

## **AFAC STREAM PAPER**

Summary and Analysis of Review into Operational Response – Lessons for the Future – ACT Fires January 2003

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### **Abstract**

The Canberra fires in January 2003 provides the fire industry with a special opportunity to draw conclusions from a fire that impacted on the critical area of urban-rural interface and was readily observed by fire-fighters, scientists and members of the community. Four people died and many more suffered injuries. The fire had a significant impact on urban dwellings and burnt large areas of natural and commercial forest. Over 500 dwelling were destroyed. The presentation outlines the nature of the investigation, what occurred during the fire event, and highlights lessons for future firefighting in like circumstances.

### **Paper**

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### **Introduction**

The Canberra fires reflected the characteristics of many other fires while also presenting some particular features that make them of special interest to the fire industry. Features common with many other fires include:

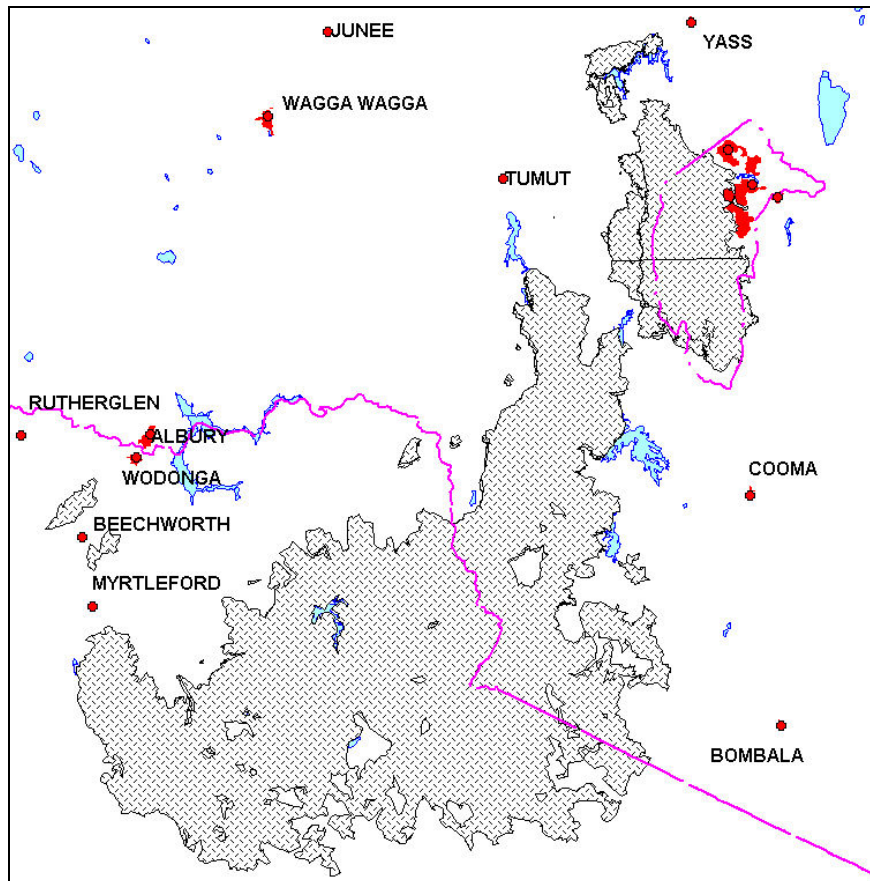
- they occurred in natural Australian bushland as a result of lightening strikes
- they were of little media interest initially as they were ‘in the hills’
- the issue of greatest concern was the rural-urban fringe
- the destruction on the rural-urban fringe occurred on one afternoon

What was unusual regarding these fires included:

- they were well observed throughout the event
- a series of fires joined to create a super conflagration with unique characteristics
- the impact into the suburban fringe extended far beyond the initial street of houses

## What Occurred

A series of fires in ACT, NSW and VIC started as a result of a dry lightning storm that passed over the alpine region on the afternoon of 8 January. These fires remained small for some days but were not easily accessible and indirect attack was adopted to contain the outbreaks. While conditions were benign for about a week they altered on the afternoon of 17 January and became severe on 18 January. The fires fused together on that day and became a major firestorm that impacted on the western fringe of Canberra on the afternoon of 18 January 2003. The fire behaviour is still being studied by CSIRO and others - and will not be detailed here. A day by day description is detailed in the Inquiry report.



This diagram indicates the extent of the fires across New South Wales, Australian Capital Territory and Victoria. Courtesy of the ACT Emergency Services Bureau.

The result of the campaign fire was that four people died and many more suffered injuries. The fire had a significant impact on urban dwellings and burnt large areas of natural and commercial forest. Over 500 dwellings were destroyed and 160,000 hectares were burnt in the ACT, with further losses in NSW.

A state of emergency was declared in the ACT on the afternoon of 18 January and remained in place for 10 days. When the fire threat had passed the community sought answers to a series of questions including:

- Why were the fires allowed to reach Canberra?
- Why were ACT citizens not better prepared?
- Why was there not more external assistance?
- Why did government land managers not act to reduce the threat?

- Did the emergency services perform well?
- Are the existing arrangements as good as they could be?
- Were the fires an exceptional event?

These and other issues are addressed in the Inquiry report. However the terms of reference only refer to fires in the ACT and do not analyse the fires in adjacent NSW.

### **The Inquiry**

The Government established a review team headed by the recently retired Commonwealth Ombudsman Ron McLeod to report back to Government in time for actions to be taken prior to the next fire season. He was assisted by myself who had extensive experience in operations both within and outside the fire industry. This combination of a senior local figure and 'industry expert' is in my view a very sound model worthy of consideration in other investigations and reviews. It provides a degree of independence and balance. An executive officer and assistant supported the review team and called for written submissions, visited sites, interviewed people and was approached by a wide range of citizens and individuals impacted by the fire. Public hearings were not conducted to reduce the time involved, maintain a degree of privacy for individuals making submissions and avoid the Inquiry being used as an opportunity for various interest groups to grandstand their point of view.

It is not my intention in this paper to detail the findings of the Inquiry. These are available from the Report itself. However significant lessons were identified and I will list a number of these.

**Initial Response.** The Inquiry found that the initial response was not adequate. This appeared to be a combination of both hoping the fire would act as previous alpine fires generally behaved, with little growth and even some self extinguishment at night due to cooler conditions - and generally considering issues on a 'best case' rather than 'worst case' scenario. Further, the initial decision not to remain and fight the fires on the first night was made with little dialogue between the response commander and the ACT firefighting headquarters. Had this issue and the possible implications been discussed in greater detail, the teams first deployed to the area may have concentrated on the one fire. Alternatively other firefighting teams available at the time, may have been sent to the fires when they were first detected.

**Lesson:** *All fires commence small. All available resources should be responded to fires as early as possible in an effort to extinguish them as soon after lighting as possible. Further, all available ground and air resources should be concentrated to create the greatest impact on individual fires or fire locations. Major operational decisions need to be discussed and reviewed with senior commanders whenever possible.*

**Advice to the public was inadequate.** This issue essentially related to 17 and 18 January when the fires were nearing and subsequently impacted on Canberra. Reporting up to and during much of that time reflected a retrospective and 'best case' approach that failed to convey to the Canberra public the potential threat and the implications to households. Further, the services and infrastructure in place to achieve this public communication was inadequate. Advice to the public on 18 January was largely reliant on the ABC who performed well but in turn was dependent on information available from the Emergency Services Bureau until they were able to place their own reporters in the field.

**Lesson:** *Authorities must place great weight on keeping their communities informed. Advice must be clear, concise, consistent and timely, reflecting a worse case rather than*

*optimistic view. Effective public communications during emergencies is reliant on established good relations with the media and practised communication campaigns with local communities.*

**Public advice regarding stay or go should be resolved prior to the event.**

There was confusion in the eyes and ears of the public regarding whether they should stay or go. While fire authorities were indicating on the radio the policy position of stay and protect your home, police were in some cases evacuating residents. There were extensive late evacuations that in areas such as the Blue Mountains, Dandenongs or Adelaide Hills would have led to mass loss of life. Mercifully in Canberra, the suburban road infrastructure allowed for a large number of residents to evacuate shortly before the firestorm struck their street – but this is a deadly example to use elsewhere. The existing policy of houses protecting people and people protecting houses was confirmed as valid in Canberra and should be further emphasised.

**Lesson:** *The fire authorities in Australia through AFAC have established a national position regarding evacuation and saving property. If people are uncomfortable with the thought of staying to protect their home they should leave early, well before a fire event reaches their area. Leaving late is generally not an option. An agreed position needs to be reached by both police and fire authorities prior to facing such emergencies.*

**Major program of community education is required.** In places such as Canberra where there are regular grass fires but only occasional major wildfires and no house has been lost to bushfire for 50 years, informing and motivating the public is difficult. That said, there was no doubt that more information was required and the attitude of the community needs to change. Apart from an ongoing campaign, targeted comprehensive information, available ‘just in time’ as the fire approached Canberra, was required for threatened communities.

**Lesson:** *Community education needs to be ongoing and delivered in as many varied forms as possible to reach the greatest possible number of community members. Local neighbourhood groups, street meetings, pamphlets, television advertisements, radio grabs, school and shopping centre visits are all needed to help prepare the public prior to such an event. Local communities must become aware of major fire threats.*

**Prescribed burning should increase.** While it was acknowledged that this is only one form of bushfire mitigation the Inquiry found that greater prescribed burning did need to occur in the ACT by land managers. The Inquiry did not specify how much more, other than to indicate a substantive increase particularly in natural forests. This finding was linked to other initiatives such as increased access through better prepared fire trails, a fire abatement zone between the high risk fire areas and the urban communities and more flexible response capabilities.

**Lesson:** *Fuel reduction burning is the only practical way of reducing fuel loads in natural forest. Fuel reduction burning will not eliminate the risk of bushfire, but it will assist containment during the initial response and potentially reduce the intensity of the fire. However, opportunities to conduct fuel reduction burning are limited and significant resources are required to conduct the activity.*

**Recovery Phase conducted well.** It was considered that the recovery phase of the Canberra Bushfires was best practice. This phase is ongoing and is likely to continue for some months to come. It began on the afternoon of the fires, concurrently with the ongoing fire firefighting. The local police chief coordinated this phase while the fire chief continued

focussing on the fires. While this may not be an orthodox delegation of tasks, it worked for this event.

**Lesson:** *Recovery is equally important as response - and needs to commence immediately the event has impacted. Both phases need to be conducted concurrently. It is likely that recovery in some form will continue for at least 12 months.*

**Heavy plant required by land managers.** Heavy plant is essential to alpine fire fighting and needs to be as available as fire appliances. Smaller bulldozers and graders are essential for track access and for 'rounding up' smaller fires early in the response. These were not initially available at some ACT fires and would have provided considerable benefit had they been on site and used.

**Lesson:** *Accessibility of heavy plant that is readily available is as important in alpine forest fire fighting as the availability of firefighters and fire appliances. Fire authorities need to make arrangement to ensure these additional 'tools' are in place.*

### **Other Reflections**

I have always considered that assessing fire spread was a critical task of fire managers that needs to be reinforced as a skill within ICS teams. This was generally done well in Canberra, but was reliant on too few personnel and the understanding and implications of changes in the weather were not well understood. Assessing fire spread is a key-planning task, which needs to be reinforced and taught at every opportunity. The attached mapping images of fire spread provide some indication of the initially limited and then exponential growth of the Canberra fires.

**In the end, it is reliant on the individual.** As with most things in life, in the end it comes down to the individual. During the Canberra fires in January, individual residents or their neighbours saved the vast majority of homes. While firefighters may be in a position to assist, in all probability during a major fire, it will be individual planning, actions and preparations that will most likely determine whether they and their home survive. It is inevitable in Australia that fires will occur again. The outcome from those fires is dependent on the partnership between fire authorities managing the overall event and attacking the fire and individuals protecting their own lives and property.

Finally, the Canberra fires indicated to Government that money spent on fire prevention and response is an investment in the future safety and sustainability of the community and although it comes at a cost, this cost is far less than the cost of community recovery after such a devastating event. Fire prevention and preparation for response is insurance, and needs to be viewed as a valuable risk management approach.

### **Conclusion**

The Canberra fire event of 2003 developed into a firestorm that few had seen before and Canberra has not experienced on its urban fringe for many years. The intensity of the fire and its specific behaviour is still being studied by CSIRO and others and will be analysed further. Many of the lessons identified in Canberra in January are lessons re-learned across the industry. However, this tragedy provides a powerful opportunity for the industry to reinforce these lessons and ensure communities are better prepared in the future.