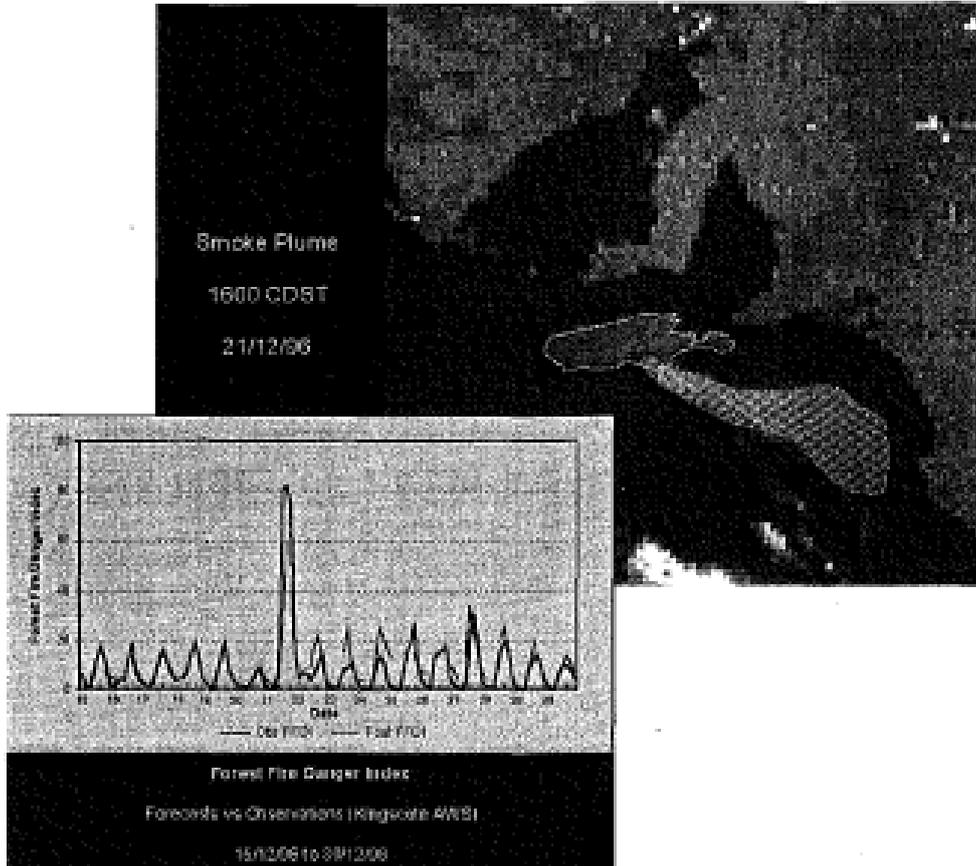


# BUREAU OF METEOROLOGY



## 7th FIRE WEATHER WORKSHOP 7-11 SEPTEMBER 1997 HOBART TASMANIA

## **SUMMARY**

The Bureau of Meteorology's 7th Fire Weather Workshop was held in Hobart, 7-11 September 1997. These workshops aim to provide a forum for fire weather forecasters and other interested participants to discuss a range of scientific and operational matters, and issues related to the Bureau's fire weather service. The format included sequences of formal presentations interspersed with open discussion sessions. Key points arising from these discussion sessions were recorded as action items (where relevant participants could resolve to carry them out), recommendations (where the identified actions would need to be proposed to people outside the workshop) and issues (where there were no identified actions).

Two field trips were included in the program. The first was a full day trip which included an interesting visit to the Hartz Mountains and the Automatic Weather Station there, lunch by the Huon River, a walk to a buttongrass plain, and a tour through a demonstration forest highlighting several issues in forest management. Attempts to demonstrate the ease with which buttongrass burns were only partially successful since it had been raining during the day, humidity was high and wind speeds were light. The second trip was a half day tour of the Hobart urban fringe including Mt Nelson. The wet weather prevented a prescribed burn from being undertaken. These field trips were made possible through the excellent efforts of the three Tasmanian agencies involved in fire management (Forestry Tasmania, the Tasmania Fire Service, and the Parks and Wildlife Service of the Department of Environment and Land Management), in cooperation with Tasmanian Severe Weather Section staff.

A specific theme of this workshop was fire behaviour modelling, with the aim of promoting the understanding of models, their utility and limitations. Guest presenters were Wendy Catchpole, Phil Cheney and David Packham, Australian experts on fire behaviour. A range of presentations over two days provided interesting and stimulating insights into many issues surrounding the use of fire behaviour models.

Topics which emerged strongly in discussions included: services in support of prescribed burning and smoke management; training in fire weather, fire behaviour and fire management; weather observation systems such as portable A WS, the permanent A WS network and airborne systems; benefits from more accurate and higher resolution numerical weather prediction models; charging regimes; and forecast verification and performance measurement. Some notes of these discussions are included in this report and key points are highlighted.

*Program Monday 8<sup>th</sup> September Fire Behaviour*

0815 -0845	Registration	
<b>Time</b>	<b>Presenter</b>	<b>Topic</b>
0845 -0905	Hugh Hutchinson Peter Noar John Bally	Welcome Opening Housekeeping matters
0905 -0935	Russell Stringer	Setting the scene: report on previous recommendations
0935 -1020	Phil Cheney	McArthur's Fire Danger Rating Systems
1020-1040	open discussion	How diverse is our use of the McArthur models around Australia?
1040 - 1100		Monrning Tea
1100-1145	David Packham	Beyond McArthur -Forests (Red Book; Krusel model... )
1145-1230	Phil Cheney	Beyond McArthur - Grasslands (new CSIRO model)
1230 -1300	open discussion	What are the advantages and disadvantages of McArthur and other models?
1300 - 1400		Lunch
1400 -1500	Wendy Catchpole	Building empirical models -data sets, data analysis, examples (Tas Buttongrass Moorlands; WA Heathland; ... )
1500-1520	Jon Marsden-Smedley	Operational fire management in Tasmanian Buttongrass Moorlands
1520 -1540	Lachie McCaw	Fire behaviour research in WA
1540 - 1600		Afternoon Tea
1600 -1640	David Packham	Further perspectives on fire behaviour
1640-1700	Greg McCarthy	Surface and gradient atmospheric conditions and their effect on a prescribed burn in coastal heathy woodland in Victoria
1700 -1720	Rick McRae	Recipe for a good fire model
1720 -1800	open discussion	What do meteorologists need to know about fire behaviour?
		<i>End of Day</i>
2000 - 2200	Informal session	WEB demos/show & share computer applications/videos * Andrew Watson: SA enhancements to fire weather services + preparation/dissemination of graphical products * Peter Billing: IR (line scan) imagery * Tony Leggett: Victorian fire weather services via WEB * others .....

*Program Tuesday 9<sup>th</sup> September Fire Behaviour*

<b>Time</b>	<b>Presenter</b>	<b>Topic</b>
0900 -1000	Wendy Catchpole	Rothermel and the U.S. NFDRS
1000-1100	Wendy Catchpole	Physical models - an overview; new Rothermel
1100 - 1120		Monrning Tea
1120 -1150	Dick Chuter	Weather and fire behaviour information for planning a prescribed burn
1150-1220	open discussion	Do Bureau services adequately support prescribed burns?
1220 -1250	Dick Chuter, Tony Blanks and John Bally	Preparing the weather forecast and the plan for this afternoon's prescribed burn
1250 - 1330		Lunch
1330 -1800	Tas Fire Service	Field trip plus attempted prescribed burn
		<i>End of Day</i>
1930 -	Conference Dinner Mures Upper Deck Restaurant, Victoria Dock	With a few words from: Peter Noar Assistant Director Services, Bureau of Meteorology

<i>Program Wednesday 10<sup>th</sup> September Fire Weather Services</i>		
<b>Time</b>	<b>Presenter</b>	<b>Topic</b>
0900 - 0930	Russell Stringer	Fire Weather Services: * highlights from 1995-97 activities * Fire Weather Services draft strategic plan
0930 -1000	Tarini Casinader	Implications of Bureau reviews and ACCC settlement; & AMDISS - the future of electronic access to and delivery of Bureau services.
1000 -1020	Tony Leggett	Status of the Victorian fire weather services in the AIFS environment
1020 -1040	John Bally	Graphical fire weather products
1040 - 1100	Open discussion	
1100 - 1120	Morning Tea	
1120 - 1130	Russell Stringer & Tony Leggett	The portable AWS project
1130-1200	Jeff Stickland	Observation updates (GPATS, AMDAR, profilers, aerosonde)
1200-1220	Peter Billing and Greg McCarthy	Operational atmospheric profiling
1220 - 1250	Open discussion	
1250 - 1400	Lunch	
1400 -1420	Ian Shepherd	Fire weather forecasting in the top end of the NT
1420 -1440	Rob Vandorrser	CFA and the OMS
1440 - 1500	Andrew Watson	Forecast quality issues of a wildfire event
1500 -1520	Richard Rattley	Preparation of forecasts for CALM
1520 -1540	Dennis Page	Bureau of Meteorology - meeting it's clients' needs
1540 - 1600	Open discussion	
1540 - 1600	Afternoon Tea	
	<i>Matching services to requirements</i>	
1630 -1730	syndicate discussions	topics as nominated by the meeting
1730 - 1800	Plenary session	
<i>End of Day</i>		
2000 -2200	open discussion	

<i>Program Thursday 11<sup>th</sup> September Fire Weather Services</i>		
<b>Time</b>	<b>Presenter</b>	<b>Topic</b>
0900 - 0920	Allan Beattie	Fire weather forecasting and operational experiences in the January 94 (NSW) and Ash Wednesday (Feb 83 SA) bushfires
0920 - 0940	Tony Leggett	Meteorological aspects of the January 21 fires
0940 -1000	Graeme Mills	A tale of two fronts
1000 - 1020	Andrew Treloar	Evaluation of the NSW HIRES model output
1020 -1040	open discussion	
<b>1040 - 1100</b>		
<b>Monrning Tea</b>		
1100-1120	Sue Dargie	Fuel assessment... can we make it more objective?
1120-1130	Steve Pendlebury	Report on grassland curing workshop
1130-1150	Paul Fox-Hughes	SOI and fire weather in Tasmania
1150-1200	Ian Barnes-Keoghan	Progress of the current El Nino event
1200 -1220	open discussion	
<b>1220 - 1300</b>		
<b>Lunch</b>		
1300 -1450	Tarini Casinader, John Bally & Russell Stringer	Plans and priorities
1450 -1500	Andrew Watson	Wrap up
<i>End of Day</i>		

## Participant List

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