

BLACK SUMMER BUSHFIRES





Bushfire smoke at Bonalbo, approaching Mount Nardi

The 2019–20 Australian bushfire season, known as the Black Summer, was unprecedented in its ferocity, duration, and destruction. It was Australia’s worst natural disaster to date. Yet, the responses to the catastrophe highlighted Australians’ courage, resilience and capacity for innovation.

These capabilities were on full display from communities, government agencies, service providers, broadcasters and mobile network operators who worked tirelessly to ensure news and emergency services information remained available.

The Hon Paul Fletcher MP, Minister for Communications, Urban Infrastructure, Cities and the Arts noted in 2020 that “access to reliable communications before, during and after a natural disaster is critical to the safety of all Australians”.

A Royal Commission into National Natural Disaster Arrangements found that the ‘Black Summer’ fires affected every state and territory in Australia. Over 24 million hectares of land were burnt. Thirty-three people died, and the smoke that blanketed much of Australia’s eastern seaboard contributed to hundreds more deaths. Threatened species and habitats were harmed, and nearly three billion animals

were killed or displaced. Over 3000 homes were lost, and overall, the fires caused billions of dollars of damage.

Between September 2019 and February 2020, BAI Communications (BAI) managed fire risk across 27 sites in New South Wales (NSW) and Victoria to protect more than 130 individual broadcast services. Physical fire damage occurred at just three BAI sites, with only one of them experiencing significant damage.

BAI played a crucial role in keeping responders, citizens and communities connected throughout the crisis. Our teams defended, reinforced and repaired communications networks to ensure the continuity of radio and television broadcast transmissions. We worked with the NSW Telco Authority to protect the Public Safety Network to ensure emergency responders were able to communicate and coordinate with each other throughout the crisis.

Fire prevention and teamwork keeps radio and television on-air at Mount Nardi

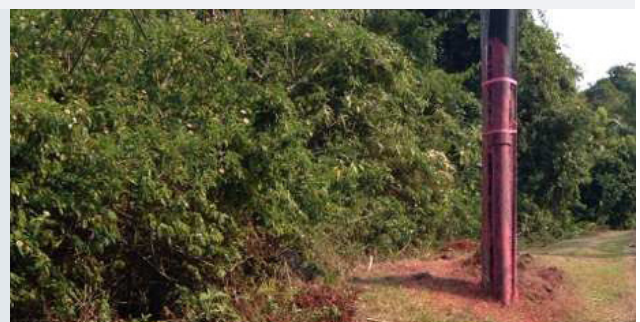
Mount Nardi is a communications site located in Nightcap National Park, 30 kilometres north of Lismore, NSW. It broadcasts to approximately 250,000 people in the Northern Rivers area.

In late December 2019 and early January 2020, fires in the National Park impacted the site. The fire edge came close but did not breach the property itself due to favourable wind conditions combined with fire prevention efforts.

BAI and NSW Rural Fire Service (RFS) collaborated to protect the Mount Nardi site. Specifically, through the combination of ground maintenance - the RFS increased the asset protection zone around the site - and use of fire retardant which prevented embers from generating spot fires.

An on-site generator also automatically started as required throughout the season, ensuring continuity of power to the broadcast infrastructure.

As a result, radio and television services remained on-air throughout the period, keeping Northern Rivers residents up to date about bushfires and emergency measures.



Mount Nardi perimeter, treated with fire retardant



Mount Nardi site avoids fire threat, after being treated with fire retardant

Local radio around Mount Elliot stays on air thanks to emergency power and battery technology



BAI's mobile emergency power plant at Mount Elliot

Mount Elliot is a BAI Communications site in northern Victoria. Located near the NSW border, it provides broadcast services to approximately 2000 residents in Corryong and surrounds.

Throughout late December 2019 and mid-January 2020, bushfires affected Mount Elliot, resulting in a loss of mains power to the site.

Due to its location and the ongoing fire risk, BAI could not access the site at first. When teams could reach the site, they installed a portable generator to provide temporary power.

Corryong and the other communities within Mount Elliot's service area also benefited from the on-site Tesla Powerwall battery. The battery provided 27 hours of standby power at the fires' peak, keeping public national broadcaster, the Australian Broadcasting Corporation's local radio service on air, to provide critical information to residents.

Collaboration is key at Mount Wandera

Mount Wandera provides radio and television broadcast services to around 55,000 residents in NSW South Coast region, including Batemans Bay and Moruya.

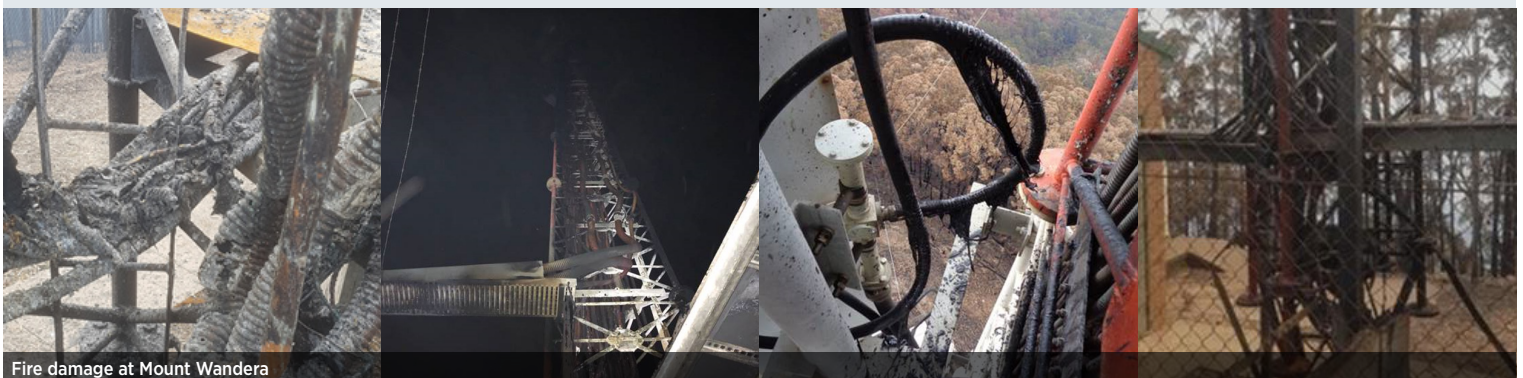
The Currowan fire swept through Mount Wandera on 31 December 2019. The brick building and steel towers on site were not damaged, but the extreme radiant heat from the fire melted cables and damaged antennas on the tower. The fire also damaged the electrical supply infrastructure. Backup diesel generators automatically engaged to restore power, but damaged antenna systems made broadcasting impossible.

From 1-5 January 2020, our teams partnered closely and successfully with local authorities to restore services. We used undamaged redundant broadcast infrastructure at Mount Wandera, power systems maintained by BAI generators, and commissioned a temporary recovery service for ABC Local Radio in Batemans Bay. In addition, BAI temporarily utilised antenna systems from our commercial broadcaster partners ensuring service continuity.

Crews worked tirelessly at Mount Wandera until 20 January 2020 to stabilise services at low power ensuring service continuity as the bushfires continued to burn through the area. Whilst stabilising services, BAI staff also undertook a complete system damage assessment to scope the recovery effort.

We quickly established a project team to restore the site to full operation. The project required careful management to ensure service continuity for the community, worker safety in high radio frequency environments and COVID-19 safety measures.

It also required logistics planning to deliver equipment and spares and liaison with other communications organisations to coordinate works coinciding with telecommunications recovery activities.



Fire damage at Mount Wandera

Resilient communications — a team effort

On 22 January 2020, Minister Fletcher appeared on ABC Radio National Breakfast in a segment titled ‘How resilient are telecom networks during natural disasters?’. He reflected on communications networks’ critical role during extreme events and praised the response from industry stakeholders during the bushfires:

“Some great work has been done across the communications sector – Telstra, Optus, Vodafone, NBN, BAI Communications, ABC and many others – in getting facilities operating as quickly as possible... I want to acknowledge the work that’s been done across the sector and [the] people working very long hours, around the clock sometimes in very dangerous situations.
— The Hon Paul Fletcher MP, Minister for Communications”

In October 2020, the ABC aired a special broadcast from Bateman’s Bay to mark the recommissioning of the region’s local transmission mast.

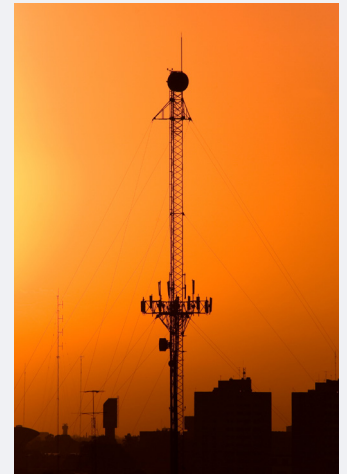
David Anderson, ABC Managing Director recognised the combined efforts that kept services running throughout the fire season. “It was a fantastic collaboration,” he said. “Everyone just pitched in to try and restore those services.”

Peter Lambourne, Chief Executive Officer, BAI Communications Australia said: “We understand how important it is for people to receive critical information during times of crisis, and our key focus during bushfires is making sure that we support our customers and the local communities, devastated by bushfires to stay connected and informed. We did this by maximising the resilience to ensure the continuity of radio and television services as well as the primary NSW emergency services communications network.”








The importance of radio and terrestrial television

Nowhere is the vital role of terrestrial television and radio clearer than in an emergency situation where broadcast networks deliver a primary trusted source of information to local communities.

BAI worked closely with our customers to ensure the resilient delivery of critical communication services relied upon during times of adversity. The resilience of our network and the ability of our experienced staff to safeguard the delivery of services is a highly valued element of our service offering.



There are several elements critical to an effective response during natural disasters

 Collaboration	 Terrestrial television and radio	 Site resilience	 Network diversity and redundancy	 Site access	 Continuous power	 Resource availability
with industry partners to maintain essential services	play a critical role in keeping communities informed	including standby power, asset protection zones and fire retardant	to provide alternative transmission capabilities	enables teams to assess damage and effect repairs quickly	including solar panels, batteries and diesel generators	including spare parts and skilled technicians

“Effective emergency responses require equipment, expertise and collaboration. I am proud of how our teams worked with local communities, agencies and customers during ‘Black Summer’ to restore services in often difficult conditions. BAI is committed to maintaining our capabilities and improving our emergency response procedures to ensure those impacted have access to emergency communications when and where they need them.
— Peter Lambourne, CEO, BAI Communications Australia”

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commitment to keep communities connected,
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