



SIGNIFICANT WEATHER – December 2006

SUMMARY

There was snow in the southeast of the country; parts of southern New South Wales, Victoria and Tasmania experienced a white Christmas. Victoria and Tasmania were affected by extensive long-lived bushfires with property losses, whilst there were several major thunderstorm outbreaks, particularly in southeast Queensland and around Canberra.

THUNDERSTORMS

Queensland

On the 2nd several farm workers were injured by a lightning strike at St George. A wind gust of 98 km/h was recorded at St George airport.

On the 3rd at Holland Park West (southern suburb of Brisbane), 17 mm of rain was recorded in 5 minutes, 28 mm in 10 minutes and 50 mm in 30 minutes.

On the 12th severe thunderstorms in the area around Millmerran produced hail the size of 20 cent pieces, felled trees and damaged sheds and buildings. Further east at Withcott near Toowoomba, 2-3 cm hail was reported.

On the 15th severe thunderstorms in the eastern Darling Downs produced a wind gust of 107 km/h at Oakey. Trees were also uprooted at Toowoomba.

On the 16th a severe storm caused damage to communities in the Brisbane Valley and Sunshine Coast Hinterland. Two intense cells formed in the Wide Bay and Burnett region,

one moving through the Tiaro region and the other through Childers. Other storms eventually formed in the central and northern Wide Bay and Burnett district.

In the southeast, extensive damage was reported, homes unroofed, sheds demolished and aircraft hangars were blown over at Toogoolawah Airport. Trees were felled and power lines were brought down in settlements from Toogoolawah and Esk in the Brisbane Valley, to Kilcoy then right across the Sunshine Coast Hinterland to Double Island Point. Cooroy and Pomona were the worst hit and exceptional rainfall intensities were experienced. A woman was hit by lightning at the Glass House Mountains camping ground. A wind gust of 196 km/h was recorded at Double Island Point as the storm passed just to the south. This is the highest wind gust ever recorded in Australia from a thunderstorm.

The following rainfall totals were recorded: Tallegalla (west of Marburg) 18mm in 5 minutes and 63mm in 30 minutes; Crows Nest 35mm in 20 minutes; Moy Pocket (near Kenilworth) 20mm in 5 minutes, 46mm in 30 minutes; Cooroy 23mm in 5 minutes and 53mm in 30 minutes and Boreen Point 21mm in 5 minutes and 60mm in 30 minutes.

To the west of the supercell a thunderstorm produced a 120 km/h wind gust at Gympie. Further north, two thunderstorms formed at the southern end of the Wide Bay and Burnett district and moved north. One storm passed through Tiaro during the afternoon and produced 2.5 cm hail as well as causing significant wind damage in and around the town. Roofs were blown off, sheds were damaged and trees uprooted. The main road was closed during the night by fallen tree debris. The second thunderstorm moved through Childers producing

significant wind damage from a possible tornado.

New South Wales

On the 11th at Cobar a thunderstorm with strong winds and gusts to 65 km/h damaged roofs.

On the 12th at Uralla a thunderstorm produced hail up to 4cm in size.

At Nymboida (Northern Rivers) a thunderstorm with heavy rain caused local flash flooding and 59mm of rain in 15 minutes and hail between 2-5cm in diameter on the 14th.

On the 15th at Casino a thunderstorm with heavy rain produced 52mm. Small hail and power outages caused by lightning were also reported.

On the 21st at Armidale a thunderstorm with heavy rain and hail occurred. Golf ball size hail accumulated to the depth of 45cm on the ground. Many houses lost their roofs and roads were closed due to hail. There were numerous reports of broken windows and damaged vehicles.

On the 29th 3cm hail in the northern suburbs of Canberra and Queanbeyan were reported, with significant amounts of damage to the National Museum of Australia.

On the 30th golf ball sized hail was reported in the suburb of Cook in Canberra. There was some damage to roof tiles.

A thunderstorm on the 30th at Yetholme (Central Tablelands) produced very deep hail (4cm in diameter) on the ground.

On the 31st there was widespread flash flooding and very heavy hail (up to half a metre deep), which damaged hundreds of houses through southern and northwestern suburbs of Canberra. South of Canberra there were some stock losses, and fences were washed away around Williamsdale and Lanyon.

Victoria

On the 25th there was possible tornado damage from a severe thunderstorm at Seaford and Carrum Downs.

South Australia

On the 1st a thunderstorm over the Northwest Pastoral produced a wind gust to 111 km/h at Oodnadatta.

A line of thunderstorms moved over Eyre Peninsula on the 21st and resulted in a wind gust to 110 km/h at Cleve and 91 km/h at Whyalla.

Large hail (2.5cm) was reported from a thunderstorm over Kenton Valley (Mount Lofty Ranges) on the 29th.

Western Australia

On the 2nd a thunderstorm at Newman in the Pilbara produced a wind gust of 131 km/h.

On the 3rd thunderstorms moved through the town of Wiluna. Fences were blown away and some roofs were ripped off. Wind gusts were estimated at 93 km/h.

On the 4th thunderstorms developed relatively early in the Kimberley, with one such storm developing directly over Wyndham Aerodrome and producing a wind gust of 109 km/h. The maximum 10 minute rainfall was 24mm and the 24 hour rainfall to 9am the following day was 56.4mm.

On the 17th, thunderstorms caused heavy rain in the inland Central West. Anro (west of Dalwallinu) recorded 68mm of rain and hail. On the same morning, Broome registered 68mm of rain during a heavy thunderstorm.

Northern Territory

On the 10th, a multi-cell storm produced a 91 km/h wind gust at Delamere. There was widespread thunderstorm activity across the western Top End.

WIND

New South Wales

Wind gusts in excess of 90 km/h were recorded on the following days:

- 14th Montague Island 96 km/h
- 22nd Thredbo 109 km/h
Broken Hill 100 km/h
- 23rd Thredbo 96 km/h

Victoria

Wind gusts in excess of 90km/h were recorded on the following days:

- 1st Aireys Inlet 98 km/h
Colac 94 km/h
- 11th East Sale 93 km/h
Wilson Promontory 109 km/h
- 21st Gabo Island 96 km/h
- 22nd Gabo Island 102 km/h
Colac 96 km/h
Mount Hotham 94 km/h
Kilmore Gap 91 km/h
Wilson's Promontory 93 km/h
St Kilda 91 km/h
Shepparton 98 km/h
Grampians 102 km/h
- 25th Wilson's Promontory 118 km/h
Hogan Island 102 km/h
Gabo Island 94 km/h
- 26th Wilson's Promontory 117 km/h

Tasmania

Wind gusts in excess of 100 km/h were reported on the following days:

- 1st Scotts Peak Dam 126 km/h
Mount Read 126 km/h
Droughty Hill 111 km/h
Cape Grim 106 km/h
Mount Wellington 102 km/h
Hartz Mountain 102 km/h
- 2nd Mount Wellington 122 km/h
Maatsuyker Island 120 km/h
Scotts Peak Dam 104 km/h
- 6th Mount Wellington 115 km/h
Mount Read 102 km/h
- 7th Maatsuyker Island 122 km/h
Mount Wellington 120 km/h
Hartz Mountain 111 km/h
Droughty Hill 105 km/h

- Scotts Peak Dam 102 km/h
- 11th Mount Wellington 130 km/h
Droughty Hill 126 km/h
Cape Grim 115 km/h
Maria Island 113 km/h
Hogan Island 113 km/h
Scotts Peak Dam 113 km/h
Tasman Island 106 km/h
Eddystone Point 100 km/h
- 18th Hartz Mountain 106 km/h
Mount Wellington 106 km/h
Maatsuyker Island 102 km/h
- 22nd Tasman Island 102 km/h
- 25th Mount Wellington 130 km/h
Maria Island 107 km/h
Hartz Mountain 102 km/h
Hogan Island 102 km/h
Cape Grim 100 km/h
- 26th Mount Wellington 119 km/h

South Australia

On the 1st at Oodnadatta a wind gust of 111 km/h was recorded.

On the 21st wind gusts of 110 km/h were recorded at Cleve and 91 km/h at Whyalla.

Western Australia

On the 2nd a wind gust of 131 km/h was recorded at Newman Aerodrome.

DUST

Queensland

Dust storms were reported at:

- 1st Bedourie
- 2nd Boulia and Windorah
- 15th Birdsville
- 16th Urandangi, Toorak, Boulia
- 17th Taroom
- 20th Birdsville, Bedourie and Boulia on the
- 25th Winton

SNOW

New South Wales/Victoria /Tasmania

One of the most severe December cold outbreaks of the last 50 years affected the southeast over the Christmas period. There was substantial snow (up to 20 centimetres in places) above 800 metres in Tasmania and above 1,000-1,200 metres in Victoria and southern New South Wales. Snow fell (but did not settle) on the morning of the 25th in the Dandenong Ranges, on the outer fringe of Melbourne.

BUSHFIRES

Queensland

On the 1st a fire burnt 150 hectares of land about 20 kilometres west of Oakey. No damage was reported.

Victoria

Lightning strikes from thunderstorms started more than 100 fires in northeastern Victoria on the evening of the 1st. Extremely dry lead-up conditions (most of the area had its driest eleven months on record from January to November), caused the spread of the fires. The fires lessened from the 22nd after rain and snow fell on the area. The total area burnt by the 31st was approximately 9,000 square kilometres. Extensive smoke from the fires spread over eastern Victoria causing visibility below 1 kilometre in Melbourne on several days. Aircraft traffic into Melbourne was disrupted.

Tasmania

The combination of very dry soil, high fuel loads, extremely low rainfall over the past year and a few warm days during the month created the perfect conditions for fires to spread and continue to burn out of control. The two most notable fires that affected the state were the Kellevie (Bream Creek) and east coast fires that burnt out tens of thousands of hectares each. Properties were lost in and around Scamander and Four Mile Creek during this time.

Northern Territory

Around the middle of the month, a fire front about 5 to 10 kilometres wide near Mittebah station lasted for a few days before it was brought under control. No property damage was reported.

Around the end of the month, a fire in the Barkly district with a fire front 10 to 20 kilometres wide occurred. No property damage was reported.

TEMPERATURE

Queensland

The combined effects of extensive cloud and rain associated with the passage of an upper trough and the transit of a surface trough followed by a cool southerly stream led to widespread record low maximum temperatures, initially in the west on Christmas day and spreading east to the east coast by the 27th.

Victoria

Mount Buller recorded a new Australian record low maximum for December with a top of only -0.8°C on Christmas Day, whilst Mount Baw Baw recorded -0.4°C .

Highest Mean Maximum Temperature for December

Station	Actual $^{\circ}\text{C}$	Previous	Year	Years of Record
		Highest $^{\circ}\text{C}$		
<i>South Australia</i>				
Murray Bridge Comparison	30.1	29.8	1994	40
<i>Western Australia</i>				
Kalbarri	33.6	33.3	2000	33

Highest Mean Minimum Temperature for December

Station	Actual $^{\circ}\text{C}$	Previous	Year	Years of Record
		Highest $^{\circ}\text{C}$		
<i>Western Australia</i>				
Christmas Island	23.9	23.7	1972	33
Kalbarri	19.4	19.3	1972	32

Lowest Mean Minimum Temperature for December

Station	Actual °C	Previous		Years of Record
		Lowest °C	Year	
Queensland				
Gatton Qld Uni	15.8	15.8	1934	84
Brian Pastures	17.2	17.4	1983	36
New South Wales				
Williamtown RAAF	14.8	14.8	1986	58
Wollongong Uni	15.0	15.0	1995	37
Murwillimbah (Bray Park)	16.3	16.6	1999	31
Western Australia				
Wittenoom	23.5	23.7	1984	54

Highest Daily Maximum Temperature for any Month

Station	Actual °C	Date	Previous		Years of Record
			Highest °C	Year	
Queensland					
Toorak Res Stn	46.5	01	46.0	12/1996	30
Winton PO	46.8	01	45.6	01/1994	50

Highest Daily Maximum Temperature for December

Station	Actual °C	Date	Previous		Years of Record
			Highest °C	Year	
Queensland					
Toorak Res Stn	46.5	01	46.0	1996	30
Mount Isa Aero	45.1	01	44.1	1990	41
Winton PO	46.8	01	45.6	1979	50
New South Wales					
Perisher Valley	25.1	10	25.0	1998	31
Victoria					
Mangalore Airport	42.2	10	41.0	2002	43
Heywood Forestry	42.1	10	41.8	1980	42
South Australia					
Meningie	41.7	09	40.8	1972	41
Mount Gambier Aero	42.4	09	42.0	1980	65
Northern Territory					
Jabiru Airport	39.6	01	39.3	1984	29
Mango Farm	40.5	03	40.2	1986	26

Lowest Daily Maximum Temperature for December

Station	Actual °C	Date	Previous		Years of Record
			Lowest °C	Year	
Queensland					
Mount Isa Aero	20.4	26	23.0	1976	41
St Lawrence PO	20.9	27	23.5	1977	50
Clermont Sirius St	20.0	27	21.2	1977	45
Springsure Dame St	19.6	27	21.9	2000	42
Taroom PO	18.9	27	21.7	1962	50
Brigalow Res Stn	19.4	27	23.0	2000	39
Barcaldine PO	20.0	27	20.2	1962	45
Longreach Aero	20.7	27	22.7	2000	40
Urundangi	21.7	26	24.4	1969	49

Baralaba PO	20.4	27	22.7	2001	37
Gayndah PO	20.0	27	21.4	1926	114
Rockhampton Aero	21.1	27	22.4	1943	68
Monto Township	18.5	27	21.0	1988	32
Gladstone Radar	20.6	27	22.1	1993	50
Amberley AMO	19.3	27	19.8	1960	66
Double Island	21.1	27	21.3	1983	47
Point Light House					
Gatton Qld Uni	19.0	27	20.2	1999	41
Gympie	19.6	27	20.7	1967	41
Maryborough	21.1	27	21.7	1960	49
Archerfield Airport	19.4	27	19.6	1986	31
Oakey Aero	17.6	26	17.9	1999	34
Injune PO	16.4	26	20.4	1993	40
Quilpie Airport	20.0	25	21.7	1976	50
New South Wales					
Thredbo AWS	0.1	25	0.7	1970	41
Thredbo Village	6.7	25	6.8	1982	37
Northern Territory					
Brunette Downs	21.5	26	24.4	1957	40
Tennant Creek Airport	20.4	25	23.4	1970	37
Wave Hill	25.5	26	26.2	2003	32
Elliott	22.1	25	26.6	1997	26

Highest Daily Minimum Temperature for December

Station	Actual °C	Date	Previous		Years of Record
			Highest °C	Year	
Queensland					
Palmerville	28.2	02	27.5	1995	56
South Australia					
Edinburgh RAAF	29.2	09	27.6	1994	35
Western Australia					
Bidyadanga	29.6	24	29.5	1980	48
Narembeen	26.7	17	25.7	1987	34
Southern Cross	27.0	17	25.6	1998	47
Wongan Hills	28.1	17	27.6	1997	39
Northern Territory					
Alice Springs Airport	31.0	14	30.9	1967	65

Lowest Daily Minimum Temperature for December

Station	Actual °C	Date	Previous		Years of Record
			Lowest °C	Year	
Queensland					
Brigalow Res Stn	7.5	12	10.0	1974	39
New South Wales					
Murrurundi PO	3.0	27	3.0	2002	84
Wollongong Uni	8.3	26	8.5	1986	37
Nerriga Composite	0.0	26	0.1	2002	36
Montague Is LH	8.7	26	8.8	1987	34
Tumbarumba PO	0.1	26	0.4	1987	32
Victoria					
Point Hicks	6.0	03	6.8	2000	37
Tasmania					
Flinders Is Aero	2.5	13	2.8	1996	44
Western Australia					
Emu Creek Stn	14.7	25	15.3	2005	35
Northern Territory					
Tennant Creek A/P	15.7	28	17.8	1970	37

RAINFALL

Highest Monthly Rainfall on Record for December

Station	Actual mm	Previous Highest mm	Year	Years of Record
Western Australia				
Hakea	63.0	45.0	1991	99

Lowest Monthly Rainfall on Record for any Month

Station	Actual mm	Previous Lowest mm	Year	Years of Record
Victoria				
Birchip Reservoir	0.0	0.0	Oct 2006	35
Combienbar	2.4	3.4	Feb 1968	36
Portland	0.0	0.0	Feb 1956	147

Lowest Monthly Rainfall on Record for December

Station	Actual mm	Previous Lowest mm	Year	Years of Record
Queensland				
Coen Airport Evap	1.6	1.8	1994	57
Moreton Telegraph Stn	7.4	18.3	1899	96
Westmoreland Stn	16.6	19.6	2002	42
Fletcher View Stn	8.0	9.4	1980	37
Moogerah Dam	7.4	11.2	1938	81
Mount Barney	25.0	34.6	1986	40
Maroon Dam	24.3	40.7	1986	34
The Head	27.4	46.6	2005	49
Spring Creek	30.4	32.2	1984	48
Karara	30.0	31.8	1986	39
Mundagai	8.4	12.2	1976	38
Cunninghams Gap Nat Park	39.8	44.2	1979	31

New South Wales

North Star	3.6	3.8	1979	41
Croppa Creek	7.1	10.2	1979	36
Urbenville PO	26.2	27.9	1938	72
Ournie	3.5	4.8	1979	56
Holbrook (Narabilla)	0.4	3.1	1972	38
Sebastopol (Erin Vale)	0.0	0.0	Numerous	120
Boree Creek	0.0	0.0	Numerous	64
Urana (Butherwah)	0.0	0.0	Numerous	137
Urana PO	0.0	0.0	1977	137
Corowa A/P	0.0	0.0	Numerous	117
Rennie	0.0	0.0	Numerous	122
Walla Walla	0.0	0.0	1925	82
Hillston (Aldinga)	0.0	0.0	Numerous	36
Hillston A/P	0.0	0.0	Numerous	126
Bungowannah (Roseleigh)	0.0	0.0	Numerous	114
Dralington Point (Bringagee)	0.0	0.0	Numerous	113
The Rock PO	0.0	0.0	Numerous	113

Victoria

Tutye (Bunurouk)	1.2	1.4	1994	38
Birchip Reservoir	0.0	0.8	1995	35
Apsley PO	1.2	1.4	1998	54
Archerton	0.2	3.3	1939	66
Eurobin	0.8	2.5	1943	84
Myrtleford (Ovens Res Stn)	1.4	2.8	1972	40
Cheshunt Eurangie Park	3.0	3.3	1979	38
Mt Buffalo Chalet	1.4	5.1	1972	93
Combienbar	2.4	13.8	1979	36
Yanakee (Shallow Inlet)	14.6	15.0	1972	40
Springvale Necropolis	2.6	5.9	1972	59
Vermont Transport Research	4.7	9.4	1997	34
Koroit	0.4	1.5	1972	118
Portland	0.0	1.1	1915	147
Tasmania				
King Island Aero	18.8	19.8	1980	33
Northern Territory				
Tindal RAAF	72.0	73.0	1981	22

Highest Daily Rainfall on Record for December

Station	Actual mm	Date	Previous Highest mm	Year	Years of Record
South Australia					
Williamstown (Glen Gillian)	34.4	22	34.0	1992	56
Hermitage Upper	29.6	22	27.9	1973	37
Western Australia					
Hakea	58.0	17	35.6	1978	99
Northern Territory					
Yirrkala Tropical Gardens	110.0	15	82.4	1975	47
Nutwood Downs	90.4	26	54.0	1987	67
Gove Airport	100.2	29	92.0	2000	29

Note: Some statistical records mentioned in this report are based on data that have yet to be fully validated