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2 December 2003

COAG Bushfire Inquiry
Department of the Prime Minister and Cabinet
Parliament House
Canberra ACT 2600

Dear Sir/ Madam,

Inquiry on Bushfire Mitigation and Management

I wish to make a submission to the COAG Bushfire Inquiry.

My submission is of a general nature, relating to the management of major fires. I am currently employed by the Country Fire Authority of Victoria (CFA) as a fulltime Regional Officer, however I would like to make it clear that my submission is in a personal capacity and does not necessarily reflect the official views of CFA.

I have 25 years experience in firefighting, including 20 years as a permanent fire officer with CFA, and 5 years as a volunteer firefighter.

I feel I am in a position to compare Australian fire management with world's best practice, given my overseas experience. I was part of the first deployment of Australian firefighters to the major fires in the Rocky Mountains in 2000, and last year travelled to the USA and UK on a Churchill Fellowship to study the training of firefighters in command and control skills necessary to manage major fires.

The bulk of my submission is the report I completed as the recipient of the 2002 Churchill fellowship, and is entitled "*The Lord Mayors Bushfire Appeal Churchill Fellowship to study the training of firefighters in the command and control skills necessary to manage major fires*."

This report was completed following an intensive study tour of USA and UK looking at current world trends in training for both structural fires and wildfires. During this time I attended a number of high-level training courses both as a participant and an observer, and spent time with a number US land management agencies and fire departments.

The committee is welcome to reprint all or part of the report should they wish.

The report represents only a summary of all the information gathered during the study tour. Extensive supporting documentation is available should the committee require it.

Terms of Reference addressed:

This submission addresses the following terms of reference

- Adequacy of infrastructure and human resources for fire mitigation purposes; and
- The use of existing fire fighting resources including an examination of the efficiency of resource use and co-operation between agencies and between jurisdictions.
- The identification of best practice national measures, cooperation and standards that can be undertaken by all levels of government, industry and the community and the economic, social and environmental costs and benefits of such measures.

Submission:

1. **The use of AIIMS / ICS should continue.**

As explained above, I have had the opportunity to observe and participate in incident management teams in the USA and UK as well as Australia. The Incident Control System, (part of the Australian Inter-Service Incident Management System) sometimes comes in for criticism and I have heard a number of criticisms aired by people after the 2003 fires. I believe that these criticisms are unwarranted.

Incident control systems have a number of forms, particularly in the US where different forms of ICS have developed in parallel. (In the US they are called Incident Command Systems). The main systems in use there would be the Fire Command system originating from Phoenix, Arizona, FIRESCOPE originating in Southern California, and NIIMS developed by the federal wildfire agencies. These systems now seem to be converging and it is significant that the National Fire Academy has adopted ICS as the only system that will be taught in its extensive programs across the USA.

Although these systems vary in their detail, the principal features are all the same: one person in charge, a limit on the span of control, and a need to manage the firefighting operations in an organised manner.

It is an indication of the degree to which ICS is accepted as the preferred way to manage incidents that the UK fire services have adopted ICS in the late 1990s after West Yorkshire Fire Service introduced it. This replaces a traditional fire service hierarchical structure that had been used since fire brigades were established.

There is no doubt in my mind that AIIMS / ICS stands up well against overseas systems and will allow efficient and effective management of future major fires. The system does

need to evolve and improve; however this is a natural occurrence that all agencies should strive for.

Community expectation is that firefighters (whether paid or volunteer) will be able to work in a relatively safe environment. In order to make this happen, there needs to be a management structure in place which integrates personnel and resources of all agencies and where the fire is managed in such a way that risks to personnel can be minimised. It is not possible to have people operating independently at a fire, whether they are part of a fire service or other members of the community. Unfortunately some people cannot accept that priorities will have to be set and that as a result some properties or assets may be lost.

On occasions when fire behaviour is extreme and resources are limited, then the fire services cannot save everything. I experienced some of this reaction first hand from landowners whilst I was at Swifts Creek, and was impressed with the way Mac Stagg, a local volunteer CFA officer who was part of the Incident Management Team dealt with the local people. On that occasion the concerns of local people were listened to and a suitable solution was found.

There are a number of areas where AIIMS does need improvement. Some of the details of the ICS system are not covered in the current documentation, such as Staging Areas and Operations Points. The current review of AIIMS/ICS may resolve these anomalies. The other areas relate to parts of AIIMS other than ICS specifically the Training, Qualification & Accreditation, and Publications Management systems of AIIMS. These systems currently fall well short of the level that they should be at to ensure the proper implementation of AIIMS.

2. That resources devoted to Incident Management can be increased

Australia is not alone in facing the dangers of bushfires. It is however at a disadvantage because of the size of the continent, the spread of firefighting resources and the small relatively small numbers of fire management personnel.

By comparison, the United States has the situation where the major players in the wildfire field are Federal agencies. This is because most public land is in federal ownership. This gives the US a number of advantages:

- A large paid workforce qualified in wildfire management. The number of personnel was increased significantly in response to the fires of 2000.
- A high degree of skills in fire management because of the large numbers of events they attend.
- The ability to shift resources across the nation in response to any wildfire emergency, using the formally adopted policy of “total mobility”.
- A national standard framework for all aspects of wild fire fighting including training, equipment and co-ordination centres.

- Access to federal funds for major wildfires on federal lands. Among other things this allows payment to volunteer or career fire departments that provide personnel or resources to these fires.

The US system has particular strengths in the training and utilisation of Incident Management teams who spend large parts of their time managing major fires and incidents. The versatility of these teams can be seen in their deployment to major incidents across the USA including supporting the management of the World Trade Center (sic) incident and the search for debris from the recent Space Shuttle accident.

By comparison, Australia has virtually no federal resources involved in bushfire management, with states and territories having responsibility for management of fires. In recent years, major fire events have seen equipment and personnel moved between jurisdictions, however the framework for this remains ad hoc, and is limited by the need to retain sufficient equipment to protect their own areas.

Australia relies very heavily on volunteer firefighters to perform both firefighting and management roles. Very few personnel are involved full time in fire and incident management. Even the land management agencies rely on personnel who leave their substantive roles to fight and manage fires, and these people could be seen as being similar to volunteer firefighters in this way.

It is interesting to note that although the Australian Government made offers of payments to assist volunteers who fought fires around Sydney in the last few years, no equivalent scheme was made available to support volunteers during the Victorian fires of 2003.

Australia can particularly learn from the following aspects of the US system:

- Standardisation of terminology, equipment and procedures to facilitate the movement of firefighters and fire managers
- Permanently staffed co-ordination centres to assist with resource support to fires, and the rapid movement of people and equipment
- Standardised training, qualifications
- Nationwide Incident Management teams trained to assist local agencies with major incidents
- Payment of volunteers during major fires

1. **That Incident Management skills for those involved in Command and Control Roles can be further improved**

I do not wish to reflect adversely in any way on any individuals who were involved in the major fires during the 2002-2003 fire season. I do believe however from my direct observations during that time and from more general experience that the training of personnel who manage major fires can be improved.

This is not to say that Australian practices are significantly worse than other countries with similar risks, indeed many of our fire services provide a service equal to any that I have seen in the world. Rather, I believe that we should be constantly improving our systems, training and technology to enable our personnel to function at the highest level.

Australia currently lacks a national level course or program to impart skills to those involved in major fires. By comparison, the USA reaps the benefits of a comprehensive training program that progressively develops skills up to a very high level – (National Wildfire Co-ordinating Group training programs). The training curriculum for Australian firefighters is very good, however there are significant gaps at the higher levels.

The proposals to establish a Co-operative Research Centre to investigate issues relating to bushfires will be very valuable. The paradox is that the more information available to incident managers, the more difficult their task becomes because of potential information overload. A rapidly developing bushfire has the potential to overload both people and systems very quickly. Consequently a high priority must be placed on decision support systems, and training for personnel in decision-making and incident management.

I believe that improvement can be made in the following areas:

- Building links with academic research and use of current material in training programs;
- Establishment of a national level incident management course,
- Effective inclusion of “Lessons Learned from Case Studies”, both in formal training programs, and for individual skills maintenance,
- Integration of computer simulation into training for command personnel;
- Inclusion of “Human Factors” issues in training and development for command personnel;
- Incident management exercises that recognize the importance of team interaction to successful incident management (most training programs tend to concentrate upon giving the individual skills and qualifications);
- Skills maintenance programs for command personnel at all levels;
- Allocating sufficient resources to command training. This may be resource intensive, but capital investment (e.g. computer simulators) cannot take the place of appropriate staffing for command training;
- A formal process of analyzing effectiveness of individuals and teams following operations and exercises.

I would be happy to expand upon this submission should the inquiry wish.

Yours faithfully

Stephen Walls

Recommendations of Churchill Fellowship Report
(Direct excerpt from the report, page 23)

As a result of this study tour, the author recommends that Australian fire services and land management agencies:

1. Investigate the use of high-level command simulators such as Hydra or Minerva by Australian fire agencies.

2. Continue to support the development of Australian scenarios of Vector command simulator.

3. Establish links with key agencies and individuals in the UK and USA in order to exchange information.

4. Disseminate information from overseas sources within each agency with a particular emphasis on getting information to personnel likely to manage major incidents.

5. Support research into human factors issues related to command roles.

6. Continue to review material from USA, UK and other countries to determine potential for use in Australian training programs.

7. Promote links with academic researchers both in Australia and overseas

8. Promote and support research by fire service personnel into operational command issues.

9. Establish exchange programs to allow serving members of Australian fire agencies to participate in command training and observe operational activities with leading fire services in the UK and USA.

10. Ensure that qualifications to undertake command roles include an evaluation of both the individual's role related skills, and ability to work as a member of a team.

11. Take every opportunity to disseminate Case studies of lessons learned from major incidents throughout Australian fire services, identifying both good and bad lessons learned.

12. Support future study tours (whether by Churchill fellows or not) to investigate relevant areas of interest in similar fields.

About the Author, **Stephen Walls:**

20 years experience as a professional officer in the Country Fire authority (CFA), and prior to that 5 years experience as a volunteer firefighter. Currently holds the rank of Regional Officer.

Academic Qualifications: BAppSci, CertTech (Fire Tech), Grad Dip Bus (Mgt), MBA (HRM).
Professional Qualifications: Graduate Member of Institution of Fire Engineers (by examination)

Professional Experience:

Has held position in charge of CFA Training College (Fiskville), and management positions advising on operational policy and training at CFA headquarters. Currently Operations Manager of CFA Region 15 based in Ballarat.

Has developed and conducted a wide range of training for personnel who manage fires and incidents.

Was involved in the establishment of the State Aircraft Unit August – December 2001.

Member of national working party advising on Incident Controller training for the Australasian Fire Authorities Council since 2000.

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Operational Experience:

Incident Controller, Deputy Controller and Planning Officer at number of Type 3 incidents, including wildfires and Longford Gas Plant. Member of first deployment of Australian firefighters to wildfires in Northern Rockies region of USA, August-September 2000. Deputy Incident Controller at Swifts Creek and Ovens during the major fires in North East Victoria and Gippsland in January and February 2003.