

Take the moving forward big idea/key question and consider – what are the implications of this?

- Use the 4-quadrant tool (below) to tease out the implications of this
- Consider:
 - “I” (what does it mean for me)
 - “we” (what does it mean for us)
 - “things” (what does it mean for the things we use)
 - “systems” (what does it mean for policies, organising structures)

Integral 4 Quadrant Model



The future: Based on this idea

“when it happens again, what do we want in place?”

- What do we want to have kept?
- What do we want to have brought in?

Attachment 7I: Post Field Ride reflections contributing to the Field Ride and facilitator observations

The second Ride - features

- **Purpose** – what can the organisations learn from the experiences of the people on the fireground – how can we better understand what happens in catastrophic events, what went well, what are vulnerabilities, what are assumptions, how can we strengthen our capacity for large scale events like these in the future?
- **Choice of participants** to cut across organisations, to include operations staff at different levels (IMT, RFOC, SFOC) and other people from training, community and safety divisions. Many of the participants had been actively involved in some capacity during the 3rd and 4th of January.
- **Pre-reading** – helping participants to get a sense of the complex sequence with first person narrative provided to help them to begin to walk in shoes of those on the ground.
- **Pre-ride survey** – aim was to encourage participants to reflect on the narrative and to get some data on their view of their organisation in terms of culture of learning.
- **Orientation to the ride** – and initial framing of the Ride was given by Dr Christine Owen, drawing on human factor research to help position participants into listening without judgement or hindsight bias. The Div Comm gave an overview of the events with pictures, video and maps of the fire progression and the allocation of crews.
- **The coach trip around the site** – designed to highlight the escalation through a time sequence with each stage having a theme – anticipation, transition, coping ugly, reflecting on strategic decision-making, following the fire front, the flanks. Fire ground personnel gave their accounts in the coach in particular locations with two opportunities for participants to get out and move into groups, including a walk through Dunalley.
- **Four groups with facilitators** - 12 people per group carefully mixed across roles and organisations. These met throughout the first day to discuss and help process what they were hearing, including writing and sharing insights following the coach trip.
- **Informal Integration** – dinner the first night to informally share experiences of the field trip and own experiences.
- **The panel** – the fireground personnel had the opportunity to share with the group between dinner and desert what was one key learning that they would like to recommend the organisation takes away from this, what was one challenge they faced, and what the aftermath was like for them. For some this was emotional and disclosed things that they would not normally share because it wasn't "manly", yet their honesty and vulnerability was appreciated by the whole group as it revealed the human face of what happened, connecting with others' similar experiences. This gave a formal opportunity for their contribution in putting themselves "out there" to be recognised by Mike Brown and the others in the room.
- **Next day Integration and capturing lessons learnt** – This was framed by Sue and Chris to help people to make visible and name up hidden or un-spoken assumptions using Reason's (2008) model of organisational failure (sometimes called the "Swiss Cheese" model and an Integral framework (see powerpoint presentations for visuals). Insights from the first day were categorised into eight themes. Participants chose one theme to work on determining 3

lessons captured, 2 issues and 1 way forward or big question. They shared these in a plenary session. Two sets of themes were combined as they had developed a similar way forward and groups were asked to come up with strategies that needed to be kept and those that needed to be brought in. These were shared and some participants committed themselves to taking the themes forward.

- **Post-ride survey** – aim to gain data about the effectiveness of the program as well as help participants further reflect on what they learnt and indicate what they are committed to taking forward.

Observations by the facilitators of the second ride

- Feedback from some participants was that the field trip was “riveting”.
- Concern by some of the people working in other part of the emergency arrangements (e.g., IMT) that this was only a partial story – and that their experiences/ story was missing. (The steering group had discussed this as an issue early on in the program design and were able to defuse some of the issues).
- Value of the different people in the room – particularly mixing non-operational people with operational – breaking down silos. People making the policies said how important it was in getting an understanding of what motivates the decision on the ground to take into account.
- Shift in the nature of the conversation on the second day – some deep questions asked – people able to name assumptions and often things that normally would not be named up.
- Some of the things that the fire-ground personnel disclosed were confronting to some participants, particularly local brigades having to deal with competing moral decisions about who, what to save. We felt it was important to make this visible and provide some frameworks for thinking about it to help people see it as a more generic challenge that is causing considerable emotional stress after the event for those put into the position of having to make such decisions.

Introduction

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- Help you in reflecting on the pre-reading materials and the learning experience
- Help to capture insights from all the participants for future action
- Provide the TFS with some feedback about the value of such a program.

This survey accompanies some preparatory materials for the upcoming field trip and should take you about 5-10 minutes to complete.

The field trip is being coordinated by Dr Christine Owen and Dr Sue Stack, Bushfire Co-operative Research Centre, who will prepare a report for the Tasmanian Fire Service.

The information you provide in this survey will only be available to them and so will be treated in confidence. They will collate the information provided in this survey and include it in their report. Any comments or items that may identify you will be changed in that report. The data will be retained at the *Bushfire CRC* on a password protected computer.

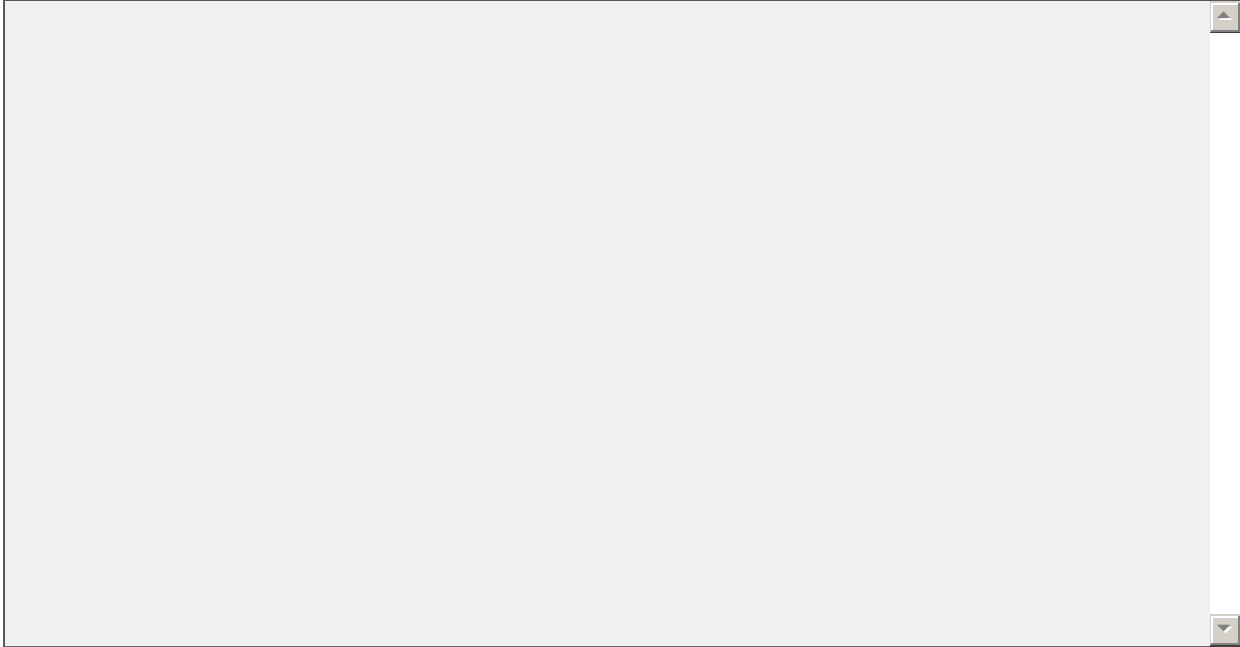
Please be thoughtful and honest in your responses. It is only with good quality reflection that we can learn the valuable lessons that this fire can teach us so that we can better prepare for other events of this type in the future.

Section 1: Preparedness for the Field Ride

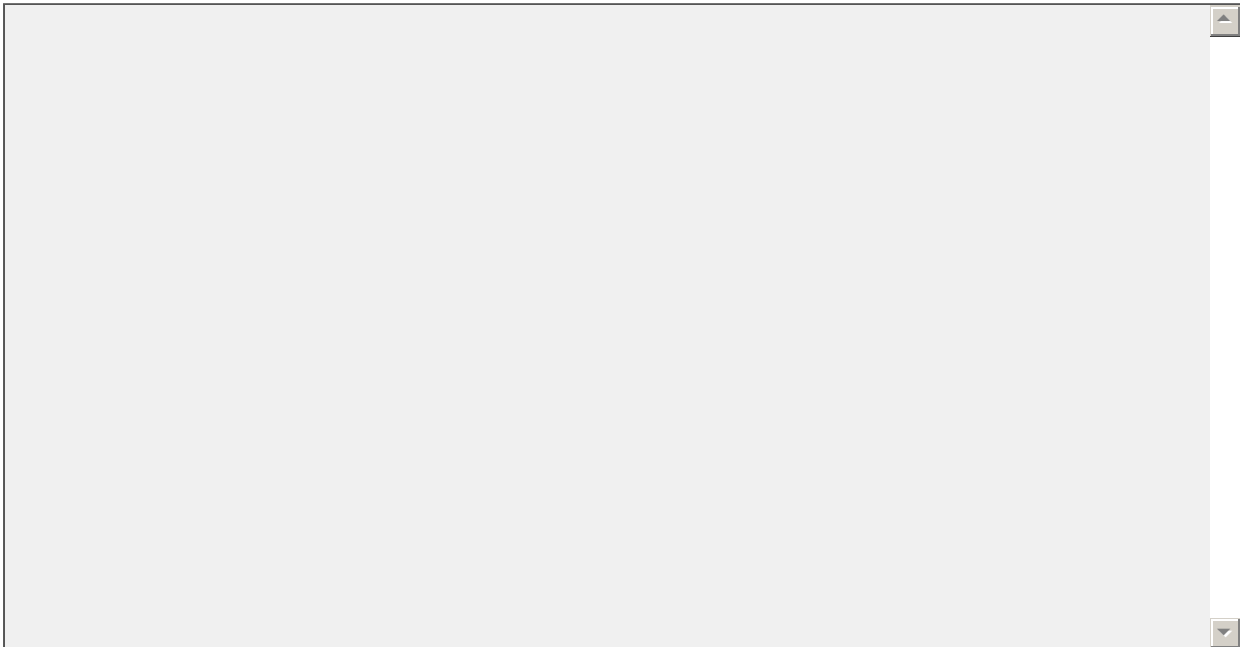
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Some of the questions in this section refer to your reading of that narrative.

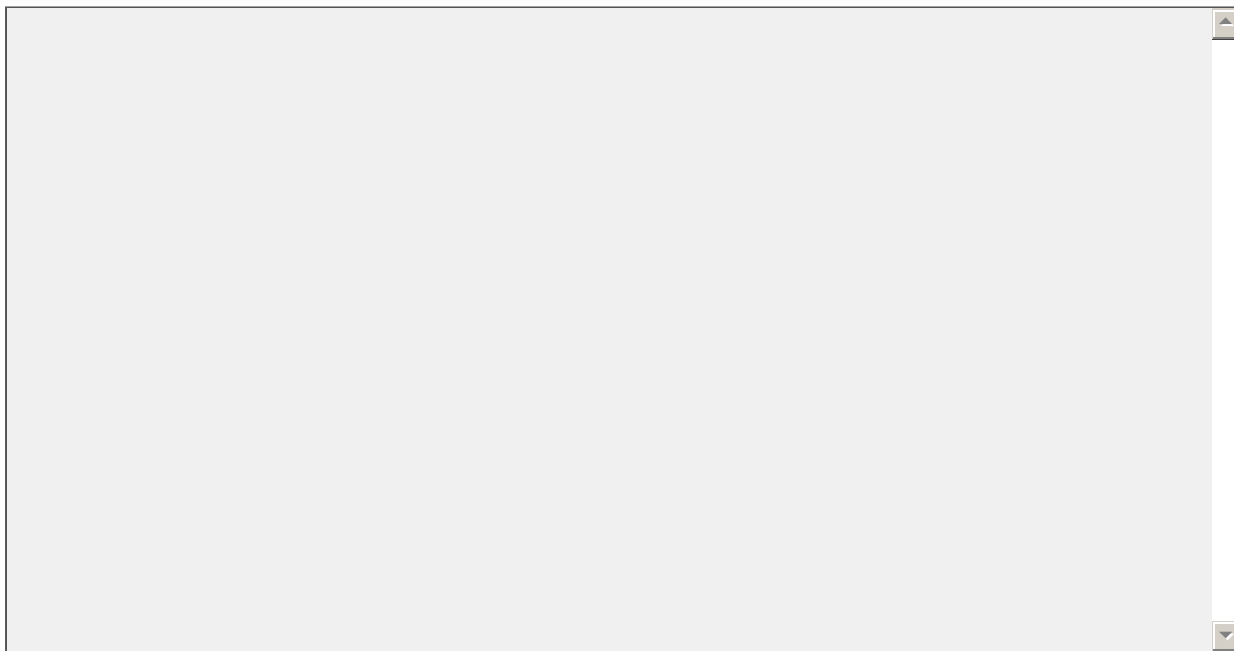
1. What are some of the standouts for you from reading the narrative?



2. From what you have read about the incident, was there anything that surprised you?



3. What would you like the opportunity to discuss or find out more about during the field ride?



Section 2: Expectations about the Field Ride

4. From what you have read to date, to what extent do you anticipate that the field ride learning program will....

(please rate on a scale from 1 to 7 where 1=low and 7=high)

	1 (low)	2	3	4	5	6	7 (high)
a. be relevant to my current work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. build my knowledge or skills regarding human decision-making	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. enable me to question my own assumptions, or ways of thinking or doing things	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. have an impact on me personally	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. motivate me to change the way I do things now	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comment:

5. In your organisation's culture, when events are considered to have "gone wrong", to what extent does your organisation do the following?

(please rate on a scale from 1 to 7 where 1=not at all and 7=all the time; N/A = not applicable)

	1 (not at all)	2	3	4	5	6	7 (all the time)	N/A
a. blames the main actors (find a scape goat)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. buries what happened	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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e. learns from the event but does not implement effective changes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. learns from the event and implements effective changes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comment

About you

6. For how many years have you been in the fire and emergency management industry?

- ☐ 0-5
- ☐ 6-10
- ☐ 11-15
- ☐ 16-20
- ☐ more than 20

Comment

7. Which agency are you representing today?

- ☐ TFS
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Other (please specify)

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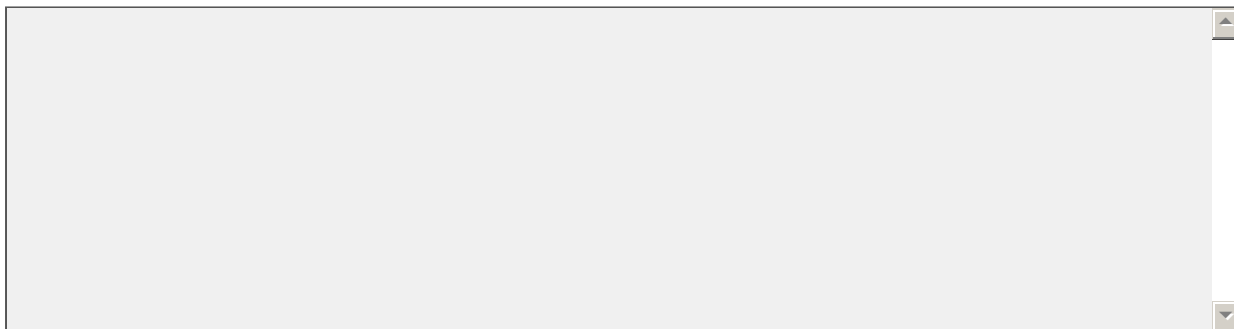
Other (please specify)

9. How many bushfire events have you been involved in at each of the following levels?
(Tick one option for each level)

	0	1-5	6-10	11-15	16-20	more than 20
Level 1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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Comment:

10. During the 3rd and 4th of January 2013 were you involved with any fires, and if so which fires and what were your roles?



11. Which category below includes your age?

- ☐ 25 or younger
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- ☐ 36-45
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12. What is your gender?

- ☐ Female
- ☐ Male

Thank you

We appreciate the time you've taken to complete the survey and we'd like to contact you again for a follow-up survey after the Field trip.

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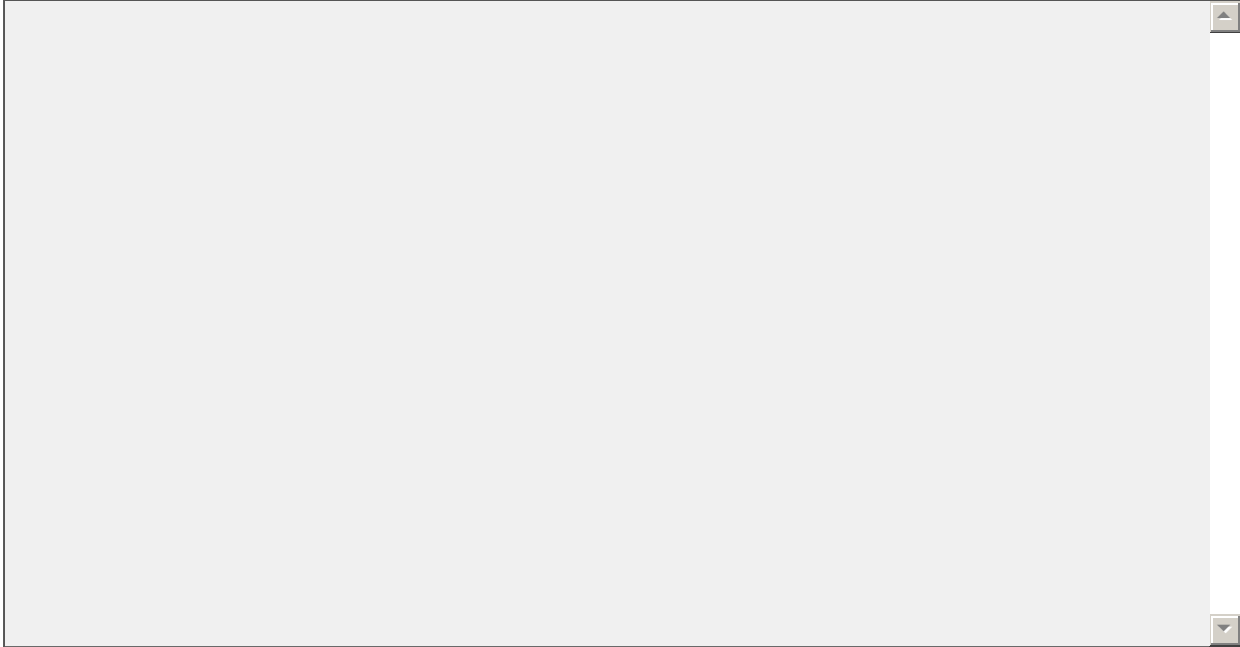
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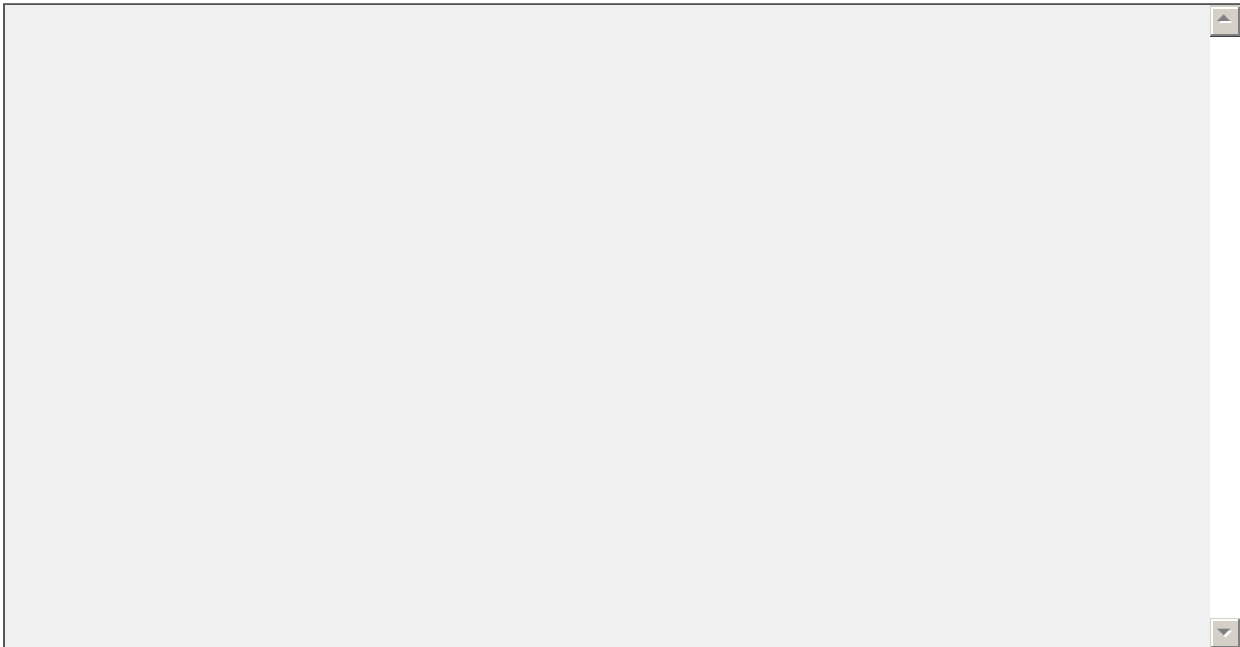
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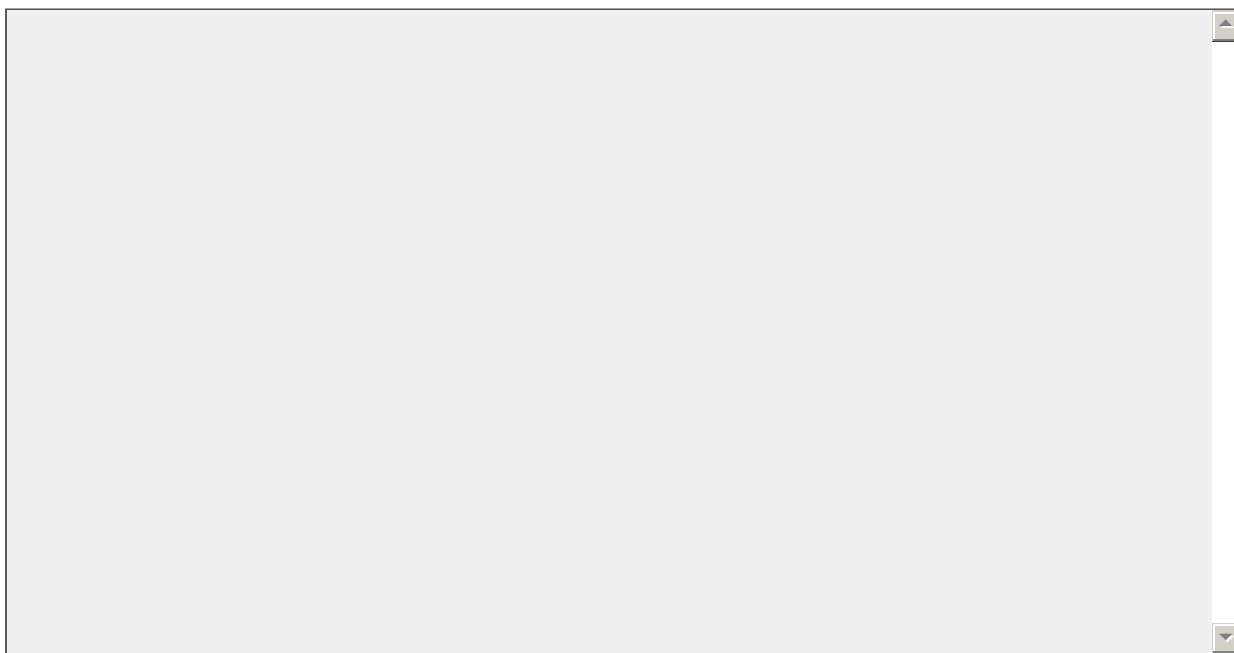
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Dunalley Field Ride Preparation

Q1: What are some of the standouts for you from reading the narrative?

Community preparedness and understanding of bushfire safety appeared to be lacking, and there seemed to be a reluctance from some community members to heed authoritative advice, or at least appreciate the magnitude of the forthcoming event.

It seemed frontline crews/fire ground managers were ill-prepared for such an event. A lack of planning did not help the situation. It seems this may have added to stress, and uncertainty in operational decision making.

The openness with which on ground crews shared their experiences

What a fantastic job all did under very trying conditions

Importance of communication - Loss of communication asset appeared to play a significant role in firefighter command and in particular safety and appeared to impact of information flow.

Speed at which the incident developed and associated fire behaviour under the weather conditions at the time of the day.

Importance of air support and intelligence to the development of the fire.

The ability of people to remain focused on doing something constructive over a long period of time rather than giving up and fleeing.

The gap between what the IMT predicted on Friday morning (or even Thursday evening) and what the crews on the ground heard and absorbed and were surprised by.

People making sense of the different conditions in different ways and at different rates.

- The forward-thinking capability of people on the ground
- the ability to stay calm in the face of overwhelming situation
- Sound decision making couple with a degree of luck that helped to ensure no lives were lost.

Communication was difficult from an early stage. Crews were staying ahead and travelling through the fire front. Interested in changing mission from fire suppression to property protection to protecting people and crews, and triggers for change. Interested in autonomy and situational awareness.

Field commanders had to make strategy decisions without supporting information, except from the air attack supervisor. It seems they had no direction from the IMT.

Field commanders were at times pursuing strategies that were no longer achievable.

The changes in scale of the incident happened faster than field commanders were able to recognise.

Scale of the event.

That in general, the emergency services moved people to safer zones with no loss of life.

Local knowledge was vital.

Lack of understanding of some of the general public.

Loss of communications.

Great difficulty in coordination with reliance on local knowledge.

In the end, at the height of the event only basic things can be done to protect life.

Well prepared personnel.

Good and effective equipment.

Realistic understanding of what needed to be done.

Great leadership.

Honesty.

Empathy for those impacted on the events that took place.

Very good use of helicopters.
<ol style="list-style-type: none"> 1. Preparation in the days leading up to the event - notifications to public, additional resourcing, IMT and RFOC stood up based on BOM advice. 2. The resilience of people both responders and public under such trying conditions. 3. The ability for responders to make sound rational decisions based on current and likely risk.
<p>It is clear that we don't have sufficient resources for days like this. Not just on the ground but within the IMT, including well trained and experienced personnel.</p> <p>Communications were a real issue.</p> <p>Public perceptions on the danger and making good decisions.</p>
<p>During situations such as those encountered on the 4th of January focus must be on public and crew safety. Fire suppression moves down the list of priorities.</p>
<p>breakdown in communication under appreciation of fire behaviour by fire fighters preparedness of community community understanding of extreme fire behaviour community expectations of fire fighters</p>
<p>The intensity of the fire and the weather was beyond human control and too many structures were being impacted for brigades to be able to deal with.</p>
<ol style="list-style-type: none"> 1. the harrowing events our people went through 2. the miracle that no-one was injured, let alone killed 3. how they remembered and stuck to the operational priorities 4. how they weighed up options and made good decisions in the circumstances 5. the extent to which they were on their own, with little or no support from the IMT 6. the guts and common sense of our people on the ground
<p>The narrative was an excellent read but very confronting</p> <p>Reiterated how important it is that we have a common system to manage critical events and everything considered, individuals seemed to be comfortable with their role and level of decision making.</p> <p>Familiarisation with other team members helps build a good strong working relationship and sense of trust</p> <p>Strategic thinking of some individuals i.e. resting crews on day 1 to ensure fatigue was managed for the next day, realisation that crews would need to anticipate actions but on the same hand lack of situational awareness of some other less experienced crews</p> <p>Personnel watching incidents where they thought people had perished. How would I have felt if that was me watching? The sense of hopelessness must have been overwhelming.</p>
<p>Loss of communication between IMT and FCP</p> <p>Predictions not passed on to field supervisors- contingency plan</p> <p>Span of control with additional crews arriving</p>
<p>How fortunate we were not to have any deaths, from crews and the public.</p> <p>That the fire included catastrophic fire weather conditions.</p> <p>That when you have catastrophic fire conditions it is extremely difficult for crews to have an impact on the fire spread.</p> <p>The speed of the fire surprised everybody.</p> <p>Community education is critical and needs to continue to learn from these events.</p> <p>Issues with the community not recognising the severity and thinking it won't happen to them is a common</p>

theme.
<p>Good leadership and decision making.</p> <p>Understanding of operational priorities (when fires burning out of control).</p> <p>Much reflection (I think I should have done xxx in hindsight)</p> <p>Emotional toll on firefighters. So many of us really thought people would die...</p> <p>The once in a career (lifetime) experience (how do you train and prepare for that?)</p> <p>Frustration at people not preparing or taking action.</p>
<p>I have to admit to have never seen the sort of intensity they describe.</p> <p>I also get a sense of calm - I wonder how it was???</p> <p>I can really identify with the feelings of not wanting to leave a house still burning!!!</p>
<p>Confusion</p> <p>Extreme fire weather and rapidly changing conditions.</p> <p>Generally a typical scenario for a wildfire under catastrophic conditions.</p>
<ol style="list-style-type: none"> 1. Many people felt isolated and left to their own devices in this catastrophic fire incident. 2. How important 'local knowledge' is to provide support to such an incident as this. 3. Working in Logistics finding out crews felt not supported in regards to sourcing accommodation and food mystified me. 4. The whole complexity of the incident overwhelms me totally
<p>It appears that there was little direction from IMT to on ground crews.</p> <p>I know that there was good information from IMT prior to the asset impact.</p> <p>The importance of local knowledge</p>
<p>The speed at which the fire moved, and its unpredictability.</p> <p>The need of individuals to make decisions autonomously even though there was an IMT overseeing it.</p> <p>The experience that assisted with those decisions.</p> <p>The overwhelming need for resources.</p> <p>The unprepared general public and at times the obstructions that the public presented.</p> <p>The long hours, fatigue and frustration that those at the fire front were experiencing.</p>
<ol style="list-style-type: none"> 1. How quickly things changed. 2. How disconnected the IMT was. 3. How important aerial intel was to decision making on the ground.

Dunalley Field Ride Preparation

Q2: From what you have read about the incident, was there anything that surprised you?

I'm surprised that there seems to be a lack of planning between Thursday pm & Friday am. With predicted weather etc, Could better planning have resulted in improved operational response and community safety/preparedness?

It seems a number of buildings were lost after being successfully protected.

feelings of guilt from people that have a perception they could have done more

No life was lost.

Disparity between the predicted weather conditions and those which actually occurred.

Community attitudes to risk and lack of appreciation or recognition of the severity of the situation.

The apparent issues and delay associated in closing the Arthur Highway.

Apparent lack of ITM input into the incident based on the narratives. Very few mentions made of the IMT from the perspective of the on ground personnel as described in the narrative.

Not really. Just confirmed a few things:

The human ability to stand up in adversity and help one another.

Some people do not accept or believe warnings no matter what they can see or are told until it is either very late or too late.

How well everyone coped - fantastic efforts - physical, mental and emotional!

Crews driving through abnormal fire front, 'hoping' there were no obstructions.

- the lack of preparedness within the community

- the need for far greater understanding of catastrophic conditions by crews and public

- the lack of preparedness / suitability of strike team from north

The loss of repeater and comms with IMT. Perceptions of when the IMT became involved with this fire.

I was surprised that there appeared to be very little communication or direction from the IMT.

Communications facilities were obviously not working, but was this the only reason?

Underestimation of the speed of the fire by experienced fire fighters.

That there wasn't lives lost.

How important just basic survival became.

How some of the public didn't respond to the emergency services warnings.

The dilemma that faced crew leaders and incident controllers.

Unpreparedness in relation to water and food for crews.

Inability to extinguish burning material that continued to reignite.

Use of crews that had not been properly briefed before entering the fireground.

Some members of the public not recognising clear and present danger until confronted by a 'wall of fire' even though warnings were being issued constantly.

That we never lost any firefighters or public lives.

No
no
<p>I'm surprised there was no loss of life.</p> <p>The fire that came into Dunalley was far more intense than I ever imagined it would be.</p>
<p>the lack of injuries and fatalities amongst both firefighters and civilians</p> <p>the apparent lack of communication of important information to commanders in the field re, for example, the predicted fire spread for the day. knowing this could have led to earlier decisions to warn, evacuate and make preparations in communities likely to be impacted, rather than making possibly fruitless efforts to stop the fire</p>
<p>This type of catastrophic event moves faster than it is humanly possible to keep up. I am astounded that no lives were lost as a direct consequence of the fire.</p>
<p>Reluctance of people to move to safety, not realising the dangers</p>
<p>It was a catastrophic event, which is extremely difficult to manage.</p> <p>I believe TFS did a lot of things exceptionally well, however there is a lot we can learn from.</p>
<p>Didn't realise the problems they had with Comms.</p> <p>Need better clarity of what you should expect from the IMT under such extreme conditions.</p> <p>Fatigue was a very real matter for so many.</p>
<p>The description of the fire racing through the tree tops and the ground unburnt</p>
No
<p>Emergency requests</p> <p>Communication responses</p> <p>No community protection plans</p> <p>Aircraft and airspace coordination</p> <p>Nil deaths</p>
<p>The reluctance of some residents to relocate</p> <p>That no one died</p>
<p>I was surprised by the need for individuals to take control above and beyond the IMT. I think there were some tough decisions, but they were prepared to make them and they were good decisions.</p> <p>The limited impact of water on some of these fires (fire bombing).</p> <p>I think the conditions that this fire presented took everyone by complete surprise.</p>
<p>Lack of direct comms with IMT by helicopter (perhaps lack of staff, requires more than one observer?)</p>

Dunalley Field Ride preparation
Q3: What would you like the opportunity to discuss or find out more about during the field ride?
<ul style="list-style-type: none"> - Better understand the conditions and fire behaviour. - Investigate how planning can improve response to these types of events. - What planning & information tools did operations need to be more effective.
How the onground crews linked (from their perception) to IMT , RFOC and SFOC
<p>Community protection plans in place for Dunalley at the time of the incident and the impact of this incident on the development and implementation of community protection mechanisms and plans for other communities.</p> <p>Trigger points for understanding when to strategically retreat particularly from an on ground perspective but also from an IMT perspective.</p> <p>Communication of potential public risk ahead of the 4th of January 2013</p>
At what point do you move away from property/asset protection and move into evacuation or direct protection of human life.
<p>What info is passed from IMT's to crews and how.</p> <p>What tools & methods do we need to show people (crews and public) the game changing.</p>
<ul style="list-style-type: none"> - Crewing and resourcing models and decisions used - coping strategies used by crews for fatigue / food etc - Coping strategies for psychological trauma from the event
<p>What communications was still working at various times and places in the narrative?</p> <p>How can we prepare field commanders and other field leaders for fires burning under these?</p> <p>How can we clearly identify the triggers/indicators of the stages of strategy that are appropriate and communicate these to field commanders:</p> <ul style="list-style-type: none"> - containment/backburning - spot fire suppression - house protection - safety zone preparation, evacuation - retreat - return, triage, property
<p>What were some of the things that happened which ended in a good outcome during the fire.</p> <p>What parts of the plans worked and what part didn't.</p> <p>What were some of the issues that were really difficult to deal with on the day.</p> <p>What made trying to predict the speed of the fire on the ground very difficult.</p> <p>Just to hear peoples experiences.</p>
<p>How their briefings went and whether there was general consensus on what to do.</p> <p>Were there some standout crew members that stood up as leaders.</p> <p>What things could have assisted that they were not able to obtain. eg equipment, rations, aircraft.</p>
The issues of time and space as an 'on ground' responder based on the rapid movement of the fire front.

I'll be interested in how they communicated between themselves and the IMT. Numerous occasions it was stated that they could talk to anyone.
What more should have been put in place prior to the 4th of January.
<p>how we can do things better</p> <p>community warnings</p> <p>community preparation</p> <p>firefighter awareness of big picture</p>
<p>I'd like to find out whether we could have resourced it better without being critical, although as it turned out it wouldn't have made any difference with the conditions that were experienced on that day.</p> <p>I'm keen to find out what the thoughts of the high level managers are on this.</p> <p>I'd like to pass on my experiences and decision making so that others who will inevitably go through this type of event can learn</p>
<p>how well the operational priorities worked in practice</p> <p>how they can be improved</p> <p>what training is required to ensure all understand them</p> <p>what triggers indicate a need to adopt them</p>
I was deployed to Burnie on 3 & 4 January, it will be interesting to hear first-hand experiences of personnel involved with the fire from the 3rd January.
<p>Working in the Community Education space it would be particularly useful to hear from those presenting at the field day on ideas about how we can continue to get our prevention and preparedness programs/messages out to communities.</p> <p>How we can break down the 'it won't happen to me' mentality.</p> <p>Ideas on the 'Bushfire Survival Plan' and how we may be able to get more people to take this on?</p> <p>Getting the public more prepared.</p>
<p>How we warn people is much improved - when is more the question now.</p> <p>How do we get our staging area briefing done better?</p> <p>We have several experienced of commanding fast moving destructive fires from the air - is there a case to plan and train around this approach? It is noted that the Div Comm roving the town worked pretty well as well - so what do we learn from that?</p> <p>What do we now think is the best way to utilise non local crews?</p>
Not sure at this stage
Nothing in particular
<p>Team work and outside agency support eg Police roles and strategies</p> <p>Communication during the whole incident</p> <p>Public expectations - has it changed?</p> <p>What if anything could of been managed better within IMT</p> <p>Is there to be any further follow up with all parties involved or do people individually request assistance if required.</p> <p>Rebuilding the region</p>
What was happening in the IMT

I think it would be good to explore what those at the fire front felt assisted them to make the decisions that they made, and keep it together with their crews etc. Was it the training they have received, or their experiences or what do they believe were the things that gave them the courage of convictions and the ability to carry out their duties. I think it's good to understand what we as an organisation can do to keep building these skills and strengths.

What were the main learnings? What things went wrong? What could have we done better with what we had, not necessarily pie in the sky extra resources.

How are people now? Could they do it all again?

Is there a better way to communicate that "phase" change back to the IMT?

the seemingly lack of cooperation between tas police and tfs in closing the highway earlier

Dunalley Field Ride Preparation

Q4: From what you have read to date, to what extent do you anticipate that the field ride learning program will....(please rate on a scale from 1 to 7 where 1=low and 7=high)

Answer Options	1 (low)	2	3	4	5	6	7 (high)
a. be relevant to my current work	1	0	0	2	5	4	16
b. build my knowledge or skills regarding human decision-making	0	1	0	1	3	10	13
c. enable me to question my own assumptions, or ways of thinking or doing things	0	0	0	1	7	10	10
d. have an impact on me personally	0	1	2	4	6	7	8
e. motivate me to change the way I do things now	0	1	0	2	14	5	6

Comments

Will be an important opportunity to learn from this rare occurrence.

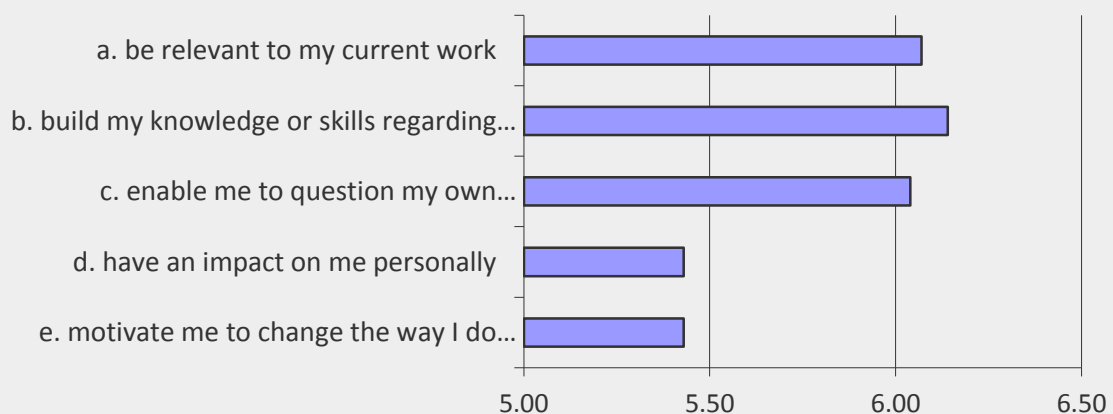
This is a very exciting opportunity to learn - I can't wait!

Very impressed with the narrative that has been prepared.
Not familiar with the process but I now have great expectations.

I would like to undertake the field trip prior to me deciding if I would do things differently under the same circumstances

While it probably won't on its own motivate me to change how I do things now as I'm doing them as trained, it will allow me to understand the need for any changes in future as directed.

Q4 - Rating Average



Dunalley Field Ride Preparation

Q5: In your organisation's culture, when events are considered to have "gone wrong", to what extent does your organisation do the following?(please rate on a scale from 1 to 7 where 1=not at all and 7=all the time; N/A = not applicable)

Answer Options	1 (not at all)	2	3	4	5	6	7 (all the time)	N/A
a. blames the main actors (find a scape goat)	6	7	7	3	2	2	0	0
b. buries what happened	5	8	7	5	1	1	0	0
c. tries to understand what happened	1	0	1	4	9	5	7	0
d. conducts a bureaucratic exercise where nothing really changes	3	5	4	7	2	5	1	0
e. learns from the event but does not implement effective changes	5	3	4	7	3	5	0	0
f. learns from the event and implements effective changes	0	3	5	7	5	5	2	0

Comments

Easier to implement change in the short term but can be lost in the longer term as the memories fade. It's important to not let this happen.

we rarely get events where real learning takes place, and don't use the opportunity as best we can. Let's hope this is different

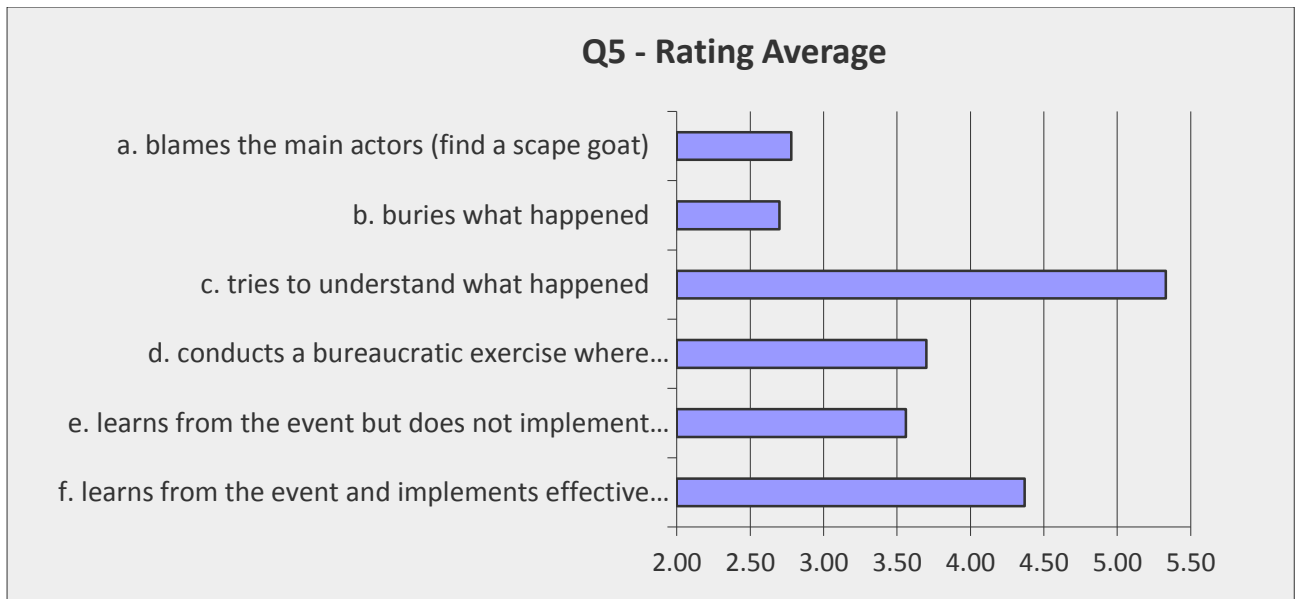
Debriefs are conducted after most L2 & L3 fires and there is often a common theme arising from these debriefs. It is not that we ignore what is being said but the responsibility to "fix" these issues lies with a handful of individuals who are already time poor in a climate of reduced budgets and resources. Some issues are also more complex than the organisation has the capacity to change.

This culture has changed dramatically in recent times. I believe TFS has become a learning organisation and adopts a continuous improvement approach. Hasn't always been the case though.

We always have Operational Analyses after major events but not always are things changed for the good

I have only been with the organisation a short time, but what I have observed the culture is one in which they want to learn, want to make changes, and do the best they can

It depends on the level of "gone wrong". In sections like Fire Management, lessons are learned, OHS is improved and policy reflects this, even if on ground changes don't always happen. As an agency quite often it appears that a bureaucratic exercise is undertaken and nothing really changes.

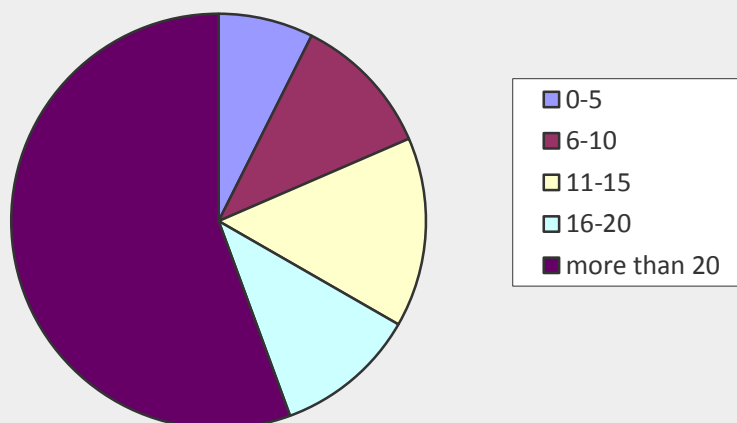


Dunalley Field Ride preparation

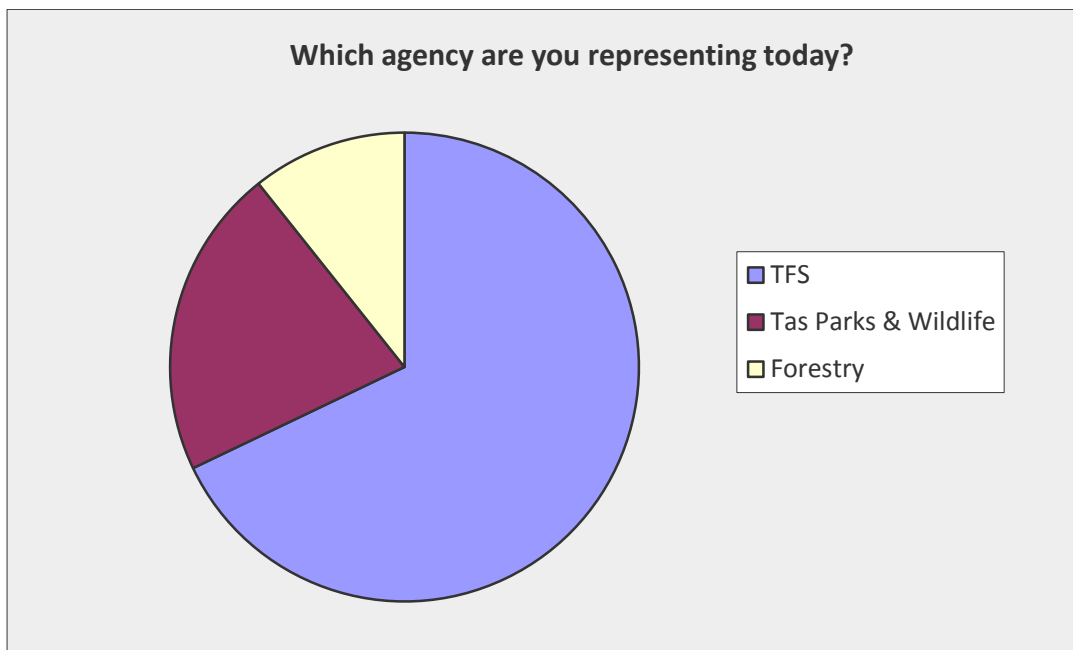
Q6: For how many years have you been in the fire and emergency management industry?

Answer Options	Response Percent	Response Count
0-5	7.4%	2
6-10	11.1%	3
11-15	14.8%	4
16-20	11.1%	3
more than 20	55.6%	15
Comments		
within the forest industry at all levels from fire fighter to IMT		
HR role		
No an everyday role but active each summer.		
10 years full time worked on fires in various capacity on and of over 39 years		
more than 30		
18 months as an employee with TFS 13 years as a volunteer		
I have been an operational firefighter in Field Operations for 41 years. During that time I have worked as a firefighter and as part of IMTs in Tas, Victoria ,NSW and twice to the U.S.		
Involved in Victorian bushfires 2009, Queensland floods 2010 and bushfires in Tasmania since 2000		

For how many years have you been in the fire and emergency management industry?



Dunalley Field Ride Preparation		
Q7: Which agency are you representing today?		
Answer Options	Response Percent	Response Count
TFS	67.9%	19
Tasmanian Parks and Wildlife Service	21.4%	6
Forestry	10.7%	3
Other (please specify)	0.0%	0
Comments		
I worked for forestry when I was working on the inala rd fire		

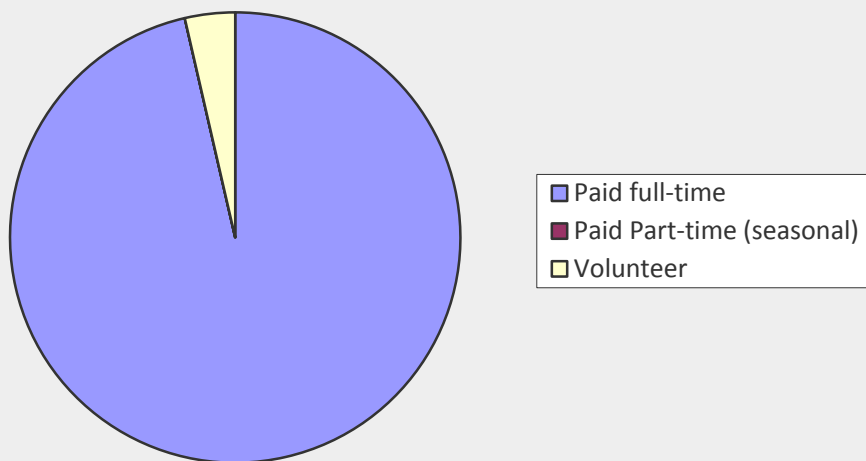


Dunalley Field Ride Preparation

Q8: What is your employment relationship with your current agency?

Answer Options	Response Percent	Response Count
Paid full-time	96.4%	27
Paid Part-time (seasonal)	0.0%	0
Volunteer	3.6%	1
Other (please specify)	0.0%	0

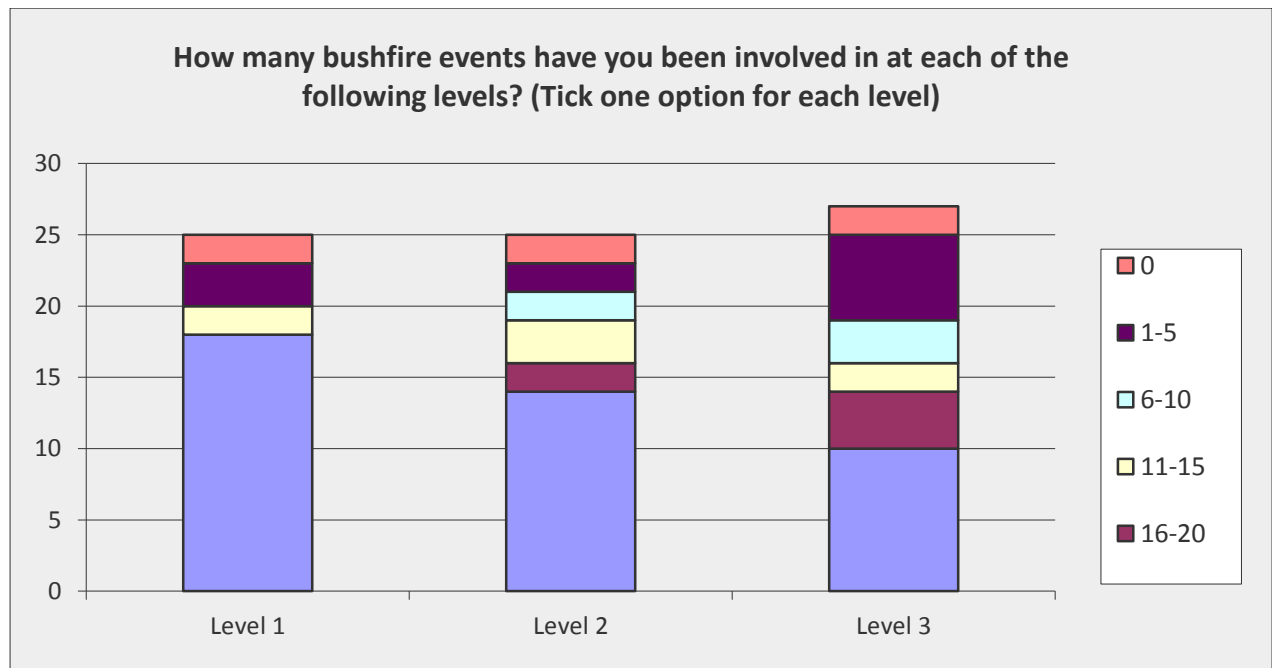
What is your employment relationship with your current agency?



Dunalley Field Ride Preparation

**Q9: How many bushfire events have you been involved in at each of the following levels?
(Tick one option for each level)**

Answer Options	0	1-5	6-10	11-15	16-20	more than 20
Level 1	2	3	0	2	0	18
Level 2	2	2	2	3	2	14
Level 3	2	6	3	2	4	10
Comments						
Numbers a guide only						
Only in a support role organising logistics or support personnel but not part of an IMT.						
I'm unsure of what you mean by levels						
"involved in" - in one way or another...						
Both inter and intra state						
I am non operational, but my role is OHS.						
The first two years with the agency there were no bushfires of significance. The past two years I have been involved only at IMT levels.						



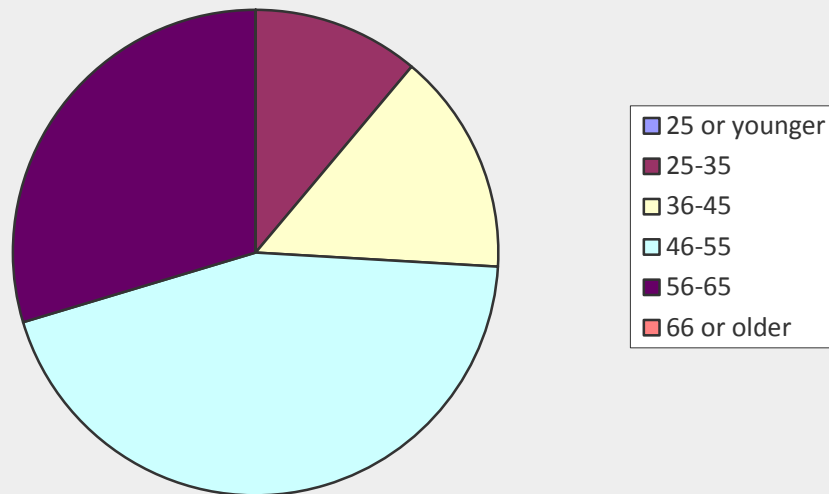
Dunalley Field Ride preparation
Q10: During the 3rd and 4th of January 2013 were you involved with any fires, and if so which fires and what were your roles?
All fires across the State
No. Was recalled from interstate leave for IMT duties on the 6th of January 2013.
No. I was camping on the peninsula on the 3rd, but left in the morning to return to the north west after being called back from leave to be on standby for predicted conditions. I became involved with the Level 3 Montumana fire on January 5th.
No
Lake Repulse - Planning Officer; Inala Road - Planning Officer; Storm Lea Road - Planning Officer
Nil
Yes, worked in SFOC as agency liaison and Air Desk Manager
No, started at Forcett fire on the 5th Jan as Sector Commander.
I was involved in supporting the SFOC
1. Operations officer; 2. Incident Controller
Inala and Repulse Fires - IC
Stand up Level 3 IMT in the NW Region as Operations Officer on 3rd and 4th. Redeployed to the Southern Region IMT late on the 4th to commence as Operations Officer on the 5th at 0700 for the Inala Rd and Lake Repulse fires.
Planner level 3 IMT up at three mile line, working with north west RFOC, initial assessment of Giblin fire 5th January deployed to Inala road complex as specialist planner
I was involved in the Forcett fire on the 3rd and the Dunalley Fire on the 4th. My role was fire fighter
No
On 3rd January I was deployed from my workplace in Hobart to a Standup L3 IMT at TFS Burnie. The team worked a full shift at Burnie on 4th January (incident free) then we were instructed to travel back to Hobart and report to ICC Cambridge at 0700 on 5th January. From 5th January until 29th January I was the Logistics Officer for the Repulse, Forcett and Stormlea fires.
Davis Gully, Bicheno. Regional Fire Controller
I was involved with the Forcett fire on the 4th January as a member of the 'Rokeby Crew' mentioned in the reading. I was also involved with interviewing community members as part of the Bushfire CRC/UTAS January 2013 Fires in South-Eastern Tasmania Research Project in January.
As Chief Officer - either all of them or none of them....
Incident controller (night). Strategic Safety Advisor
Inala Road (Dunalley). IMT - Planning section
I was the Deputy Operations Officer on the ground at the Repulse Fire from start to finish.
Deputy Logistics - TFS Cambridge
3rd acted as deputy Regional Fire Controller Northern Region. Main fire was Davis Gully Road East Coast. 4th Regional Fire Controller North West. Main fire was Giblin River. North West Task Force assembled and dispatched to Inala Rd. It wasn't until 5th that the ship hit the sand with multiple lightening ignitions including the north west's main headache, Speedwell Rd.
I had a non operational role, doing some logistics, OHS with the death on the fireground and providing some procedures that were required.
I was involved at the IMT in Cambridge covering public information for both the IMT and the RFOC which included Forcett, Richmond, Lake Repulse. I was Media Liaison and being mentored for PIS Unit Leader.

Dunalley Field Ride Preparation

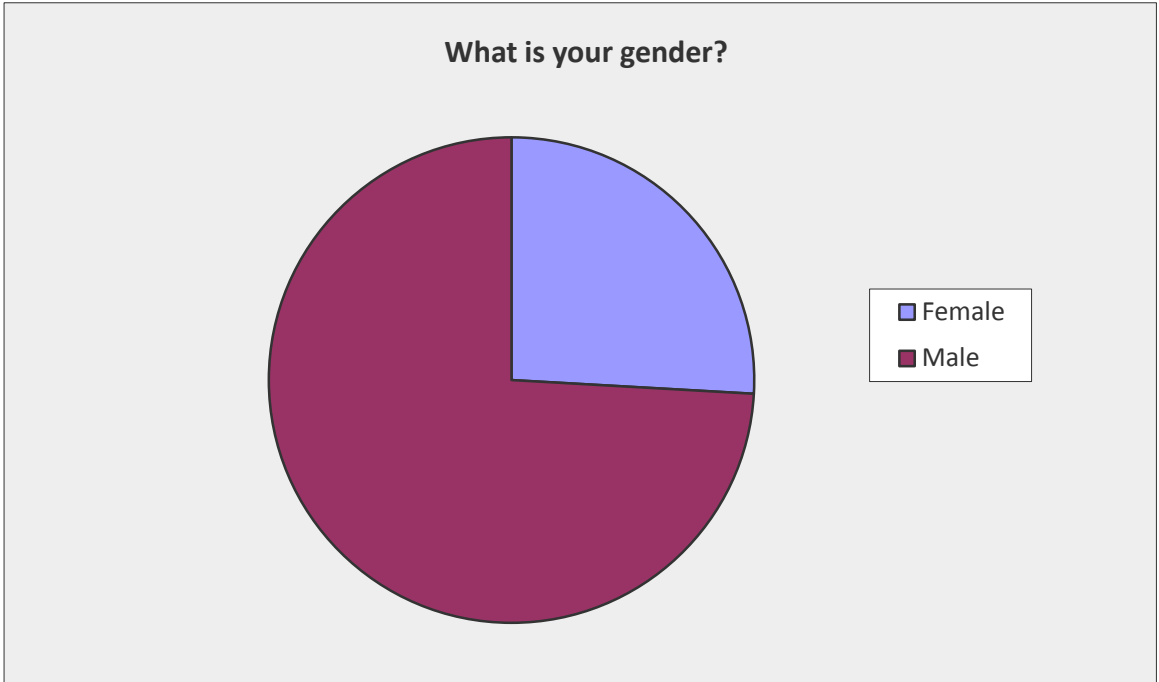
Q11: Which category below includes your age?

Answer Options	Response Percent	Response Count
25 or younger	0.0%	0
25-35	11.1%	3
36-45	14.8%	4
46-55	44.4%	12
56-65	29.6%	8
66 or older	0.0%	0

Which category below includes your age?



Dunalley Field Ride preparation		
Q12: What is your gender?		
Answer Options	Response Percent	Response Count
Female	25.9%	7
Male	74.1%	20

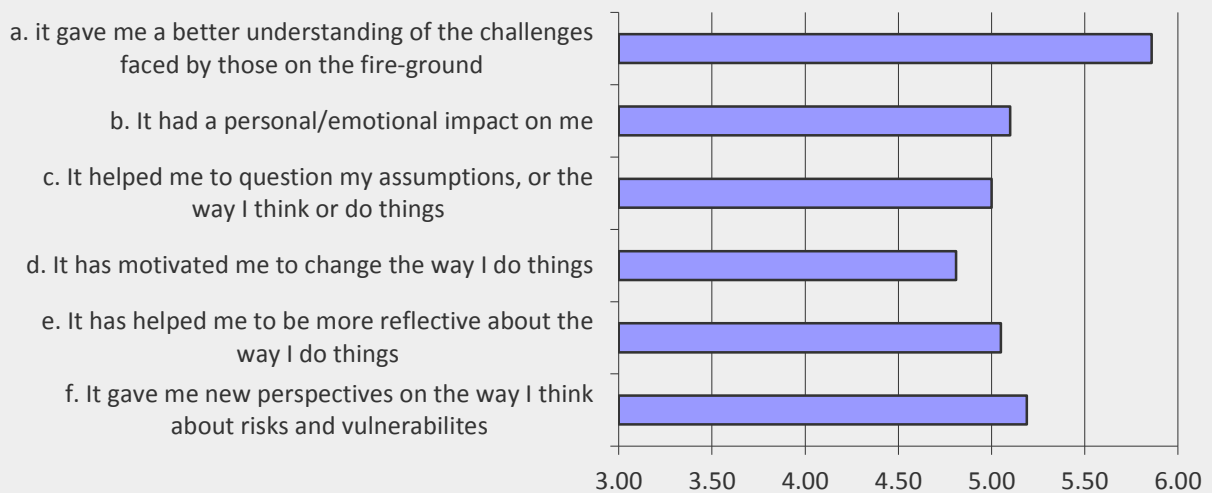


Dunalley Field Ride – Survey Results

Q1: To what degree has the on-site learning field ride had an impact on you? (please rate on a scale from 1 to 7 where 1=low and 7=high)

Answer Options	1 (low)	2	3	4	5	6	7 (high)
a. It gave me a better understanding of the challenges faced by those on the fire-ground	0	1	1	1	2	8	8
b. It had a personal/emotional impact on me	0	2	3	1	4	7	4
c. It helped me to question my assumptions, or the way I think or do things	0	1	2	3	7	6	2
d. It has motivated me to change the way I do things	0	0	2	6	9	2	2
e. It has helped me to be more reflective about the way I do things	0	0	3	4	5	7	2
f. It gave me new perspectives on the way I think about risks and vulnerabilities	0	1	1	3	6	8	2
Comments							
a very helpful exercise							
great learning experience							

Q1 - Rating Average



Dunalley Field Ride - Survey Results

Q2: After the Field Ride, (a) what have you valued about the field ride and (b) what were some of your key insights?

The sharing of experiences and the issues that those on the ground had and how they addressed them. Also the issues we have with communications and how this area constantly needs to be questioned to ensure it is working effectively.

I gained a very good picture of the experiences of the Sector and Div Commanders.

It seems that the Sector and Div Commanders did not receive appropriate weather forecast and fire spread predictions at the start of their shifts on 4 January. Hence the strategies they were pursuing until about 1 pm were never achievable. Not clear what direction field commanders got from the IMT on strategies. Nor is it clear how much the expected fire behaviour and prediction was informing strategies until it actually unfolded. Field commanders and fire-fighters are placed under enormous emotional strain in these extreme situations. However, they seemed to maintain a focus on the key priorities very well.

It has identified that there are still many shortfalls in our systems/ structures and that in these types of fire environments, basic assistance and supports may not be available.

The field ride showed that the key personnel on the ground understood the priorities required on days of extreme weather activity.

The leaders were clear in their instructions regarding priorities in the lead up to the major events.

No one on the fireground received a weather briefing prior to deploying to the fireground though the Weather warnings had been issued the night before, this information would have influenced the decisions of the Div Comm and Sector Leaders earlier in the day.

Valued the ability to go over my own decision making and learn from the decision making of others.

(a) The opportunity to learn from others experiences is invaluable. While personal experiences are vital in learning and developing we can't be everywhere and so learning from others is a good replacement.

(b) The emotions experienced by the leadership group during the fire, and their courage to talk about these emotions to colleagues and 'strangers', was a credit to them. Also, the emotional aftermath of this extraordinary incident on these individuals appears to be significant and needs to be treated with respect and consideration - which I think the TFS is doing.

The high level of leadership when confronted by a fire and situation that couldn't be controlled was testimony to the character of the people involved. The fact that no-one was injured or killed was governed by an element of luck - but also good judgement/leadership.

Following the six principles proved to be a decisive element when all other fire suppression activities proved fruitless. It gave the combatants some 'licence' to back off from the fire and look after vulnerable people - including themselves.

The field ride provided a chance to reflect on the incident in a new way that produced outcomes that I could work on for next time. It was the first time that I allowed myself to 'unpack' the event, and seeing it through a different set of eyes helped me to understand how I can work more effectively.

A getting an understanding about how the fire behaved and the events leading up to the fire.

B I think the TFS and Tas Police were a bit flat footed in being reactionary rather than being proactive IE Closing of the Arthur highway too late.

Have fire fighters in the bush rather than back at a safer place maybe at vulnerable structures when the fire took off given the weather conditions, reports and updates.

I understand this fire is unprecedented and we have not seen conditions like that before
I valued the opportunity to spend time really understanding what was happening, and what it felt like for the fire fighters. My key insight was really what drove decision making for the crews on the ground - and the drivers were different from different individuals, and not what I expected.
The field management structure and the discipline to work to. It was invaluable, and also being clear on the objectives based on hierarchical order of priorities communicated prior to the season.
Understanding the external pressures both on individuals and as a whole in relation to decision making Greater appreciation for the fire and its rapid development
What I've valued: the willingness of people to open up about their experiences, and the willingness of other people to learn from them without judgement. Insights: <ol style="list-style-type: none"> 1. That good relationships and trust between key people prior to events makes for better outcomes 2. That having simple principles to work to makes decision-making easier, and helps lead to good outcomes 3. That our people had tough decisions to make (in some cases potential life or death decisions), and made them 4. That our people believed they had been responsible, or partly responsible, for the deaths of firefighters and civilians, but still managed to continue making good decisions 5. That detailed and timely briefings are vital for good outcomes
The Field Ride was good to get first hand info on what happened on those days. My key insights were the way that the local brigade behaved and the things they done. Why no volunteers were killed was only down to good luck not good practices. Very worrying trends have been highlighted and must be addressed.
a.) Opportunity to learn from the experience; assisted me with connecting different parts of what happened on the day; the honesty and openness of all speakers. b.) Usefulness of the red poster (operational priorities); how close we came to losing some of our own people.
The realisation the local volunteers need to be allowed to do whatever they need to do when their community is impacted in a severe way. This in turn heightens the need to have 'outside' strike teams at the disposal of the operations section. TFS has outstanding fireground commanders
a) The whole event was positive and a great learning experience for both the observers and the people who actually participated in the decision making process. b) The local crews logic in continued attempts to fire fight, the failure of the fire predictions to be effectively communicated to the fireground and the slow realisation that people further down the peninsular needed to be warned of the approaching fire. High end risk taking driving through the fire?????
Actual account of what happened on the fireground.
A Getting the broad picture of what the fire was doing where it was going and how it was behaving. B
The open and honest contribution from those involved on the day. The success of TFS programs and the ability of our people to remember them under stress and the support they felt knowing that they are supported by the organisation in using them. The disregard for their own safety to the benefit of the community, something that we really need to

understand better so we can educate our people about the risk vs consequence of their actions
Good to get an understanding of the conditions and challenges faced on the day Communication is the key.
a) being able to get together and listen to other stories. Improve my knowledge of the timeline. b) Leadership, teamwork, communication, firefighting on catastrophic fire danger days

Dunalley Field Ride - Survey Results

Q4: Are there any particular assumptions that are currently being made in bushfire response that need to be reviewed and reconsidered for these types of events?

Really not qualified to comment.

The assumption that the Regional IMT model is our only option given the scale of Tasmanian resources needs to be validated.

No opinion

There was an assumption that all information was being communicated and documented by the IMT. This was not the case in a lot of instances.

Assumption that everybody has a full understanding of the RFOC and its function. RFOCs operated differently depending on who was in charge.

Assumption that everything is as normal once incident is completed. Field staff have a significant increase in workload with regard to brigade support (all aspects), new member applications, community requests, ongoing community recovery commitments, accounts, rehabilitation together with expectation to continue with normal functional role outside fire effected area.

The public perception that a fire truck will arrive at their house whenever a bushfire threatens. In nearly all cases with large bushfires this is impossible to achieve - but I don't think that many members of the public understand this - and it can place extra stresses on local brigades as recriminations occur in the aftermath.

Currently there is an assumption that all fireground communications must be directed to the IMT through the Operations Officer using the radio. This assumption needs to be reconsidered, for instance some information is better directed towards the fire behaviour analyst. There must also be known contingencies in place when the Operations Officer and the Divisional Commander are unable to communicate with each other, and when they are overloaded.

That people heed our warnings and messages - that we can adequately get the community to understand the impact of fire on their communities and they will respond in a sensible manner. People will make decisions that seem just as irrational as the fire fighters, but even more so as they ignore direct instructions to leave, or will stay because of their pets, not recognising the real danger they are in.

Contingency planning and preparing crews for potential developments better

That the 6 operational priorities cannot be applied flexibly

That civilians have been warned, and will respond sensibly

That people on the front line are always well-equipped to make the best decisions. In reality, they sometimes need people with a more strategic and detached view to provide advice

As above

More training with all TFS members around the operational priorities and how important they are.

That ALL crews understand the six priorities

That it is possible to be effective in saving individual properties

That aircraft can effectively save people /homes in all conditions

Certainly the absence of doctrine for local brigades when the fire is about to hit their own homes along the lines of the red poster. Because we are silent at the moment we saw all manner of strange logic by the firecrews

Perhaps the competence of both our volunteers and career staff, from both IMT and a volunteer perspective. We are a small organisation that needs to be even more focussed on our operational capability. If this means we concentrate more on our training and exercising (preparedness) then that needs to be the focus. Our communications systems are vital and there could be some major improvements in the way we go about it

Fix radio communications.
There are no safe zones on a catastrophic day.
Leadership training.

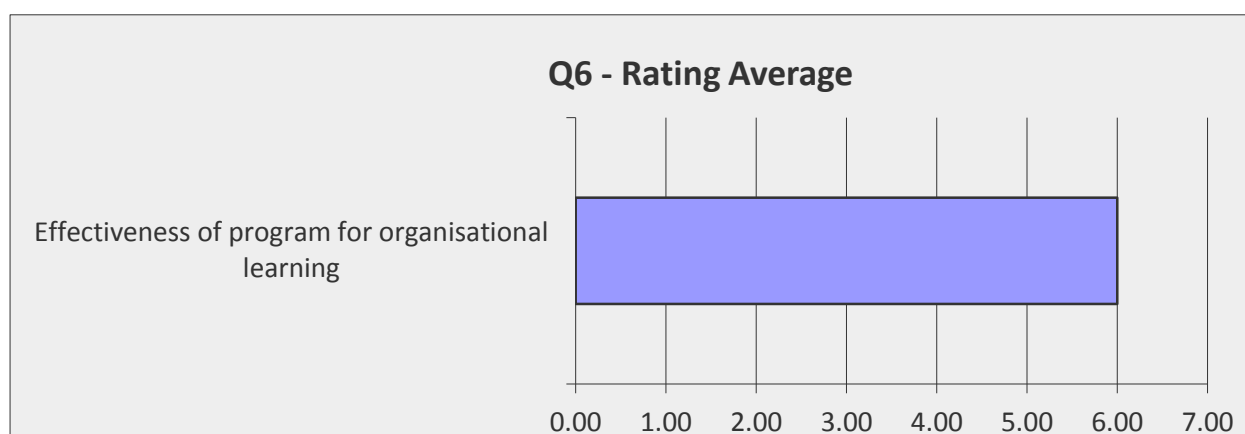
Dunalley Field Ride - Survey Results
Q5: Based on your insights from the field ride, are there any particular changes you are committed to following up on, either at a personal, team, organisational or cross-organisational level?
Yes both on the communications side but also on the non-operation support side
<p>As an Incident Controller, I will endeavour to ensure that field commanders have the best possible support for the strategies they are pursuing.</p> <p>At the organisational or cross-organisational level, I will continue to pursue improved training for IMTs.</p>
Air Operations
<p>Personal; As an IC asking who briefed crews and what were they told if I arrive at an IMT after crew deployment.</p> <p>Team; Increase my efforts to monitor crew welfare, I could not prevent the work time as they were cut off but accommodation and food could have been sourced.</p> <p>Organisational/Cross Organisational; Continue to support the RFOC process and encourage all emergency agencies to take an active part (FT PWS, TasPol, SES, MEMC) as appropriate.</p>
Attempt to document more information relating to incident and functional role. Happy with overall performance as I reacted as best I could as requested by IMT and as incident dictated.
<p>Making sure that people understand the links between Regional Fire Operations Centres (RFOCs), Incident Management Teams (IMTs) and local controllers. This was the first year that the RFOC system was used 'in anger' and not enough people in TFS or other fire agencies had sufficient knowledge of how it works and where it fits into the structure. This can cause confusion and frustration for local level controllers and their crews.</p> <p>Following up on firefighters emotional well-being will be critical - particularly those at the forefront of the bushfire event - although we should be careful about forcing the issue onto them. We should also be aware that there may be some people who have not dealt with their emotional issues and are hiding them. This may become apparent when the first fires start in the forthcoming bushfire season and we should be ready to help them if they ask for it.</p>
<p>I will focus my energy on achieving the key priorities and TFS Values as a planning team leader, and not defer to hierarchical demands unless it fits in with the priorities. I felt that I put too much energy in reporting up to maintain the TFS image, rather than communicating with the crews to improve their safety.</p> <p>I would formulate an effective comms plan, addressing the major stakeholders, communication methods, risks and potential outcomes, recommend communication methods that suit the situation and environment and make sure that it's known by everyone.</p> <p>I'm looking into ways that I can organise tasks effectively so that I can continue to be organised and make decisions when I'm extremely fatigued.</p>
At team level in my brigade we have supplied radios to each member so we have constant radio contact and have emphasised the importance of PPE
Really want to see improvements in how we deliver our training, and what type of training we deliver.
<p>1) accreditation and training of div comms and sector commanders</p> <p>2) remind FT staff of hazards around fighting fires in an urban environment</p>

Developing our "middle management" or fireground supervisors in decision making and capacity for greater autonomy
<p>Yes; my team on the staff ride have identified the following actions to follow up:</p> <ol style="list-style-type: none"> 1. Ensure assumptions are challenged before inclusion in policy, practice, brochures etc (eg. fireballs travelling kilometres and igniting vegetation, flanks behaving like fronts) 2. Ensure emerging terms are challenged before inclusion in policy, practice, brochures etc (eg. negative triage, urban interface) 3. Consider seeking advice from residents about the value placed on homes compared to community assets and infrastructure when determining protection priorities 4. For external communications, use consistent language, without jargon 5. Address apparent internal and external confusion about the purpose of NSPs and CFRs, and their reliability 6. Develop guidelines for rapid assessment of potential NSPs by responding brigades 7. Ensure brigades commit to NSPs and addressing the safety of those sheltering there, rather than abandoning them 8. Provide more guidance and training on the application of the six operational priorities, including the ability to apply them flexibly 9. Educate TFS staff and EM partners about the features of community protection planning and bushfire-ready neighbourhoods; their similarities and differences 10. Help develop better communication between IMTs and forward commanders, particularly about weather forecasts, fire danger predictions and fire modelling, to inform timely decision-making and enhance public safety outcomes 11. Ensure that public warnings are based on fire progression predictions 12. Ensure pre-season public communications reinforce the need for preparation and reinforce the value of community protection plans and evacuation plans 13. Engage local emergency management committees to develop local evacuation plans for bushfire, and link evacuation plans to community plans and response plans 14. Develop fire-fighting strategies to address multiple, simultaneous ember ignitions impacting townships, as well as fire fronts. Distribute advice to the public about the implications of these alternatives on 'stay and defend', 'leave early' and 'wait and see' responses 15. Develop stronger links between Community Education and those who issue public information and warnings during fires
Bushfire Tactical Training
Linking community education (preparedness) and response more effectively. Where I can achieve this.
<p>Ensuring the current approach is continued and refined</p> <p>That we legitimise volunteers protecting their families and colleagues properties in their own community</p> <p>That linkages between IMT's and the ground are strengthened further</p>
<p>High-end risk taking</p> <p>Doctrine for local brigades</p> <p>Better IMT-Fireground communications (via all means)</p>
To better educate our people about the moral and ethical challenges they face in enacting the "priorities" in their own communities
<p>I can work more on improving my leadership.</p> <p>Teams keep changing; it is hard to improve teamwork if you don't work with the same team.</p>

Dunalley Field Ride – Survey Results

Q6: How would you rate the effectiveness of this on-site learning field ride in assisting the organisation to learn from a catastrophic fire weather event? (please rate on a scale from 1 to 7 where 1=low and 7=high)

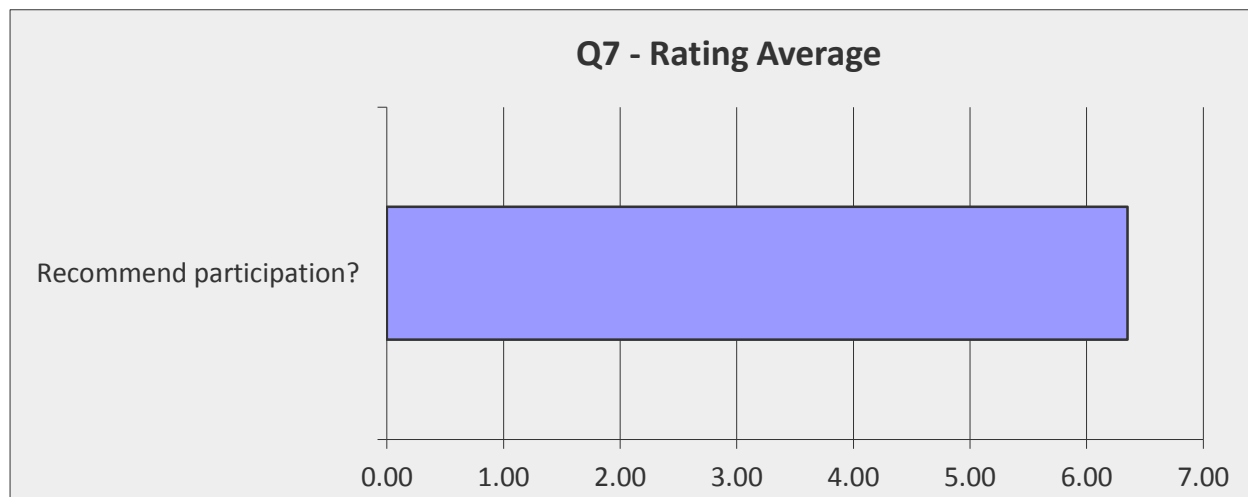
Answer Options	1 (low)	2	3	4	5	6	7 (high)
Effectiveness of program for organisational learning	0	0	1	1	3	7	8
Comments							
Very effective, it takes commitment and a lot of trust by the crews to learn the real details and get to live the event from their perspective. Having been allowed into their world I feel privileged, and in my mind returned to several events I have attended in a less enlightened time.							
The event provided a rare opportunity to think not just about processes and solutions, but how we think and feel, revealing a whole new perspective on the event. I learned far more from the field ride than I have from any debrief in the past, and as a result I have positively changed my attitude towards how I will do things in future.							
I think this gives everyone attending a better understanding on what happens on the fireground and how rapidly things can change.							
The timing was great, earlier than 6 months post the incident and I don't think there would have been the same participation from the people involved. It was an excellent way to debrief and understand. It also helped to remind me of things I was doing, the priorities I was dealing with.							
Such a fantastic learning experience. Great to be involved.							
This was one very small snap shot that highlighted a number of really good things and some other not so good.							
Need to make the most of what can be learnt from these days. Good to have unbiased facilitators.							



Dunalley Field Ride – Survey Results

Q7: To what extent would you recommend participating in a field ride like this to a colleague? (please rate on a scale of 1 to 7 where 1=low and 7=high)

Answer Options	1 (low)	2	3	4	5	6	7 (high)
Recommend participation?	0	0	1	0	4	1	14
Comments							
Anyone who is an operation roll IE Firecom Logistics Planning if they have not been to a decent fire themselves.							
Best chance to learn from those who were there							



Dunalley Field Ride - Survey Results
Q8: Do you have suggestions for improvement?
Excellent sessions both on the day of the field ride and the next day.
It would be good to get more people exposed to the field ride. So either run again with a different audience or in future run with multiple buses and groups.
The overall plan was sound; additional people could have been transported on another bus with an audio link to listen to the crews. This could also be a complication that is not worth the pain. I do not think the participants could present the same insight or want to go through another field trip.
Well done to all concerned.
Not really - although maybe an earlier start on the first day would be preferable, as we ran out of daylight before we had finished visiting all affected areas. Other than that it was well run and I got plenty of information out of it.
It is important to emphasise that the 'story' is one of many and that they are all important. Facilitators and participants at times made negative comments about the IMT without understanding what was happening in the IMT. It made IMT members feel targeted and upset, particularly when the things that were said were untrue. This was a negative part of the field ride and I am concerned that it could have a negative impact upon people in future.
This was about the field operation. Next time it needs to be acknowledged earlier that there is more than 1 story, and the IMT won't then feel so attacked.
The integration phase is very important, so allocating more time to this on the second day, and perhaps making it a full day, should yield better results
No
No it was excellent, well done to all involved in bringing the field ride together!
There needs to be a mechanism to ensure that people who worked on elements of the job other than the part being reviewed don't feel devalued.
There was necessarily time taken to explain how we see / hear things differently which was good but hopefully they will not be repeated on every ride.
It would have benefited from an insight into the IMT. It sounded like we had a structure in place and they weren't really involved. However, I understand this was about what happened at the tactical level.

Dunalley Field Ride – Survey Results

Q9: To what extent would you be willing to:
(please rate on a scale of 1 to 7 where 1=not at all and 7=definitely)

Answer Options	1 (not at all)	2	3	4	5	6	7 (definitely)
a. have an event you were involved in developed as an on-site learning field ride	1	0	0	2	3	5	9
b. share your own story in such an event	0	0	1	2	4	7	6
c. facilitate or develop a field ride for others	4	2	0	1	2	4	6

