

# BUSH FIREbulletin

THE JOURNAL OF THE NSW RURAL FIRE SERVICE

## A ferocious season

**IN THIS ISSUE:**

WRAP UP OF THE 2012/13 FIRE SEASON  
WAS IT REALLY THAT HOT IN JANUARY?

SAVING THE SIDING SPRING OBSERVATORY  
DEPLOYMENTS TO ASSIST IN TASMANIA



# Contents



02                      12                      17                      38                      40

<b>01 FOREWORD</b>	<b>30 JANUARY FIRES</b>
	30 Remote just got more remote
<b>02 IN FOCUS</b>	<b>32 DECEMBER FIRES</b>
	32 Geegullalong fire
<b>04 JANUARY FIRES</b>	<b>34 GENERAL NEWS</b>
4 Records are broken and the Service is tested	34 Recruit, retain and thrive – flexible membership to attract today’s volunteers
6 It’s official: the hottest summer on record	36 From little things, big things grow
8 Ferocious: The Wambelong fire	37 Things aren’t always what they seem, home-made explosive awareness
12 Through grass and forest: The Yarrabin fire	38 Better to save the Devil you know
14 Speed and fury: The Cobbler Road grassfire	<b>40 BRIGADE IN PROFILE</b>
17 Side by Side: Field Operations Assistants making a difference in the field	40 Cameron Park
20 18 January 2013: Aberdare, near Cessnock	42 Terrey Hills
21 Going in to bat for the flying-foxes	44 Colinton
23 Shiny new uniform: A personal account of the Warrigal Fire	<b>28 GENERAL NEWS</b>
	46 Tracing the footsteps of arsonists
<b>25 LIFT OUT</b>	48 You, sir, need a fire plan!
25 Honouring the Australian Fire Service Medal Recipients	50 “A very positive program”
	51 Local solution for local terrain
	52 Fears and myths in fire law
	<b>53 BUSH FIRE BULLETIN SURVEY</b>

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# Foreword



The fire season we have just experienced will be remembered as one of the most challenging in recent times.

In terms of the level of risk leading up to the season, the conditions we experienced, the scale of loss, and the public demand for timely information, it was one of the busiest we’ve seen.

The peak of the season was in January with a number of large and destructive fires in areas such as Coonabarabran, the Shoalhaven, Yass, Cooma and Bega Valley.

During this time we saw temperature records broken, the first Catastrophic fire danger ratings for forested areas with large population centres, and an unprecedented demand for information about fire activity.

It was of course a devastating time for many people across NSW, with widespread loss of homes, stock, fencing and machinery. Among those affected were our own members, some of whom lost their homes.

While the losses are immense for those involved, we need to remember that they could have been so much worse.

We can never be complacent about the risk of fire, however one aspect we should all be proud of is the fact that no human lives were lost.

Perhaps the biggest factor in reducing the losses was the extraordinary work of firefighters, as well as those in critical behind-the-scenes roles. During this time, the unique coordinated firefighting arrangements we have in NSW shone through as one of our strengths.

The contribution of aircraft, our ongoing investments in warnings and public information, the provision of state-of-the-art equipment, and the training provided to our members also had immeasurable effect.

While the January fires rightly received much of the attention, it is worth remembering that in the State’s north and west, our members were busy as far back as July and August dealing with significant fires.

This season has been an extraordinary team effort and I want to thank each and every person, no matter what their role, for their contribution.

While this is a time to reflect on the season just passed, the work of preparing for next fire season has already commenced and I encourage you to maintain the momentum and ensure we, and the community, are as best prepared for the season and years ahead.

Shane Fitzsimmons, AFSM  
NSW RFS Commissioner

## Mardi Gras Parade in Sydney



A big crowd turned out to support the Mardi Gras Parade on Saturday 2 March 2013 in Sydney's Oxford Street. The NSW RFS 'float' received a warm welcome with more than 50 members of the Service accompanied by a NSW RFS fire truck and support vehicle. The NSW RFS has participated in the Mardi Gras Parade for the past six years. Photo by Ben Shepherd

## A heartfelt thank you



In mid-January 2013 the Millingandi bush fire claimed Luke Mallinson's beloved family home in the Bega Valley. Upon hearing that some of firefighters were disappointed about the loss Luke wrote to the RFS: "Our entire family would like to say a huge thank you. We were amazed at the effort that was taken to save our house, we understand you did the best you could and we thank you for that. You are true heroes."

## Salute to Summer Heroes



In February 2013, eight NSW RFS members who were active in the recent fire season were lucky enough to be selected to enjoy a luxury two-night cruise on Queen Mary 2 from Brisbane to Sydney in February 2013. It was part of a 'Salute to Summer Heroes' by Cunard Line/ Carnival Australia. Congratulations to all involved and very big thank you to Cunard Line/ Carnival Australia for the initiative and generosity. (L-R) Tamara Joukoff, Far South Coast, Garry Best, Gosford, Barry Grob, Northern Tablelands, John Brisbane, Canobolas, Brian Lynn, Shoalhaven, QM2 Captain, Jeff Bartlett, Tamworth, Phil Clarke, Lake George, Nicole Clarke, Lake George and Peter Greenwood, Lake George. Photo courtesy of Cunard Line/ Carnival Australia

## Retirement of Assistant Commissioner Keith Harrap, AFSM



Following 44 years of commitment to the NSW RFS, Assistant Commissioner Keith Harrap retired in July 2012. He joined the Service as a volunteer member of Ku-ring-gai Brigade in 1968 and went on to play many key executive roles. He was awarded the Australian Fire Service Medal in 1999 and made a significant contribution to the International Association of Fire Chiefs. Farewell Keith and thank you. Photo by Jacqueline Murphy

## Royal Showgirl: Kennedy Tourle



The Service's own Kennedy Tourle was announced the winner of 2013 The Land Sydney Royal Showgirl at the Sydney Showground over Easter. Kennedy is the Community Safety Officer at the Dubbo Fire Control Centre. Along with the title of 2013 The Land Sydney Royal Showgirl, she will be taking home a \$10,000 cash prize. Congratulations Kennedy!

## She gave her all



This image brought a smile to faces of the weary crews as they arrived back at the Tallmore 2 Staging Area in the Bland Temora Zone early on 10 January, 2013. Thirteen-year-old Shia-yane Mackellar, Junior Member of the Weethalle Brigade, had been up all night as part of the catering crew ensuring that all the returning firefighters did not go hungry. Photo by Jayson Mackellar

## New Emergency Services Commissioner for the ACT



In January 2013, after nearly 30 years with the NSW RFS, Assistant Commissioner Dominic Lane, AFSM was appointed as Emergency Services Commissioner for the ACT. He is now responsible for the ACT Fire Brigade, RFS, SES and Ambulance Services. Commissioner Fitzsimmons said: "I have been inspired by his leadership, sincerity and passion and have no doubt that he will thrive in his new appointment to the ACT." Photo by Jacqueline Murphy



# Records are broken and the Service is tested

January 7 to 21 saw some of the worst bush fire conditions in several years. Temperature records were broken and a number of 'firsts' took place for the NSW RFS.

While temperatures soared across the State, more than 10,000 firefighters were deployed to contain the multiple fires that burned. Public information and the media played a vital role in keeping the community safe and literally millions of people engaged with the NSW RFS communication channels throughout January.

Throughout, the NSW RFS members showed themselves to be extraordinarily professional. As one TV producer asked: How did you guys get so good?

## Fire Weather

January 2013 was the hottest month on record for NSW.

Three major frontal systems moved through the State in January on 8 January, 13 January and again on 18 January.

*Tuesday 8 January:* Strong winds and hot temperatures

combining to cause widespread Severe fire danger, with a number of districts reaching Extreme to Catastrophic Fire Danger levels. Deans Gap, Yarrabin, Cobblers Rd fires were the focus on this day.

*Sunday 13 January:* A trough moved through bring a spell of Severe fire dangers, culminating with a very strong southerly change combined with a dust storm in north western districts on the evening of the 13. The Coonabarabran fire was the focus on this day.

*Friday 18 January:* A strong frontal system crossed the State on the 18 January, bringing another day of widespread Severe fire danger, with Extreme to Catastrophic levels reached in a number of districts.

This was the first time that NSW had experienced Catastrophic fire danger ratings in forested areas including the Illawarra/Shoalhaven and the Southern Ranges. Catastrophic Grass Fire Danger Indexes were also recorded in Bombala, Condobolin, Hay, Nowra and Wagga. Catastrophic Fire Danger Ratings were also

experienced on 13 January in Coonamble and again on 18 January in Bombala and Wagga Wagga.

Extreme Fire Danger Ratings were recorded in Albury, Bega, Cooma, Deniliquin, Goulburn, Griffith, Ivanhoe, Orange, Parkes, Sydney Airport, Tiboburra and Williamtown RAAF base.

Over the two weeks between 7 and 21 January more than 650,000 hectares were burnt, 10,500 firefighters from NSW RFS, FRNSW, NPWS and Forests NSW were deployed. Of the 14 days, four were Statewide Total Fire Bans and eight days had Total Fire Bans

in some districts. There were 41 Section 44 declarations in that period.

Fortunately, and to the credit of the entire Service and supporting agencies, there was no loss of human life.

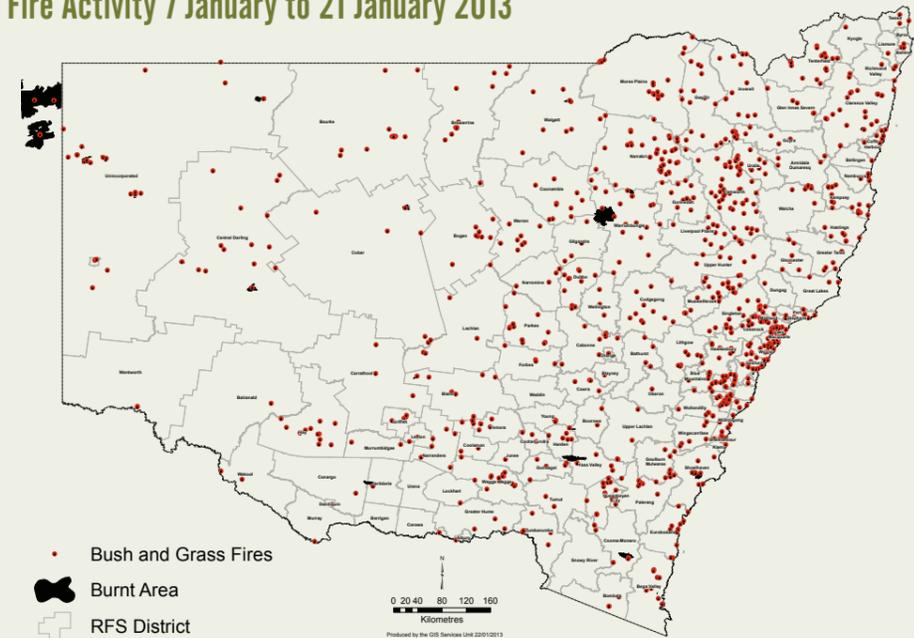
There were, however, 57 homes lost and 149 other structures such as outbuildings, and sheds were lost – mostly in Coonabarabran. Agricultural losses were severe in some areas with thousands of head of stock lost, 1,700km of rural fencing destroyed and 33,000ha of pasture burned.

## Weather Extremes in January 2013

Maximum in January	Value	Dates	Location
Forest Fire Danger Index (FFDI)	126 <i>(Catastrophic is over 100)</i>	8 January 18 January	Wagga Airport
Grass Fire Danger Index (GFDI)	200 <i>(Catastrophic is over 150)</i>	8 January	Wagga Airport

ABOVE: Extremes for January. Note that some areas in the west of the State are predominately grass and do not register a FFDI calculation.

## Fire Activity 7 January to 21 January 2013



ABOVE: Fire activity from 7 January to 21 January

LEFT: The smoke plume building late on 13 January 2013 outside Coonabarabran. Photo by Alex King

## Communications and information effort

Many of the changes instituted after the 2009 Black Saturday fires in Victoria were put to the test in January. Communications and public information innovations were very successful in preparing the public for the very hot weather.

The NSW RFS website became a trusted source of up-to-the-minute information. A full list of the extraordinary numbers of visitors to NSW RFS communications channels appears in the table to the right.

## A summary of Information and Warnings in January 2013

Medium	7-21 January	8 January 2013
NSW RFS Website	8.7 million views	2.7 million views (1 million unique visits)
NSW RFS Facebook	27.6 million impressions	6.8 million impressions
NSW RFS Twitter	15.5 million impressions	5.0 million impressions (trending 4th globally)
Bush Fire Survival plan	55,000 downloads	16,700 downloads
Bush Fire Information Line	Over 26,300 calls received of which 12,600 taken by operators	Over 7,500 calls received of which 2,860 taken by operators
Emergency Alert	99 campaigns (of which 43 used location based function)	784,000 text and 224,000 fixed line messages sent on 7 January (Catastrophic FDR alone)
Fire Near Me app	Over 150,000 downloads in January Used over 750,000 times in January	12,000 downloads More than 80,000 fire searches an hour
ICON - Incident Control Online System (multi-agency use)		More than 1000 concurrent users at peak
MyRFS volunteer information site	150,000 views	21,000 views Over 1600 concurrent users at peak activity

# It's official: the hottest summer on record

By Simon Louis and the Bureau of Meteorology

This summer hasn't just felt hot, it's been hot. The numbers are in and the Bureau has confirmed this past summer has been Australia's hottest on record.

Average temperatures across the country came in at 28.6 degrees Celsius, 1.1 degrees Celsius above normal and exceeding the previous record set in the summer of 1997-98 by more than 0.1 degrees Celsius. A new daytime maximum temperature record was also set at 35.7 degrees Celsius, or 1.4 degree Celsius above normal, and 0.2 degrees Celsius above the 1982/83 record.

The most extreme heat occurred in the first three weeks of January during an exceptionally widespread and prolonged heatwave. A new record was also set for the number of consecutive days the average maximum daily temperature for Australia exceeded 39 degrees Celsius – seven days between 2 and 8 January 2013, almost doubling the previous record of four consecutive days in 1973.

Sydney recorded its hottest day on record at 45.8 degrees Celsius on 18 January. Of the 112 locations used in long-term climate monitoring, 14 had their hottest day on record during the summer of 2012/13 – the largest number in any single summer. Record temperatures were also set in two capital cities: Sydney with 45.8 and Hobart with 41.8 degree Celsius.

## Figures for NSW

In NSW, January was the hottest month on record.

The month began with a slow moving trough over the west of the State, allowing a build-up of heat wave conditions in the western districts. The first major frontal system passed through on 8 and 9 January 2013, with strong winds and hot temperatures combining to cause widespread Severe fire danger, with a number of districts reaching Extreme to Catastrophic Fire Danger levels on 8 January.

Another trough moving through between 11 and 13 January brought another spell of Severe fire dangers, culminating with a very strong southerly change combined with a dust storm in north western districts on the evening of the 13 January.

Conditions eased under the influence of the ridge between 14 and 17 January, although the very high temperatures persisted in the west. Another strong frontal system crossed the State on the 18 January, bringing another day of widespread Severe fire danger, with Extreme to Catastrophic levels reached in a number of districts.

From 19 to 24 January a ridge of high pressure to the south brought generally more stable conditions, with the exception



of 22 January, when a weak change passed to the south of the State. Increasing tropical humidity combined with a trough to bring a band of severe thunderstorms across eastern NSW on 26 January.

From 27 to 29 January, ex-Tropical Cyclone Oswald moved from southeast Queensland down to the central NSW coast, bringing heavy rainfall to much of eastern NSW and some flooding to north eastern regions.

Nationally, summer rainfall was at its lowest since 2004-05. Victoria had its driest summer since 1984-85 and South Australia since 1985-86.

## 8 January 2013: Worst fire danger conditions on record

Predictions for 8 January were for the worst fire conditions on record and the day was every bit as bad as forecast, both in the huge area affected and in the temperatures recorded. In many locations 8 January 2013 was the hottest day on record.

It was the first time that the Catastrophic Fire Ratings conditions were recorded in forested areas since the ratings were introduced.

Catastrophic Forest and Grass Fire Danger Indexes were observed in Bombala, Condobolin, Hay, Nowra and Wagga.

Extreme Fire Danger Ratings were recorded in Albury, Bega, Cooma, Deniliquin, Goulburn, Griffith, Ivanhoe, Orange, Parkes, Sydney Airport, Tibooburra and Williamtown RAAF base.

Catastrophic Fire Danger Ratings were also experienced on 13 January in Coonamble and again on 18 January in Bombala and Wagga.

## Southern Hemisphere records

This summer follows a pattern of extremely hot summers in various parts of the world over the past few years. While the final numbers for the Southern Hemisphere summer are not yet confirmed, it was the hottest December on record for land areas of the Southern Hemisphere, followed by the hottest January.

Large parts of southern Africa recorded their hottest January on record. Hotter temperatures were also recorded in large parts of Argentina, Chile and Brazil, while temperatures in parts of Patagonia were more than 4 degrees Celsius above normal in January.

ABOVE: 18 January 2013, West Head fire in the Ku-ring-gai National Park. Photo by T Fox

## Comparison of past periods of significant fire activity in NSW

Date	Deaths	Area (ha)	Losses	Location(s)
Dec 1938 – Jan 1939	13	73,000	Many houses, pine plantations	Dubbo, Lugarno, Snowy Mountains, Canberra
Nov 1951 – Jan 1952	11	> 4,000,000		Worst affected district around Wagga Wagga and Pilliga in the north-west
Sept 1968 – Jan 1969	14	> 2,000,000	161 buildings (80 houses)	South Coast (Sept.), much of the coastal and nearby range areas of the state
1974–75	6	4,500,000	50,000 stock, 10 170km fencing	Bourke to Balranald, Cobar Shire, Moolah–Corinya—most of the Western Division
1977–78	3	54,000	49 buildings	Blue Mountains
1978–79	Nil	> 50,000	5 houses, heavy stock loss	Southern Highlands, south-west slopes
1979–80	13	>1,000,000	14 houses	Mudgee, Warringah and Sutherland Shires, majority of council areas, Goulburn and South Coast
1984–85	5	3,500,000	40,000 stock, \$40 million damage	Western Division
1990–91	Nil	>280,000	8 houses, 176,200 livestock, hundreds of km of fencing	Hay, Murrumbidgee, Carrathool; Hornsby, Ku-ring-gai, Cessnock, Hawkesbury, Warringah, Wollondilly, Gosford, Wyong
1991–92	2	30 fires	14 houses	Baulkham Hills, Gosford City, Wyong Shire, Lake Macquarie
Dec 93 – Jan 94	4	> 800,000 (> 800 fires)	206 houses, 80 other premises	North Coast, Hunter, South Coast, Blue Mountains, Baulkham Hills, Sutherland, most of Royal National Park, Blue Mountains, Warringah–Pittwater
Dec 2001 – Jan 2002	Nil	744,000 (454 fires)	109 houses; 6,000 head of livestock	Greater Sydney, Hunter, North Coast, mid-north coast, Northern Tablelands, Central Tablelands areas
July 2002 – Feb 2003	3	1,464,000 (459 fires)	86 houses; 3,400 stock; 151 days of severe fire activity	Greater Sydney, Hunter, North Coast, Northern Tablelands, Northern Rivers, north-west slopes, north-west plains, Central Tablelands, Southern Tablelands, Illawarra, South Coast
January 2013	Nil	650,000 (512 fires)	57 houses, 14,500 livestock, 3,600km of fencing	Coonabarabran, Shoalhaven, Yass, Cooma

Historical data source: National Inquiry on Bushfire Mitigation and Management 2004



# Ferocious

## Wambelong fire



In mid-January 2013 a bush fire swept through the Warrumbungles National Park to the west of Coonabarabran, threatening Australia's largest optical observatory and destroying neighbouring farm land and properties.

It was the State's most destructive bush fire in a decade with more than 55,000ha burnt, including 95 percent of the Warrumbungles National Park and 53 homes. The smoke plume above the fire rose up 14kms – a plume so large is created its own weather conditions adding to the complexity of the fire. (see page 9 for more details)

The potent mix of hot temperatures, strong and shifting winds of up to 100kph, and bone dry undergrowth combined to make conditions very difficult for firefighters. At the time, Commissioner Shane Fitzsimmons said firefighters had been "absolutely flogged in the most atrocious of conditions" near Coonabarabran.

Most of the property loss occurred on the evening of Sunday 13 January but the Wambelong fire was active from 12 January to 21 February 2013.

ABOVE: NSW RFS Pilot Alex King took this photo on a reconnaissance flight over the Siding Spring Observatory late January 13 2013.

### 12 January 2013

Late in the day a Triple Zero (000) call indicated that a fire has started in inhospitable country in the Warrumbungles National Park, west of Coonabarabran.

NSW RFS crews including waterbombing aircraft and National Parks and Wildlife Service (NPWS) crews responded quickly. The fire was estimated to be 25ha burning along the northern side of John Renshaw Parkway, running east at a moderate intensity but not burning in trees. Ground crews reported a lot of lightning in the area but the fire was declared contained by the late evening.

### 13 January 2013

With Catastrophic conditions forecast for Coonabarabran and Extreme weather conditions forecast for the district, firefighters remained alert throughout the day. There was a concerted aerial waterbombing effort and ground crews worked on building containment lines.

Aircraft reported that lightning activity throughout the area had ignited further fires. A feature of the fire was the massive smoke plume, a pyrocumulos cloud, that was building in intensity throughout the day. One local resident reported on social media: "Plume looks like whipped cream and sky above it is stratus cloud - plume up that high." The plume itself impacted on the fire's behavior creating unexpected wind changes and ember movement. (See page 11 for more detail.)

### Observatory survives

An Evacuation Alert was given to the Siding Spring Observatory in the early afternoon with the NSW Police Force escorting staff at the Observatory as well residents in the area to the Evacuation Centres. An Emergency Warning was later issued in the afternoon of Sunday 13 January for all people in the Siding Spring area.

Evacuation Centres were established at Coonabarabran Bowling Club and the Baradine Tattersall's Hotel.

Late in the afternoon, the fire impacted on the Timor Road area and the Siding Spring Observatory. Outbuildings

at the Observatory were destroyed including lodgings for visiting astronomers. Crews were unable to gain access for several hours due to fallen powerlines, fallen trees, intense smoke and extreme heat on Timor Rd.

Late in the evening firefighters arrived on site at the Observatory to protect the remaining buildings and telescopes. The three FRNSW crews fought spot fires and ember attacks on the Observatory throughout the night. FRNSW Commissioner Greg Mullins later praised the retained firefighters for their efforts.

"Managers of the Observatory watched in awe and admiration from Canberra by video link as these firefighters fought to save several key buildings," he said, "They faced extreme danger at considerable personal risk."

Astronomers were able to remotely check on the telescopes and equipment reporting on social media.

"Siding Spring Observatory instruments registered a temperature of 120 degrees this afternoon," they wrote, "We have visual confirmation that five of the 12 Siding Spring Observatory telescopes are intact. We know of one telescope that is standing but we cannot communicate with it."

### Early evening southerly change

The fire was only 13km from the town of Coonabarabran when a southerly changed passed across the fireground. While it eased fire conditions, it did send smoke and embers in a north and north easterly direction toward Bugaldie. A further Emergency Alert was issued for the Bulgadie area and residents were encouraged to evacuate.

The fire was now burning at around 2,500ha, five helicopters and five fixed wing aircraft were waterbombing the area. On the ground seven tankers, eight strikers and one pumper were in attendance from NSW RFS, NPWS and FRNSW. A total of 50 firefighters were on scene.

Reports from social media bring home just how hot and fast the fire is moving:

"The in-laws have just been evacuated from property eight kilometres from Coonabarabran," said one comment on Facebook, "Mother-in-law says wind was horrific, trees over the road, police had to cut with chainsaws to get escorts out. Thick smoke, embers. She says that they will be surprised if they have a home when they return!"

Late in the evening the fire was still moving very fast in a north to north-easterly direction. One hundred firefighters were on the ground. Hot ash, affected by strong and gusty winds, was falling in some areas. In Baradine, fifty kilometres north of Coonabarabran, heavy smoke was affecting residents and hospital patients. The local hospital was securing door and windows drafts with wet towels to prevent smoke into facility.

Electricity to the town of Baradine had also been cut with around 20 power poles in the area destroyed by the fire. The local hospital was running on generators.

Firefighters continued aggressive firefighting efforts throughout the night yet the fire to expand quickly.

### 14 January 2013

Before the sun has even come up, crews were already reporting that many properties have been lost overnight. The fire was still running with a south to south-westerly wind behind it. Guesses were that 32,000ha has burnt and five to 14 houses have been lost. It was still unclear just how much of Siding Spring Observatory had been damaged. Power lines were down along Timor and Barradine Roads.

### Wambelong Fire

Area: 55,210 ha  
Perimeter: 405 km



RIGHT AND FAR RIGHT: Firefighters working on the Baradine Rd about 8kms out of Coonabarabran. Photos by Alex Chesser



After sunup, a NSW RFS aviation crew flew over the Observatory and were able to assess the impact of the fire, confirming that the main telescopes had all escaped damage.

Throughout the day, further reports rolled in of houses lost and livestock and property damaged. Around 80 firefighters were working on containment lines but the public have been warned that the fire was still uncontained and it is still not safe to return to their homes.

"It is a really dangerous and hostile environment now," Commissioner Fitzsimmons told the Seven Network.

The fire was moving north-west and west through private property and throughout the day the focus was on protection of firefighters and assets on the north and western side of the fire including Bugaldie Village and rural properties on Baradine Rd. Firefighters were constructing

a containment line in the area north of the Baradine Road. On the eastern side, air attack is operating between Timor and Baradine Road.

#### Overrun

At the peak of the fire, Coonabarabran farmer and Warrumbungles Group Captain Bob Fenwick and his crew were caught in an overrun inside their truck.

"I just don't know how we got out of it," he told The Australian newspaper, "We were just

engulfed in fire. I'm sure the vehicle caught fire at some point because it sure won't start today."

Mr Fenwick said he had fought up to 40 fires in his time as a volunteer but nothing rivalled what he had witnessed at the Wambelong fire. "There's no way firefighters are trained to fight fires like that," he told the newspaper. "The speed and ferocity of it was just frightening. The wind was just unbelievable. It was moving along the ridge line as fast as you could drive."

Group Captain Fenwick lost his own home in the fires.

#### 15 January - 24 January 2013

In the early hours of Tuesday 15 January the radio and TV Communications tower at Needle Mountain came under threat. Aerial attack was increased to successfully protect the tower.

Milder weather conditions throughout Tuesday, however, meant the fire was burning at a lower intensity. Firefighters, with the assistance of aircraft,



were still busy protecting properties on the southern and western flanks of the fire. Crews were also working on a flare up in grass lands on the south western side of the fire. This kind of activity continued for several days with firefighters responding quickly to flare ups.

Over the coming days, there was potential for properties to come under threat in the Wallumburrawang, Cennruiach and Wandiallah Creek areas.

Given the potential threat, patients from Baradine Hospital were relocated to external health facilities in surrounding towns. The Newell Highway, as well as some local roads, were closed for extended periods during the fire. There

was considerable damage to telecommunications infrastructure throughout the fire.

By Wednesday 16 January residents were given limited access to damaged properties under Police supervision.

On the weekend light rain fell on the fireground, however crews kept a watching brief to ensure the fire did not breach containment lines.

The fire was declared out on 24 January after burning 55,000ha, 53 homes, 131 other buildings, 847 head of sheep, 318 head of cattle and 1,697km of fencing.

# Fire cloud



The smoke plume about the Wambelong fire rose 14kms into the atmosphere. Here the NSW RFS weather experts explain the phenomenon of the pyroCb cloud formation.

By Simon Louis (RFS Meteorologist) and Laurence McCoy (Senior Fire Behaviour Analyst)

The above photo was taken by a commercial air pilot and displays an example of pyroCb - a pyrocumulonimbus cloud from the Wambelong fire in January 2013.

PyroCb formation is an extremely dangerous situation for firefighting. An interesting feature of this picture is that the fire at ground level appears to be driven by southerly winds while the smoke column and pyroCb are being pushed in a different direction by upper westerly winds.

Traditionally fire planners concentrated on fire behaviour and weather on the ground, however, as a result of more recent severe bush fire events there has been an increasing interest in the effect of atmospheric conditions above ground level.

Pyrocumulonimbus clouds form when the additional heat generated by the fire causes a column of air to rise up into the atmosphere. As the air in the column cools, water vapour condenses to form cloud. When the atmosphere is unstable enough and the fire on the ground is intense enough, these clouds can develop into thunderstorms and become known as pyrocumulonimbus clouds or pyroCb.

PyroCb formation is an extremely dangerous situation for firefighting as they can cause strong and unpredictable winds, intense spotting, new fires from lightning strikes and

generally unpredictable fire behaviour. There have also been recorded events where pyroCb has produced some rain at the fireground. This can have the opposite effect and reduce fire behaviour.

Recent examples of events where pyroCb has been observed include the Warrumbungles' Wambelong Fire, the Kilmore East Fire (Black Saturday) and the Canberra Fires of 2003. These are some of the most intense bush fires in recent history, exhibiting fire behaviour beyond the capability of traditional fire behaviour models to predict.

Plume looks like whipped cream and sky above it is stratus cloud. Plume up that high."

1755hrs, 13/1/13, Report from social media

## What is the Siding Spring Observatory?

Siding Spring Observatory is one of the world's premier astronomy and astrophysics facilities.

The Australian National University's Research School of Astronomy and Astrophysics, operates the 4m AAT and 1.2m UK Schmidt telescope at Siding Springs. The AAT is one of the world's top telescopes and a key instrument in exploring the Milky Way galaxy and Magellanic Clouds.

The Siding Spring Observatory is a working research facility

and is managed by the Australian National University's research school of astronomy and astrophysics and regularly visited by Nobel Laureate Brian Schmidt.

While the flames came close to the Observatory on Sunday 13 January and severely impacted five of its buildings, including its visitors' lodgings, 10 valuable telescopes run by Australian, Polish, British, Korean and US researchers all escaped destruction.



Photo by Alex King

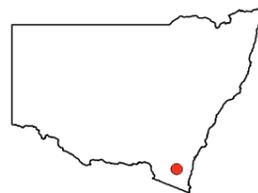


# Through grass and forest

## The Yarrabin fire

Over two weeks in some of the State's hottest ever weather a fire burned in Yarrabin through grasslands, grazing lands and the heavily forested Kybeyan Range.

Firefighters in the Cooma-Monaro District battled the blaze with the help from surrounding districts between Sunday 6 January and 19 January 2013. The fire burned 12,350ha and four houses, 18 vehicles, around 2,500 sheep and 200kms of fencing were lost.



TOP: Mopping up during the Yarrabin fire. Photo by Langdon Gould

### 6 January 2013

A large amount of lightning strikes in the area meant the Cooma-Monaro Fire Control Centre was fully-crewed on Sunday 6 January 2013 when a Triple Zero (000) came in. At around 1230hrs a report was received that smoke was seen on Mount Forrest Road in Cooma. Under an easterly wind, the fire was threatening a nearby homestead.

Numerella Brigade and Fire and Rescue NSW crews arrived at the scene within 20-30 minutes of the call. On arrival grass around the home was burning and crews immediately commenced property protection and kept the fire out of the nearby pine trees.

Crews successfully protected the house, however the strong north east winds saw the fire move away from the homestead and by 1330hrs the

fire had a hold in the pine trees on Mount Forrest Road. At this time 20 hectares were burning in very windy conditions with a 1km fire front.

Three fixed wing aircraft joined the battle along with four RFS crews (two tankers and two strikers) and a request was made for a grader and bulk water carrier.

At around 1400hrs the fire took a north east run under a 50 to 60kph NE wind.

By 1730hrs it was estimated that the fire had covered 285ha that day. Throughout the afternoon a shed had been lost and while wool sheds and yards came under threat, they had been successful protected by firefighters.

Conditions were so severe that an ambulance was on standby at the fireground to treat firefighters who were being affected by the heat.

Conditions eased in the evening and the fire was declared contained overnight although mopping up and containment operations continued.

### 7 January 2013

Firefighters spent Monday strengthening containment lines but they were not confident they could hold the lines, especially given the forecast for bad fire conditions the following day.

Late on Monday a north west wind change came through, increasing the intensity of the wind to 50/60 kph. Temperatures were still high and relative humidity low.

Ten tankers patrolled the fire overnight and managed to keep the fire contained.

### 8 January 2013

Throughout the morning the north west wind picked up and progressively intensified. At around 1000hrs the fire broke containment lines at two points under the influence of 70/80kph winds.

The uncontained fire made a run to the south east toward Mt Forest Sunny Corner threatening three properties there. It also jumped the Numeralla River, entered the National Park: Dandenong National Reserve, and headed for the Kybeyan Range putting six properties under immediate threat. A further 20 properties were under threat in the Kybeyan Valley within the next three hours.

Firefighters supported by water-bombing aircraft turned all their attention to property protection. At this stage the fire was 2,000ha. Four properties were secured due to the efforts of ground crews and water bombing aircraft.

Fixed wing aircraft struggled to operate in the increasingly strong winds with aircraft reporting 100kph winds at 1,000 metres. On the ground, reports were of 120kph winds. Helicopters had to land and could not assist with the firefighting for a number of hours.

At around 1100hrs Police began door-knocking in the Kybeyan Valley warning residents to leave early.

Later in the afternoon, as predicted, the fire front crossed over the Kybeyan Range and into the Kybeyan Valley. Residents were now being told by Police that it was too late to leave. The Valley is largely grazing country and the fire was growing quickly – estimates were that by 1600hrs the fire was 4,500ha.

The biggest problem for firefighters at this point was the lack of access in the rocky, heavily timbered terrain. Crews began attacking from the south and north east to protect the town of Wandanian to the north of the Kybeyan Valley.

Forecasts were that conditions were like to stay warm moderate westerly winds until midnight. Active property protection continued although aircraft were struggling with the high winds.

With the predicted southerly change the small villages of Numerella and Turross Counteagney would come under threat. Emergency Warnings were sent to the public in those areas to prepare.

In the early evening, before the southerly change, the fires rate of spread increased dramatically at 1900hrs that the fire had grown to 6,400ha.

The wind change arrived at 2200hrs - a few hours earlier than expected. Six properties in vicinity of Kybeyan Station were likely to be impacted immediately.

Firefighters focused on property protection. Twenty seven trucks, 62 firefighters and eights dozers worked overnight to contain fire and protect properties.

### 9 - 10 January 2013

By the morning the fire had spread another 2,000ha although the wind had dropped off and swung to the south. Firefighters were now able to maintain good containment. They continued direct attack as well as blacking out. With fears that Friday would be a difficult fire weather day, firefighters worked around the clock to put out any hot spots.

Warnings were sent out to the public to prepare well for the

Extreme Fire Danger Rating predicted for Friday 11 January.

### 11 January 2013

Winds did pick up, but speeds were nowhere near the predicted levels and crews were able to contain the fire. A few spots broke out when burned trees fell across containment lines. Remote Area Firefighting Teams (RAFT) used linescans from aircraft to identify hot spots and very successfully suppressed any breakouts.

### 12 January 2013

Ten millimetres of rain on the fireground gave firefighters a much deserved break. Relief crews were deployed to take over from local brigades.

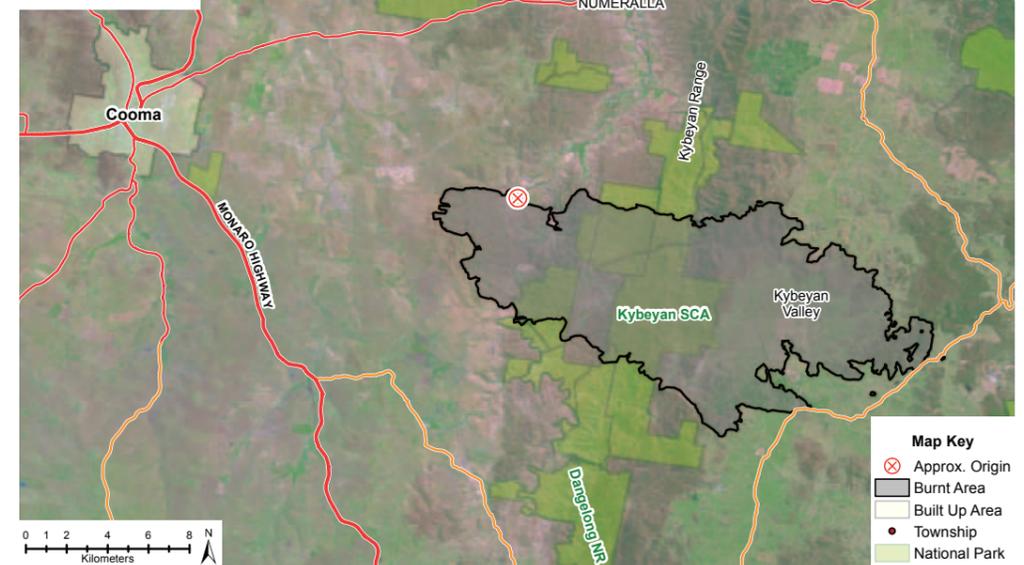
### The following weeks

While the fire was largely contained it did break out again the following week in forested country closer to the coast. The wetter and greener vegetation did not burn easily and the fire eventually put itself out.

Right up to 23 January 2013 crews continued to black out with the help of RAFT crews and linescanning aircraft. The fire was declared contained after 80mm of rain fell on 19 January.

### Yarrabin Fire

Area: 12,335 ha  
Perimeter: 103 km



Map shows the total burnt area of the Yarrabin fire and the key features of the terrain.



# Speed and fury



## The Cobler Road grassfire

The Cobler Road fire, which started under Extreme conditions, burnt quickly, travelling 35kms and covering 14,000 hectares within six hours. It caused significant damage to farming country including extensive livestock losses.

Much of the activity took place overnight on 8-9 January 2013. The strong westerly wind did not ease overnight and nearly 150 firefighters worked intensively to protect properties in the path of this remarkably fast moving grass fire. The work conducted by ground units to identify and protect houses was so effective that no houses were lost. The work undertaken by NSW RFS and FRNSW (Fire and Rescue NSW) crews on the Tuesday afternoon and night was exemplary. The massive suppression effort overnight resulted in the containment of the fire the following couple of days.

### 8 January 2013

It was the day when fire weather conditions broke NSW records. On the Southern Slopes Grassfire Danger Ratings were at Extreme with temperature at 42 degrees Celsius, low relative humidity and wind from the west gusting to 80 kph. The area was under a pre-emptive S44 (Bush Fire Emergency Declaration) when the fire started. Other pre-emptive arrangements included four quick response Strike Teams on call, earth moving equipment identified, the locations of fixed wing and rotary wing aircraft identified and a full seven-person Incident Management Team (IMT) in place.

#### 1550hrs

At 1550hrs on the 8 January firefighters worst fears were confirmed when a Triple Zero (000) call was received of a smoke sighting at in the Bald Hill area. Weather conditions were at their peak on what was already a terrible day. Not only that the area where the fire started was hard to reach.

Within the first 20 minutes, three NSW RFS tankers, as

well as two private tankers were on scene. A further two tankers were en route as well as a Strike Team from Harden consisting on five tankers. Earth moving equipment was requested immediately. Under the Extreme weather conditions active fire suppression opportunities were limited.

#### 1610-1700hrs

All crews were focussed on property protection and Strike Teams from Cootamundra and Young and three tankers from Yass were making their way to the fireground.

The fire was running hard in an easterly direction and within the hour of the Triple Zero (000) call the fire was estimated to be 400ha. At 1642hrs the first Emergency Warning area was identified and issued.

#### 1700-1800hrs

There were now 23 tankers on scene on the Hume Highway near Cobbler Road with up to 20 homesteads in the path of the fire. One shed had already been destroyed.

At 1715hrs the fire was estimated to have already

tripled in size since first reported being at 1,200ha. Fixed wing waterbombers arrived soon after 1700hrs.

#### 1800-1900hrs

Fire was moving very quickly to the east and firefighters were maintaining property protection. A parallel attack on the southern flank of the fire saw dozers building containment lines.

At 1810hrs the fire crossed Bogalara Road.

#### 1900hrs

An Emergency Warning was issued for residents in on Childowla and Talmo Roads. Three houses were under direct threat. Reports came in that 1,000 head of stock had been lost and although the fire was uncontained all properties had so far been successfully protected.

The focus was now firmly on protecting property and life.

The fire was once again doubled in size and was estimated to be 2,500ha and fears were that the Murrumbidgee River to the south would not contain the fire on the southern flank.

Thirty five tankers were on scene and three fixed wing aircraft were waterbombing the area, one property had been saved but another 40 rural homesteads were under threat.

Around 1945hrs a house was reported as lost. Additional crews arrived in the nick of time, however, and although the verandah of the house was licked with flames, it was saved by the exemplary work of ground crews.

Emergency Warnings to residents in the area continued.

#### 2000hrs

Fire crews were operating in very trying conditions with very erratic fire behavior conditions which did not match the weather forecast.

Soon after 2000hrs the fire came close to the Talmo and crossed Childowla Road. Property protection was ramped up and all 20 houses and farmhouses were saved by property protection.

With a southerly change predicted, protection of the northern flank became a priority. The westbound lane of the Hume Hwy had been closed as a precaution. The fire was less than 2km from the Hume and running parallel to it.

Further north, dozers prepared Asset Protection Zones around the village of Bookham and Carrolls Creek Road was prepared as a further containment line. An evacuation centre had been established at Bookham with Police in attendance.

Strike Teams from Yass, Goulburn and Wingecarribee were answering the call for assistance.

#### 2200hrs

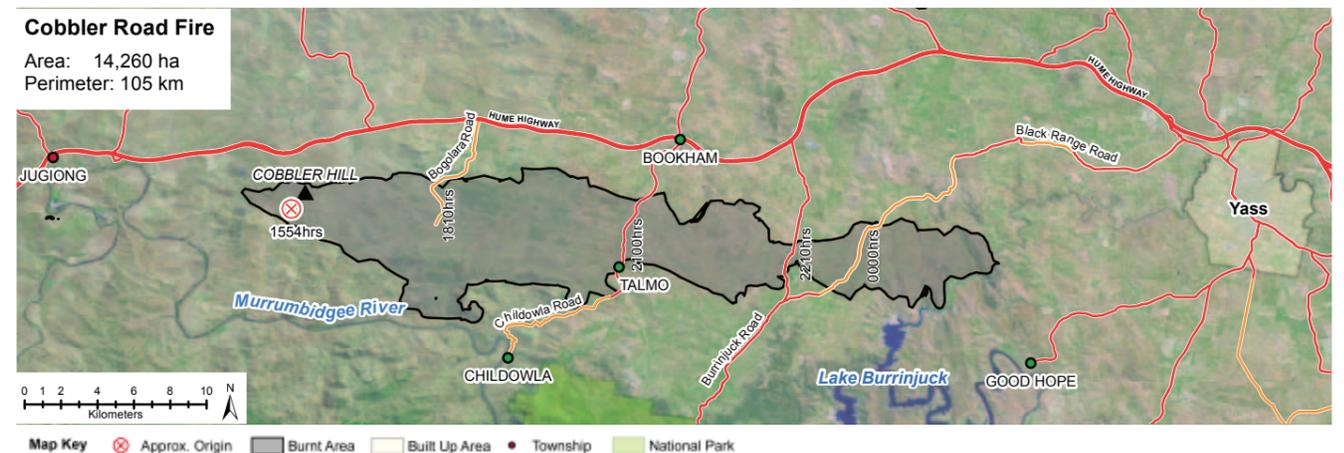
A southerly wind change was predicted but reports were that the change would be weak and will not change the course of the fire. There were fears that the fire may impact on the large town of Yass to the east. Soon after 2200hrs the fire crossed Burrinjuck Road.

#### 2330hrs

The fire was thought to be 9,000ha. Forty tankers and about 150 firefighters were busy with property protection supported by heavy plant.



Seen from space. The Cobler Road burnt area and smoke plume could be seen from space. Photo by Cmdr Chris Hadfield



ABOVE: Fire jumping Burrinjuck Rd around 1130hrs. Photo by Group Officer Max Hedges



# Side by Side:

## Field Operations Assistants making a difference in the field

It is not news that one of the most valuable assets of the NSW RFS is the vast wealth of firefighting knowledge carried by the Group Officers.

It is also not news that the Service's most senior volunteers are some of the very busiest people during a major fire. In complex and dynamic fire situations, a Group Officer may find themselves with a multitude of tasks.

Over the past eight years, the Shoalhaven District has introduced the use of Field Operations Assistants (FOA) – these are volunteers who accompany the Group Officer in the field, providing support in a range of areas and learning directly from these senior firefighters.

So far four training sessions have been held and a formal role description is being developed. About 25 firefighters have undertaken the training and many have had field experience already. One of the first Field Operations Assistants, Tracy Griffiths, reports here on the purpose of the FOA and what it takes to do the job.



The fire was running hard in an easterly direction and within the hour of the Triple Zero (000) call the fire was 400ha.

### 9 January 2013

#### Midnight

Under the influence of erratic winds, the fire forked with one heading towards Burrinjuck and another toward Bowning to the north east. One of the forks crossed Black Range Road around midnight. The fire continued to spread quickly.

#### 0220hrs

Fire took a run into unburnt country to south of Talmo. Property protection was occupying the 50 tankers on hand and graders were building containment lines.

#### 0644hrs

When the sun rose firefighters could see that there had been a significant fire extension to the east through some of the inaccessible country to the west of Yass.

Overnight heavy plant had successfully constructed four major containment lines to the west and east and south.

The southern and western end of the fire still had a fragile containment. Crews were working to strengthen containment lines pushing over timber near the fire edge.

The Hume Hwy was opened with speed restrictions in place.

#### 1000hrs

The fire was 11kms west of Yass and aircraft and heavy machinery were aggressively working to hold the fire away from the township. Fifteen heavy plant and eight fixed wing aircraft were at work.

#### 1600hrs

Fire crews assisted by water bombing aircraft and the AirCrane were undertaking property protection at a small number of rural properties along Childowla, Bibinda and Black Range Road.

#### 1800hrs

The fire was no longer spreading and containment lines were holding. Firefighters continue to mop up on

southern flank, maintain property protection and heavy plant were working on containment lines in particular removing dangerous trees that could reignite the fire.

The southern and western end of the fire had relatively good containment at this stage and crews throughout the fireground were strengthening containment lines and mopping up.

#### Following days and weeks

Following a review and discussion between Incident Controllers and senior RFS management on Wednesday evening 9 January, it was determined the greatest threat and potential for the fire was within Yass local government area. As such S44 declarations were amended to transfer control to existing IMT with Harden IMT staff bolstering IMT in Yass.

All losses and resources were accounted for under the Yass S44 report.

The Cobbler Road fire was declared contained three days later on Saturday 12 January. The fireground continued to be patrolled for next 10 days and declared out on Sunday 27 January.

Total losses for the Cobbler Rd fire included: 14,000ha, more than 10,000 sheep, 170 cattle and 11 horses. Some sheds and 1200kms of fencing were destroyed.

NSW RFS has engaged the Bushfire Cooperative Research Centre to conduct the research in to the Cobbler Road fire which will examine the preparation and decision-making of residents in the area.

TOP: The following day, 9 January 2013: this aerial photo shows just how close the fire came to assets. Credit goes to the hardworking firefighters.  
ABOVE LEFT: Cobbler Rd fire travelling quickly across the grasslands and overnight from 8 to 9 January, 2013. Photo by Jack Howard



Group Officer Vic Walker with Field Officer Assistant Lyndal Keenan



## Snapshot: the Field Operations Assistant at the Deans Gap Fire

A Field Operations Assistant (FOA) who accompanies a Group Officer can greatly enhance the ability of the Group Officer to keep abreast of fast moving and dynamic fires and stay within safe working practices.

The FOA role supports the Group Officer by driving the Group Officer vehicle, handling communications, checking weather reports, ensuring an accurate log is recorded, T-Card maintenance, mapping, recording fuel loadings and undertaking reconnaissance. This leaves the Group Officer to concentrate on the matters of operational command.

While a NSW RFS position of 'assistant' or 'scribe' has been around for quite some time, they are often deployed on an 'ad hoc' basis, such as randomly selecting someone from those available in a tanker on a fire line.

The Group Officers in the Shoalhaven District, especially Group Officer Paul Gleeson, have developed the ongoing role of Field Operations Assistant. There are several benefits to this approach.

The FOA:

- has already met selection criteria and received training and so they have the right skills for the job
- understands the purpose and position of the role they are playing
- develops greater expertise over time for the benefit of the Group Officer and the brigades they are dealing with
- develops rapport and teamwork with the Group Officer
- is directly mentored by the Group Officer whose vast firefighting knowledge can be conveyed through on-the-job training.

It is important that the Group Officer and the Assistant have a good rapport to enable them to deal with the sometimes stressful situations that arise during fire events.

In the process of developing this role, staff and volunteers in the Shoalhaven District have held training workshops, 4WD Courses for group vehicles and have offered one-on-one training. The following selection

criteria have been identified for the training:

- Advanced Firefighter with at least two years experience at a brigade
- Drivers licence with 4WD
- Trained in Incident Control System (ICS)
- Communications experience
- Registered for out-of-area commitment.

The Field Operations Assistant should also be reliable, have good organisational and multi-tasking abilities, be able to prioritise, be able to remain focused in stressful situations and have a calm disposition. This role may also suit volunteers who work or have children, as there is usually a bit of notice given that they will be required and this enables childcare or other commitments to be arranged in advance.

The FOA provides a great number of benefits to the efficient management of operations including an expanded use of technology. The acquisition of a Toughbook computer with Mapdesk software in the Shoalhaven District was brought about

by the regular use of the FOA. The FOA will be able to use Mapdesk to plot fires and deliver the most current information from the fireground. The maps would be emailed to the Fire Control Centre and directly entered into ICON for the use of the IMT. These up-to-the-minute maps can also be printed and distributed to the tankers working on the fireground. SitReps have already been emailed back to Shoalhaven Fire Control Centre from the field.

The Assistant's position can be a very interesting and rewarding. Unlike some other roles, it is a stand-alone position and does not automatically lead to Crew Leader or Group Leader training.

The role of the FOA extends beyond operations to such things as emergency training camps, District and Group training events, setting up the Operational Command Vehicle and even acting as a minute secretary for Group meetings. FOA have also attend out-of-area deployments

and may assist in organising accommodation and meals. For example, I attended flood work in North Wagga in early 2013 with Group Officer Andrew Fielding. In recent years several Group Officers from this Shoalhaven District have taken a FOA on out-of-area deployments.

While the role has been expanded to make the position as interesting as possible, the Field Operations Assistant does not make fireground decisions where the Group Officer is unavailable, unless it is in line with directions that the Group Officer or Fire Control has already authorised.

**Districts keen to introduce the Field Operations Assistant or learn more about the role can contact the Shoalhaven Fire Control Centre.**

TOP: Blacking out on Wents Rd at the Deans Gap fire. Photo by James Morris

Almost all field officers who were active in the Deans Gap Fire in the Shoalhaven District in early January employed a Field Operations Assistant to work with them.

Group Officer Paul Gleeson, who has been instrumental in the development of the Field Operations Assistant role, was active in this fire and worked with FOA Tracy Griffiths.

### 7 January 2013

At around 1400hrs smoke was sighted in Crown Land near Braidwood Rd, Deans Gap, about 12kms west of the township of Wandandian. Given the District was already declared under Section 44 due to the forecast of a Catastrophic Fire Danger Rating for the following day, it was vital to contain the fire as quickly as possible.

An Incident Management Team was already in the process of being established at the Shoalhaven Fire Control Centre.

By 1430hrs Group Officer Paul Gleeson was called in to act as Divisional Commander. He arrived at the escarpment above the Deans Gap fire and set up a Staging Area.

Paul checked the Call Out list for Field Operations Assistants and FOA Tracy Griffiths was available. FOA Griffiths joined Group Officer Gleeson at the Staging Area, hitching a lift with the SMSS crews who were taking a dozer out to the fireground.

On arrival at the Staging Area west of the fire at 1845hrs, FOA Griffiths took over the radio traffic and the logging of all communications to and from the Group Officer.

At that time, at the bottom of the escarpment, 15 firefighters were actively attacking the fire

while four helicopters were at work in the skies. This included the AirCrane and Helitaks which were waterbombing the area. Over the following hours, reconnaissance flights to gather more information about the nature of the blaze were ordered and another chopper took a RAFT (Remote Area Firefighting Team) into the area to directly attack the fire. With the focus on aggressively containing the fire, a tractor from SMSS and a dozer from National Parks and Wildlife were also deployed to build containment lines west of the fire.

While the fire was burning and the fire operations were being managed, the FOA received and sent regular weather reports, conveyed information from the fireground to the Fire Control Centre and logged all strategic decisions made by the Group Officer.

"We were constantly monitoring what the crews needed," Paul said, "Do they need food? Water? A change of shift? For example, Tracy called the ambulance when a firefighter tripped over and needed some attention. She organised catering and monitored all the rostering of crews.

"Whatever needed to be done I could rely on Tracy to do it. That left me able to focus on the strategy and command of the fire.

"It was fairly busy," said Paul Gleeson, "There are three radios going, one to the Fire Control Centre, one to the Sector Commanders on the fireground and another to the aircraft flying over the fire. Then the phone rings... then there's someone at the window of the vehicle. It's organised chaos!"

"It is virtually impossible to do this on your own. Having

the FOA means that all the communications and decisions are being recorded at the time you are making them.

Logging down every interaction is important for post-incident inquiries, reviews and for future training.

"But even more importantly," Paul said, "it means that we don't miss that call – the call that is a game changer."

Working together in the Group Officer vehicle Group Officer Gleeson and FOA Griffiths worked until well after the fire was declared contained at 2130hrs. More than 25 NSW RFS firefighters continued throughout the night in an effort strengthen containment lines and completely black out before the Catastrophic Fire Danger Rating predicted for the following day.

It was because of these outstanding efforts by all, that the fire was able to be contained overnight and throughout the morning of the 8 January 2013.

At approximately 1230hrs on Tuesday 8 January the fire escaped containment lines and made a significant run to the east during some of the worst fire conditions ever experienced in the Shoalhaven. The Deans Gap fire continued until 19 January.

The following day and for the rest of the week, Group Officer Gleeson was put into the operational position on the Incident Management Team at the Shoalhaven Fire Control Centre. FOA Griffiths went with him and again assisted him in that role. The following week Group Officer Gleeson and his FOA were located on Monkey Gum Fire Trail monitoring the combined NSW Parks and Wildlife and NSW RFS RAFT Teams.



# 18 January 2013: Aberdare, near Cessnock

ABOVE: 18 January 2013: One of the hottest days in the hottest month. With one gust of wind, a waist-high scrub fire went from being almost contained to an out-of-control inferno, monsterring three volunteer firefighters who escaped the radiant heat while hearing the "freight train" pounding on behind them.

Greta Rural Fire Service Brigade Captain Neville "Ned" Roberts and firefighters Sarah Holz and David Seabrook were captured in an image at the Aberdare bush fire on Friday 18 January 2013 that epitomised the horrific conditions firefighters

faced on the hottest day on record for this area. Only moments earlier, the trio believed they may be able to hinder the fire's progress by watering down scrub as the waist-high flames licked at tree trunks and bush.

"There was a gust of wind and I said to Sarah we best get out of there, so we got out and started winding the hoses up, that's when the whole place just exploded," Mr Seabrook said.

"It sounded like a freight train coming and we looked back and just saw this massive wall of red and black. [The radiant

heat] made the chin strap on my helmet feel like it had melted on to my face, it was extreme.

"... We didn't expect it to explode like that." The image, published on the front of Saturday's Newcastle Herald, shows Mr Seabrook halfway into the driver's seat of the fire truck. The other two quickly joined him and they drove out of the paddock off Melbourne Street and to safety.

The fire continued to threaten houses at Aberdare, Kearsley and Neath, several days. Even after the fire had subsided

embers landing in the roofs of houses caused concern the following 48 hours.

It was the efforts of the 180-strong emergency services crew, including Fire and Rescue NSW, the NSW Rural Fire Service, NSW Police Force and Ambulance Service of NSW, that helped stave off disaster.

Photo and story courtesy of the Newcastle Herald. Photo by Peter Stoop



Volunteers from Wildlife ARC (L-R) Kerry Parry-Jones, Anna Buetner (with cap), Julie Harris, Crystal Winterton (white shirt), Alex McBride (blue singlet), Jenny McBride (pink top) and Andrew McBride (cap) with Avoca Beach Brigade members (L-R) Leigh Pilkington (Captain), Tim Ellis (Deputy Captain), Kurt Pressley (behind, Senior Deputy Captain), Gerard Emery (in front of Kurt) and Brendon Robertson (back to camera).

## Going in to bat for the flying-foxes



Story and photos by Leigh Pilkington, Avoca Beach Brigade

When January temperatures in several parts of the State skyrocketed to the highest ever recorded, a brigade on the Central Coast found themselves called in to protect a vulnerable species from the heat.

Like much of the State, Gosford on the Central Coast saw the mercury reach over 46 degrees Celsius in early January 2013. Fortunately the District was free of major fires, but what it did have was grey-headed flying-foxes dropping out of trees from heat exhaustion and dehydration.

Adult flying-foxes are able to regulate their temperatures reasonably well up to about 40 degrees Celsius but the thousands of young, usually

born from September to December each year, do not cope nearly so well. When temperatures exceed 43 degrees Celsius – as they did in January in Gosford – even the adults struggle. Reports came in from around NSW that flying-foxes were dying in great numbers - over 4,000 died in a single day at Nowra.

Many at the Lake Shore Drive reserve in North Avoca, were falling out of trees either dead or in extremely bad shape.

A large team of volunteers from the Wildlife Animal Rescue and Care Society Inc (ARC) were in attendance at the Lake Shore Drive reserve in North Avoca throughout the hot weather helping the bats when they fell to the ground. When the heat soared even higher, a call went out to the NSW RFS for help.

The Avoca Beach Brigade arrived at the colony during the heat of the day, the plan was to cool the temperature by spraying water through the canopy.

Using three-way directors down the flanks of the reserve to simulate rain on the canopy and fog-nozzles on the windward edge to drift a mist through the trees, an attempt was made to cool the several thousand flying-foxes as fast as possible.

An immediate drop in the temperature and lift of the humidity was felt in the area and, happily, the ARC volunteers reported a decline in the number of flying-foxes being affected by the heat. The crew spent several hours repeating the process on three sides of the colony before meeting a few of the rescued animals.

**Why save the grey-headed flying-fox?**

The grey-headed flying-fox is the largest of four flying-fox species found in Australia with a wingspan of up to one metre. There are colonies from central Queensland to Geelong in Victoria. Often

much maligned for their noise, smell, and their feeding habits, these animals are actually a critical component of healthy forest ecosystems. Flying-foxes pollinate and disperse the seeds of several extremely important species including commercial hardwoods and eucalypts critical for koalas, dispersing the seeds up to 50 kilometres per night as they leave their home and forage for food.

While many suburban people might argue that there is no need to protect this valuable part of our ecosystem, in 2001 the grey-headed flying-fox was listed as 'vulnerable' in the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) list of threatened species. This vulnerability is a result of habitat destruction and urban encroachment into their food foraging areas. While the population was once numbered in the millions across Eastern Australia, estimates in 2011 were as low as 400,000.

**Brigade learnings**

The crew from Avoca Beach Rural Fire Brigade learned a lot that day. They learned that flying-foxes are capable of long flights, are critical components of the ecosystem and they learned that some flying-fox camps have been inhabited for over a century. They also learned that there are thousands of bat-carers all over the country and around the world who are passionate about these large Aussie bats.

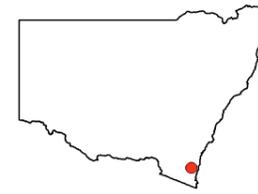
The crew also learned about how much the community appreciates the work of the RFS. Avoca Beach Brigade has been overwhelmed and humbled by thousands of Facebook 'likes', hundreds of comments, many emails and quite a few phone calls regarding their role in protecting these bats during the extreme heat.

Finally, the crew learned one more thing - keep your mouth shut when you're looking up.

Flying-foxes pollinate and disperse the seeds of several extremely important species including commercial hardwoods and eucalypts critical for koalas, dispersing the seeds up to 50 kilometres per night as they leave their home and forage for food.



ABOVE: Above 40 degrees Celsius the young flying-foxes struggle to regulate their own temperature  
RIGHT: Wildlife ARC volunteer, Kerryn Parry-Jones, helping one of the infant flying-foxes that had been affected by the heat.



# Shiny new uniform

## A personal account of the Warrigal fire, January 2013

By Tamara Joukoff, Brogo Brigade

My partner, Dave, and I were in Melbourne, visiting family and friends for the holidays. We were deliberating whether to stay another day when an email message from our Community Engagement Officer, David Philp, came through: *"...tomorrow Tuesday 8 January has been declared as a Severe Fire Danger Day for the Bega Valley. The situation is serious with Catastrophic Warnings being issued... There are fires in the Cooma-Monaro District which, while currently contained could escape the containment lines if the forecast conditions eventuate."*

Dave and I live in Brogo at the very end of a winding dirt road. We're immediately adjacent to more than 98,000 hectares of the remote and rugged wilderness that forms the magnificent Wadbilliga National Park. Dave and I have a fire plan: on fire days classed as Extreme or greater, we leave early. That settled it; we would stay in Melbourne for another day and would monitor the fire weather warnings on the NSW RFS website.

On 8 January 2013 a fire broke out in a paddock, to the east of Warrigal Range Road in Brogo. It was started when a farmer drove his old ute across a paddock down to his dam. The ute's battery shorted out. Ironically, the farmer had driven to the dam to collect a pump, intending to prepare himself for fire danger. Unfortunately, a fire broke out right under his seat! He did attempt to beat out the flames, but on such a day the fire spread quickly, and once it reached the bush it rapidly ran out of control.

I'd been in the brigade for two years and had completed the Bush Firefighter training course. My badge was proudly sewn onto my shiny, new uniform, and my gear bag packed and ready for action. Now that there was a fire in my valley, however, I was too far away to help. I felt guilty. I had to do something.

On Wednesday morning Dave and I decided to drive home to Brogo. We would monitor the status of the fire on the NSW RFS website as we travelled. We had a nine hour drive ahead



ABOVE: Tamara Joukeff on the Warrigal fireground with Brogo Captain Mike Jay. Photo courtesy of Tamara Joukeff

of us, so would have plenty of time to change our plans if needed.

As we approached the Bega Valley we could see the smoke - in the distance, the huge black plume from the Yarrabin fire burning up on the plateau, and in front of this, the smaller, greyer coloured plume from the Warrigal fire. The Yarrabin fire was on the western side of Wadbilliga National Park, and the Warrigal fire was on the eastern side. I felt a knot tighten in my stomach.

Thankfully, the winds in Brogo were from the south west, blowing the fire away from our house. We would be safe to return home. I changed into my fire uniform and reported for duty. I was promptly rostered

onto the night shift patrol. My job was to drive around the perimeter containment line, and extinguish any fires burning within 20 metres of this line. I was grateful to be paired with an experienced firefighter, Steve Maginnity, a former Captain of our brigade. Coooned by the darkness and with Steve's experience by my side, I felt safe. Steve taught me how to put out fires with the minimum amount of water. We used the rake hoes a lot that night.

Over the next week the Warrigal fire continued to smoulder. Our Captain, Mike Jay, made sure to rotate the crews, so that everyone had a chance at gaining some hands-on experience. In the light of day I was astounded

to see how close the fire had come to several of the homes. In areas in which the fire had burnt at its hottest there was an eerie stillness. Nothing was left except for white shadows, outlining where trees and branches had fallen and completely burnt away.

Then the big old red gums started falling. Without warning, trees that displayed no outward signs of stress came crashing down, revealing fire smouldering deep within and resulting in flare ups. The Warrigal fire had now been burning for 10 days.

Another warning from David Philp soon came through the community email system:

*"...tomorrow Friday 18 January has been declared as a Severe*

*Fire Danger Day for the Far South Coast...* It was going to be a scorcher.

We'd been informed at a meeting held earlier that day, that the Yarrabin fire had finally been contained on all sides. All sides, that is, except for ours. It was predicted that if the Yarrabin fire came over the ranges, it would reach Brogo by the following evening. I'd raced home after that meeting to check the fire maps. The fire was within three kilometres of Wadbilliga National Park. I remember the Fire Behaviour Analyst saying that the Yarrabin fire had at times travelled at speeds of up to eight kilometres per hour. I did the maths. In the worst case scenario the fire would be at my door within four hours!

Instantly my mind was a whirl. What if the Yarrabin fire came over the ranges? I'd been rostered on to patrol the Warrigal fire the following day. Dave was away for work. Who would look after our dog? Should I activate our fire plan? How could I defend our property if I was helping elsewhere? I checked my maths. A north-westerly wind was predicted for the following morning however a southerly cool change was expected from mid-afternoon. That meant that the fire would be blown back onto itself before it reached us. Reason prevailed. That evening I packed up our essentials, and early in the morning prepared the house as best as I could. I reasoned that if I listened to the radio warnings carefully, I would have ample time to drive home, grab the essentials and the dog, and make it out safely.

Patrol started out slowly that morning. It was going to be a hot day, so conserving energy was uppermost in our minds. We checked on known hot spots and visited landowners to address their concerns. Mike showed me how to extinguish fires in the big old red gums, by cutting 'letter boxes' in the trunk with a chainsaw to find the top of the candle, and then filling the trunk with foam.

Temperatures were rising. The north-westerly was picking up. I kept one eye on the smoke from the Yarrabin fire.

At about midday we got a radio call from the other patrol crew. They could see smoke rising from the Warrigal fire, but couldn't figure out where



ABOVE: (L-R): Ann Sherry AO, CEO Carnival Australia, Tamara Joukoff and Commodore Christopher Rynd. Eight NSW RFS members who were active in the recent fires, including Tamara Joukoff, were lucky enough to be selected to enjoy a two night cruise aboard Cunard's flagship, the Queen Mary 2, from Brisbane to Sydney as part of a 'Salute to Summer Heroes'. The generosity of Cunard Line and Carnival Australia enabled volunteers and their partners from areas such as the Far South Coast, Gosford, Tamworth, Northern Tablelands, Canobolas, Shoalhaven and Lake George to join the cruise. Photo by Phillippa Baume

it was coming from. It was somewhere down the slope from the B&B. We drove around the tracks until we had a visual on the fire. It was a flare up on a spur between two other spurs, each with a house on top! The fire was rapidly spreading outwards, fanned by the growing north-westerly, and was heading towards unburned ground. We couldn't get to it; the terrain was just too steep. Additional crews were called in to assist and we were positioned defensively between the fire and the threatened homes. A bulldozer was on standby. In the meantime, with the wind building, it wasn't safe. There was nothing we could do but wait.

It was already forty three degrees, and I was hot despite the waiting.

Reports were coming through the radio that a fire had broken out in Millingandi, south from where we were. It was spreading rapidly and homes and a wildlife sanctuary were immediately threatened.

Several of the crews waiting with us were called away to help Millingandi. There were reports of the fire crowning, and then a warning that the southerly wind change had arrived with vengeance. Wind gusts of up to 90 kilometres per hour were reported. Good news for us, was bad news for the Millingandi crews.

They could potentially become trapped! I heard the call go out to the Millingandi crews for an immediate retreat, and then a few minutes later one of the worst possible calls imaginable: "...fire overrun imminent... commencing fire overrun procedure..." We all fell silent. I think I held my breath.

After what seemed like an eternity the radio crackled again: "We're alright... we found a way out."

By now, all thoughts of the Yarrabin fire had flown out of my head. The southerly change had arrived, the Millingandi crews were alright, and it was time for us to go into action.

The bulldozer started work on clearing a track down the middle spur to the fire, supported by one of our fire trucks. Mike and I were positioned on the north-eastern flank and tasked with preventing the fire from spreading further down the slope to the north. The only way to access the fire was to cross burning ground. We had to crouch to get under the gnarly fig trees and scramble over boulders. It was hot, exhausting work. I was relieved when water supplies ran low, and we had to return to the staging area to refill our tank. My heart was pounding in my ears, and I used the break to pour water over my head and neck, trying to get my body temperature down. Once the

tank was refilled with water, it was back down to the fire for another go.

It was after 2100hrs when I returned home that night. Our dog had made it through the day unharmed, and had dug herself a little nest beneath one of the salvia bushes to stay cool.

Unfortunately, it was not yet time for me to relax. Our house had a new window opening that had temporarily been boarded up. I noticed that the boards had been blown out, presumably by the strong winds earlier that day. After having been on the fireground for more than 10 hours, I had to muster the energy to climb up on the roof in the dark, and reattach the boards before the bats moved in.

Oddly, sitting on the roof in the dark gave me pause to reflect on my day. The morning patrol seemed an age ago. I felt tired, hot and sick, but I had achieved a great deal and I had stayed safe. I had followed our fire plan, drawn on what I had learnt at fire training and learned from the advice of experienced firefighters on the ground. I had worked with some remarkable people that day, and as for my shiny new uniform, it was now sooty and grey.

# It's an Honour



## The Australian Fire Service Medal

The Australian Fire Service Medal (AFSM) is one of six meritorious awards in the Australian honours system.

The AFSM was established on 12 April 1988 to recognise distinguished service by members of Australian full-time and volunteer fire services.

Since its introduction, 209 NSW Rural Fire Service members have been honoured with the Australian Fire Service Medal. A full list of the NSW RFS members who have received the AFSM is shown on the following two pages.

## How it is awarded

The Australian Fire Service Medal is awarded by the Governor-General on the recommendation of the responsible Commonwealth, State and Territory ministers.

Each year the following awards may be made: one award for each 1,000, or part of 1,000, full-time permanent members of the fire service or combined fire services (as the case may be) of that State serving on 30 June in the year immediately preceding that calendar year; one award for each 5,000, or part of 5,000, part-time, volunteer or auxiliary members of the fire service or combined fire services (as the case may be)

of that State serving on 30 June in the year immediately preceding that calendar year; and one additional award.

The awards are announced on Australia Day (26 January) and the Queen's Birthday (June) of each year.

A person may only receive the Australian Fire Service Medal once.

## Medal design

The award is a circular copper-nickel medal. It is ensigned with the Crown of St Edward. The front of the medal displays an image of the Queen superimposed over a seven-pointed star of flames.

The back of the medal is inscribed with the words 'Australian Fire Service Medal', and 'For Distinguished Service' on a background of flames.

## Medal ribbon

The 32 millimetre-wide ribbon has a central vertical band of gold, which is superimposed with a red pattern symbolising flames. The two outer vertical bands are green.

**More information can be found on the [www.itsanhonour.gov.au](http://www.itsanhonour.gov.au)**





# NSW RFS Honour Roll



## 1988

Spencer Donald	McCormack Woodhouse	Cowan Putty
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## 1989

Peter Russel	Chamberlain Mobbs	Nelson
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## 1990

Frank Robert Sidney	Cameron Schofield Smith	Westleigh North Shore
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## 1991

Allan Thomas	Carruthers Tourle	Springwood Dubbo
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## 1992

Alan Ronald Leslie	Brinkworth Drury Lambert	Terrey Hills Taree Wildes Meadow
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## 1993

Phil	Collins	via Candelo
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## 1994

Gerald Peter Keith	Byrnes Ezzy Simpson	via Wentworth Rosehill Terrey Hills
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## 1995

Leslie Phil	Clarke Koperberg	Dubbo Springwood
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## 1996

Keith George Bruno	McKellar Stoneman Sudiro	Katoomba Little Hartley Kyogle
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## 1997

Irene Terry	Ross Toll	via Moruya Sunshine Bay
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## 1998

Barry Kevin Leslie	Belt Doherty Nott	Batemans Bay Wellington Gunnedah
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## 1999

Denis Kevin Keith Douglas Bevan Neil Stuart Colin Brian Bruce Warren Jack William Roy Christopher	Bailey Bristow Harrap Harrison McAlister McMahon Midgley Miller Pickford Poulter Robinson Sealey Wilson Worrell Anderson	Inverell Berowra Hgts Netley Quandialla St Helens Park Barden Ridge Tahmoor Bellbird Terrey Hills Woonona Queanbeyan Casula Minto Kenthurst
---	--	---

## 2000

Christopher Peter Ronald Alan Robert Julie Brian Walter Lido Terence	Anderson Butler Clarke Holding Hyde McLane Parry Stokes Turrin Wilkinson	Kenthurst Coffs Harbour Moruya Harden Cobar Dubbo Erowal Bay Mittagong Ruse Gol Gol
--	--	---

## 2001

Ronald Neil John Shane Peter May Anthony Robert Roger Terence Paul	Anderson Crawford Fitzgerald Fitzsimmons Hollier Jenkins Jones Pyers Schiller Taylor Whiteley	Granville Narooma Lapstone Duffys Forest Gorokan Lochinvar Winmalee Potato Point Hay Yetman Wellington
--	---	--

## 2002

Warren Stephen Donald Karen John John Peter Norman Ian Ronald Ross Colin	Arnott Basham Duffy Hodges Hojel Jenks Kearney Mann McCrohon Rollison Smith Turnbull	Minto Hgts Warialda Blandford Wilberforce Maraylya Crow Mtn Bathurst Orange Basin View Baulkham Hls Cessnock
--	--	--

## 2003

Allan Kevin Adrian Raymond Mark Arthur Peter Janette Peter Thomas Alan Brian Russell	Barter Browne Carey Collyer Crossweller Elledge Greaves Jackson Kinkead Manning Margerison Miller Taylor	Bendalong Mumbil Yass Valley Wardell Warrindah South Lismore Telegraph Pt Keimbah Singleton Barellan Oak Flats Leeton Dangar Island
--	--	---

## 2004

William Barry Donald Leonard Garth John Tony Dominic Jeff Robin Roger Ian	Berryman Brotherson Carter Carter Eggleston Hill Howe Lane Rogers Secomb Thomas	Mathoura Oak Flats Bangor Narellan Casula Tullibigeal Castle Hill Cootamundra Bathurst Rosehill Coffs Harbour Darlington
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## 2005

Norman Richard Colin Brian Bruce Gordon	Bignell Cotterill Crawford Graham Holz Le Poidevin	Stratford Mount Annan Oak Flats Erskine Park Camden
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Roger Richard Dennis Vikki Reginald Peter	Pearce Petch Ratcliff Rawlinson Scanlon Schwarze Speet	Curl Curl Emu Plains Corowra Muswellbrook Manilla Engadine Oakville
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## 2006

Grant Leslie Allan James Brian Alan	Anderson Bowden Brett Drinnan Favelle Gillespie	Lanitza Salt Ash Beacon Hill Camden Hannan Vale Raymond Terrace Cobar Mount Warrigal West Wyalong Winmalee Wilberforce Moruya Katoomba
-------------------------------------	---	--

## 2007

Gordon John	Hill Jaffray	
David Alan Bruce John	Messenger Robinson Rodger Smith Tolhurst	

## 2008

John Trevor John Brian Kam Mick Kevin John Don Stephen David Leslie John	A'Beckett Anderson Ashton Ayliffe Baker Beltram Duff Harvey Luscombe McCrae McMonnies Stewart Wood	Hornsby Hgts Kellyville Lake Tabourie Cobargo Gloucester Granville Terrey Hills Ashby Winmalee Manilla Berowra Bucketty Illawong
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## 2009

George Neville Edward William	Alexander Anderson Davies Dunn	Albury Upper Corindi Narromine Southern Hglnds Penrith Wendoree Pk Ivanhoe Windsor Seahampton
Clinton Ronald Clive Brian Peter	Jessop-Smith Jollow Linnett McKinlay Murphy	

Dennis Mark Stephen Steven	Saunders Swayn Weyman Yorke	Guyra Ryde Orchard Hills Scotland Island
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## 2009

Fred Christopher Brett Keith Jim Bryan James Dennis Joe Alfred John Christopher James	Apthorpe Barron Bowden Butt Chivas Daly Drane Joiner Knox Raistrick Sendall Smith Smith	Merbein, Vic Jerilderie Orange Young Bullaburra Grafton Thirlmere Mona Vale Wagga Wagga Cobbitty Goulburn Merimbula Dural
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## 2010

Angelo Ian Barry Kevin Colin Gregory Lance Kenneth Kenneth Richard Neville Ian Geoffrey	Baldo Bartholomew Carr Cooper Dowling Green Howley Hughes Neville Parish Roberts Smith Thiessen	Glenorie Ourimbah Molong Ambar Vale Dubbo Bargo Kyalite Warrindah Forbes Bringelly Narromine Yerrinbool Wing-ecarribee
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## 2011

Carol Leonard Judee Norman Kenneth Jeffrey Graham	Anderson Best Bryant Carter Chalker Cree Fothergill	Bexley Dural South Durras Gloucester Pheasants Nst Davidson Farmborough Heights Barry Lidcombe Eugowrie Talmalmo Hartley Vale Griffith
David Bruce Douglas Doreen Roy	Hoadley McDonald Noble Pearce Peters Stacy	

## 2012

Alan Jeffrey Michael Russell Paul Donald William John Geoffrey David Christopher Geoffrey Bruce	Anderson Bower Brooks Deaves Gleeson Langdon Lee Mackenzie Olsen Phillips Powell Towner Walton	Wellington Rainbow Flat Narrabri Wyea Cunjurong Pt Rouse Hill Dural Eumungerie Dungog Tuncurry Wamboin Broom Hd Carlingford
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## 2013

Lindsay Barrie Tom Errol James Ian Barry	Henley Hewitt Nolles Smith Smith Stewart Tindall	Ungarie Bogee Orange Singleton Urana Tapitallee Salt Ash
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# AFSM recipients

## Awarded at Queen's Birthday 2012 and Australia Day 2013

### AUSTRALIAN FIRE SERVICE MEDAL RECIPIENTS

Fourteen members of the NSW RFS have been honoured for their commitment and dedication to the Service with the Australian Fire Service Medal.

Seven members were announced on the Queen's Birthday in 2012 and further seven were announced on Australia Day 2013.

#### QUEENS BIRTHDAY 2012 AWARDS

##### Superintendent Michael Brooks Namoi/Gwydir Team

Superintendent Brooks joined the NSW RFS at Narrabri in 1983. During his career, Superintendent Brooks has held a number of positions before being promoted to his current rank. He also holds the position of Fire Control Officer. Superintendent Brooks provided leadership during the formation of the Namoi/Gwydir Team. He has been heavily involved in all manner of emergencies throughout the Namoi Gwydir region, including bush fire emergencies.

##### Superintendent David Phillips Gloucester/Great Lakes

Superintendent Phillips first joined the NSW RFS in 1974. During his career he has held a number of positions and is a recognised leader and 'go to' person. He has been active in all aspects of volunteering from brigade management, training and mentoring. Superintendent Phillips' abilities as a fire manager are well recognised across the Service. He has provided exemplary service demonstrating dedication and leadership.

##### Group Captain William (Bill) James Lea Hornsby Ku-ring-gai

Bill Lea began his career with the NSW Fire Brigades before joining the West Pennant Hills Bush Fire Brigade before transferring to the Galston Brigade in 1984. In 2005 he was elected Deputy Group Captain for the Hornsby/Ku-ring-gai District and 2008 he became Group Captain. Bill has proven to be an outstanding leader both on the fireground and within incident management teams over many years. He was instrumental in setting up the District's breathing apparatus capability.

##### Secretary/Treasurer John Charles Mackenzie Orana Team

Mr Mackenzie has served the NSW RFS and the Eumungerie community and the wider Dubbo area for over 57 years. He is known to young and old as a 'no fuss' person who gets the job done. Mr Mackenzie joined the brigade as a volunteer in 1954 and was elected Secretary in 1974 before taking on the role of Treasurer in 2006. He has been involved in a number of campaign fires in the Goonoo and Beni Forests.

##### Firefighter Alan Geoffery Anderson Orana Team

Mr Anderson started his volunteer activities when he was just 11 years old. He went on to serve as Brigade Captain, Permit Officer and President. He was one of the original Group Captains in the Wellington District. Due to ill health, Mr Anderson has been less involved in firefighting activities, but he continues to be a great resource by providing a wealth of local knowledge. He is highly respected by his peers and by the community as a quiet achiever who leads with integrity and honesty.

##### Vice President Geoffrey William Olsen Lower Hunter Zone

Mr Olsen has been a member of the Dungog Brigade for over 50 years. In that time he has held the position of Brigade Captain, President and he is the current Vice President. Mr Olsen is an energetic, enthusiastic gentleman of outstanding character. Members of the Dungog RFS know Mr Olsen as the most honest, reliable, dependable and hardworking gentleman that a volunteer service could wish to have in its ranks and consider it a privilege to work alongside him.

##### Captain Donald Norman Langdon Hills District

Captain Langdon joined the Rouse Hill Bush Fire Brigade in 1964 and quickly developed excellent skills in bush fire operations and brigade management and was appointed Captain in 1977. Under his leadership, the brigade has grown and continues to be a dedicated and skilful team of men and women. He has engaged the community to recognise the importance of bush fire preparedness. He has devoted immeasurable time and energy to the Service and is held in the highest regard by all.

#### AUSTRALIA DAY 2013 AWARDS

##### Group Captain Lindsay Ronald Henley Bland/Temora Zone

Group Captain Henley joined the NSW RFS as a member of the Ungarie-Bland Brigade in 1970. His commitment to his community and the Service is outstanding. He is always focussed on helping his community in times of need, whether it be during a fire, storm or flood. Group Captain Henley is one of the first to take a leadership role and accept the responsibility of his decisions. The resilience and empathy Group Captain Henley displays is a credit to the man who puts the interests of others before himself.



Australian Fire Service Medal recipients at their investiture in September 2012 at NSW Government House with The Governor, Professor Marie Bashir, AC, CVO and Assistant Commissioner Dominic Lane. (L-R) Superintendent Michael Brooks, Alan Anderson, Captain Don Langdon, Governor Marie Bashir AC, CVO, Group Captain Bill Lea, Assistant Commissioner Dominic Lane, John Mackenzie, Geoffrey Olsen and Superintendent David Phillips. Photo by MediaKoo

##### Group Captain Barrie John Hewitt Cudgegong

Group Captain Hewitt joined the NSW RFS as a member of the Arcadia Brigade in 1966 and became a Life Member in 1993. In 2001 he transferred to the Boguee Brigade and was elected as Group Captain in 2006. Mr Hewitt has shown outstanding leadership in the development of volunteer members. He actively supports training, exercises and mentoring volunteers and staff alike. He is highly respected as a fire tactician and his ability to read fire and terrain.

##### Captain Tom Nolles Canobolas

Captain Nolles joined the Mullion Creek Brigade in 1975 and later joined the Northwest Orange Brigade. He was elected Captain of the Canobolas Zone Support Brigade in 2009. In addition to firefighting, Mr Nolles is a member of the training committee and an active part of the Cadet Secondary School Program. Captain Nolles is held in high regard throughout the Zone and

is often called upon to join committees. He is known as a champion of the volunteers and their causes through his involvement in the Rural Fire Service Association.

##### Superintendent Ian Charles Stewart Shoalhaven

Superintendent Stewart has served in the NSW RFS for over 35 years, working in various roles in a number of District positions across the State including Bega, Cooma-Monaro, Eurobodalla, Tamworth, Great Lakes and Shoalhaven. His detailed knowledge of emergency arrangements in NSW and understanding of the NSW RFS has been recognised by his active participation on policy formation at a State level. He is recognised widely for his incident management skills.

##### Group Captain Errol James Smith Singleton

Group Captain Smith joined the NSW RFS as a member of the Bulga Brigade in 1956, he was elected Captain in 1984, Group Captain in 1989 and given Life Membership in

2004. Mr Smith was involved with all major fires from the late '60s until 2009 and has also led many out-of-area deployments. Group Captain Smith is an extremely skilled firefighter and fire manager; he is a great source of information and insight for many firefighters.

##### Group Captain James Patrick (Pat) Smith Lockhart

Group Captain Smith joined the NSW RFS as a member of the Bidgeemia Bush Fire Brigade in 1968 and was quickly elected to the position of Captain, a position he held for 27 years, before being appointed Group Captain in 1996. Mr Smith's has demonstrated leadership at all levels of activities of the NSW RFS including the 2009 Black Saturday Bush Fires in Victoria and the flood recovery at Orana in 2012. At every incident his duties have been conducted at the highest levels of safety.

**For more information about the Australian Fire Service Medal see: [www.itsanhonour.gov.au](http://www.itsanhonour.gov.au)**



#### VALE

##### Deputy Group Captain Barry Tindall Port Stephens

Soon after the Australia Day AFSMs were announced, sadly Barry Tindall passed away. He was 68 and died from the impact of a long-term illness. He will be sadly missed and yet his contribution to the NSW RFS and his community will be remembered.

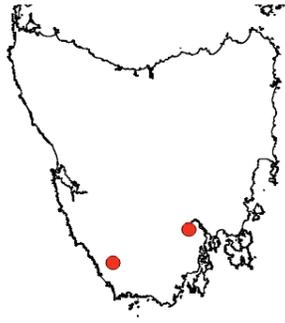
Deputy Group Captain Tindall joined the NSW RFS in March 1973 as a member of the Box Hill Brigade. In 2001 he relocated to the Port Stephens area joining the Salt Ash Brigade and later the Tanilba Bay Brigade before being elected to the position of Deputy Group Captain in 2009.

Mr Tindall was a very active member of the NSW RFS and held most positions, both operational and support within his Brigades. In addition to his operational duties as a firefighter, he recently trained as a fire investigator and was active in that role, investigating both wild fires and structural fires.

Deputy Group Captain Tindall was regularly out amongst the community providing fire safety, awareness and education advice. He was instrumental in the establishment of the Community Education program in the Zone and its ongoing success will be attributed to him.

He was first to put his hand up to either lead teams or just participate. He rarely missed a call, regardless of time, size or type of incident.

# Remote just got more remote



Tasmania experienced an extended fire campaign this year with four major fires burning 40,000 hectares of the island from December 2012 to February 2013. The NSW RFS sent crews to back up our Tasmanian colleagues in February after the bulk of the NSW fire season was over.

Specialist crews trained in dry firefighting techniques and helicopter winch skills (HWS) were able to assist with the Tasmanian fires burning in rugged and isolated areas where fire trucks could not reach.

Andrew Macdonald, Macarthur Remote Area Firefighting Team participated in two of the deployments from the NSW RFS to Tasmania.

During February 2013, 64 highly skilled Remote Area Firefighters from NSW travelled to Tasmania to assist with the fire crisis in that State.

The first team of 25 departed on 10 February with the five-day deployments concluding on 23 February 2013. The primary task was to assist the Tasmania Fire Service (TFS) with the Glen Dhu Road fire burning in very rugged mountainous terrain on the northern and western slopes of Mt Wellington, approximately 10km to the north west of Hobart.

Most of this region had not been burnt since the

devastating fires in February 1967 and fuel loads were so heavy that it was impossible to traverse much of the unburnt bush by foot.

The fourth NSW RFS deployment also assisted with the Giblin River fire which was located south of Lake Pedder in part of Tasmania's Wilderness World Heritage Area.

Initially accommodation was at the Tasmania Police Academy located to the east of Hobart. During the second week of deployments a hotel at New Norfolk was used as it was only 10km from the Glen Dhu Road staging area. All arriving crews

were briefed by the TFS and in addition to the typical items covered by a fire briefing we were also educated about the biting and stinging animals that exist in Tasmania. This included information about snakes, spiders, wasps, ants and bumble bees!

Tasmanian Remote Area Teams (referred to as RATs) operate in the field slightly differently to RFS RAFT teams. Due to operational issues TFS crews do not have helicopter winch accreditation and consequently TFS contracted helicopters do not carry a personnel winch. Long walks in rugged terrain

became the only way that fire edges could be accessed.

While the rackhoe is commonplace within the RFS the TFS firefighters use a Pulaski Tool on alpine slopes and on high mountainous plains. The mountains in Tasmania are often covered in loose rocky dolerite scree or peat soil and the Pulaski Tool is easier and more appropriate to use in these landscapes. This tool has a small straight chipping edge similar to a rakehoe and a cutting edge similar to an axe. The chipping edge gets between the loose scree and the cutting edge is

used to cut deep into the peat soil. Peat soils are similar in consistency to compressed sawdust and tend to smoulder deep underground.

Another difference is that the TFS RATs rely on the use of 500 litre water bladders known as Stillwell Flyers. These orange triangular pyramid-shaped bladders are made of a heavy duty flexible material and can be slung under helicopters together with pumps and hoses. Remote area crews typically walk the fire edge and request the Stillwell Flyers and equipment as required.

While on the fireground RFS crews were broken up into small teams, each led by a TFS member. Apart from our personal RAFT backpacks, all other equipment was supplied by the TFS and we were allocated 4WD utes for the duration of our commitment. At the Glen Dhu Road fire, crews were tasked to confirm the status of remote fire edges and arrange for extinguishment as required. At the Giblin River fire, which was much more remote, crews had several hectares of smouldering peat soil that needed to be cut out and extinguished from water

supplied by portable pumps from a nearby creek. At the completion of this job all gear was slung by helicopter back to a Tasmania Parks and Wildlife Service depot.

It is always a great experience to assist fellow firefighters in other States and this was no exception. It was also a great opportunity for remote area firefighters from across NSW to meet and to work together.



OPPOSITE PAGE: One of the NSW RFS RAFT crews at the Giblin River fire. Photo courtesy of Andrew Macdonald

LEFT: The fourth deployment from the NSW RFS worked in the remote south-west of Tasmania at the Giblin River fire. Photo by Andrew Macdonald

LOWER LEFT: Stillwell Flyers being filled with water. Photo by Rance Harrison



## Wrap up of the Tasmanian fires

The fires in Tasmania throughout December 2012 and February 2013 were the State's worst bush fires in half a century. Four major blazes caused devastation in Tasmania burning a total of 40,000 hectares. It was the first time that conditions had been rated Catastrophic in Tasmania with more than 400 buildings and 250 businesses affected by the fires.

By mid-February the Tasmania Fire Service had been battling major fires since before Christmas. Many interstate and

international firefighters lent a hand to help them manage the fatigue among their troops, including the NSW Rural Fire Service. The NSW RFS assisted over a two week period in mid-February on the Glen Dhu Road and Giblin River fires.

Sixty-four members from the RFS Remote Area Firefighting Teams travelled to Tasmania from 10 February to 23 February in four rotating deployments. Fifteen members did more than one deployment.

Apart from two support staff, the deployments were made

up of RAFT HWS-qualified volunteers from Macarthur, Hornsby, Blue Mountains, Hawkesbury, Gloucester, Lake George, Goulburn, Riverina Highlands, Far South Coast, Northern Rivers, New England and Mudgee. Forty percent of all RAFT HWS-Qualified volunteers in NSW were able to be involved in the Tasmanian deployments.

The NSW RFS also assisted the Tasmania Fire Service in the area of Incident Management. Eleven Incident Management Team staff

travelled to Tasmania in two deployments. They were tasked with managing the Glen Dhu Road fire in that period. The IMT included aircraft officers, airbase managers and air attack supervisors.

The Service had also sent assistance prior to the major fires in NSW. Early in January, six members of the NSW RFS Building Impact Assessment Team assisted Tasmania Police in property investigation.

# Geegullalong Fire

## The need to serve

A personal account of the Geegullalong Fire

By Geoff Crocker, Demondrille Brigade



“...For the drover’s life has pleasures that the townsfolk never know.” (Banjo Paterson)

**Sunday, 14.53hrs,  
16 December, 2012**

Australia is trouncing Sri Lanka in the test cricket when the mobile interrupts. It’s Andy, Demondrille Brigade Deputy Captain.

“Hello Geoff, it’s Andy, are you doing anything right now?” Andy never calls for a chat.

“What have you got going mate?” I ask.

“Yeah, well, there’s a bit going on out near Boorowa.”

I can hear the Rural Fire Service radio (the PMR) running in the background and suspect there’s more than ‘a bit’ going on.

“Where do you want me Andy?”

“At the fire shed, ASAP.” That was the callout.

Within 10 minutes a Cat 1 Tanker, 14 tonnes of heavy-duty Four-Wheel Drive, carrying 4,500 litres of water and a crew of four, rolled out of the shed headed for the fireground. The radio is alive with brigades responding to Fire Control Centre (FCC) where the hierarchy is already assembling to coordinate the incident.

We have about 60 kilometres to cover. Radio traffic mounts. More tankers are summoned from around the region and familiar voices at fire control change as communication teams arrive. Incident Controllers assume command and we hear talk of aircraft. This is no longer support for a motor vehicle accident, or a barbecue gone wrong, something bigger was developing and at that time - just how big, nobody could have known!

The tone becomes serious, FCC is taking no chances.

Responding crews log-in as they leave their brigade sheds. Young, Taylor’s Flat, Boorowa, Demondrille, Cunnigar, Jugiong and others by the minute. Rendezvous points and radio frequencies were being assigned as we saw smoke on the horizon to the West. Approaching our staging area a wind shift sent a fire front threatening to cut the Lachlan Valley Way.

That fire near Boorowa would burn for the next four days consuming some 4,000 hectares of grazing land. Equipment deployed: Two helicopters and three fixed wing aircraft. Four huge dozers. Two graders and three excavators. Several bulk water tankers. Three auxiliary pumps located in dams on properties and by next morning, 32 fire tankers, five strike vehicles and about 150 firefighters began rotating shifts.

No houses were lost but more than 500 animals, mostly sheep, became helpless victims. Their ordeal may last days as the ground will be too hot for farmers to access their paddocks, find them, and shoot them.

Back on the fireground, darkness is descending and the fierce orange glow beyond the ridge is ominous. The order comes for a back-burn and the lead trucks move off, lighting a line while the remainder wait for the fire to catch hold. We are soon engulfed by dense smoke whipped by a fickle wind as we move ahead in convoy, spraying the edge with foam, forcing the fire forward to meet the main blaze, but it’s not long before matters change.

Through the heavy smoke we can’t distinguish the back-burn from the main fire. All around is black with orange-red puddles

from which flame writhes in a hypnotic dance, inflamed further by showers of embers that bite like angry wasps. This must be what hell looks like...

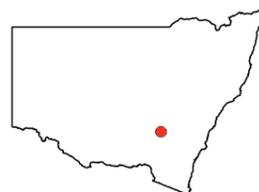
Grassland fires are fought from the back of the tanker (the birdcage). In the dark, reflection from the flashing red and blue turret lights are blinding, both ground and fire edge is lost in the billowing smoke and aiming the hose is a mission of hope - other senses come to play and you shoot toward the sounds of crackling.

The birdcage is a confined space with many protruding valves, eager to break your ribs when the tanker heaves violently upon unseen logs, rocks, holes, or sudden land drops. We are in rough terrain. Two hands and both feet are firmly wedged lest one is pitched from the vehicle, but you manage to hang on and direct the hose.

Back at the staging area shed, replacements arrive, clean and chipper. Old friends reunite, the camaraderie is keen - it’s a while since the last ‘big’ one. But hunger commands the tired body and you gorge ravenously on a burnt sausage with wilted onions on frozen bread, and a chunk of Christmas cake served up by the Boorowa Shire Lion’s Club - more satisfying than a baked dinner I thought.

Although comically blackened, nobody notices the difference between the battle-weary and the pukka reinforcements for they know that ‘survivor look’ will be theirs in the coming hours. There are no gripes because that’s what we are trained to do - that’s what RFS volunteers do so well - all 70,000 of us.

ABOVE: The Staging Area for the Geegullalong fire. Photo by David Nicholson



On 16 December 2012 at 1330hrs a fire was reported on Geegullalong Rd, about 8kms east of Murringo near Young. Ten tankers were called to assist and by 1530hrs the fire was estimated to be 90ha and running hard through grazing country.

Fixed wing aircraft and one helicopter were brought in to assist ground crews. The fire was heading toward Lachlan Valley Way where firefighters planned to stop the fire. At 1630hrs the fire crossed Lachlan Valley Way blocking the road in both directions. Winds were strong and the fire was running hard.

Six Heavy Plant were brought in to build containment lines as forecasts suggested a strong wind change from the south west was due within the next hour.

At around 1745hrs aircraft reported that the fire had spread to include 2,800ha of land and reports were coming in from the fireground of stock injuries and losses. An Emergency Alert was sent to all phones in the area warning residents to implement their Bush Fire Survival Plan.

Crews from surrounding districts began arriving to assist. By the time the wind change arrived at 1900hrs there were 150 firefighters on the ground and 50 tankers at work. A Section 44 Bush Fire Emergency was declared.

With the strong wind change the head of fire shifted to the northern flank and firefighters worked hard to contain the blaze in those areas. The erratic winds brought by the wind change saw one fire truck overrun three times within one half hour. All crew members were unharmed.

As conditions eased after 2030hrs and temperatures dropped, firefighters began controlled burns and mopping up operations. Eighty firefighters, 23 tankers and six heavy plant continued mopping up operations and

strengthening containment lines overnight.

Large numbers of firefighters with the support of aviation and heavy plant, continued to control the blaze over the following days. The fire was declared contained on 19 December 2012.

Total losses included 3,400ha of land burned, 502 sheep and 20kms of fencing. No houses or structures were lost and there was no loss of human life.

# Recruit, retain and thrive

– flexible membership to attract today's volunteers

In 2009 workshops were held around the State to harvest members' input on the workforce and membership issues facing the NSW RFS. A clear message from the discussions was the need for a new, more flexible approach to membership to make volunteering with the NSW RFS attractive to the community. Following these meetings the draft Flexible Membership Model (FMM) was developed and released for consultation in September 2010.



## Flexible Membership Model released

The draft document sparked a lot of interest, and after an extended consultation period the model was revised to reflect feedback from our members. In March 2013 the final Flexible Membership Model (FMM) has been launched and is available on MyRFS or the NSW RFS intranet (for staff).

## What is the Flexible Membership Model?

The FMM is essentially an approach, or way of doing things, which will encourage more people to join or stay with the NSW RFS and be part of an organisation that protects their own local communities.

It is about promoting a Service that is welcoming for people of different ages, genders, cultures and situations and ensures there is a range of roles for them. It is also about removing barriers which may deter people from participating, including allowing them to change their role and level of involvement as their availability, capabilities and interests change.

Flexible Membership will help the NSW RFS to retain its current vibrancy, while developing new ways for more people to participate and ultimately serve the community even better. The key aims of Flexible Membership are:

- to attract a wider variety and greater number of valuable members
- to retain the right people more effectively
- to provide many and varied pathways of involvement and advancement within the Service
- to better reflect the profile of our communities
- to place equal value on all membership roles.

## What is being done?

At the heart of Flexible Membership is the recognition that brigades have different characteristics and need solutions which can be adapted to their individual circumstances.

"The most important aspect of flexible membership," said Commissioner Shane Fitzsimmons, "is ensuring a high level of local control in



make a difference  
volunteer with the nsw rfs

visit: [www.rfs.nsw.gov.au](http://www.rfs.nsw.gov.au) | email: [volunteer@rfs.nsw.gov.au](mailto:volunteer@rfs.nsw.gov.au)



LEFT: One of the two styles of postcards in the new recruitment resource kit  
FAR LEFT: this new recruitment poster reflecting a variety of roles in the NSW RFS is available for Districts to order now

regard to how, why and when it is used. This means brigades can choose to take up only the components that are most suited to them."

While Flexible Membership is a long term strategy, the NSW RFS has already taken steps to implement the principles of the model in practical ways.

## Defining our roles

It was clear from the feedback, members want to be valued equally regardless of their role. They also want to have the flexibility to choose a role which best suits their abilities, interests and circumstances at the time. To enable this, changes have been made to the way we define our membership.

The old categories of 'active' and 'non-active' have been replaced with six new Membership Types which are based on the primary role of the member. They include Operational, Operational Support, Administration, Reserve, Cadet, and Community Fire Unit (CFU). The Membership Type can be viewed and updated by brigades through MyRFS as an individual's role changes.

## New ways of training

Flexible Membership is likely to have a significant impact on training in brigades.

So far the launch and development of the e-Learning Strategy has made some training modules more available and easier to access for a broader range of members. The Volunteer Induction and Safety Induction are now available through the online e-Learning portal and more online training is being planned. One major benefit is that new members can now start learning online as soon as their membership has been confirmed rather than waiting for the next face-to-face course.

As we move forward, the development of training to support Flexible Membership will involve much more than just online courses - content, pathways and methods of delivery will all have to be

reviewed to ensure training is relevant and time effective to members in a full range of roles.

## Recruitment resources now available to brigades

A new set of recruitment resources has been developed which more accurately reflect the variety of roles that are currently being undertaken within the NSW RFS. The new posters, brochures and cards are available to order from your District.

These new resources are designed to assist and support your recruitment activities. Maintaining a strong and vibrant brigade is important for every community. Keeping the best people and continuing

strong traditions by recruiting new active members is essential for every brigade. The following resources are now available to order:

- Make a Difference Recruitment Poster
- Make a Difference – Recruitment Postcards (two styles)
- Recruitment Business Cards
- Recruitment (leave behind) Business Cards
- Making A Difference – Women in the NSW RFS

Contact your local District Office to order these recruitment resources. Districts can order from Volunteer Relations and Workforce Planning, email [volunteer@rfs.nsw.gov.au](mailto:volunteer@rfs.nsw.gov.au).

Flexible Membership is a concept that has been raised again and again within many forums of the NSW RFS. I hope the Flexible Membership Model will provoke conversations within your area about membership, what it will look like in future years and what we might need to do, if anything, to ensure the NSW RFS remains a strong and sustainable presence within the communities of NSW well into the future. Commissioner Shane Fitzsimmons

# From little things, big things grow

Aboriginal communities across the State are becoming better prepared for bush fire with an innovative new program that has taken off in Region West.

In some remote Aboriginal communities, the risk of bush fire is ever present and some communities may be particularly vulnerable. Last year, the NSW RFS worked with these communities to create Bush Fire Survival Plans and engage participation in bush fire protection.

The Bush Fire Resilience for Aboriginal Communities Project (BRAC) was authorised through the successful application for a grant under the Natural Disaster Resilience Program. Funding for the first stage of the project was provided by the NSW State Government and the Commonwealth Government through the NSW Ministry for Police and Emergency Services in 2011/12.

In 2011/12 BRAC involved a NSW RFS team visiting Aboriginal communities throughout NSW and making bush fire and structure fire risk assessments. Detailed risk assessment reports were generated with priority actions to mitigate bush fire and structure fire hazards listed. Thirty four discrete Aboriginal communities were identified for the Project and each of those communities now has a risk assessment report with priority actions.

Although the Project dealt primarily with the risk of bush fire, it also took other types of fires into account within Aboriginal communities and addressed such issues as illegal burning and household fires.

One of the aims of the Project was to seek involvement and

advice from the local Aboriginal community on what they see as the hazards and risks to their community and what they would like to see happen to lessen those risks.

The BRAC Project saw the development of a strong partnership between the NSW RFS and the State Aboriginal Lands Council. Project Officer Superintendent Trevor Reeves said support for the Project from the communities has been exceptional.

"The risk of fire is a real concern and the risk it poses to many of the communities is evident," he said, "This report will assist many

agencies and organisations in identifying areas of concern within our discrete Aboriginal communities and will hopefully lead to better informed and safer Aboriginal communities."

The Project was such a success that in late 2012 BRAC Stage Two was announced by the State Government, in partnership with the State Aboriginal Lands Council.

A grant of \$600,000 has been provided by the Natural Disaster Resilience Program for the employment of an Aboriginal Liaison Officer at the State Lands Council and a Project Officer with the NSW RFS.

The main aim of Stage Two will be to work with the 34 communities already identified, implementing the action plans identified in Stage One. Stage Two of the Project will run from April 2013 to approximately October 2014.

**BELOW:** A comprehensive risk assessment of the Cabbage Tree Island Aboriginal Community in cooperation with the Local Aboriginal Land Council (LALC) and local NSW RFS was part of the Bush Fire Resilience for Aboriginal Communities Project. (L-R) Des Boorman (TAFE NSW), Rodney Cameron (Wardell RFB) and Marcus Ferguson (Green Team, Work Supervisor, Jali LALC.) Photo by Trevor Reeves.



## Things aren't always what they seem, home-made explosive awareness

By Simon Pogoriutchnig, Operations Officer, Counter Terrorism Liaison

In 2013 the next phase of the public National Chemicals of Security Campaign will be launched across the country by the Australian Government. Prior to the launch, a threat card and instructional DVD have been released to assist emergency responders to identify the suspicious use of chemicals that could be used to make a bomb.

Terrorist bombings have been conducted around the world using commonly available chemicals to manufacture explosives. In London, terrorists used hydrogen peroxide, a widely available chemical commonly used in hairdressing, to create the bombs that were later used on the 7 July 2005 bombings.

In the London example, because of the availability of the chemical it was no trouble for the terrorists to source enough to build their lethal weapons. Despite this, there were a number of warning signs that if reported, could have alerted authorities to the plot:

- The terrorists purchased unusually large quantities of peroxide
- Plants growing outside the window of the flat used to manufacture the explosives had died from the poisonous gas created during the bomb-making process
- Making the explosives would have created a strong, easily detectable odour
- Once inside, investigators

found large quantities of empty chemical bottles and blistered paintwork from the noxious fumes.

To assist authorities to prevent a similar attack taking place on our home soil, a range of information products have been developed to raise awareness of the security risks of chemicals and to urge the public to report suspicious activity or behaviour.

The primary messages to the community are:

- Readily available chemicals can, and have, been used for terrorist purposes
- You can help protect Australia from terrorism by being vigilant, and reporting suspicious activity to the National Security Hotline on 1800 123 400
- You can help prevent terrorists getting access to chemicals by making sure chemicals are stored securely, that access is restricted, and that stocks are regularly audited
- Every piece of information gathered is important and



National Security Hotline  
**1800 123 400**

could provide the missing link for security of intelligence operations.

### The role of NSW Rural Fire Service

The manufacture of explosives is a dangerous process that can start fires or trigger explosions. It is possible that in responding to an emergency situation, NSW RFS members may be the first on scene at a site where home-made explosives have been manufactured. To prepare for this scenario, Home Made Explosive Threat Card has been created by the NSW Police Force and an associated National Security Chemical Awareness DVD for First Responders has been developed by the Australian Government.

### Home Made Explosive Threat Card

The Home Made Explosive Threat Card provides a quick reference tool that first responders can use to assist them to identify potential dangerous situations.

The card provides indicators for identifying sites that have been used to manufacture explosives

and a list of chemicals that can be used.

In the NSW Rural Fire Service, the threat card is located in all operational tankers, pumpers, communication vehicles, Group Officer's vehicles, and other operational vehicles.

### Things Aren't Always As They Seem: A National Chemical Security Awareness DVD for First Responders

This short 14-minute production provides emergency services personnel with a number of scenarios that may indicate the presence, or attempted manufacture, of home-made explosives. The video can be easily incorporated into training or at the next brigade meeting and all NSW RFS members are encouraged to watch the video which is available via MyRFS, and the intranet.

For more information about chemicals of security concern visit [www.chemicalsecurity.gov.au](http://www.chemicalsecurity.gov.au) or go to [www.secure.nsw.gov.au](http://www.secure.nsw.gov.au).

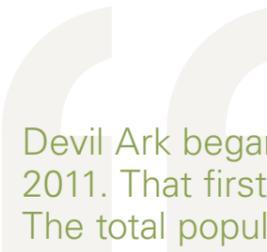


# Better to save the Devil you know

By Superintendent Mark Murphy, District Services Officer, Liverpool Range Zone and photos by Ros tenBrink



A strip of dense bushland has been fenced off in a remote corner of NSW to create a safe haven for Tasmanian Devils and the NSW RFS is there to help save this vulnerable species.



Devil Ark began with 44 Tasmanian Devils in January 2011. That first breeding season saw 26 young born. The total population has now reached 120.

The Tasmanian Devil has been devastated by a contagious facial cancer that has wiped out almost 90 percent of the wild population in Tasmania, reducing it from 250,000 to around 25,000 since the disease first appeared in 1996. As a result, the Devils are in danger of becoming extinct within the next decade.

To help with the breed's survival, Devil Ark has been established at the Barrington Tops in the Hunter Valley. The program aims to breed large numbers of Tasmanian Devils away from the highly-contagious Devil Facial Tumour Disease (DFTD) which is still rife in Tasmania.

A part of the Australian Reptile Park, Devil Ark is the largest conservation breeding program for the Tasmanian Devil on mainland Australia. At an altitude of 1,350 metres, the Tasmanian-like vegetation and cool, wet and snowy conditions means the Devils feel right at home! The aim of this 'insurance population' is to establish and maintain a population of healthy, genetically diverse Tasmanian Devils that maintain their wild traits and are able to be successfully released into the wild when required.

While the protection of the Tasmanian Devil has national significance, one of the risks to the success of the program is bush fire.

Since the establishment of the Devil Ark in January 2011, local brigade members from Hunter Springs and Ellerston Brigades, with the support of staff from Liverpool Range Zone, have been working closely with Devil Ark to ensure it is fully protected from the threat of fire.

The first step was to establish a Devil Ark Fire Plan for the Devil Ark itself including training employees in the event of a fire. This was followed by the development of a bush fire protection plan.

The Devil Ark compound is in Category 1 Bush Fire Prone Land and there is currently an Asset Protection Zone around the compound that is two dozer blades wide. Discussions with the land owners have also seen the preparation and



implementation of a Strategic Fire Advantage Zone, further reducing the under-storey fuel to a distance of at least 100 metres. Suitable water sources have been mapped and Strategic Fire Plans and Pre-Incident Plans are being developed.

The habitat of the Tasmanian Devils is carefully protected to ensure that the marsupials flourish, breed and do not escape. Devils are good climbers and diggers, so fences extend half a metre underground. The Ark consists of a series of two-six hectare enclosures. There are also two enclosures that house the juveniles for one year after they have naturally weaned from their mother. While in their crèche, these teenagers learn how to become young Devils.

Over the past two years brigade members have familiarised themselves with the local terrain including building and mapping new fire trails surrounding the compound. In early November 2012, 83ha of low to moderate intensity burns were carried out and further burns are planned for the first half of 2013.

Devil Ark began with 44 Tasmanian Devils in January



2011. That first breeding season saw 26 young born. The total population has now reached 120.

This is a fantastic outcome and the highest breeding result for any captive facility holding Tasmanian devils. Protecting these unique creatures is something that makes the Hunter Springs and Ellerston Brigade members proud!

You can keep up to date with the Devils and their breeding program by subscribing to a regular blogs at <http://devilark.blogspot.com.au/>

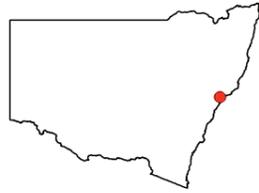
TOP: Some of the Ellerston Crew with Hunter Springs Cpt. Norm Carter during the November HR

ABOVE: Excuse Me, this one's occupied!! A 'nest box' full of Lil' Devils

OPPOSITE: Devil Ark is the largest conservation breeding program for the Tasmanian Devil on mainland Australia

# BRIGADE IN PROFILE

**Name of Brigade:**  
Cameron Park Rural Fire Brigade  
**Year brigade formed:** 1990  
**Current Captain:** Mal Bland  
**Current President:** David Martin  
**District:** The Lakes Team



ABOVE: Cameron Park Brigade hazard reduction exercise at Awaba. Photo by Lincoln Marriott  
LEFT: Commissioner Shane Fitzsimmons and Captain Mal Bland at the opening of the Cameron Park Brigade Station refurbishments, November 2012. Photo by Peter Sergeant

## Can you give us a brief history of the brigade?

Originally called Reserve Volunteer Bush Fire Brigade, the Brigade was formed in November 1990 at a meeting held in the combined State Emergency Service/NSW Bush Fire Brigades Headquarters at Boolaroo.

A need had been identified need to have a brigade 'held in reserve' to backup and support other brigades in the Lake Macquarie area. At the time, this role was typical of many District Headquarters brigades, however, the name 'Reserve' was chosen by then District Fire Control Officer Steve Sowter and Deputy Fire

Control Officer Gary Avison to distinguish this brigade from others.

In its formative years, Reserve Brigade was annexed to Wakefield Bush Fire Brigade and was located within the Lake Macquarie District Fire Control Centre in Boolaroo.

It became autonomous on 5 February 1995 and yet it still had no facilities of its own. Volunteers set up a council caravan outside the Lake Macquarie FCC to provide members with shelter during standby days and to distinguish the brigade from the Fire Control Centre.

When the old Wakefield Brigade fire shed became

vacant in 1996, the Reserve Rural Fire Brigade got its first home. Never mind that the truck had to be moved out in order to hold brigade meetings undercover!

In May 1997 the brigade relocated along with the Lake Macquarie Fire Control Centre to purpose-built facilities at Cocked Hat Hill at Estelville (present day Cameron Park).

Members completed the internal fit-out of the station themselves from funds raised in numerous raffles and from other fundraising efforts.

With the introduction of the NSW Rural Fires Act (1997) on 1 September 1997, the brigade constitution was amended and

officially became known as the Reserve Rural Fire Brigade. The Fire Control Centre and Reserve Station where officially opened by the then NSW RFS Commissioner Phil Koperberg on 11 October, 1997.

Nearly 20 years after it was originally formed, in June 2010, members voted to change the name of the brigade to Cameron Park Rural Fire Brigade.

The change underlined the brigade's location and area of responsibility and drew a line behind the brigade's origins. The brigade was no longer a brigade 'held in reserve' but a fully functioning aspect of the Lake Macquarie firefighting effort.

## What are some unique parts of your brigade's history?

The Brigade has been the home of numerous spare vehicles for the District over the years, including an ex-CFA heavy pumper and a former garbage truck. It has also had operational responsibility for the District Bulk Water Carrier.

## What are some recent milestones the brigade has achieved?

In addition to the recent name change in 2010, the introduction of CABA equipment and the training of Breathing Apparatus Operators in April 2011 meant the we attained Village 2 Brigade classification.

In November 2012 the keys to a new state-of-the-art bush fire tanker were handed over by the NSW RFS Commissioner Shane Fitzsimmons. The Commissioner also officially opened our station refurbishments.

The new fire truck, a Cat 7, is worth \$170,000, and will ensure that the brigade can gain access to fires located in difficult terrain and tight access tracks.

The refurbishments to the Brigade Station included the lining and tiling of the office, meeting room, kitchen, shower and toilet area, along with the installation of a new instant hot water unit and air conditioning.

"This brigade has a long history of successfully undertaking major fundraising drives to gather the necessary funds to upgrade their facilities," the Commissioner said. "The substantial amount of money raised goes a long way in demonstrating the overwhelming community support for the Cameron Park Rural Fire Brigade and the work they do to protect people's property and lives from fire."

## What type of area do you cover? (e.g. farm/urban/bushland)

Cameron Park Brigade covers an area of over 1,022 hectares which includes a mix of bush, urban interface, urban and commercial land use within the suburbs of Cameron Park and Edgeworth in the Lake Macquarie Local Government Area. Development within the suburb of Cameron Park is expanding with an increase in residential dwellings slowly consuming the surrounding bushland.

## What types of incidents does your brigade attend?

With an increasing development of housing in Cameron Park there is a corresponding change to the types of incidents that the brigade is attending from bush and grass fires to more urban incidents. The suburb includes a nursing home and numerous commercial businesses and due to the proximity to the

Sydney-Newcastle Freeway and other major roads, members often attend motor vehicle incidents.

The majority of the callouts are to bush and grass fires, vehicle fires and motor vehicle accidents. In 2011 and 2012 the brigade attended a total of 171 callouts, including 93 fires, 22 motor vehicle accidents, 30 false alarms/good intent calls, 11 hazardous conditions, four other situations and 11 calls in support of external agencies.

## What vehicles do you have?

It is a long way from the days when the only vehicle the brigade could call its own was a council caravan. Cameron Park Brigade Station now houses a 1978 International Acco 2152/B 8 x 4 Bulk Water Carrier; 2006 Isuzu FTS 750 Crew Cab 4 x 4 Heavy Tanker; 2011 Isuzu NPS 300 Dual Cab 4 x 4 Light-Medium Tanker and 2000 Mitsubishi FK618 Crew Cab 4 x 2 Pumper.

## What type of training do you conduct and how do you go about doing this?

Other than District level training, in-house training drills are held twice a month, where we focus on honing the skills of members at each level of competency. With the introduction of CABA, we are increasing the number of VF-qualified members so that we can in turn train them to be CABA operators. We also try

to carry out joint training with neighbouring brigades as often as possible.

## What are some unique skills and features of your brigade?

Initially we were 'held in reserve' and our role was to back up other brigades. We quickly earned a reputation for carrying out mopping-up tasks with commitment and diligence, a tradition that has strongly been upheld by successive field officers.

Although not unique, the brigade regularly sends crews away on deployments, assisting at major fires, floods and other emergencies throughout NSW and interstate including members who form part of air operations teams during the fire season.

## What community events does your brigade participate in?

We routinely attend schools, building expos, agricultural shows and street meetings. We also take part in numerous hazard reductions throughout the year.

## Any final thoughts or comments you would like to add?

Cameron Park Rural Fire Brigade celebrated its 21st Anniversary in October 2011. Current and former members can be proud of how the brigade has developed from the early days of using old tankers that had belonged to other brigades, to the modern, well-equipped and well-maintained fleet of vehicles we have today. We have always had well-trained, capable and committed firefighters. Members should be proud of the history of Reserve Rural Fire Brigade as we continue to grow our capabilities into the future as the Cameron Park Rural Fire Brigade.

Written by Peter Sergeant, Deputy Captain, Cameron Park Rural Fire Brigade

FAR LEFT: Cameron Park Brigade members sharing fire safety information at the opening of the local community centre. Photo by Amy Bland.  
LEFT: Cameron Park Brigade members at a training exercise. Photo by Amy Bland



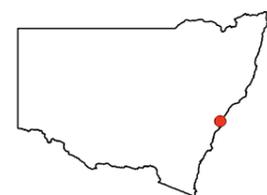
# BRIGADE IN PROFILE: 70 YEARS



LEFT: On the occasion of the 70th Anniversary the majority of brigade members gathered together for a photo opportunity outside the brigade station. Photo by Lachlan Kenny  
 TOP: November 1951: Severe fires fanned by 50mph (80kph) winds burnt through Frenchs Forest and Terrey Hills destroying the homes of eight families with all their possessions  
 ABOVE: The 1972 International D1310 was a trusty member of the brigade until 1988. Photo by Alan Brinkworth  
 BELOW: The Terrey Hills Brigade has fought some ferocious fire campaigns over its 70 year history. This photo taken in December 1979 shows Forest Way looking north toward Terrey Hills. Photo by Alan Brinkworth

In November 2012 the Terrey Hills Brigade celebrated 70 years of support and service to the community. Life member of the Brigade and former Manager State Operations, Chief Superintendent Alan Brinkworth wrote this short history of the Terrey Hills Brigade.

**Name of Brigade:** Terrey Hills Brigade  
**Year brigade formed:** 1942  
**Current Captain:** Todd Wildman  
**Current President:** Ben Shepherd  
**District:** Warringah-Pittwater



Terrey Hills Volunteer Bush Fire Brigade, 21 kilometres due north of the City of Sydney, had its first meeting on 12 December 1942 attended by approximately 25 local residents, who crowded into the one-classroom school, so the Brigade was formed.

On 27 February 1943 the aims and objectives of the Brigade were outlined and nominations were called for the office bearers. Joe Waldon was elected Captain, Keith Bidden as Senior Deputy Captain and Eileen Blake was Secretary, Treasurer and Fundraiser. The Brigade then wrote to Warringah Shire Council and

submitted its first request for equipment.

In due course, the Brigade was fitted out with a couple of burners, some scrub hooks, a few knapsacks, a portable siren and some additional petrol coupons (as it was wartime), however, the plea for a tanker failed. This equipment was all stored in the corner of Joe Waldon's shed. The first couple of years were relatively free from fires so there was valuable breathing space for the members to gain experience and improve their performance and by September 1944 the membership stood at 40.

The Brigade went from strength to strength, from a

20' x 12' tin shed in November 1955 situated in the reserve next to the current Terrey Hills Library; to a single storey brick building with two bays and a meeting room in 1967; to the current two storey four bay station and meeting room in 1993, with an additional drive through pumper bay and kitchen area being added in 2010.

November 1956 saw the arrival of the first truck, which was a 650 gallon Chevrolet Blitz tanker with a Bedford added in July 1957. The Brigade maintained two appliances with a variety of makes and models through the intervening years and today we have a very



modern fleet comprising an Isuzu 3,500 litre tanker with breathing apparatus, a 3,000 litre Hino pumper with breathing apparatus and a dual cab Toyota Hilux personnel carrier.

The Brigade now has over 60 members with Todd Wildman as Captain, Matthew Hunter as Senior Deputy Captain and Ben Shepherd as President. Unusually, there are many former Captains who are still involved with the Brigade including Peter Johnston, Ted Carroll, Kevin Duff, Alan Brinkworth, Mark Casper and Ben Shepherd. Our oldest member with over 50 years' service is Life Member Jack Mullins and our youngest is 16 year old Jordan Casper.

The Brigade remains an important resource for the Service in Warringah/Pittwater, particularly through several very bad fire seasons 1944, 1947, 1951, 1964, 1968, 1971, 1979, 1980, 1994, 2001, 2002 and 2004 and is responsible for bush fires, structural fires, transport fires, motor vehicle accidents, provision of assistance to other agencies when required and is called on from time to time to respond to fires elsewhere in the State and Interstate.

Congratulations and thanks to all members of the Brigade, past, present and future for their valuable service to the community.

# BRIGADE IN PROFILE



## Colinton: a small Brigade with a big task

Story and photos by Nick Goldie, Colinton Brigade



On a detailed map, Colinton is a village with a grid of streets and a railway siding. Once, there was a real community: a school, a post office, a railway station, a phone exchange, even a cricket ground. Today the village doesn't exist. The entire CBD consists of the tiny heritage-listed Colinton Cottage, and the fire shed.

The Colinton Rural Fire Brigade was formed at a public meeting in Bredbo in September 1989, with President Michael Blyton and one of the three Deputy Captains Graham Povey. The brigade area was described as "that portion of the old Michelago Brigade that resides in the Cooma Monaro Shire". All active members were to be issued with "personal equipment including helmet, rakehoe, goggles, knapsack etc."

Colinton is bounded by the Clear Range to the west and the Tinderry Mountains to the east, while the valley floor is mainly farmland and some residential developments. The Monaro Highway heads north to Canberra and south to the snow country. This means that the brigade has to cope with heavy traffic, especially in the ski season, and the attendant motor vehicle accidents. The very steep hill country requires bush firefighting (and 4WD driving) ability.

Colinton is also in the heart of African Lovegrass country, stretching from south of Canberra almost to the Victorian border, and presenting

a threat not always recognised by fire managers from other Districts. Californian firefighters say of manzanita: "gasoline-on-a-stick!" – love-grass is like that. It needs a special set of firefighting skills.

The Michelago and Colinton Districts made up the southern sector of the 2003 Canberra Fires. During the Australia Day weekend of that year, Colinton was able to call on 63 trucks: they came from Forbes and Bourke, Gosford and Parkes, Anembo, Hornsby, Jerangle, Bredbo and Cooma. The Colinton fire station (a three truck shed in a paddock) became Colinton Air Base as helicopters flew in, were checked and fuelled and their crews given steak sandwiches by the tireless Salvos. There were upwards of 400 volunteers working 12 hour shifts, while the trucks worked virtually non-stop. The brigade remembers with some pride that the fire was held along a sixty kilometre front without the single loss of a building.

In 2003 the Brigade voted to create Life Members, and immediately presented Jack

Povey, after sixty years of service, with a plaque as first Life Member. In 2005, his son Graham (a sixth generation Monaro farmer) was elected Brigade Captain. Also at this time, a grant from the National Emergency Volunteer Support Fund enabled the building of a training room as an extension to the existing shed. The new facility, seating up to 50 people, is now in regular use for brigade training, social events and meetings of other organisations.

Most recently, the Brigade saw 10 days of action at the Yarrabin fire, 12,000 hectares of bush and farmland burnt out between Numeralla and Cooma.

The Brigade newsletter, the Colinton Courier, has appeared each month since September 2001, distributed to all the 120 letter-boxes in the Colinton District, to the Michelago Community website [www.michelagoregion.org.au](http://www.michelagoregion.org.au) and through the RFS library.



ABOVE: Colinton Brigade fire shed. Photos by Sandra Lauer. OPPOSITE PAGE: Firefighter Tony Robinson at a hazard reduction burn in lovegrass. Photo by Nick Goldie

# Tracing the footsteps of arsonists

The NSW RFS is the lead agency in providing a new system to help combat arson.

By Superintendent Bob Mathieson, Acting Manager Fire Investigation and Hazard Management

The Arson Trend Analysis System (ATAS) allows Fire Investigators to rapidly select, collate, assess and export information on fire incidents in NSW, soon after they have occurred.

The power of the system lies in its ability to very quickly generate reports which reveal patterns of behaviour – such as clusters of incidents taking place in a certain locality or connected incidents happening one after the other. The reports are easy to read – maps and graphs are automatically generated.

ATAS lists selected incidents and pinpoints the location on a map, providing intelligence reports on connected incidents, clustered incidents and trends analysis – all of which indicate the possibility of arson. Fire investigators can literally trace the footsteps of the arsonists.

This is the first time data about fire incidents is being shared between NSW RFS, FRNSW, NSW Police Force and National Parks & Wildlife Service. This sharing of information makes ATAS even more useful for fire investigators.

Fire incident data is drawn from ICON and FRNSW AIRS and updated in ATAS by an overnight process. Currently 74,000 incidents dating back to 1 January 2010 have been entered into ATAS.

Some of this information has been available up until now, but generating reports has been laborious and time-consuming. The reports, maps and graphs generated by ATAS are rich with information according to location and time, and they are generated 10 times faster than the old method.

Reports on numbers of incidents, types of incidents

and causes of ignition can be seen plotted on maps, with accompanying graphics and charts and data which can be analysed and presented in real time. This information will be useful for all kinds of reporting within the Service.

The system has been in use in Western Australia and already had resulted in successful convictions of arsonists. The NSW RFS negotiated a licence agreement with Western Australia's

Department of Fire & Emergency Services and obtained funding from the Ministry for Police and Emergency Services to have a copy of the system and modify it for use in NSW.

ATAS is available for use by District Managers, and the Fire Investigation Units of the NSW RFS, FRNSW, National Parks & Wildlife Service, ACT RFS and the Police Arson Squad.

To ensure the system contains relevant data, it is important for

brigades to maintain accurate reporting of incidents in ICON and FRNSW AIRS – the source systems for ATAS. With timely reports, shared information, intelligence tools and closer working procedures, the Fire Investigation agencies have arsonists under closer scrutiny than ever before.

For any further information or access to ATAS contact Acting Manager Fire Investigation and Hazard Management, Bob Mathieson at 8741 5555.



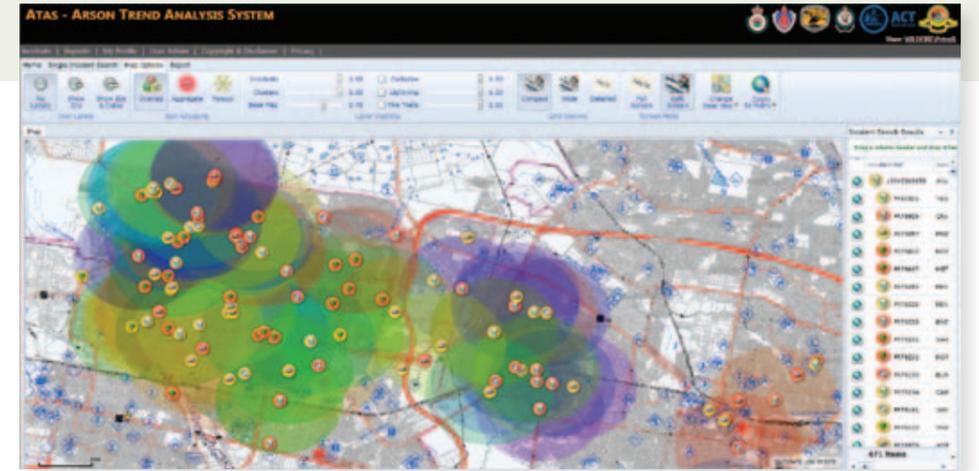
## CASE STUDY ONE

**A cluster report in one area in Western Australia showed multiple ignitions in a specific locality.**

Both the fire service and the police observed the information from the ATAS (known as EAIDS in Western Australia) and surmised that an arsonist was active in that locality.

Both the fire service and police conducted targeted patrols of the area based on information gained from the ATAS system.

It happened that the arsonist actually lit a fire in the area between two of the patrolling vehicles.



Being on scene, the fire service was able to rapidly respond and the fire was contained quickly.

Police quickly apprehended the offender and who was found near to the scene.

ABOVE: An example of a Cluster Report from ATAS

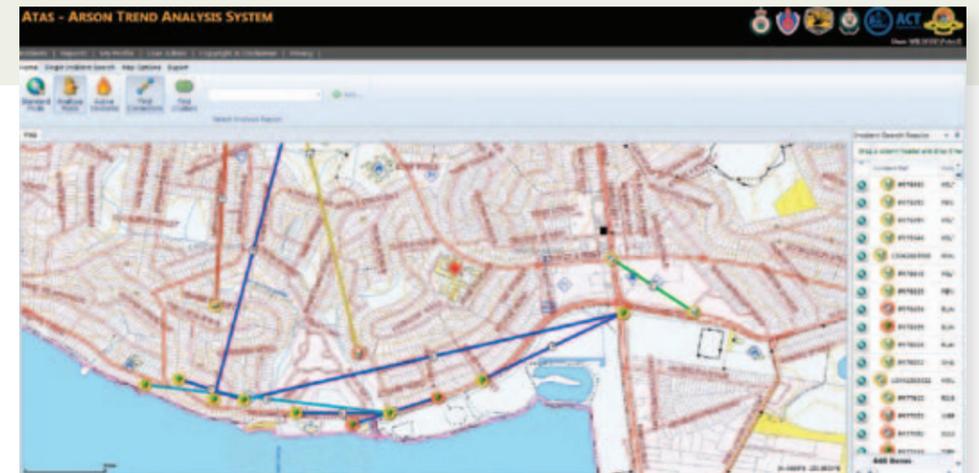
## CASE STUDY TWO

**How identifying connections between fire incidents can lead to the apprehension of an arsonist.**

Using the ATAS trend analysis, fire investigators saw a series of small fires lit one after another in a built-up area in Western Australia. Bin fires and fence fires were observed over a few hours.

The maps from ATAS showed the locations and the connectors report showed the timeline of fire events. Putting this information together, fire investigators could literally track the footsteps of the arsonist.

It was not until this information was combined with police records, that a person of



interest who lived in that location, could be identified. The person of interest was subsequently interviewed and confessed to the offences and was later convicted.

The offender had evidently been drinking at a pub, and had lit a series of fires on his walk home.

ABOVE: An example of a Connector Report from ATAS

## CASE STUDY THREE

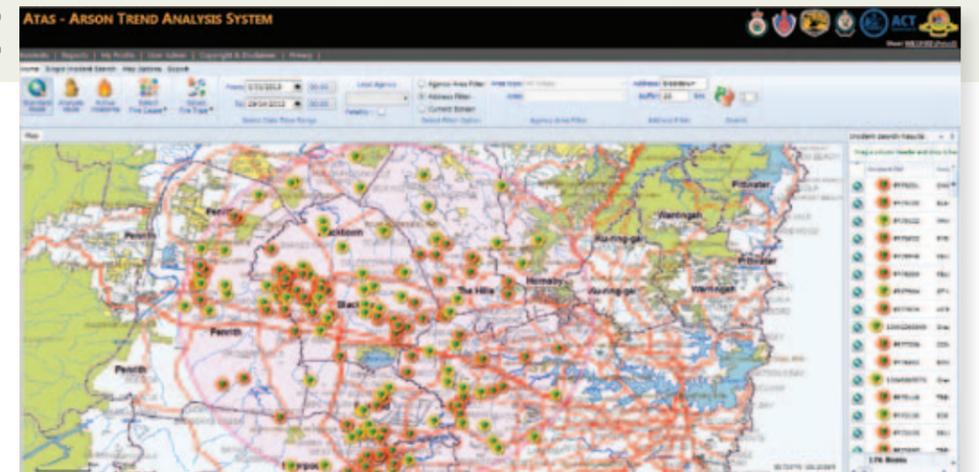
Using trend analysis similar to ATAS, Fire Investigators in NSW observed a series of fire ignitions off the same road occurring at regular time periods – either between 6-7am or 5-6pm.

They also noticed that every third Wednesday there were never any reported incidents.

It turned out the offender worked locally and the road was his route to and from work.

On further investigation it was found the person of interest also had every third Wednesday off work.

Investigations resulted in apprehension and conviction.



ABOVE: An example of a trend analysis report from ATAS



## Time to get creative

In preparing for the high possibility of grass fires in 2012/13 season, the Sutton Brigade, near Canberra implemented some innovative approaches to community engagement. By Michael Gardiner, Sutton Brigade

How do you reach out to people with information on fire risk management when you have no central meeting place? This is a big issue for the rural village of Sutton on the NSW/ACT border.

Leading up to the 2012/13 fire season, there was a sense of urgency to get the fire safety message out. Fuel loads in the pastures around the Sutton Brigade were in the highest in ten years. The demographic had changed from grazers and farmers to rural/residential and there was a low turnout at station meetings.

But it was the lack of any single community focal point (the local hotel is in the neighbouring brigade's area) that led the Sutton Brigade to enact a multi-faceted information

program through the local primary school.

At the local Sutton Public School brigade members spoke to classrooms full of enthusiastic children (potential future members) who were ready to learn about fire risks and emergency management in our environment.

Working with the school gave us many opportunities to present the fire brigade as a community resource, staffed with local faces and, hopefully, make the children think a bit more about the potential consequences of playing with fire.

More importantly, the school gave us access to our real target - the parents. We held fire drills in the afternoon -

timed to finish just as parents arrived to pick up the children. We also ran fire extinguisher practice sessions for staff before school - just as parents were dropping kids off. Not only did the parents see us at work, they were able to talk with their excited children about it afterwards.

The training paid off when an electrical fire was quickly extinguished shortly after our last session - this certainly gave the children and their parents something to talk about and prevented the loss of one of the school's oldest buildings!

In the late spring, as the weather started to warm, the Brigade invited the senior class from the school to visit the Brigade Station.

Twenty-seven attentive children were shown the Brigade's facilities and taught about the communication and planning involved in combatting fires. The attention they gave, and the manner in which this group of children behaved, is a credit to them, their teachers and families.

It was the follow-up task that helped us engage with the parents.

Each member of the class was asked to prepare a poster completing one or both of the following phrases: Grass is ... and grassfires are .... The project was designed to complement the NSW RFS public awareness campaign on grassfires.

The children came up with some gems, such as a lawn surveyor asking a home owner about his fire plan and mower (see left). The impressive results were acknowledged by the Brigade at an awards ceremony at the school assembly four weeks later.

### Beyond the school

But not all landowners see us at the school and in order to get out a consistent fire message we used the local newsletter, the Sutton Chatter, backed up with information stands, letterbox drops, property visits and roadside posters to highlight the seasonal dangers and the need for permits and vigilance.

### Impact on the community awareness and behaviour

Early indications show that the community has been more attentive to fire risks this season than previously. As we drive around the area we see signs that many landowners have slashed along fence-lines and reduced fuel loads around buildings.

Sutton Volunteer Rural Fire Brigade has recognised the challenges of our demographic and is working with land owners who may have little experience in preparing for and dealing with fires. Engaging the community through the local school has been essential.

ABOVE: Sutton Rural Fire Brigade Community Engagement Team (L-R) Graham Scofield, Gary Pierce, Lincoln Kingi, Kassie Pierce and Michael Gardiner. Photo courtesy of Michael Gardiner

OPPOSITE: Part of a fire safety poster created by Ashleigh Tillotson, Sutton Public School



# “A very positive program”

The Far South Coast Team has been taking an active role in helping disengaged Aboriginal students to remain engaged with school.



In October 2012 the Broulee, Mogo, Surf Beach Brigades and Far South Coast team offered the Secondary School Cadet Program at the RFS Mogo Training Centre over two weeks for three full days a week.

It was part of a broader initiative called the Garindja Walawaani Program (GWP) offered to indigenous school students who are at risk of dropping out of school. GWP was launched in 2012 in order to give young people in the Mogo area an alternative educational program. It is hosted by Campbell Page Indigenous Services/Reconnect and the NSW Department of Community Services.

Andrew Gray, Learning and Development Officer of the Far South Coast Team has been the liaison for the NSW RFS involvement in the program.

“We had five Aboriginal boys participate, this being the first time the Far South Coast Team and brigades delivered this program solely to Aboriginal students.”

“But they proudly put on the RFS uniform and they got stuck in - carrying knapsacks, lifting pumps and doing everything we would expect, even from a BF member. They would fit in quite easily at any brigade.

“We saw a massive swing in attitude and skill levels just over the two weeks we spent with the boys,” he said, “They really developed into young adults.”

The NSW RFS Secondary School Cadet Program fits right in to the Garindja Walawaani Program’s objectives. It not only provides alternative hands-on training, but also gives the students an opportunity to gain the required skills and knowledge to participate in the NSW RFS or similar emergency services. The students gained skills in fire awareness, firefighting knowledge, leadership, fire behaviour, first aid and personal development.

The five students reported 100 percent attendance over the two weeks and all of the cadets graduated as NSW RFS Cadets in December 2012. All

five cadets have engaged back into school and are undertaking their HSC.

“It was a very positive program,” Andrew Gray said.

Overall the Garindja Walawaani Program has produced some outstanding results for young people in the Eurobodalla area. School attendance rates have improved dramatically, rising from 17 percent at the beginning of 2012, to 83 percent by the last term of the year.

Reflecting on the RFS involvement in the program, Andrew Gray said:

“They were smart! Whenever we did revision of the work, they knew all the answers.

“I hope that the program showed the boys that there are people in the RFS and in the broader community who really want to see them to do well.”

It is likely the program will be offered again in 2013.



Cadet crew leader and crew practicing putting in a rakehoe line at the Mogo Training Centre in October 2012. (L-R) Wade Mongta, Matt Hanson, Jesse Davis, Chris Kenny and Olle Colburn. Photo by Jenn O’Brien

# Local solution for local terrain

By Neil Falconer, St Albans Brigade

A unique environment in the Hawkesbury requires a unique firefighting solution.



Members of the St Albans Brigade: (L-R) Kim Bailey, Ian Elton, Ingrid Cullen, Warwick Blacker and Mark Friend

Due to the extraordinary environment in the St Albans Brigade area in the remote Macdonald Valley, the local brigade has recently acquired a Polaris six-seater All Terrain Vehicle.

St Albans is part of the Hawkesbury District, west of Sydney and was first settled circa 1803. The town’s historic hotel – Settlers Arms Inn was built in 1836.

While St Albans is relatively close to Sydney, the brigade station is actually a one hour drive in a Cat 1 from Hawkesbury Fire Control Centre! In fact the locals call St Albans the ‘Forgotten Valley’ as it has been by-passed by all

the major road and rail routes leading north from Sydney.

It wasn’t long after electricity came to the District in the late 1960s, that the locals moved away from buckets, bags and birches to fight fires. In 1974 the brigade held its first official meeting and today the brigade has over 100 members, 54 of whom are active firefighters.

St Albans is surrounded by National Parks and has more than 100 kilometres of mostly dirt roads alongside the Macdonald River and its tributaries. The terrain in the St Albans area consists of rugged, steep in parts, sandstone country, traversed by numerous fire trails of varying standards.

Many residents live along the, mostly dry, river and access to them can be very difficult, impossible at times, with conventional vehicles.

The St Albans Brigade is equipped with a Cat 1 tanker and a Cat 9 striker.

A key reason for the ATV is to assist with the transport of members and equipment where conventional vehicles may not be able to access. Incident preparation and support is now much easier in the remote Macdonald Valley in the Hawkesbury District.

The ATV offers the brigade a greater degree of access and flexibility improving the overall effectiveness.

## Thank you

The St Albans Volunteer Bush Fire Brigade would like to thank the staff of Hawkesbury Fire Control for their support with the purchase of this vehicle.

The St Albans Community, without whom we would not have been able to raise the funds, also deserve our thanks. They have supported all our fundraising activities.

We would also like to acknowledge the recently deceased Senior Deputy and Life Member Halifax Hayes who, four years ago, first thought of getting this vehicle for the brigade.

# Fears and myths in fire law

By Nathan Maddock,  
Communications Officer,  
Bushfire CRC

Since the 2009 Victorian Bushfires Royal Commission, litigation due to damage caused by bush fires has come into the spotlight. But just how common is bush fire litigation? A Bushfire CRC researcher, Dr Michael Eburn, has delved into the legal archives and produced a valuable resource.

The Bushfire CRC Project, titled Mainstreaming Fire and Emergency Management Across Legal and Policy Sectors: Joint Research and Policy Learning was conducted by researcher Dr Michael Eburn. One of the desired outcomes of the project was to understand the real risk of legal litigation in Australia.

"Volunteers report they are afraid they may be liable for their actions and people report that there is a tendency to sue over events that, in earlier times, were accepted as part of the risk of living in the bush," Dr Eburn said, "We wanted to know if any of those fears and beliefs were justified by the historical record."

In an Australian first, Dr Eburn reviewed the history of litigation seeking compensation for causing, or failing to extinguish, a bush fire. The results may be surprising to some.

"Litigation over bush fires is not, as many people say, a new phenomenon," said Dr Eburn.

"People have been suing over bush fires for well over 100 years. Although litigation against the fire and land management agencies is new, it is not common, and it only arises after catastrophic events, not day-to-day or routine

events. So far, fire agencies have not been held liable for their well-intentioned actions.

"Our research located 87 judicial decisions, arising from 71 cases from 1868 to 2010. Litigation arose from fires in only 48 out of those 143 years, even though, based on the assumption that bush fire frequency has remained constant over the last century, there may have been in excess of five million fires in that period."

While undertaking this research, Dr Eburn identified cases dealing with legal liability for causing or allowing a fire to spread. He also identified claims alleging negligence in training firefighters, the right to criminal injuries compensation for fires started by arson, the jurisdiction and role of the Coroner, the spread of urban fires, the interpretation of insurance policies relating to fire, liability for accidents involving fire appliances and the application of planning law to fire-prone areas.

While all of these areas are important to fire agencies, the research, and the case analysis available on the Bushfire CRC website and published in papers, was concerned with liability for starting or failing

to extinguish a bush fire. The cases were taken from courts all across Australia.

The outcomes of this research are available for all in an easy-to-use format on the Bushfire CRC website. Dr Eburn has summarised the facts of each case, the findings and, where possible, if the case was won by the defendant or the plaintiff. Many recent cases are not yet resolved.

Additionally, Dr Eburn and his colleague Professor Steven Dovers have co-authored a paper that appears in the International Journal of Wildland Fire. This paper not only looks at the cases that came before the court, but, with the support of the NSW RFS, extends the research to look at claims that were made against the NSW RFS but were settled out of court.

More information on this project is available on the Bushfire CRC website under the Mainstreaming Fire and Emergency Management Across Legal and Policy Sectors: Joint Research and Policy Learning page, [www.bushfirecrc.com/research/program-1](http://www.bushfirecrc.com/research/program-1).

## Bush Fire Bulletin Survey

### About you

#### Are you a:

- Volunteer
- Volunteer and staff
- Staff
- Member of the general public

#### What is your primary location?

- Regional NSW - North
- Regional NSW - South
- Regional NSW - West
- Regional NSW - East
- Sydney

#### For NSW RFS volunteers:

##### Are you a:

- Junior member
- Bush Firefighter?
- Officebearer in the Brigade?
- Group Captain?
- Community Safety Officer?
- Other:

#### How often do you attend NSW RFS events, meetings or training sessions?

- More than once a week
- Once a week
- Once a month
- Several times a year
- Once a year

### Communications from the NSW RFS

#### How do you currently source news about the NSW RFS? (Please select all that apply)

- Your local brigade
- Your local Fire Control Centre
- Bush Fire Bulletin
- MyRFS
- Ebulletin
- NSW RFS Intranet
- Facebook
- The general media

#### How would you prefer to receive communication about the NSW RFS?

- Email
- Website
- MyRFS
- Social media
- Post

#### Would you prefer to receive more or less information from the NSW RFS?

- More
- Less
- Same

#### How do you rate the quality of information from the NSW RFS?

- Excellent
- Good
- Could be improved

#### Do you consider online communication more effective than printed material?

- Yes
- No

#### Would you read the Bush Fire Bulletin if it were presented as an online magazine or website?

- Yes
- No

#### For the Bush Fire Bulletin, what kind of information interests you?

Choose all those that apply.

- Incidents
- Operational Liftouts with 'how to' information
- Messages from the Commissioner
- Good news – successful programs
- Profiles of specific brigades and volunteers
- History
- Awards and Events
- Training information
- Community Engagement tips for volunteers
- Fire Safety messages for the general public
- Information suitable for children
- Innovations and research in firefighting
- Other – please indicate or make suggestions:

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## BUSH FIRE BULLETIN

SIGN UP TO RECEIVE BUSH FIRE BULLETIN DIRECT TO YOUR HOME OR UPDATE YOUR DETAILS



**Cut out and mail to:**  
**Bush Fire Bulletin**  
**NSW RURAL FIRE SERVICE**  
 Reply Paid 67059 Locked Bag 17  
 Granville NSW 2142  
 (No stamp required)

**or email your details to:**  
 Bush.Fire.Bulletin@rfs.nsw.gov.au

**Name:** .....  
 (Please include any post-nominals)

**Address:** .....

**Postcode:** ..... **Phone:** Home and/or mobile: .....

**Email address:** .....

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**COVER PHOTO:** 18 January 2013: A frightening situation at the Aberdare fire near Cessnock for Greta Brigade members. Photo courtesy of the Peter Stoop, The Newcastle Herald