



THE JOURNAL OF THE

**RFS**

# BUSH FIRE

B U L L E T I N

Volume 45 No.2 2023



# ANSWERING CANADA'S CALL

## DATA IN ACTION

BUSH FIRE RISK MANAGEMENT  
PLANNING IN NSW

## NEW AIRCRAFT LEAD RFS AVIATION

THE RFS TAKES DELIVERY  
OF TWO NEW FIREFIGHTING  
AIRCRAFT

## ATHENA

USING ARTIFICIAL  
INTELLIGENCE IN  
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# BUSH FIRE BULLETIN

### Acknowledgement of Country

The NSW Rural Fire Service (RFS) acknowledges the Traditional Custodians of this country and their continued connection to land, sea and culture. We pay our respects to the resilience and strength of Elders past, present and future generations of Aboriginal and Torres Strait Islander peoples.

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# FOREWORD



As I write this foreword in November 2023, the state of NSW has already seen significant fire activity this season and several days of Extreme and even Catastrophic fire danger. A number of fires have reached Emergency Warning level and impacted on homes and communities.

Sadly, we have also seen lives lost so far this season. Senior Deputy Captain John Holmes - a member of the Mallanganee Brigade for more than 50 years - was helping battle the Bean Creek Fire near Kyogle when he suffered a fatal medical episode. Captain Leonardus (Leo) Jacobus Fransen - a life member of the Diamond Beach Brigade - passed away while bravely fighting the Hudson Fire in the Walgett LGA. Lastly, a member of the public also lost his life while defending his family farm from the Willi Willi Rd in Temagog, near Kempsey. My thoughts go out to the families, friends and colleagues of these men during this difficult time.

After three consecutive fire seasons with below average fire activity, it appears that the 2023/24 fire season will be considerably more active for our members and the people of NSW.

It is important for our members and the community in general to ensure they are doing all they can to prepare for this fire season. Talk to your local brigades, know the fire danger levels and do what you can to ensure your property is fire ready. There is a wealth of resources on the RFS website to help landowners and communities prepare, and RFS members are always happy to help with tips and advice.

The RFS was proud to support our Canadian colleagues recently as they battled their worst ever fire season.

The scale of the damage, with more than 18 million hectares burnt, is truly devastating.

Thank you to the more than 100 RFS members who were deployed to Canada in firefighting, incident management and aviation roles.

Thanks must also go to our members who were deployed to Western Australia and the Northern Territory to assist local communities with clean-up and accommodation after severe flooding. The efforts of RFS members travelling far and wide to support people experiencing fires and floods is never taken for granted.

Following these deployments, and with a potentially challenging fire season ahead, I would like to remind our members to take care of themselves both on and off the fireground. If you need help, reach out - the Service has a range of resources at your disposal. Speak to your brigade leaders, your local Fire Control Centre or the RFS Health and Wellbeing team if you ever need assistance.

The RFS has been working on a number of major projects to support our members, and you can read about many of these in this edition. One project I wanted to particularly single out is our Station Connectivity project, which is providing free internet access to RFS brigade stations.

Over the last few months, more than 1,000 brigade stations have signed up to receive a new router and free internet, and we will be expanding this opportunity to include brigade stations outside of mobile range in the coming months. This project will ensure our brigades have the tools at their disposal to better handle the increasing technological demands placed on them.

Thank you once again to all our members for their efforts over the last few months, and please ensure you take care of yourselves and each other during the coming fire season.

Regards,

A handwritten signature in black ink, appearing to be 'Rob Rogers', written over a horizontal line.

Rob Rogers AFSM  
Commissioner

X @RobRFS



# RFS LENDS SUPPORT DURING CANADA'S DEVASTATING WILDFIRES

In 2023 Canada has experienced its worst fire season on record, with the provinces of Alberta and British Columbia seeing widespread devastation. By the end of August more than 100 RFS personnel had been deployed to Canada to help with the nation's wildfire emergency.



## CANADA ISSUES THE HIGHEST NATIONAL PREPAREDNESS LEVEL

By mid-May, Alberta had over 80 active wildfires burning, and with hot and dry weather conditions, no relief was forecast. New ignitions were expected and several of the existing fires required additional resources that were not available in Alberta or elsewhere in Canada. Many fire crews and Incident Management Teams had been working for several weeks and needed rest and stand down.

Following talks on 20 May, Canada issued a National Preparedness Level 5, indicating the demand for resources was extreme, and international resources were urgently required.

The Canadian Interagency Forest Fire Centre (CIFFC) contacted Australia, New Zealand, the US and South Africa, formally asking for their assistance.

To oversee the deployment a RFS Interstate/ International Liaison Unit (ILU) was established to co-ordinate the request along with other NSW agencies. In consultation with RFS Areas and Districts, the ILU commenced identifying personnel who had submitted an expression of interest to the National Resource Sharing Centre (NRSC) Overseas Deployment Registry.



## WHAT IS THE NATIONAL PREPAREDNESS LEVEL (NPL)?

The NPL is a five-level scale that the Canadian firefighting community uses to describe the need for firefighting resources. Canada issued the highest Level 5 rating when the national availability of resources was limited.

## FIRE REPORT

The 2023 season has seen the greatest area burned in Canada's recorded history. The previous record wildfire season was in 1989, when 7.5 million hectares were burned.

## OUTLOOK FOR THE FUTURE

A recent statement released by Canada's Natural Resources Minister, Jonathan Wilkinson, warned of the ongoing risk of fires.

"Warm, dry conditions in Canada could ignite new wildfires and it is possible that some of the blazes could remain active through the winter season," he said.

All images: Fires in British Columbia.  
Photos courtesy of BC Wildfire Service.

## CANADIAN WILDFIRE STATISTICS MARCH – OCTOBER 2023



More than 6,500 fires



6 lives lost



More than 200,000 people evacuated



105 RFS personnel deployed



18.5 million hectares burnt in Canada in 2023



**Compared to**  
5.5 million hectares burnt in NSW  
during the 2019/20 Black Summer fires

References: Excerpts from CIFFC and Reuters.



# CANADIAN DEPLOYMENT

## 25 MAY 2023

The first contingent of 221 personnel from Australia and New Zealand leaves for Canada, including 56 from NSW with 29 from the RFS. Most roles are filled by Incident Management and aviation specialists, as well as arduous firefighters. The first deployment assisted Canadian firefighters battling over 190 wildfires burning through the provinces of Alberta and British Columbia.

RFS Assistant Commissioner Jayson McKellar, who is leading the deployment, is based at CIFFC Headquarters

in Winnipeg, Manitoba Canada, as the Australian/New Zealand International Liaison Officer (INLO).

The RFS Overseas Deployment Team remains active to coordinate the deployment on behalf of participating NSW agencies.

## 7 JUNE 2023

The second contingent of 191 personnel leaves for Canada, including 49 from NSW with 28 from the RFS.

Most roles are filled by arduous firefighters with a small number of Incident Management and overhead positions.





# TIMELINE

*“These deployments represent a long-standing tradition of helping our fellow firefighters, with NSW agencies providing international firefighting assistance. For more than two decades, we have seen multiple deployments to Canada.”*

**Rob Rogers,**  
**RFS Commissioner**

## 27 JUNE 2023

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The third contingent of 137 personnel leaves for Canada, including 38 from NSW, with 20 from the RFS. Most roles are arduous firefighters.

The firefighters are now faced with over 460 fires burning across Canada, 230 of those are out of control.

## 11 JULY 2023

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More than 9.5 million hectares of the country is estimated to have burnt, with over 862 active wildfires and 495 deemed out of control.

More than 155,000 people have been evacuated, the highest figure in 40 years. Previously, the worst Canadian fire season on record was in 1989, when 7.8 million hectares burned.

## 14 JULY 2023

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The fourth contingent of 152 personnel leaves for Canada, including 51 from NSW, with 22 from the RFS. The deployment consists mostly of remote area arduous firefighters, due to the physically demanding nature of the work.

## 4 AUGUST 2023

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The fifth deployment leaves for Canada, including 14 personnel from NSW, with five from the RFS.

Canada remains at a National Preparedness Level 5, with more than 1,000 active fires and 13.1 million hectares burnt. The contingent includes some volunteers returning for a second time.

## 26 AUGUST 2023

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The sixth deployment of 27 personnel leaves for Canada, including 10 from NSW, with seven from the RFS. Most of the roles are filled by Incident Management Team personnel and aviation specialists.

Canada continues to experience significant fire activity in many provinces including British Columbia, Alberta and Northwest Territories.

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Photos courtesy of Dan Barwick and Colin Fitzgibbon.



# POSTS FROM CANADA

The first RFS contingents sent to Canada were made up of volunteers who represented a number of brigades. Crew Leader Dan Barwick from the Lake George Remote Area Firefighting Team (RAFT) shared his experiences during the deployment.

## 9 JUNE – REMOTE TERRITORY

Tomorrow we hit the road early for a 10-hour road trip north to our camp. We're heading to certified bear, wolf, cougar, bison and woodland moose country.

It's the land of constant sun and we're in for a real experience, the sun won't set and the fire can run with daylight non-stop. Now that is something one can't experience in Australia! Wishing I'd packed a sleeping mask instead of several torches.

How remote are we heading? Well, they filmed the sixth season of the TV show 'Alone' just 100km north from us on Great Slave Lake. We wanted to help Canada and have a unique firefighting experience, and I think we just got it in spades.

## 12 JUNE – INTO THE SWAMP

Today was christened Endlessly Positive Sunday in my crew, with the aim to being as endlessly positive about absolutely everything, including being sent to a swamp...

## 13 JUNE – INTO THE SWAMP AGAIN

Today was Motivational Monday. Nominating themes for the day is a tool I use to build highly functioning teams within the critical five to seven days of first deploying.

How was the day on the fire line today? While walking through the swamp I went through what felt like a curtain of mosquitoes. It was like a cloud. We are smothered head to toe in repellent all day and still they find flesh to feast upon. It is an unrelenting attack all day long.

## 14 JUNE – OUR OWN WATCHDOG

Bruce the dog has been greeting us every morning, he's been keeping an eye and ear out for bears. If he thinks something is near, he races ahead, checking the path and bushes for danger.

## 27 JUNE – MUD SEASON

There's something special about being stuck in a fire camp with the rain streaming down.

Mud going to the bathroom, mud going to breakfast, mud walking to the car. Everything getting wet while you pray that the floor of your tent is not sitting on a dry swamp just waiting to cause further sinking.

Special addition post, it's getting real in camp now – bear traps. Looks like our big visitor has been getting a tad too friendly over the past two nights.

Photos courtesy of Dan Barwick and Colin Fitzgibbon.



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## 29 JUNE – A HARD, HARD DAY

We were cutting line through swamp and timber most of the day. The temp was around 30 degrees Celsius with very high humidity. Just when we thought the flies and mosquitoes could not get any worse they did. The only escape from the constant biting is to find an ash pit\* and stand in the smoke...

*\* An ash pit or hot spot is a section of peat that has 100% burnt due to a good source of fuel on top. They are hard to spot on the ground and if you fall into them they can be waist deep and hundreds of degrees in temperature.*

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## 1 JULY – REFLECTION

I've had a great time with the Alpha team, having now spent four weeks with them. Many good conversations have been had in the forest or over meals. As we count down the days to departure I again find myself reflecting on how special these long deployments are, and on the people I have met.



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## 4 JULY – A GLORIOUS DAY!

Today we finished the section of remote line we were working on. Half the crew worked to gather the hoses and the pumps for sling loading out of the forest.

The other half worked to finish the last 200m of fire line hot spots. We did this using some traditional Aussie RAFT tactics.

Two teams worked towards each other breaking up stumps, cutting down trees and making access for the medium helicopter bomber.

We then called the helicopter to our location using a number of methods, until the pilot had visual of the target we have laid. The pilot then dropped over 1,000 litres onto the hot spot.

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## 5 JULY – END OF OUR JOURNEY

The morning briefing included warnings of bison right on the line, including a stubborn bull and bear with cubs.

I have often thought of things I would like to see and achieve in the RFS. I have ticked many boxes and have had a wonderful time. But not in a million years would I have believed that I would lead a crew into the wilderness where wild bison roamed free in the smoke around us.

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*The first RFS members deployed to Canada, including Dan Barwick and his fellow Lake George RAFT crew members, returned to Australia on 11 July.*



# A MONTH IN THE LIFE OF A PUBLIC INFORMATION OFFICER

In July 2023, Angela Burford travelled to Canada as part of the fourth Australian deployment to fulfill the role of Public Information Officer. The Incident Management Team (IMT) of 14 personnel were deployed to a fire centre in Vanderhoof, which is the geographical centre of British Columbia (BC). By Angela Burford, RFS Senior Media and Communications Officer.

During my time in Canada, my role included liaising with media, local emergency management reps and other key stakeholders. I was responsible for providing daily briefings to the local Mayor and Councillors as well as the Provincial Directors, community engagement specialists and community representatives.

I provided updates and interviews for a number of Canadian news outlets and worked with documentary crews, both locally and from Australia. The role, however, went far beyond media engagement. I was the single point of contact for anyone who sought information on over 60 fires under our IMT's control.

## HIGHLIGHTS

- Learning about how similar and yet so different the Canadian wildfires burn and how they are combatted and the systems and processes are developed and executed.

- The opportunity to meet and learn from the many First Nations people across the Van/Jam Fire Zone (between Vanderhoof and Fort St. James), including their Fire Chiefs—and learn about their connection to land as well as how my role could best see their knowledge integrated in firefighting planning and operations.

## TIMELINE

- 14 July** Mid-long-haul-flight, the decision was made to re-deploy our IMT from Alberta to BC due to an increase in fire activity across the Province.
- 15 July** After four flights, today we are finally driving to the busiest fire centre in BC, overseeing close to 70 fires upon arrival. We are briefed by BC Wildfire staff and after collecting our [1500 GMC] trucks, drove to base camp.
- 18 July** Thirty 'out of control' fires are still under our command. We have been briefed on our respective roles from the outgoing IMT and today we take control.



### SAIK'UZ FIRST NATION GROUPS

Saik'uz First Nation are people whose ancestors lived in North America before the arrival of Europeans.

Their community consists of approximately 400 with an additional 600 members living throughout British Columbia (BC) and Canada.

The First Nations traditional territory is located near the geographical centre of BC, with the leading community situated on the east end of Nulki Lake, 14 kilometres south of the town of Vanderhoof.

Part of the briefing is learning that an athletic therapist offers remedial massages to crews and IMT – something we absolutely should adopt at home!

Late in the evening, the DC3T plane used by the smokejumpers lands at the airport adjacent to our fire centre. The DC3T, also used to fly to Antarctica, has wings that are partly made from fabric. It will fly for 2.5 hours fully loaded but can fly for up to 10 hours with a long range tank on it, obviously it has been stripped for power-to-weight ratio.

- 21 July** I provided an interview with a documentary team about fighting fires globally and the international help.
- 24 July** 10mm falls overnight across the zone – a chance to get ahead of the game.
- 4 August** Today the Vanderhoof Fire Chief invited me to visit his Fire Station and learn about how they operate.
- 5 August** Fire activity is increasing again. One fire jumped containment; there is a flare up on Greer Creek and other fires in the southern half of the zone.

**6 August** We are nervous today as there is a return to low relative humidity and higher temperatures. We made the decision to evacuate a group of 40 people from a lake lodge. The owner stays to defend. We put Greer Creek back on as a wildfire of note again due to activity and the calls I was starting to receive.

**11 August** I have success with the First Nations groups approving the proposed guard east of Finger Lake Fire. This work is invaluable in ensuring their input is incorporated in our planning phase.

**15 August** Our last day and fire activity is yet again increasing. We hand over to a few locals until the next IMT arrive 24 hours later. We make our way back to Prince George, to depart for Vancouver and then Sydney.

**Main photo:** Sunset over the base camp, housing approximately 300 firefighters and IMT personnel at Vanderhoof. **Top left:** VanJam IMT on 25 July. **Top right:** Steve (helicopter pilot), Arlen Kanary (Divisional Supervisor, BC Wildfire), Angela Burford. **Above left:** Command vehicle based at Smithers Fire & Rescue.

## AFDRS SOCIAL MEDIA TEMPLATES AVAILABLE FOR DISTRICTS AND BRIGADES

As we approach summer, we are reminding brigades and districts that social media templates for the new Fire Danger Ratings have been developed and are available through Canva.

The templates can be used to inform local residents of the current or upcoming Fire Danger Rating. They are customisable and only require the users to select the correct rating for their area and then add their district name.

A short guide on how to use the templates can be found in the One RFS Toolkit.

Scan the QR code below to access the Canva templates.



## SHOALHAVEN MEMBER WINS ROTARY AWARD

During August the 2023 Rotary NSW Emergency Services Community Awards (RESCA) were held at the Bankstown Sports Club. The awards recognise outstanding community service performed by volunteer and paid members of NSW emergency services agencies.

We are pleased to announce the 2023 RFS winner is Michaela Anderson, Captain of the Shoalhaven Communications Brigade.

Congratulations Michaela and to all of the 2023 finalists.

Details about the Rotary NSW Emergency Services Community Awards can be found on the Rotary website. If you'd like to find out more about this year's finalists, scan the QR code below.



## GET READY WEEKEND 2023

Get Ready Weekend was held during September and involved more than 500 RFS brigades from across the state working with and encouraging their local communities to prepare for the upcoming fire season.

This year, with the seasonal outlook of hot and dry weather ahead, the focus was to plan and be prepared.

During the campaign, members spoke to locals and the community about being prepared for the heightened risk of grass fires this summer.

The message was clear, many areas are seeing new growth among grasses and shrubs, and it only takes only a few days of hot dry and windy weather for these to dry out. Fires can start quickly and move quickly.

For more information on how to prepare your property, please go to the RFS website.



## FIRE PERMIT CHANGES

The RFS will continue to issue fire permits to landholders wanting to undertake planned burns where safe to do so. Those issuing permits, formerly known as Permit Issuing Officers (PIO), will now be referred to as Fire Permit Officers (FPO) as PIOs refer to Public Information Officers under the Australasian Inter-service Incident Management System (AIIMS).

A standardised paper-based fire permit has been created for use state-wide to ensure consistency and adherence to the *Rural Fires Act 1997*. BRIMS has already been set to read only, and will no longer be available for issuing fire permits.

Key changes you need to know:

- The fire permit pads will be ordered on behalf of all districts and distributed statewide. You should receive your pad before your district commences the Bush Fire Danger Period. Please return your old fire permit pads to your Fire Control Centre.
- When landholders notify their intention to light their permit burn, they will need to quote the number from the new fire permit. Old fire permit numbers or those from BRIMS will not be accepted.
- Landholders will continue to be encouraged to use the online portal for notifying of their intention to burn, or through their Fire Control Centre.

Work is currently under way to allow fire permits to be entered online in the future. As we work towards this goal, we welcome your feedback on the new fire permit. Please share your comments to [fire.investigation@rfs.nsw.gov.au](mailto:fire.investigation@rfs.nsw.gov.au).



## RFS MEMBERS ROLL UP THEIR SLEEVES TO SAVE LIVES

Between June and August this year, Lifeblood partnered with emergency services across the country to help secure blood stocks over the winter months.

Blood and plasma donations are vital to many Australians who need to get through cancer or a difficult pregnancy, while others have medical conditions which mean they need blood products regularly to stay healthy.

Taking part in the 2023 Emergency Services Blood Challenge, RFS members were keen to do their bit. Many members rolled up their sleeves and took part. Results show that more than 565 RFS staff and volunteers donated, placing the RFS in sixth position among Australian emergency service agencies.

Thank you to all those involved.

For more information on giving blood, go to <https://www.lifeblood.com.au> or phone 13 14 95.

*Photo by Conor Deans.*





# NEW AIRCRAFT TO LEAD RFS AVIATION IN 2023

The RFS recently took delivery of two new firefighting aircraft at the Royal Australian Air Force (RAAF) Base in Richmond. A Bell 412 helicopter arrived in June, followed by a new Boeing CH47 Chinook in July.

Transported as aircraft within an aircraft, the two newest additions to the RFS fleet were delivered by a RAAF C-17 Globemaster. Their arrival in mid-2023 ensured the aircraft would be here when we needed them ahead of the fire season.

“Keeping aircraft at a few different bases has strategic advantages in terms of accessibility,” says Bernie O’Rourke, Supervisor Aviation at the RFS.

“The Bell 412 will be housed at Bankstown and the regional bases in Coffs Harbour, Dubbo or Cooma. The Boeing CH47 Chinook will be housed at the RAAF Base in Richmond, with plans to deploy to areas at risk during the fire season.”

## BELL 412 HELICOPTER

The new Bell 412, which is replacing a BK117 (HT201), is the fifth Bell 412 to be acquired by the RFS.

Predominately used to winch remote aerial firefighting teams in and out of difficult to access locations, the Bell 412 has multiple roles and can be used in flood rescue

and cargo carrying, as well as in aerial firefighting. This new aircraft will be fitted with a FLIR camera able to live stream video and capture mapping data. Dispatched at a moment’s notice, the new helicopter has a mounted carbon fiberglass tank which holds 1,420 litres of water.

## Bell 412 facts

The Bell 412 is a medium, twin-engine, multi-purpose helicopter that can accommodate up to 15 passengers, including one or two pilots.

Designed in the 1970s and first flown in 1979, the Bell 412 can climb at a rate of 6.86 metres per second, with maximum and cruise speeds of 259 km/hr. Distance range is approximately 745km, which can be extended up to 980km.

## BOEING CH47 CHINOOK

A heavy aircraft with the ability to carry 11,000 litres of water or retardant, the Boeing CH47 Chinook is the largest-capacity firefighting helicopter permanently in Australia.



This new RFS Chinook is the first of its kind to be owned in Australia, and will have the unique capability of night-time aerial firefighting.

Weather conditions and fire activity levels are typically more favourable at night, a time when aerial support has been unavailable to firefighters in Australia.

The RFS began night-time trials in 2022, and once fitted with an internal tanking system next year, the Chinook will continue this exciting work.

“The RFS now has three fixed-wing aircraft and eight helicopters at its disposal year-round to fight fires across NSW,” says Bernie.

“These Service-owned aircraft fulfil a range of roles, from water-bombing to air attack duties, aerial scanning, search and rescue and firefighter transport.”

### CH47 Chinook facts

Developed during the early 1960s, the giant Chinook helicopter has remained in both production and front-line service for over 60 years, although its initial design has had several improvements and developments since inception.

Despite being one of the heavier, less agile and more difficult to operate helicopters, the new hi-tech Chinooks are one of the fastest in any defence inventory with top speeds of up to 300km per hour.

**Main photo:** The Boeing CH47 Chinook helicopter in its new RFS livery. **Top left and right:** The RFS Bell Helicopter 412, along with representatives from the RFS and Department of Defence, welcomed the new aircraft. Photos courtesy of Jacob Tucker.

## WHAT IS THE BOEING C-17 GLOBEMASTER?

The Boeing C-17 Globemaster used for transporting both the Bell 412 and the CH47 Chinook, are high-wing, four-engine heavy transport aircraft initially developed for the United States Air Force.

Known as the ‘workhorse of the skies’, these planes have giant hulls, a cargo bay ramp and can carry up to 77 tonnes.

Australia is one of a limited number of countries in addition to the US who operate a Globemaster.



# HAZARD REDUCTION A NECESSARY RESPONSE

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The RFS is committed to reducing fuel loads through extensive hazard reduction activities, with the aim of reducing the severity of bush fire impact each year. There are different types of hazard reduction including controlled burning, mechanical clearing, grazing and hand clearing.

The majority of hazard reduction burning is implemented outside the Bush Fire Danger Period. Weather patterns determine our ability to implement hazard reduction burns, where we can burn, the safety of personnel, the community and the protection of the environment, and ultimately how successful they will be.

Deputy Commissioner Peter McKechnie oversees the RFS scheduled burns.

“Over the middle of 2023 and into late winter and spring, fire agencies and authorities have had the first real opportunity to complete a number of larger hazard reduction burns.

“After three very wet years due to the La Niña weather pattern, there has been prolific grass growth right across NSW.

“There are areas of bushland in Greater Sydney, Illawarra and the Hunter, among others, which were untouched in 2019/20 fires. These pockets represent potentially higher risks,” says Peter.

The goal of hazard reduction is not to produce areas that will not burn, but areas that will burn at a lower intensity and can be controlled more often by firefighters.



In each brigade, members are encouraged to learn what may be a hazard to the community, and how fire might behave in the event of an incident occurring.

Ongoing training and experience to read fuel loads, vegetation, topography, fire history and local weather patterns help to build this knowledge base.

Each RFS District has a local Bush Fire Management Committee (BFMC) that develops an Annual Works Plan (AWP). This plan includes all planned hazard reduction works for a 12-month period, across every agency and land owner/manager. Brigades should consider areas in their local communities that may require hazard reduction work and discuss with their District office.

The AWP includes works to maintain Asset Protection Zones (APZ), as well as prescribed burns in other areas to help with controlling fire ignition, suppression and intensity.

For further information on scheduled hazard reduction burns contact your local Fire Control Centre, call 1800 NSW RFS or go to [www.rfs.nsw.gov.au/fire-information/hazard-reductions](http://www.rfs.nsw.gov.au/fire-information/hazard-reductions).

## HAZARD REDUCTION CHECKLIST

*For more information refer to the RFS website where you can find standards for pile burning and low intensity hazard reduction.*

### CHECK YOU'RE ALLOWED TO BURN

Do you require a Bush Fire Hazard Reduction Certificate or other environmental approvals in your area?

Check with your council or local Fire Control Centre. There are alternative ways to get rid of waste or vegetation – talk to your council to discuss further.

### PLAN AND PREPARE

Ensure the area is well prepared with adequate fire breaks and control lines.

### GET A PERMIT AND LET PEOPLE KNOW

Permits are required during the Bush Fire Danger Period (1 October -31 March).

Contact your local Fire Control Centre or Fire and Rescue and your neighbours at least 24 hours before you plan to burn.

You can let the RFS know at [www.rfs.nsw.gov.au/notify](http://www.rfs.nsw.gov.au/notify).

## IS HAZARD REDUCTION BURNING THE SAME AS BACKBURNING?

Hazard reduction burning is different from backburning. Hazard reduction burning is the controlled application of fire under specified conditions to a predetermined area.

Backburning is a method used as part of a bush fire suppression strategy. It is used after a bush fire has started and involves burning a firebreak to remove fuel in the path of an approaching fire and create containment lines or tactical advantage for firefighters.

Backburning generally has a single aim – to limit the extent of unplanned fires that can be suppressed.

Hazard reduction burns can have broad and varied aims and require a focus on meeting defined objectives and outcomes. This could include protection of ecological, cultural, economic, agricultural or infrastructure assets.

Hazard reduction burns are usually conducted with lower fire intensity and, in some cases, the objective may not be to burn out the entire area, but rather leave a mosaic of unburnt areas for habitat diversity reasons.

## ON THE DAY

### CHECK WEATHER CONDITIONS BOTH CURRENT AND FORECAST

Check the Fire Danger Rating. Permits may be suspended during bad conditions. If there's a total fire ban, no fire is allowed out in the open.

### MAKE SURE YOU'RE USING FIRE SAFELY

Check your permit for any special conditions. Ensure there are cleared areas around any material you're burning and monitor conditions closely.

### IF THE FIRE GETS OUT OF CONTROL, CALL TRIPLE ZERO IMMEDIATELY

It's important that you monitor the fire and have firefighting equipment on hand.

### AFTERWARDS, EXTINGUISH THE FIRE AND MONITOR IT

Keep an eye on the area you have been burning to ensure the fire is out.

*Note: Hazard reduction burning is a simple concept that depends on complex factors that are not always predictable; therefore there is always an element of risk associated when burning. If in doubt, contact your local brigade or District Office.*

# DRY LIGHTNING FUELS FIRE RISKS

Lightning is the primary cause of large bush fires in Australia, with fires started by lightning accounting for more than ninety percent of the area burned in NSW during the 2019/20 Black Summer fire season.

Of the many thousands of lightning strikes from thunderstorms, dry lightning or dry thunderstorms pose the biggest threat to our communities and natural environment.

Dry lightning occurs when a thunderstorm forms with a high cloud base height over warm and dry air and most of the rain evaporates before it hits the ground. This just leaves the lightning.

When these dry lightning cloud-to-ground strikes occur, fuels such as cured grasslands can ignite. Gusty winds potentially associated with the storm can help spread the fire and make lightning-ignited fires hard to control, all without the relieving rain that a thunderstorm might otherwise bring.

History has shown that in remote and inaccessible locations, this phenomenon can lead to disastrous consequences.

In 2019/20, the Gospers Mountain fire (more than 512,600ha burnt) and the Green Wattle Creek fire (278,200ha burnt) were ignited by dry lightning. All the major blazes in the Snowy Mountains and South Coast during Black Summer were also started by lightning.

“I can confidently say most of the larger fires seen over the last few years have been a result of fires coming out of remote areas caused by dry lightning storms,” says Ben Shepherd, Manager Media and Communications at the RFS.

Quickly and accurately detecting lightning ignitions is essential for rapid fire containment and suppression, to prevent subsequent loss.

Forecasts and observations of lightning are used by fire agencies to stand-up and deploy detection flights and RAFT crews.

These stand-up arrangements reduce their response time to any ignitions, reducing the damage resulting from these fires.

## WHAT CAN BE DONE TO REDUCE THE RISKS?

Conducting hazard reduction burns can reduce the risk of lightning related fires. By reducing fuel loads, there is less opportunity for a fire to spread.

Reducing the likelihood of fires igniting through lightning is just another reason burns need to be carried out prior to our fire seasons.

Studies have shown that there is still the chance that lightning can ignite fuels regardless of moisture levels.





However, most are not sustained unless the fuels are dry enough for the fire to spread.

### WHAT ARE PYRO-CUMULONIMBUS CLOUDS AND HOW DO THEY PRODUCE DRY LIGHTNING?

Thunderstorms may also be formed during large and intense bush fires. When they do, they are called fire-initiated thunderstorms or pyro-cumulonimbus.

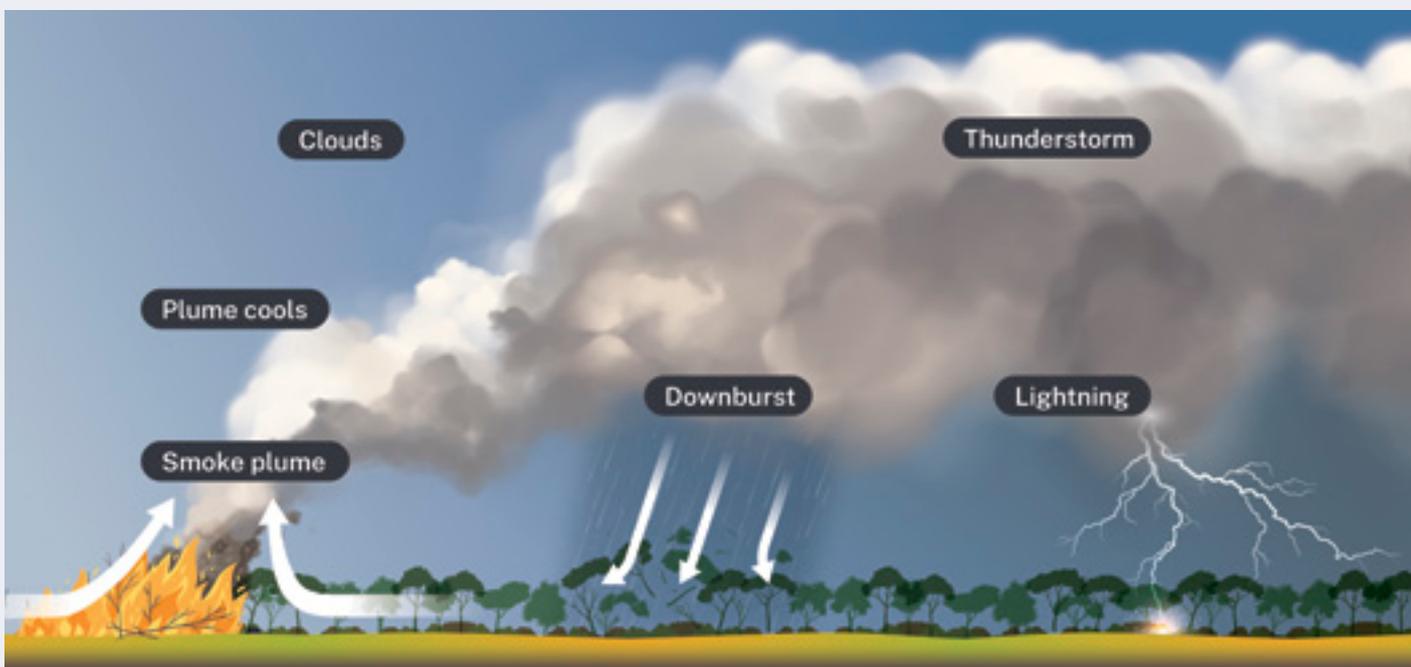
Large and intense bush fires can even initiate a thunderstorm, under conditions where one would not naturally occur. Under elevated fire danger conditions, cloud base heights are usually high and the air close to the ground is often hot and dry.

This means that rain from the fire-initiated thunderstorm will often evaporate as it falls, leaving cool, rapidly descending air in its place. This air can produce a downburst and dry-lightning, which can ignite new fires (see diagram below).

\*Footnote: Although fires caused by lightning were found to account for 90 percent of the total area burnt in NSW by all fires during Black Summer, a smaller percentage of the total fires were caused by lightning. This imbalance can partly be attributed to large lightning-ignited fires that burn over vast areas.

(References: RFS, AFAC, BoM, ABC and ANU News)

**Main photo by:** Brin Weins via Pixabay. **Bottom left photo by:** BC Wildfire Service. **Below:** Pyrocumulonimbus cloud development.





# FOCUSING ON WHAT MATTERS MOST

In July 2020, Commissioner Rob Rogers announced a set of priorities for the Service following the devastation of the Black Summer fires of 2019/20. Building on the successful rollout of those first priorities, new priorities were identified for the RFS. The new priorities continue to align to our strategic direction, and place focus on projects that will make a tangible difference to members, allowing them to operate safely and effectively, and connect and work together to best serve the community.



## Station Connectivity

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To ensure our brigades have access to high speed internet, the RFS is supplying a Nighthawk M6 mobile router and Telstra internet plan to each eligible brigade. Each brigade station within range of Telstra's mobile coverage will then be able to connect to the RFS without having to source and pay for its own internet connection.

So far, the RFS has provided more than 1,020 Nighthawk M6 mobile routers and Telstra internet plans to brigades.

The remaining brigades that were not eligible for a router due to inadequate coverage have been put forward to Telstra as a pilot group. We are currently working with Telstra to determine the most functionally effective solution to ensure that every brigade is equipped with a dependable connectivity solution moving into the future.

Brigades that have not signed up for a new router can do so by emailing [ICTassets@rfs.nsw.gov.au](mailto:ICTassets@rfs.nsw.gov.au).



## Integrated Dispatch System

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One of the Service's immediate priorities has been to integrate our systems for more simplified and transparent dispatch and reporting. The project involves the implementation of Computer Aided Dispatch (CAD) and the continued rollout of centralised dispatch arrangements.

In July, the Far West District was the last remaining District onboarded. In effect, this means all day-to-day communications from 43 Districts are now processed through the Operational Communications Centre using CAD and ACTIV/paging to turn out brigades.

The project team has worked closely with Districts to ensure arrangements are in place to hand back communications to Fire Control Centres, ensuring local decision making during periods of heightened weather and activity.

For questions on CAD, you can email the team at [CAD@rfs.nsw.gov.au](mailto:CAD@rfs.nsw.gov.au)



## Mapping Software

As one of our priority projects, Infield Mapping is critical for improving our infield situational awareness and our operational decisions. To meet current RFS demands, we have introduced a new user-friendly mapping system called FireMapper.

Introduction of the new software will play a major role in how we respond to fire incidents, support our members in the field and keep our communities safe.

The initial rollout of FireMapper to all seven Area Commands was completed in September 2023. This included running training sessions on FireMapper and providing nearly 2,000 brigades with licences to the app.

The second phase of the rollout is currently under way. We are working with a variety of members to understand how we can customise FireMapper and integrate it with existing operational systems where possible.

This may include linking FireMapper data to MDTs and authorising FireMapper data so it can flow into other systems such as the COP.

Following this, the RFS will roll out an enhanced and integrated version of the FireMapper app to members.

To facilitate a smooth transition, once we have made further enhancements to the app, we will let you know what the new and improved features are and when they will be available.



## Microsoft 365 Uplift

The Microsoft Uplift project has been implemented to ensure all members have an individual RFS email account, and access to Microsoft Teams, Word, Excel, PowerPoint and OneNote, which will enable them to communicate more efficiently.



Members should have received activation instructions in their personal email addresses in the last few months. If you did not receive the activation instructions, you can find them at One RFS by scanning the QR code at left.



For more information on the project, including FAQs and support resources, visit the One Identity project page on One RFS by scanning the QR code at left.

For questions on the Microsoft 365 Uplift Project, email the team at: [microsoftoffice365uplift@rfs.nsw.gov.au](mailto:microsoftoffice365uplift@rfs.nsw.gov.au)

Members will get regular updates on the priority projects via One RFS and RFS Connect.



## Fire Danger Ratings

The RFS has played a key leadership role in delivering the new Australian Fire Danger Rating System (AFDRS), which is providing important real-time fire risk information to communities, firefighters and land managers.

Following the successful rollout of analogue signs across NSW, more than 200 electronic fire warning signs are being rolled out as the state approaches summer. The signs, which are powered by solar panels, are automatically updated each day in line with fire danger ratings on the RFS website.

This digital upgrade means that RFS members will no longer need to manually change the signs daily, allowing more time to be spent on other important roles.

The revised fire danger rating system includes four categories for fire danger: Moderate (green), High (yellow), Extreme (orange) and Catastrophic (red), with simple actions for the community to take at each level. On days when there is minimal risk, 'no rating' is used.



For members who would like more information, AFDRS E-Learning Courses are available in Fuel, and can be found on the One RFS website (via QR code scan).



# RFS ASSISTS NORTHERN TERRITORY FLOOD EVACUEES



In May this year, RFS members assisted the Northern Territory Government by providing temporary emergency accommodation at Yarralin for residents who were displaced during widespread flooding.

Nitjpurru, or Pigeon Hole, was one of three communities (along with Kalkarindji and Daguragu) that was inundated by floodwaters in early March. Displaced residents were initially moved to Howard Springs then onto Yarralin, 60km from their homes, as an emergency shelter.

Luke Robinson, Manager Capability at Area Command Hunter, was part of the group of RFS members who

travelled north to help the NT Government run the base camp.

“After the Victoria River flooding, local Aboriginal people needed assistance,” says Luke. “The deployment involved setting up tents for approximately 150 people who were affected, as well as Government employees, RFS members and caterers.”



The temporary accommodation and school for the Nitjpurru (Pigeon Hole) community was setup next to the local oval.

Assembled in May, the large air conditioned tents were similar to camps used by firefighters in NSW. The food/mess tent was fully catered during the life of the camp to assist in normal day-to-day life.

Luke found the deployment incredibly rewarding.

“Our members had a great time with the local community, organising bike rides out to billabongs as well as holding discos for the kids.”

By the end of July, Pigeon Hole residents were repatriated to their community, with all RFS personnel returning to NSW on 18 July after successfully operating the site for 79 days.

## YARRALIN FACTS

- Also known as Walangeri, Yarralin is a remote Aboriginal community in the Northern Territory.
- The town is situated on the banks of the Wickham River close to the Victoria River, 380km southwest of Katherine.
- Ngarlingman, Mudburra and Bilinara people use Ngarlingman and English as their main languages.
- Yarralin was part of the Victoria River Downs Station and was called Gordon Creek Station, until 1975.
- In 1972 the Ngarlingman people walked off the Victoria River Downs Station, just as their Gurindji countrymen did in 1966. After a 40-year-long battle, the land was handed back to the Ngarlingman/ Yarralin people in June 2016.

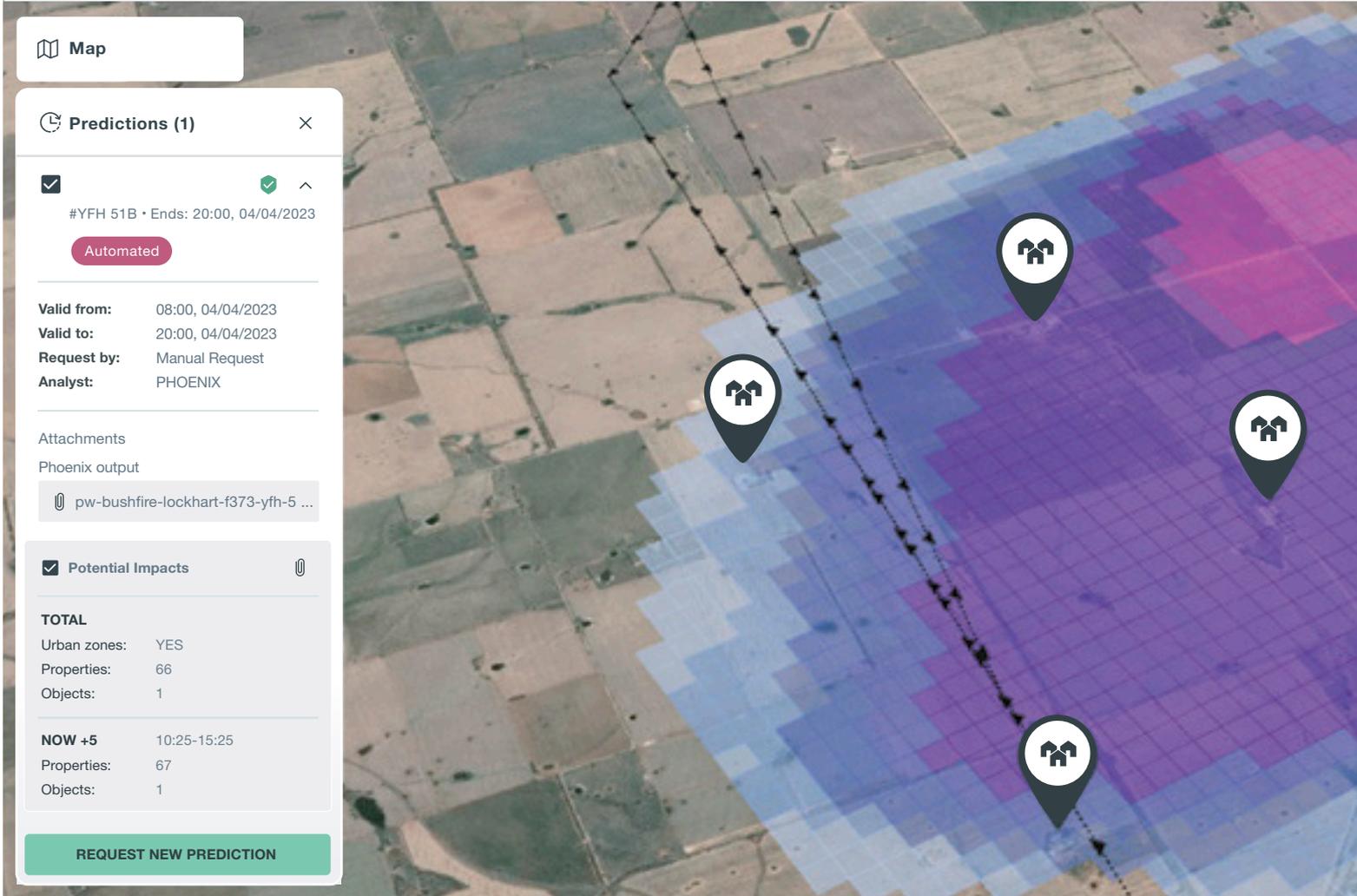
*Reference: Victoria Daly Regional Council, Northern Territory Government*



**Main:** The RFS emergency shelters set up Yarralin. **Top:** Volunteers with local indigenous children preparing for a bicycle ride.

**Middle left:** Volunteers involved in assisting the communities.

**Middle right:** In recognition of the RFS’ assistance, Nitjpurru women presented a painting to our members which will be hung at the RFS Training Academy in Dubbo. **Above:** Volunteers at the basecamp in Yarralin. All photos courtesy of Luke Robinson.



# ATHENA: USING ARTIFICIAL INTELLIGENCE IN BUSH FIRE MANAGEMENT

09 March 2023

Opacity

20%

60%

100%

Following the 2019/20 bush fire season and the NSW Bushfire Inquiry, it became clear that the RFS needed relevant data and more integrated digital technology to fight bush fires.

Bush fire management is a highly time-sensitive process that requires quick decisions and communication of information at a fast pace. With the length and severity of bush fire seasons escalating, it was necessary to develop an innovative solution.

The result was the recently launched Athena platform, which the RFS rolled out in November 2022 with a social intelligence component added earlier this year.

As a new artificial intelligence (AI) development, Athena brings together large volumes of data that, until recently, had to be compared manually.

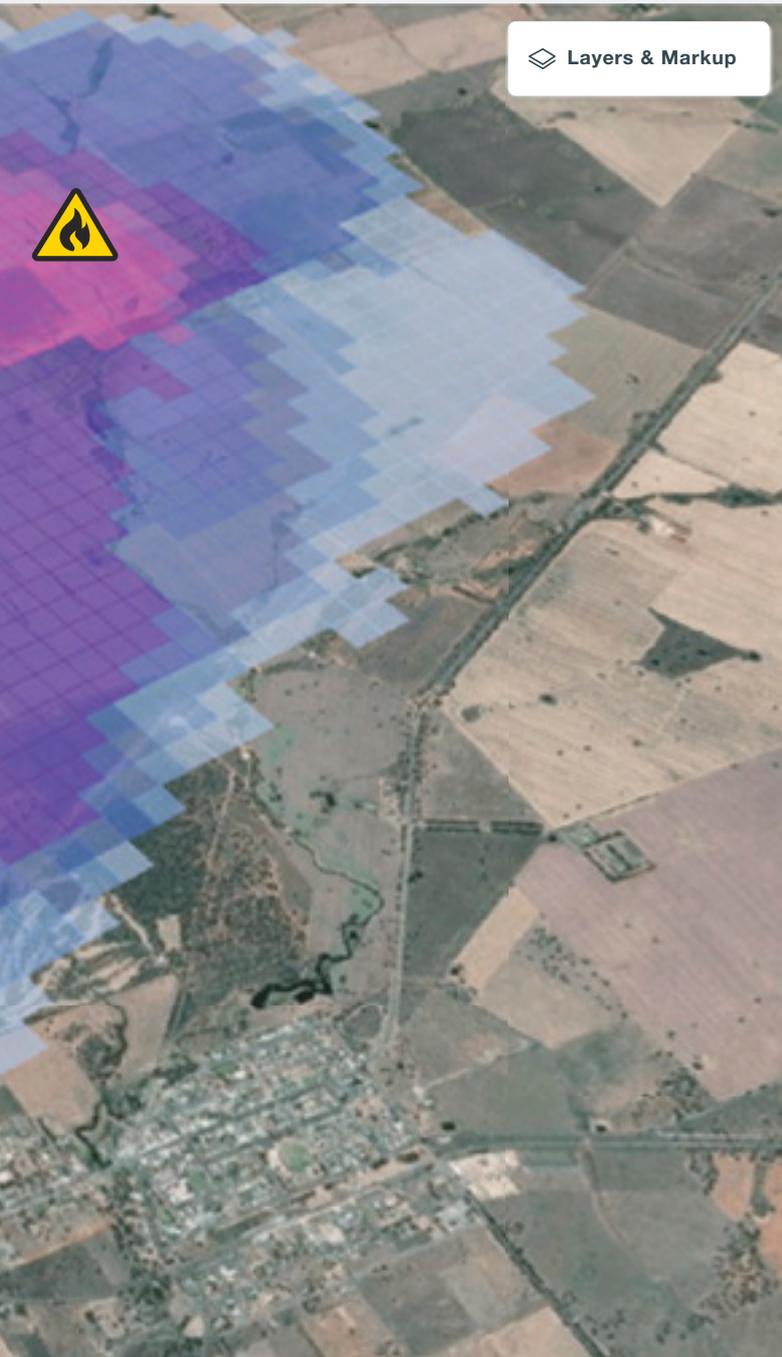
This allows technology to effectively provide real-time insights in disaster situations.

Designed to enhance situational awareness for the State Operational Centre and Incident Management Teams, Athena collects, analyses and learns from a number of sources. Information is taken from historic incident data, high-resolution digital maps, satellite images, real-time weather data and posts from social media.

Where needed, this information is validated by a human user and used to make predictions about fire spread and impact.

10:41 AEST

Layers &amp; Markup



The more it is used operationally, the more Athena is able to self-train and refine its social intelligence, prediction and incident ranking models.

The new AI model displays in both automated Phoenix and manual prediction products on a statewide geospatial display (as pictured).

A range of base map options and other Geographic Information System (GIS) data are available to help protect built and natural assets in surrounding terrains.

Athena combines predictions and GIS data depicting critical infrastructure and habitable properties to estimate the number of objects which may lie in the path of an incident.

## HOW DOES ATHENA HELP DURING A FIRE EVENT?

The system ingests data from other products (such as ICON) used by the RFS and then displays the information on-screen in real-time.

It provides the ability to look at, for example, mapping, weather information, fire spread, locations and oil and gas lines in one single view and within one system.

It also enables users to document fire inputs, request manual and automated predictions, as well as capture and view media coverage while recording every action a user took with automatic date/time stamping functionality.

## WHAT IS ARTIFICIAL INTELLIGENCE (AI)?

AI assists organisations by using software to develop algorithms, recognise patterns and to help make decisions. Technical systems can perceive their environment, deal with and solve problems and act to achieve a specific goal.

## GLOBAL THREAT

With the threat of bush fires on the rise, the risks continue to grow. A recent UN Environmental Programme Report warns that the number of bush fires will rise by 50% by 2100.

Bush fires cause social, economic and environmental detriment and require urgent, collaborative action. AI algorithms, combined with end-to-end fire management systems, are powerful tools for combating fires.

This topic has caught the attention of scientists and organisations worldwide, with the number of research articles on the advantages of using AI to predict bush fires increasing drastically in recent years.

This contributes to a risk assessment used to maintain a live list of incidents prioritised based on threat level.

Essentially, programs like Athena give the RFS a risk map with an interactive simulation and a decision support system for disaster response and resource allocation.

Bush fire management requires solutions for prevention, forecast and detection and management. When used in conjunction with our existing tools, Athena allows the RFS to better manage and minimise disasters in our communities. The technology will be further developed over time to improve its accuracy and benefit for incident management.



# DATA IN ACTION

## BUSH FIRE RISK MANAGEMENT PLANNING IN NSW

Bush Fire Risk Management Plans are being updated across NSW. The new methodology combines fire behaviour science and local knowledge to inform treatments for mitigating bush fire risk.

A Bush Fire Management Committee (BFMC) is a group of stakeholders (land managers, fire authorities and community representatives) that provides cooperative and coordinated bush fire management in a local area. There are currently 54 BFMCs in NSW and each is responsible for preparing a Bush Fire Risk Management Plan (BFRMP). A BFRMP is a strategic document that assesses the bush fire risk to communities and assets and identifies treatments to mitigate risk over a five-year period.

On behalf of the Bush Fire Co-ordinating Committee, the RFS has been working in collaboration with NSW National Parks and Wildlife Service (NPWS) to develop a new bush fire risk assessment methodology that meets the recommendations from the 2019/20 NSW Bushfire Inquiry. The new methodology uses ignition modelling and fire behaviour technology to predict where bush fires may start, how they may spread and the potential for bush fires to impact on assets.

The methodology provides a consistent, objective, multi-agency approach to assessing bush fire risk and assists BFMCs to develop a BFRMP that more effectively assesses and treats risk.

The development of a BFRMP involves four key stages and a number of workshops with BFMC members and local stakeholders, in particular RFS volunteers.

**In stage 1**, the BFMC and local stakeholders review and validate the input data used in the model. This includes fire history, fuel load, vegetation, modelled ignitions and asset locations.

The BFMC also seeks input from the broader community through an online 'Have Your Say' survey. The intent is

to ensure that the data used in the process accurately reflects the landscape and that the BFMC has a good understanding of the community's values and concerns.

The input data is then processed by the RFS and NPWS to determine the bush fire risk to residential, economic, cultural and environmental assets. The modelled ignition points are simulated in Phoenix RapidFire, a fire characterisation model that provides an estimate of fire size, intensity, flame height and spotting under different weather conditions.

Up to 25,000 fires are simulated in Phoenix for each BFMC area. A bush fire risk analysis is then undertaken to determine the likelihood of an event occurring and the probability of loss if an asset is impacted. The variables





influencing loss depend on the asset type. For example, the probability of house loss is calculated using a house loss equation (a function of ember density, flame length and convection).

The probability of an environmental asset being impacted is calculated using the sensitivity of the species to fire, its conservation status, distribution and history of fire impact.

**In stage 2**, the BFMC reviews the risk results for each asset type, seeks local knowledge and experience from BFMC members and stakeholders, and determines Focus Areas. These are areas in the landscape that have a significant risk from bush fire and require treatment as a priority.



Treatments may include fuel management, community engagement programs, ignition prevention activities or specific response strategies.

It is not possible or practical to actively treat all bush fire risks, which is why it is important for BFMCs to prioritise areas in the BFRMP. The BFMC also proposes a five-year fuel management plan for the whole BFMC area. This includes prescribed burns, mechanical works and fire breaks.

**In stage 3**, the RFS and the NPWS use Phoenix to assess whether the proposed fuel management plan is likely to reduce the bush fire risk to each of the asset types. This enables the BFMC to evaluate and modify their fuel management plan.

The BFMC prepares a draft BFRMP that includes bush fire risk maps for each asset type, Focus Area descriptions and treatments and a fuel management plan. The BFRMP is publicly exhibited for comment.

**In stage 4**, the BFMC reviews comments and finalises the BFRMP.

Each BFMC has a webpage that tracks the progress of its BFRMP. RFS volunteers and the local community are encouraged to provide input during the development of a BFRMP and comment during public exhibition. If you are interested in being involved, check the RFS website for the status of your local BFRMP or speak with your local fire district.

To view the Bush Fire Management Committee web pages, please scan the QR code at right, or visit <https://www.rfs.nsw.gov.au/plan-and-prepare/managing-bush-fire-risk/bush-fire-management-committees>



# OUR NEW STYLE

The RFS has recently updated its branding to reflect a more modern, streamlined design, featuring the prominent 'RFS' and new distinctive markings.

As a Service, we are widely known simply as the RFS, so we recognised the need to modernise our style and logo to align with this identity. As we focus on new priority projects such as the next generation fleet and uniform review, we saw the opportunity to embrace new branding.

After extensive research into visual identities, both nationally and internationally, we have updated our original chevron design to a dynamic battenburg pattern.

On vehicle markings we will use the new RFS red and lime along the top edge to improve visibility in low-light conditions, while the introduction of a key line design element distinguishes the RFS pattern from other emergency services.

The new RFS design resources, as they become available, can be found on One RFS.

To download logo packs, Word templates, PowerPoint templates, social media tiles, icons and the style guide, please go to [one.rfs.nsw.gov.au](http://one.rfs.nsw.gov.au).

For further enquires please contact the Communications team at [comms@rfs.nsw.gov.au](mailto:comms@rfs.nsw.gov.au).







# NEW DRONE TECHNOLOGY A GAME CHANGER

New technology is providing critical 4G/5G mobile connectivity in emergencies where networks are down, using a cutting-edge tethered drone.

Using high-speed low-earth orbit satellite connectivity, the Australian-made Starlink drone acts as a mobile tower in the sky, providing connectivity across an area up to 28 square kilometres. It is able to fly for an indefinite period thanks to its ground-based power supply.

The heavy-lift drone can hover up to 100m high in the air and carry up to 15kg. Its payload could include 4G/5G tower equipment, P25 two-way radio equipment and bright floodlights or cameras. This flexibility enables the drone to provide critical support to emergency services during rescue and recovery situations.

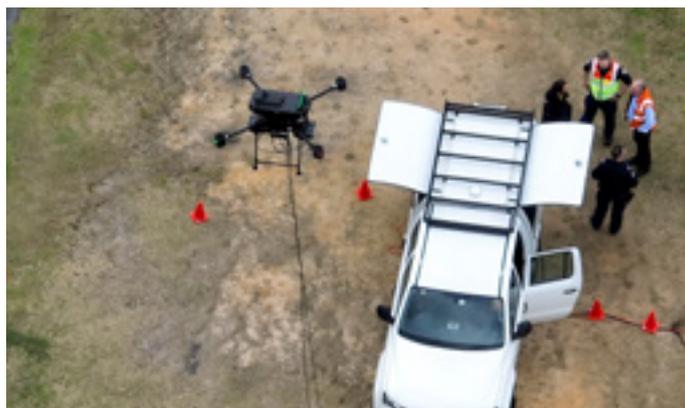
For example, in rugged mountainous regions with no reception, first responders could use the drone to establish a new coverage zone to make contact with a missing person. Through data, the drone can be used for a video call or maps, essentially serving as an airborne mobile tower in remote regions during fires or floods.

The RFS recently had the opportunity to test the solution during a demonstration at a base in Bimbimbie, just south of Batemans Bay.

The demonstration, led by the NSW Telco Authority's Next Generation Digital Connectivity initiative, allowed members to experience how the drone can provide critical communication services during natural disasters, especially where standard mobile networks have been disrupted.

The new mobile network drone has the capacity to be a real 'life saver' in emergency situations where towers are down. It can not only provide vital communication for communities, but also frontline emergency workers.

Deputy Commissioner Peter McKechnie believes the new drone could be a gamechanger. "We are very happy to be involved in the trials, to be able to evaluate these emerging technologies."



Photos courtesy of Vocus.



# COLLABORATIVE RESEARCH IMPROVES DATA FOR AERIAL FIREFIGHTING

A collaborative research project is improving the data accessible by aerial firefighters to locate nearby water sources. Story by Bethany Patch, Natural Hazards Research Australia.

During active bush fires, aerial firefighting units are dispatched by members of the National Aerial Firefighting Centre (NAFC) through an online system called Arena.

NAFC members use a variety of datasets to find suitable nearby water sources for firefighting helicopters and fixed-wing aircraft. It is critical for effective decision making that the most current and accurate data about the location of water is available as quickly as possible.

The 'Identifying Water Sources for Aerial Firefighting' project is a collaboration between the NAFC, Natural Hazards Research Australia, Geoscience Australia (GA) and FrontierSI that is improving the reliability and clarity of information about water bodies by adding recently observed water and currency attributes to datasets used by firefighters.

Key emergency management agencies across Australia provided input on the ways they currently use waterbody datasets and how these datasets might be improved for bush fire pre-planning decisions.

These include insights into new information and software requirements, operational suitability and additional waterbody attributes that would strengthen the relevance and accuracy of existing datasets.

The project team has since delivered a method to augment GA's Digital Earth Australia satellite-based data products with the latest water availability information to meet the needs of NAFC's Arena system.

**Photo:** The CH-47 Chinook is the RFS' latest aerial firefighting appliance.

Whereas previously the data about nearby waterbodies might have been months or years old, now this information is updated regularly and is easily accessible.

This prototype workflow can now be implemented by the NAFC and GA to:

- identify aircraft-accessible water bodies;
- contribute to aircraft selection and allocation based on access to water;
- contribute to efficient use of aircraft;
- provide information to air desks, air bases and air crews to assist in their situational awareness and decision making.

"The new system will give us a broad view of the available water in an area, which will provide greater situation awareness for developing aviation strategies," says Inspector Bernie O'Rourke, Supervisor of Aviation at the RFS.

While the project is still in progress, the deployment of this data in RFS systems is still being developed, including several recommendations to the NAFC and GA provided in the project's final report.

Implementation and deployment of this improved data will help users plan the placement of aircraft for future fire seasons.



Find out more about this project and read the final report (including recommendations) by scanning the QR code.



# WATER RESCUE PROGRAM TO SUPPORT THE SES IN FLOOD-AFFECTED AREAS

The RFS has launched a new Flood Rescue Program to assist the SES and improve emergency response capability during floods.

During severe weather events, such as the recent floods in central west NSW, flood-affected towns can become isolated. Due to logistical problems and dangerous conditions, rescue work can be delayed, leaving communities stranded in their homes for several days.

During the last few years of flood events, more than 125 townships were cut off by floodwaters. This resulted in the SES and more than 300 RFS brigades becoming involved in operational response.

Alan McCartney, Operational Training Officer, is involved in educating RFS members about what to expect during a natural disaster.

“The nature of flood work is demanding and can require long hours with extended periods of technical support required,” says Alan.

“Fast-moving water and debris often hinder rescue efforts due to the danger of floating materials and trees. With the incidence of more frequent flooding, after an extended

La Niña weather pattern, the RFS developed a new Flood Rescue program to assist existing emergency services.”

Work on the program commenced in late 2022, with the RFS working with brigades to identify local risks and the most suitable type of equipment that works for both the community and the brigade. A key focus of the program is rigorous training on how members can ensure the safety of themselves and the community during flood rescue and resupply efforts.

RFS members are being equipped with new personal protective equipment to meet the demands of operating in a flood and fast-moving water environment. Additionally, the RFS has been equipping brigades across the state with specialist rescue equipment, such as rescue boats, rafts, reach and rescue poles, stokes litters, rescue tubes, throwlines and personal flotation devices (PFDs).

Vehicle-based flood rescue kits are being provided to every RFS fire appliance, to be used where there is an





imminent risk to life and no other rescue service available. The kits include PFDs and throw ropes to enable members to assist the public from the safety of the shoreline.

These will not only help people in need, but also reduce any risks to members who currently carry out this skilled work.

The Service is working with the SES and the State Rescue Board to further develop the RFS flood capability and improve the way we support the community during and after a flood event in NSW.

From the ground up, the RFS has created a number of training courses for brigades developed in partnership with other agencies, including Flood Rescue awareness, Land Based Flood Rescue, Land Based Rescue with Raft, RFS Small Boat Operators Course and Swiftwater Rescue Technicians.

Previous page top: RFS flood boat on the water. Photo by Dan van Keimpema. Previous page bottom: Water rescue training. Photo by Alan McCartney

### FLOOD RESCUE COURSES AVAILABLE

**Awareness training** is online and will be available to all members, with links to a vehicle flood kit provided to RFS fire trucks and video training on how to use throwlines.

**Land Based training** is available to land-based brigades. Some brigades may have rafts that require additional training on their safe operation.

**Small Boat Operator** training is available to on-water brigades with powered boats. Members need to have completed the land-based qualifications first.

**Swiftwater Rescue** training for in-water technicians. Members must complete the Land Based training first.

*Note: All training (with the exception of the Awareness training) has prerequisites, including swim tests and fitness tests.*

Above: In Water Rescue technician PPC. Photo courtesy of Alan McCartney. Right: RFS flood boats. Photo by Dan van Keimpema. Bottom: Water rescue training.





## SECONDARY SCHOOL CADET PROGRAM GOES FROM STRENGTH TO STRENGTH

Launched in 2004 as a state-based program, the successful Secondary School Cadet Program (SSCP) has been running for almost 20 years.

Participation in the Secondary School Cadet Program has helped numerous young people connect with their community and develop valuable life skills, while learning a sense of responsibility.

The pilot program in 2004 was developed through the Community Education unit (now known as Community Engagement) and included five schools from Bingara, Parkes, Forbes, Bathurst and the Blue Mountains.

The program ran during school time for two-hour sessions over 10 weeks, and was based on a number of local initiatives developed by brigades to engage students in volunteering and bush fire safety.

Paul Cunningham, Senior Advisor Program Development, now oversees the successful initiative.

“When planning to expand the program began, the focus was to raise awareness of fire safety while developing practical life skills and an appreciation of community

service,” says Paul. “The training provides valuable skills, which can be applied to many different situations through a sense of leadership, self-discipline, initiative and an appreciation of teamwork.”

As the program grew, new roles and affiliated events were developed. In 2006 a new Cadet Coordinator was employed, and in 2008 a Youth Development Officer role was created to support wider youth engagement throughout brigades.

By 2007, the enormous success of the program led to the first Australian Fire Cadet Championships which are held biannually. Teams compete in events designed to test the technical skills of the cadets.

Participants are judged on their ability to demonstrate enthusiasm, leadership, safety awareness and initiative.

The event promotes the engagement of members in a support and mentoring role for young people.



In 2009, a Cadet of the Year Award was held for both the RFS and the NSW State Emergency Service (SES) to acknowledge the efforts of participants in their respective Secondary School Cadet Programs.

Since then, both services have introduced additional award programs for young members under 25 who contribute by volunteering outside school with their local brigade or unit.

The Young People in Emergency Services Awards Ceremony was initiated to recognise achievements of young people and their involvement with emergency volunteering with the Service.

The Service also recognises outstanding young volunteers through the RFS Young Volunteer of the Year Awards for the 12-15 and 16-24 age categories.

The Program now sees more than 50 schools participating each year across NSW through an interactive, practical and hands on approach to learning.

Many participating students have transitioned into volunteer membership and staff roles, as well as serving on committees such as the RFS Young Members Group.

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For more information please contact Paul Cunningham, Senior Advisor Workforce Planning and Programs on 02 8741 5161 or [youthparticipation@rfs.nsw.gov.au](mailto:youthparticipation@rfs.nsw.gov.au).

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**Main photo:** Precious-Lee Laverack (foreground left) from Mamre Cadets (NSW) and Delta Robinson (foreground right) from SA CFS in front of their cadet teammates at the 2023 Australian Fire Cadet Championships. **Above:** RFS Cadets competing at the 2023 Australian Fire Cadet Championships held at Douglas Park, NSW in September 2023. Photos by Adam Hollingworth.



# NORTH WESTERN NSW FARMER ENGAGEMENT INITIATIVE

Over recent months, the RFS has led several initiatives to engage landowners and communities in northwestern NSW. As a result of these successful engagement events, the RFS is working to improve planning and help communities better prepare for the future.

### NSW FARMERS STATE CONFERENCE

On 18-19 July, the RFS attended the NSW Farmers State Conference where hundreds of experienced and passionate landowners who are experts in land management discussed Bush Fire Management Committees, fire trails, farm fire units, hazard complaints and fire permits.

This was the second conference the RFS has attended, with NSW Farmers being an important partner in the Service's Farm Fire Unit project.

### AGQUIP GUNNEDAH (NORTH WESTERN AREA)

The RFS had a major presence at the 50th anniversary of AgQuip in Gunnedah on 22-24 August. The bright red, two-storey RFS stand focused on our members while showcasing some of the initiatives set to benefit regional NSW.

During the two days, more than 100,000 people passed through the gates. RFS staff exchanged information, and built some great connections in areas such as membership, heavy plant, farm fire units,





hazard reduction, farm fire safety and planning, peer support and ICT. We were joined by representatives of the RFS who engaged with the community on the many benefits and services available to them.

A highlight was being invited into the NSW Farmers shed to share their space, where we spent the week talking with farmers directly.

### **NSW FARMERS COOLAH BRANCH MEETING**

On 20 February the RFS attended the NSW Farmers Coolah Branch meeting (representing the Castlereagh

and Liverpool Range Districts), where experts spoke on a range of local issues such as Fire Danger Ratings, permits and renewable energy. The day was a great opportunity to identify farm muster opportunities, and strengthen our relationship with local and surrounding communities.

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**Main image:** RFS members mixing with local farmers at AgQuip Gunnedah. **Above:** RFS members from Cassilis Brigade demonstrating a Category 1 fire appliance's capabilities. **Below left:** A local farmer attends the Cassilis get together. **Below centre:** The two-storey RFS stand at AgQuip, Gunnedah. **Below:** Chief Supt. Heath Stimson with attendees at AgQuip Gunnedah. Photos courtesy of Heath Stimson.





### **CASSILIS (LIVERPOOL RANGE)**

The community of Cassilis and the surrounding rural areas met with the RFS on 24 July for a timely 'get together'. With a focus on how to move forward after the Sir Ivan Fire in 2017, discussions included the importance of relationships and trust building, integration with farmers and the RFS, Bush Fire Risk Management Planning, fire trails and training and membership.

### **BURINDI, MT LINDSAY, BORAH (TAMWORTH DISTRICTS)**

The Tamworth District conducted meetings with landowners and members over July and August this year to discuss important local issues. Some of the topics raised were equipment checks and familiarisation, hazard reduction and environmental farming.

### **WARRABAH (TAMWORTH DISTRICT)**

Warrabah also recently met to discuss a number of important issues such as assets, access, water supply, vehicles and hazard reduction. As a result of these meetings the community will be engaging in discussions about training, equipment checks and shared hazard reduction responsibilities.

### **BOX RIDGE BBQ FOR NEW LANDOWNERS**

On 13 July, Box Ridge Brigade in the Castlereagh District held a friendly BBQ to introduce new landowners in the area to the RFS and our members.

The day went off without a hitch, with the locals discussing fire protocols, hazard reduction, farm fire units and each landowner's responsibilities.

Conversation included current fuel loads and the need for safe burns, considering the community's proximity to a neighbouring nature reserve. Members pitched in with ideas on how land owners could manage their properties, including using the Rural Boundary Clearing Code to their advantage.

"The BBQ gave us a chance to foster relationships between the RFS and the new residents," said Matt Cook, Captain of Box Ridge Brigade.

"We offered valuable information about the state of readiness and firefighting capabilities of the Brigade, as well as passing on practical knowledge about the conditions of the roads in and out of the area."

The RFS also recently held a smaller farmers meeting at Bulgadie, also in the Castlereagh District, which covered relevant topics for regional landowners.

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*As a result of these recent farmer engagements, the RFS has been approached by some large private farming and farm industry related businesses. We have received requests from those who took part, seeking engagement on farm fire units, joining the RFS as members and about future muster days. Future engagement events involving large corporate farms, research facilities and farming related companies, will occur in the coming months.*

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Photos: RFS members discuss local fire issues with local landowners at the Box Ridge BBQ event. Photo courtesy of Heath Stimson.



# RESTORING A TRUCK THAT INSPIRED A WOMEN'S BRIGADE

The small rural community of Tullibigeal in Central West NSW set out to restore an old 1960s Bedford fire truck, significant to one of the first women's brigades, to its former glory after many years of disuse. Written by Maxine Imrie.

On a hot December day back in 1991, fire threatened the tiny town of Tullibigeal. With most of the men away attending to another blaze, the women were left to fend for themselves as a grass fire started on the edge of their small township.

With only wet bags and buckets of water to put out the flames, there was a serious concern that the fire could destroy their homes. Locals remember the weather on that day as being dry and windy, so there was no time to waste.

Thankfully, a man arrived on the scene with an old Bedford fire truck. Originally purchased by Lachlan Shire Council in 1978 to be used at Tullibigeal, the old truck had remained in use until 1988.

Shortly later, with the assistance from an out-of-town crew, the women managed to put the fire out. Keen to develop their skills, they sought permission to use the truck and formed the Tullibigeal's Women's Brigade.

For many years now, the 'ladies truck', as it's affectionately called, has been sitting in a shed gathering dust. That was until a recently announced grant of \$125,000 allowed the community to start the restoration.

Described by the community as 'trailblazers', the original Women's Brigade members have fond memories of their time fighting fires.

Maxine Imrie was part of the first group of women, and as a member eventually went on to become Captain and

President of the Tullibigeal Bush Fire Brigade, before retiring.

"It was a time when women weren't really involved in the bush firefighting movement," she says. "It was a time when women made sandwiches and thought, 'No, we're not going to do that!'"

"In the early 1990s, the Women's Brigade caused a buzz and offered lots of opportunities for training, I know that what we were trying to do created a lot of interest.

"It gave a bunch of girls another interest in a very isolated community."



**Main image:** The original 1961 'Engine 82' truck from Lockhart NSW.  
**Bottom right:** The restored 1961 Bedford fire truck.

Excerpts from ABC News.



# FLINN WINS BRONZE

Brian Flinn, Treasurer of Davidson Brigade on the Northern Beaches, returned to Australia in mid-March sporting two bronze medals following his participation in the 2023 Australasian Police and Emergency Services Games.

In March, 3,000 participants from every state and territory in Australia, New Zealand and some Pacific Island nations gathered for the Games. Held in a different location every two years, Rotorua, New Zealand, hosted this year's event.

Competitors comprised members from a number of emergency services, such as Police (state and federal), Fire and Rescue, Ambulance, SES, Corrective Services, Customs and Surf Life Saving organisations.

With more than 60 different individual and team sporting categories and 40 or more participants in each event, the Games catered for all levels and ages.

Brian competed in the 60-plus age group and despite being well into his seventies, managed to win bronze in the 84km Cycling Road Race (missing silver by just 0.2 seconds) and another bronze in the 7km Cycling Hill Climb.

"From the impressive opening ceremony, and throughout the next action-packed eight days to the closing ceremony, the camaraderie among all participants was outstanding regardless of their service, state or country," says Brian.

"The medal presentations each evening proved to be very social among all participants – there was no trouble finding someone to enjoy a celebratory drink with, and I met some wonderful people from different services, from all competing regions."

The next Australasian Police and Emergency Services Games are scheduled to be held in 2025 in Hobart.



**Main photo:** Australasian Police and Emergency Services Games medals. **Right:** Brian Flinn competing in the 84km Cycling Road Race, in which he won the Bronze Medal. Photos by Judy Flinn and the Games photographers.



# FOR OUR ELDERS: A NAIDOC WEEK CELEBRATION

NAIDOC Week celebrations are held across Australia in the first week of July each year, to acknowledge the history, culture and achievements of Aboriginal and Torres Strait Islander peoples.

The theme of this year's NAIDOC Week was 'For Our Elders', in recognition of the important role Elders have played and continue to play, and the prominent place they hold in communities and families.

During NAIDOC Week we celebrate the strength and resilience of the oldest continuous cultures on earth and our Aboriginal and Torres Strait Islander members and connections.

Starting on 2 July, many RFS brigades across the state participated in activities from smoking ceremonies and flag raising, to art exhibitions, community barbeques and cultural events.

"This has been an exciting year for our organisation with the development of the RFS Reflect Reconciliation Action Plan (RAP)," says Commissioner Rob Rogers.

"I encourage our Districts and Areas to connect to their local Aboriginal Land Councils to develop ongoing collaboration and partnerships, to share experience that will spark more conversations and lead to greater understanding.

"These conversations will also naturally take place more often as we increase Aboriginal and Torres Strait Islander membership within the Service, through the continuation of targeted employment and volunteer membership programs."



Photos: NAIDOC Week celebrations at Dubbo Training Academy.  
Photos by Anthony Clark.



# RAINBOW PRIDE PROGRAM HELPS TO BRIDGE THE GAP

The first of its kind in Australia, the Rainbow Pride Fire and Resilience Program was designed to connect young people to their local area and promote a sense of belonging and support within the LGBTIQA+ community.

Taking place in June 2023 at Dee Why on Sydney's Northern Beaches, this innovative program was hosted by Girls on Fire. Participants were given the opportunity to gain skills and knowledge to prepare for, prevent, manage and recover from emergency situations.

Over two days, the Rainbow Pride Fire and Resilience Program featured a range of immersive activities designed to develop teamwork, problem-solving and emergency response skills.

The program operated on a 'what you see, you can be' ethos, allowing participants to be mentored by LGBTIQA+ volunteers and staff. By experiencing diverse and inclusive leadership, the activities were aimed to inspire and empower those involved.

'My dream is to see the fire service look like our community, which is very diverse,' said Bronnie Mackintosh, Girls on Fire founder. "A fire service that looks like the community can be more engaged."

Participants were given the opportunity to put out fires, use emergency equipment in response vehicles and conduct a simulated burn exercise that incorporated hazard reduction, helicopter operations, evacuations and land management.

Certificates of achievement were presented by the Northern Beaches Mayor Sue Heinnis and famous Australian drag queen, Maxi Shield.

**Main photo:** Maxi Shield and members of the RFS at Dee Why.

## WHAT IS GIRLS ON FIRE?

Founded in 2021 by Bronnie Mackintosh, Girls on Fire is a collaboration between NSW fire and emergency service agencies.

The program is designed to inspire young people to take ownership of their role as a positive force for change within the community. Bronnie continues to work towards representation and inclusion in the fire and emergency sectors.

With a focus on confidence-building programs centred on safety, teamwork, respect and inclusion, Girls on Fire runs a series of school programs, urban girls fire camps, cultural inclusion camps, community engagement and advocacy activities throughout the calendar year.





# TANJA CELEBRATES THE ROLE OF WOMEN IN THE RFS

Tanja Brigade on the Far South Coast recently held an International Women’s Day morning tea to celebrate the long service of member Nola Dummett and highlight the role of women in the RFS. Article courtesy of Bega District News.

With almost 50 years of service, Nola Dummett has dedicated a great deal of her time to the RFS. Such is her dedication, that when she sub-divided her land she donated a plot to her local brigade.

Never one to take ‘no’ for an answer, she successfully lobbied council for the relocation of the Tanja shed from nearby Wapengo to the heart of the main Tanja village.

Tanja RFB captain Andrew Constable says Nola’s contribution has been unique.

“As recently as five to six years ago, Nola was the chief radio operator for the area, communicating with Firecom and the local brigade members. The calls would all go to her, then she would chase up crews in the area until she found one.

“She was incredibly active, clearing fire hazards on her property, to manning the phones, she was very hands-on. These days, although she has slowed down, she lives on the main road in town and still keeps her eyes open for the Brigade.”

More than 30 locals came to the Women’s Day morning tea at Tanja Hall where they heard the history of the Tanja Brigade and Nola talk about her experiences in the RFS, which began in Quaama in the 1950s.

“Nola and her family have been the backbone of the Tanja Brigade for many decades,” says Andrew. “She’s extremely community minded and showed foresight in having the brigade shed moved to where the main population of Tanja now lives.”

Tanja has six female members, however Andrew says the involvement of women in the Tanja RFB stretches beyond just firefighting.

“During the bush fires we had local women involved in communications with landholders, catering and sourcing water to supply tankers,” says Andrew. “Everyone can play a role in keeping the community safe, and the Tanja Brigade is fortunate to have a history of active women in the Service who are keen to be involved.”

**Main photo:** Some of the female members of Tanja Rural Fire Brigade from left to right: Tanya Whiteway, Kathleen McCann, Nola Dummett and Stacey George. Photos by Andrew Macdonald

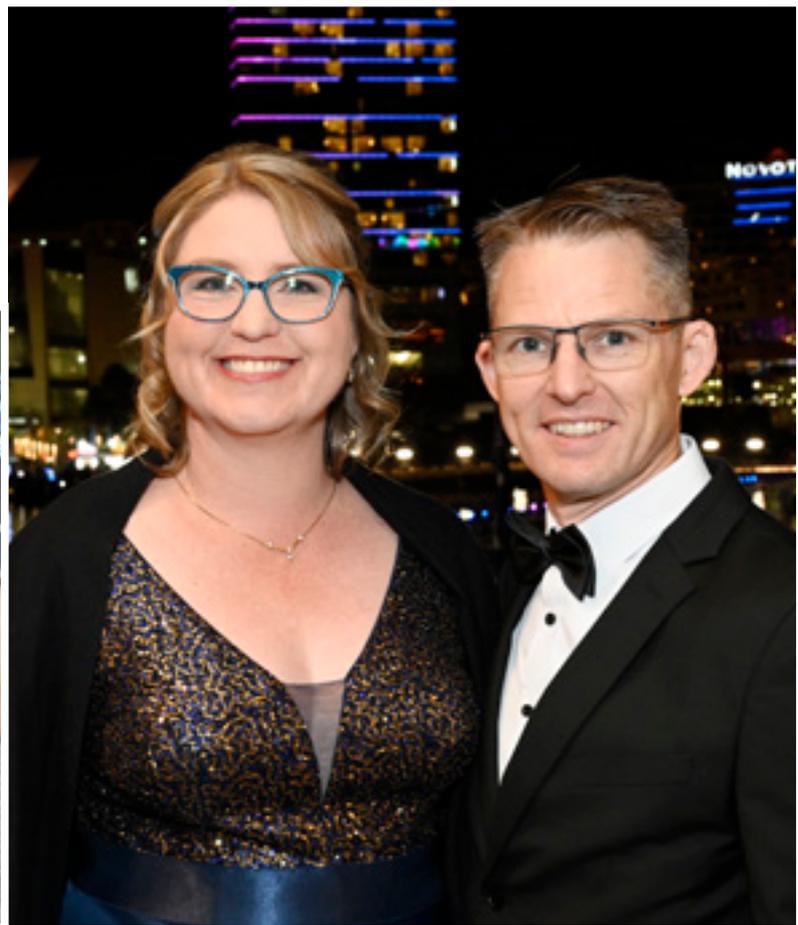




Members of the RFS kicked up their heels at the Fire and Ice Charity Ball held on Saturday 17 June at Dockside, Darling Harbour. Held every two years, the Ball was a huge success with the RFS raising much needed funds for the Child Protection Unit at Westmead Children's Hospital.



Photos by Adam Hollingworth from Hired Gun Photography





# AUSTRALIAN FIRE

The Australian Fire Service Medal (AFSM) is awarded to a member of an Australian fire service for distinguished service. Congratulations to the eight RFS members who received an AFSM as part of the 2023 Australia Day Honours, recognising their commitment to the community.

## **SENIOR DEPUTY CAPTAIN LINDA RILEY** Namoi/Gwydir

Senior Deputy Captain Linda Riley joined the Mungindi Brigade in 1992 and was elected Captain soon after, holding the role until 2001. Linda has also served as a Permit Issuing Officer, Brigade Treasurer, Secretary and Training Officer.

As a team leader, Linda has contributed to establishing the Brigade's breathing apparatus and rescue capabilities. Having trained as a nurse, Linda's background is particularly useful during medical emergencies, where she remains composed and collected in complicated or stressful situations.

During 2020, Linda and the Brigade were instrumental in protecting local shops when a fire destroyed the town's supermarket. They were responsible for limiting the spread of fire which would have had a significant impact on businesses and the community.

Brigade members were recognised for their efforts in 2022, when they were awarded a Commissioner's Unit Citation for Service. Acknowledged as an ambassador for the RFS, Linda's quiet achievements and distinguished service reflect an unwavering commitment to the organisation and the community.

## **GROUP OFFICER ANDREW MACDONALD** Cumberland/Macarthur

Group Captain Andrew Macdonald's dedication to the RFS since 1981 extends from the Gledswood Brigade and Macarthur District to a statewide involvement. He has held leadership roles in his Brigade as Deputy Captain and Captain, and was elected Group Captain in 2008.

Andrew also serves as a Remote Area Fire Team member and RFS aviation specialist with extensive operational experience. As a District Training and Assessment team member, he champions new firefighter education.

Andrew has led RFS strike teams to Queensland, Western Australia and Victoria, undertaking specialised interstate roles. Representing the RFS in Botswana for the Botswana Fire Management Program in 2013 and 2015 is a testament to his dedication.

Andrew has supported the RFS administration through his participation as Brigade Treasurer, Association representative and event marshal for the District and State Championships. He was an inaugural trustee of the NSW RFS and Brigades Donations Fund and the Chair since 2019.

His unwavering commitment to the RFS goes above and beyond.

## **SENIOR DEPUTY CAPTAIN HEATHER JONES** Central Coast

Senior Deputy Captain Heather Jones joined Nords Wharf Brigade in 1999 and continued with Wallarah Brigade following a merger in 2006.

She has held roles encompassing operational and executive leadership, including Secretary, Treasurer, Training Officer, Health and Safety Officer and Community Engagement Officer.

Since 2015, Heather has led the Lake Macquarie Cadet Brigade, ensuring strong membership and success in local and Cadet State Championship events. She has contributed significantly to the Secondary School Cadet program in the Central Coast District.

With involvement in numerous major bush fires and storm emergencies, Heather played a crucial role as Community Field Liaison Officer during the 2019/20 bush fires.

A qualified trainer and assessor, Heather enhances the District Training Team, focusing on firefighting, first aid, and advanced resuscitation. She serves as a remarkable role model and mentor within the RFS, showing steadfast dedication to operational leadership, training and junior member development.

# SERVICE MEDALS 2023

## **CATERING CAPTAIN STEPHANYE HOLDEN**

### **Clarence Valley**

Firefighter Stephanye Holden, a dedicated member of the Ashby Brigade since 2011, currently serves as Brigade Secretary.

From 2019 to 2023, she was Captain of the Clarence Valley Catering Brigade, displaying a special commitment and dependability within the District.

Stephanye's leadership is marked by respect, trust, patience and mentorship. Her exceptional dedication to community extends to various volunteer activities, including palliative care for cancer patients and assisting a local women's shed.

Known for her caring demeanour, she not only provides nourishing meals for firefighters, but also actively supports her Brigade and community.

In her Community Engagement Officer role, which she has held for over four years, she has promoted fire awareness and RFS advocacy.

Her involvement in major fire campaigns, particularly as Catering Captain, has showcased her calming presence, exceptional leadership and unwavering commitment.

Stephanye's remarkable contributions have greatly benefited the Ashby Brigade, Clarence Valley Catering Brigade, RFS and local community.

## **GROUP CAPTAIN/CAPTAIN MICHAEL AMOS**

### **Far West**

Group Captain Michael Amos has been an integral member of the North Bourke Brigade since 1995, now Bourke Headquarters Brigade. He has held the roles of Captain and later Group Captain for the Bourke District since 1996 and 2001 respectively.

Michael has an impressive 27-year tenure, also serving as President, Treasurer, Secretary and Permit Officer. He currently maintains the roles of President and Permit Issuing Officer.

During the 2008 merger of Barwon Darling Zone and the Far West Team, his leadership role showcased his unwavering dedication to volunteers.

Michael contributed to the Barwon Darling Zone Training Committee and actively participated in various significant fires.

His notable incidents include the Payless supermarket fire in 1996, Timmallallie Creek fire in 1997, a major bush fire in 2013 in Bourke, as well as several deployments to fires near Enngonia, Yantabulla and the state's far west.

## **DEPUTY CAPTAIN VICTOR JUDSON**

### **Shoalhaven**

Deputy Captain Victor Judson's firefighting journey began with the Appin Brigade in 1996. His experience expanded to firefighting within the Metropolitan Water Sewerage and Drainage Board's catchment area, incorporating fire spotting roles.

After transitioning to the NSW National Parks and Wildlife Service, Victor engaged in remote area firefighting and assisted in operating heavy machinery. During his career, he has contributed as an aerial incendiary operator and aided in the 1997 Thredbo landslide rescue.

After joining the Cambewarra Brigade, Victor rose from Deputy to Senior Deputy Captain before transferring to Illaroo Road Brigade.

In 2016, he became a foundation member of the West Nowra Brigade, currently serving as Deputy Captain and Permit Officer.

Victor's roles span major fire campaigns, including the 2019/20 Shoalhaven fires, where he earned respect from his firefighting community.

His pragmatic firefighting approach, active brigade involvement and life membership with the West Nowra Brigade define his commendable legacy.

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## **GROUP OFFICER PETER LUGSDIN MIA**

Group Captain Peter Lugsdin's journey began in 1959 with the Area D Brigade in Hay.

He progressed from Deputy Captain in 1988 to Captain in 1991, where he held the title for 12 years.

Later joining the Hay Headquarters Brigade in 2003, Peter was elected Group Captain in 2004 and continues to hold this position.

Beyond operational roles, he actively contributes as a senior volunteer representative on committees including the Bush Fire Management Committee and Senior Management Team.

Admired among peers, his influence and input are esteemed. He strives for optimal equipment for volunteers, notably aiding in station and tanker replacement plans for the area.

His leadership during a 1977 Uarbry fire, which could have devastated Carrathool, underscored his fire knowledge and operational expertise.

Group Captain Lugsdin's commitment is evident, attending nearly every Hay-area incident, leading strike teams across the country and contributing immeasurable firefighting experience.

His dedication to sharing knowledge through exercises, community engagement and tanker development highlights his enduring passion for the RFS.

## **GROUP CAPTAIN GRANT WARGREN Hornsby/Ku-ring-gai**

Group Captain Grant Wargren's RFS journey began in 1977 as Deputy Captain, progressing to Group Captain in 2011. Throughout his career, Grant has held numerous brigade executive roles at Westleigh, Hornsby Headquarters and Berowra Brigades.

He has exemplary leadership qualities, and possesses impressive tactical skills during major fires and incident campaigns.

During the 2019/20 fires, Grant undertook significant operational roles from the Mid North Coast to the Victorian border.

While working in field commander roles, he demonstrated quick thinking,

tactical proficiency and effective priority management, averting loss of life and property.

Grant is well known for coordinating and developing training programs, as well as advocating positive change in training curriculum. Collaborating with RFS state training officers, he facilitated state-wide instructor and assessor courses. As a mentor in Incident Management training, Grant has showcased tactical expertise within Incident Management Teams.

In 2011 with the RFS, he undertook a training leadership role in Botswana to enhance fire management capabilities.

Grant's 46 years of service exemplify dedication to both the RFS and the community.





# FALLEN MEMBERS HONOURED AT AFAC MEMORIAL

Five members of the RFS who sadly passed were remembered as part of the annual AFAC Memorial Service which took place in Canberra on 12 May 2023. Written by Gregory Allan.

The event, held each year at the memorial on the shores of Lake Burley Griffin, honours the courage and sacrifice of those emergency services workers who have died in the line of duty.

This year, 22 names from emergency services across Australia and New Zealand were added to the memorial.

Commissioner Rob Rogers represented the Service at the event, which was attended by the Governor-General His Excellency General the Honourable David Hurley AC DSC (Retd), along with many RFS and emergency services personnel.

The names of the five RFS members added to the memorial this year are:

**Superintendent Paul Norton**  
Wandandian Brigade (Shoalhaven)

**Firefighter Randall Macarthur**  
Foxground Brigade (Illawarra/Sutherland)

**Chief Superintendent Bruce Holz AFSM**  
Cobbitty Brigade (Cumberland/Macarthur)

**Superintendent Mick Holland**  
Oberon Brigade (Chifley/Lithgow)

**Group Captain (Retired) Tony Hardy**  
Dunmore Brigade (Illawarra/Sutherland)



# VALE

## Adrian 'AJ' Lee

1975–2023

In June 2023, the RFS lost Lake George District Officer, Air Operations Manager and Aviation Course Instructor Adrian (AJ) Lee. Sadly, AJ passed away suddenly while he was attending a training workshop in Sydney. Written by Lake George District staff.

AJ had been a member of the RFS family for almost 30 years after joining the Captains Flat Brigade in 1994. After nine years with the Captains Flat Brigade, AJ joined the Lake George District Operational Support Group from 2003 to 2008, serving for a time as Deputy Captain. During that time, he also became a salaried staff member at Lake George District as the District Administration Officer and in 2022 was promoted to District Officer.

When AJ joined the Service, aviation was starting to grow as an area of core capability. He identified this early and, drawing on his skill set in communications and his love of training, he made this his speciality area. As both an Air Operations Manager and aviation instructor, he was committed to the safety of our aviation operations and personnel, ensuring our people developed the skills and knowledge they needed to respond efficiently when needed and return home safely.

For volunteers in the District, AJ was the constant. The friendly face that greeted members as they walked through the front door. He helped with their membership forms, issued their first set of PPC, provided newly elected field officers with their rank slides and made them feel that they belonged to something bigger than a fire service.

He always put members first, nothing was too hard, no procedural hurdle too big to jump. Regardless of rank, role or status, he treated all members in the same welcoming and egalitarian manner.

He set the standard, never compromised on safety, diligently accounted for resources and was completely unselfish in sharing his knowledge.

He was instrumental in developing the training packages, mentoring aspiring members keen to be involved in the aviation space and fostering the special bond that all in the aviation space have.



As the District Officer, he was dedicated to the welfare and interests of our volunteer members, many of whom will remember their friend and colleague with respect and gratitude for his support and willingness to go the extra mile.

He was known to many as a generous and skilled friend and colleague. Those who knew him were not surprised when it was AJ who was usually deployed first across NSW, ACT and the nation.

AJ was a recipient of the ACT Emergency Medal for the 2003 Canberra fires, the National Medal for Long and Sustained Service in 2015 and the National Emergency Medal and Premier's Bushfire Citation for his tireless efforts during the 2019/20 fires. He was enormously proud of his Long Service medal recognising 20 years of service, as it showed his commitment to his agency, friends, colleagues and the community.

Posthumously, AJ was awarded the National Medal 1st Clasp in recognition of his almost 30 years of diligent service in the protection and assistance of community in times of emergency or natural disaster.

When news broke of AJ's passing, flags flew at half-mast as far away as Alberta, Canada as members paid tribute. Thank you for your service and your example, AJ. We will carry this on in your memory.

AJ will be greatly missed by his extended RFS family and many friends. Condolences to AJ's family, friends and his colleagues in the Lake George District and beyond. He will be remembered as a valued member of our organisation and the community.



65 YEARS OF SERVICE  
WITH THE RFS

# ALLAN MATTHEWS

Allan Matthews, proud RFS member since 1957, was recently presented with his 65-year Long Service Medal at the Golspie Brigade's AGM.

Allan fought his first fire at the age of 12 with his father, who held the position of Golspie Brigade Captain for 21 years. Allan then went on to become an official member of the Golspie Brigade three years later in 1957 at the age of 15.

Located in a rich agricultural and pastoral district in the Southern Tablelands, the Golspie Brigade was formed by the local community in 1945. Growing up outside of Crookwell, Allan remembers the close-knit community.

"Everybody who lived locally wanted to join the Brigade, we lived on a farm about 30km out of town and there was never a question about helping your neighbour," recalls Allan. "Although I was accompanying my father to smaller fires from the age of 12, it was not until I was in my 20s that I saw a major fire."

In 1965, the Chatsbury bush fires, thought to be ignited by a spark from an angle grinder, quickly spread and burnt 250,000 hectares.

Considered to be one of the greatest disasters in the area, the fires destroyed the villages of Tallong and Wingello, eventually stopping near Nowra on the South Coast.

Allan remembers the blaze like it was yesterday.

"Everybody left the fire, thinking it was extinguished and then it reignited and spread right through to the coast," he says. "It taught me that it's vital to watch the fire front."

"Today it's different, with so many communication developments over the years, it's unlikely that would happen. Back then, there would be units ready and waiting, but they didn't have access to the information available now."

Elected Deputy Captain in 1986, Allan moved up the ranks to the role of Senior Deputy Captain in 2004, then Captain, a role he held for 12 years. Highlights in his career include receiving his 35-year Long Service Medal from former Commissioner Phil Koperberg, and receiving his latest, 65-year, Long Service Medal.

His advice to young volunteers or anybody considering joining or volunteering with the RFS would be to do as much training as possible.

"It's vital to know how to use the necessary equipment and new technology," says Allan. "Once mastered, the satisfaction gained by providing a service to the community and getting to meet a lot of great people will be the reward."

Photo: Allan Matthews. Photo by Diana Booby.



# A FITTING TRIBUTE TO A DEDICATED CAPTAIN

With more than 40 years of community service, Captain Ken Brain was recently celebrated at the Emery Brigade's AGM by his fellow members, RFS staff and the Murrumbidgee Council Mayor, Ruth McRae.

Ken joined Gala Vale Brigade in 1980, and was elected Captain in 1990. A merger with Boona Brigade saw him elected Captain of the newly-formed Emery Brigade in 2009.

After 33 years leading his Brigade through many incidents including large bush fires, motor vehicle accidents and structure fires, Ken decided to step down from his role in 2023.

Ken says his time spent in the RFS, particularly as a leader, had been a wonderful experience.

"It's something well worth doing, I'd recommend it to anyone," says Ken. "It's always easier as Captain when you have a good brigade behind you.

"The community needs the structure of the RFS to provide coordination in emergency situations."

He thanked his family for their immense support, and wished Captain-elect Julia O'Connell all the best for the future.

"You simply couldn't run a farm and be a RFS Captain without huge support from family," says Ken. "My wife Wendy and the kids have always been there for me, picking up the slack as required.

"We are very lucky in our Brigade to have a person of the calibre of Julia to take over the reins and I wish her all the best in the role."

For her part, Captain-elect Julia O'Connell is looking forward to the challenge.

"I've stepped into a role with very big shoes to fill," says Julia. "Ken has certainly left a large legacy to aspire to."

Group Captain Andrew Browning paid tribute to Ken's drive and leadership over the past three decades and echoed his words regarding his replacement.

"Under Ken's guidance, Emery has punched well above its weight for many years. A case in point was the large Moonbria Section 44 fire in January 2013, which burnt over 4,000 hectares of native grassland and timber," says Andrew. "Emery crewed two trucks for over a week in succession, an immense effort for a brigade of Emery's size.

"Fortunately Emery has a terrific replacement. Julia comes to the role with the skills, drive and enthusiasm to keep this capable brigade moving forwards."

Ken will continue to play an active role in the Brigade, having accepted the position of Senior Deputy Captain for the next 12 months.

The Brigade was delighted that Murrumbidgee Council Mayor Ruth McRae was also able to attend the AGM to acknowledge his efforts.

"Ken is an amazing contributor and so worthy of recognition," she said. "Volunteers such as him are the backbone of our community."

**Photo:** From left to right. Deputy Group Captain Chris Barron AFSM, Emery RFB Captain elect Julia O'Connell, Captain Ken Brain, Group Captain Andrew Browning, Murrumbidgee Council Mayor Ruth McRae, Mid Murray Zone District Officer Col Munro.



## BRIGADE IN PROFILE: WOODFORD BRIGADE

# A MILESTONE BIRTHDAY

The Woodford Brigade, one of the oldest brigades in the state, recently celebrated 100 years of operations in 2023. To mark the important milestone, members were presented with medals in recognition of their dedication and service.

Established at a town hall meeting in 1923 after a severe bush fire season, the Brigade began with about a dozen members and one fire appliance – Captain Billy Watson’s ute. The Woodford Brigade now has 125 members and has grown to three fire trucks and a station.

The Brigade responds to a wide range of incidents, from bush and grass fires, to motor vehicle accidents and search operations in remote areas. Historically, it’s members have had many arduous jobs over the years, such as hand cutting trails through rock as part of a bush fire defensive strategy.

Deputy Commissioner Kyle Stewart praised the members for their hard work and dedication.

“The Woodford Brigade is committed to being as well prepared for bush fires as possible, after battling significant fire activity in Gaspers Mountain in the 2019/20 fire season.”

Situated at the base of the Blue Mountains, the Brigade has battled several large fires over the years. In 1982, the Gross Valley fire ripped through the northern section of the National Park burning 35,000ha, and in 2013, fires burned more than 118,000ha on three fronts causing the destruction of 248 homes.

The anniversary celebrations allowed many from the Brigade to be recognised and thanked for their ongoing commitment and service, with the presentation of nine Long Service Medals. Michael Attard received his 3rd Clasp for 40 years’ service on the night.



“All members past and present should be proud of their 100-year history and the service it has provided to not only the local community but many areas across the state,” Deputy Commissioner Stewart said.

Captain Keven Wright joined the Brigade in 1977 and says he’s incredibly proud to see this milestone.

“It means everything,” said Keven. “Woodford is a very tight community, and we’re a very unique brigade. There’s nothing we won’t do for the community.”

It takes a great deal to keep anything up and running for a whole century. The RFS congratulates Woodford members past and present for their dedication and enduring spirit of service.

Will the brigade continue for another 100 years?

“Absolutely,” Captain Wright declared. “We’re not going away. We’re staying right here.”

**Main:** Past members hand cut trails through rock as part of a bush fire defensive strategy. **Above:** Woodford Brigade Station.

# OUR BUSH FIRE BULLETIN HISTORY

8

*Bush Fire Bulletin*

## Remove Those Fire Hazards . . .

Your Council has power under Section 13 of the Bush Fires Act to direct the occupier of any land (or if there is no occupier, the owner) to remove inflammable matter from his land or to establish a fire break.

This course should be necessary only as a last resort, and local residents should act voluntarily realising that Councils have many functions and responsibilities. The time of their officers is valuable and they too have



**A Serious Hazard.**

many duties. Bush Fire Brigade officials are voluntary workers with jobs to do and their living to earn.

The damage from bush fires from October, 1951, to March, 1952, was of the order of £6½ million.

This could have been considerably reduced had preventive action been taken before the onset of hot weather. It is not possible to over-emphasise the need for preparing fire breaks and removing inflammable matter before the fire season begins. Had sufficient

attention been paid to the clearing of eaves, gutters and the surrounds of houses and the taking of other elementary fire precautions on properties, many unfortunate people who lost their homes in last year's fires would have been saved from the tragedy and suffering which the "Red Terror" inflicted upon them.

The protection of life and property is largely an individual responsibility—care when handling fire, and care not to be handled by fire.

During August landholders should clear their properties of fire hazards which, if left, could intensify the bush fire risk during the summer. This could be best achieved by each Council instituting a "clean-up campaign" during one week or fortnight, preferably towards the end of August. Immediately after the final day of this campaign Bush Fire Brigade Captains, Deputy Captains and Officers of Councils should inspect their areas and report neglected properties to the Council.

The next step is for Council to consider the reports. This should be attended to quickly. If necessary a special meeting should be held. The time allowed in Section 13 Notices should be kept to a minimum. If the Notice has not been complied with by the date specified, immediate action should be taken to enforce it, using Council's workmen, servants or agents, or bush fire brigades. The cost of doing the job is recoverable from the occupier or owner.

This is drastic action, but in the last resort the protection of their areas is the responsibility of local Councils and Local Government like any other form of government demands leadership and action.

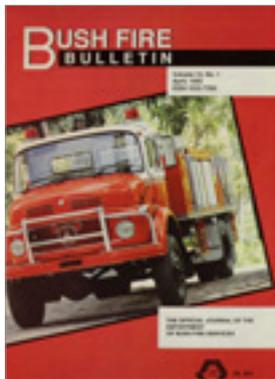
A few persons because of their apathy should not be permitted to prejudice the safety of the whole district.

# BUSH FIRE BULLETIN on TROVE

The RFS has joined forces with the National Library of Australia to digitise the entire collection of the Bush Fire Bulletin dating back to September 1952.

All editions of the Bush Fire Bulletin are available online and are fully searchable, making this huge historic archive easily accessible. This collection brings to life the important work our members have undertaken over the years and makes the history of the RFS available for all of Australia and the world to see.

You can search place names, brigade names, dates and fire-related topics such as “fire trails” or “large air tanker”.



## How to search for Bush Fire Bulletin on Trove

On the Library page of the RFS website, you will find links to browse the various collections of the Bush Fire Bulletin.

You can also search for articles on a particular topic (such as the town of Merriwa) by using the link provided and following the instructions.

## BUSH FIRE BULLETIN

Email your details to [Bush.Fire.Bulletin@rfs.nsw.gov.au](mailto:Bush.Fire.Bulletin@rfs.nsw.gov.au) to receive the BUSH FIRE BULLETIN direct to your home or update your emails.



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# BUSH FIRE BULLETIN

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Photo courtesy of BC Wildfire Service.



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