

# FIRE UPDATE

BUSHFIRE CRC NEWSLETTER JULY 2012

## FIREFIGHTERS STRESSING FOR RESEARCH

Measuring the effects of stress, heat, smoke and sleep deprivation on firefighters, the Bushfire CRC and the ACT Parks and Conservation Service have just completed field research aimed at simulating a multi-day bushfire operation.

Part of the Bushfire CRC project *Operational readiness of rural firefighters during bushfire suppression*, led by Dr Brad Aisbett from Deakin University and Dr Sally Ferguson from Central Queensland University, the simulation will provide invaluable information to assist in understanding the cumulative effects of fatigue, heat and smoke on firefighters.

The exercise (pictured right) took place in the ACT, and is hoped to provide valuable data on the conditions firefighters face while fighting a bushfire. Designed to replicate a real life bushfire scenario, the exercise simulated a situation where firefighters are called to a bushfire during the afternoon and work on the fireground until a relief crew arrives, then sleep, complete a 12-hour shift, sleep again and then complete a second 12-hour shift.

In full firefighting uniform, the firefighters



performed strenuous physical firefighting tasks over four days and nights. Researchers varied factors such as temperature, smoke concentration and the amount of sleep each group had. Physical and cognitive tasks were performed by each firefighter every two waking hours, aimed at measuring the effects of the different research factors.

Based on the research findings, the Bushfire CRC will be developing specific training and guidelines to better assist the health and safety of firefighters.

## MINISTER OPENS COUNCIL

South Australia was making its contribution to keeping communities safe from bushfire through its participation in the Bushfire CRC, according to the South Australia Minister for Emergency Services, the Hon Jennifer Rankine MP (right), who opened the Bushfire CRC Stakeholder Council in Adelaide on 27 June.

Ms Rankine said the Bushfire CRC has produced tangible results for her state, including how to better manage emergency incidents, advice on how best to use aircraft for firefighting and the effect of extreme weather on fires.

The Council meeting also discussed the recommendations out of the recent Performance Review by the Australian Government of the Bushfire CRC and progress



towards ongoing funding for a national fire research program.

The chairman of the Bushfire CRC, Mr Len Foster AO, thanked the Country Fire Service and the University of South Australia for their support in hosting the meeting. The Stakeholder Council is made up of representatives from all Bushfire CRC partners, and meets twice a year.

### RESEARCH BLOG RICHARD THORNTON



It's July already, and I'm not quite sure where this year has gone. A number of significant events are now behind us and all seem to be getting better and better. The RAF meeting in Hobart was an ideal opportunity to hear from a number of our researchers, with all presentations of very high quality, and again a highlight was the student presentations. We have also conducted a well-attended seminar from Dr Marty Alexander on the art and science of fire danger ratings.

I also had the opportunity to attend the recent forum held by Scion in Rotorua. The Bushfire CRC was well represented, with presentations from researchers Dr Sally Ferguson and Dr Fabienne Reisen and lead end user Neil Cooper. There was a lot of interest in the work being conducted in the Bushfire CRC.

More recently we have held our Stakeholder Council meeting in Adelaide. The meeting was addressed by the South Australian Minister for Emergency Services, the Hon Jennifer Rankine. Also discussed was the future of the Bushfire CRC and plans to transition into a Research Institute, and the steps needed to secure funding from the Commonwealth.

Coming up soon is the annual conference, where the Bushfire CRC partners with AFAC for Australasia's biggest emergency management conference. The Research Forum held on the Tuesday of the conference will showcase much of the work of the Bushfire CRC, as well as presentations from outside the Bushfire CRC. I look forward to meeting you there.

# SCIENCE AND FIRE DANGER



Australian fire experts discussed the science behind fire danger ratings at a Bushfire CRC seminar in June.

In this seminar Dr Marty Alexander (pictured above) provided a broad overview of the fundamental principles of fire danger ratings.

## EMERGENCY MANAGEMENT AND THE LAW

Bushfire CRC researcher Dr Michael Eburn is the Guest Editor of a special edition of the *Australia Journal of Emergency Management*.

The April issue is a special legal edition featuring important papers on the role of the law in emergency management in Australia. It features papers by Bushfire CRC researchers Ms Rachel Anne Carter (La Trobe University), Dr Michael Eburn and Professor Stephen Dovers (Australian National University)

The seminar was part of the Bushfire CRC Professional Development event series – it was co-hosted with the New South Wales Rural Fire Service and the University of Sydney.

A video of the seminar is on the Bushfire CRC [website](#).

and Professor John Handmer and Dr Blythe McLennan (RMIT University).

Bushfire CRC Deputy CEO and Research Director, Dr Richard Thornton, also provided an introductory overview for the edition.

The *Australian Journal of Emergency Management* is produced quarterly, and is available on the Australian Emergency Management Institute's [website](#). Subscriptions are also available in hardcopy free of charge.

### STUDENT BLOG **LYNDSEY WRIGHT**



By now you all know how much we value our students and how interested we are in your studies. We touch base face to face as often as we can, but sometimes we miss people in this informal process. To help us to stay in touch and give you the best possible support from the Bushfire CRC

we have introduced an 'Annual Review'. This Annual Review is simply a brief teleconference involving the student, the supervisor, our Research Director Richard Thornton and myself, which gives us a chance to talk to each student and their supervisor at least once a year to get an update on progress and to identify any ways in which the Bushfire CRC may assist. While the reviews are simple, they are important, and we seek your support and cooperation to find a mutually convenient time to touch base.

### IN BRIEF

#### SCIENCE PARTNERSHIPS

The Research Forum is a key part of the Bushfire CRC and AFAC annual conference, and one of its most popular events, highlighting the diversity of the research being conducted. Featuring presentations from Bushfire CRC researchers and the wider research community, the forum is not just for scientists – it is a great opportunity for end users to learn about the current research, as well as meet the researchers. These partnerships are an important part of the Bushfire CRC. Make the most of the conference and attend the Research Forum on Tuesday 28 August. Registrations are available on the conference [website](#).

#### FIRE IN THE NORTH

Fire managers from across the north of Australia discussed topics of current interest to the region at the Northern Australian Fire Management Forum in Townsville in June.

An outcome of the meeting was the annual Bushfire Seasonal Outlook for northern Australia, which will be publically distributed as a Bushfire CRC *Fire Note* and made available on the Bushfire CRC website.



Above: The Forum field trip looked at the fire mitigation works and interface issues with communities around Townsville.

#### LIVE ON THE WIRELESS

The Bushfire CRC took to the airwaves of Melbourne's community radio station Triple R throughout June, with Deputy CEO and Research Director Dr Richard Thornton, Professor Jim McLennan (La Trobe University) and Dr Brad Aisbett (Deakin University) guests on the *Einstein A Go-Go* science show.

Over three successive Sunday's Richard gave an overview of the Bushfire CRC, Jim talked about how people make decisions under the stress of a bushfire and Brad discussed research into the effects of heat, smoke and sleep deprivation on firefighters. Podcasts are available of each show on the Triple R [website](#).

### RESEARCH UTILISATION BLOG **NOREEN KRUSEL**



The past couple of months have been exciting times for the adoption of our Human Factors research into the industry. We have held a number of workshops, facilitated by Dr Christine Owen of the

University of Tasmania, representing the research from her team, as well as that of Dr Mary Omodei's team from La Trobe University.

The workshops were designed to provide participants with an understanding of those human factors that are currently believed to influence decision making and performance in emergency services contexts. The workshops have been very well received; we have even had a comment from a participant – "More more more please!"