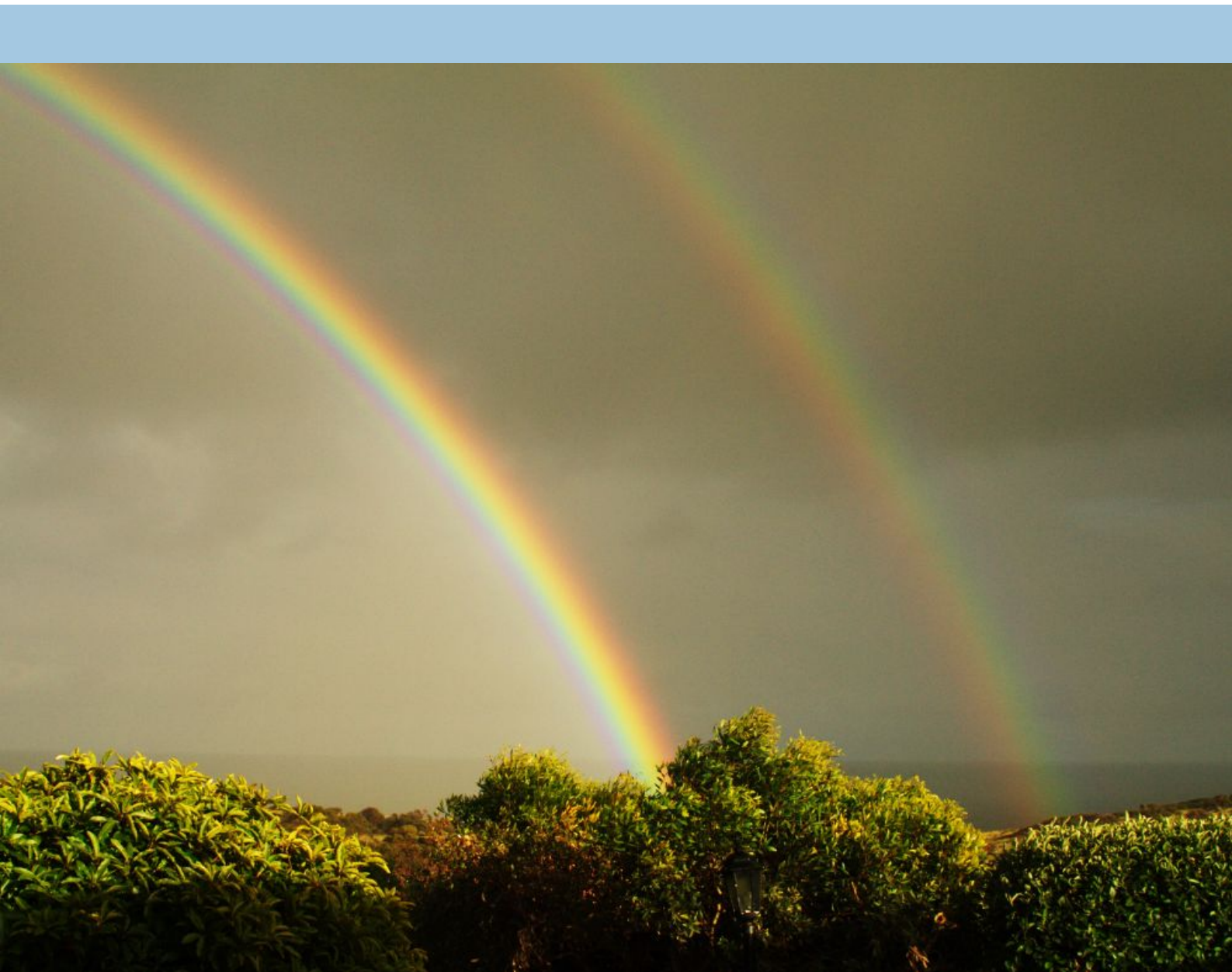




Australian Government
Bureau of Meteorology

Monthly Weather Review Australia November 2016



The *Monthly Weather Review - Australia* is produced by the Bureau of Meteorology to provide a concise but informative overview of the temperatures, rainfall and significant weather events in Australia for the month.

To keep the *Monthly Weather Review* as timely as possible, much of the information is based on electronic reports. Although every effort is made to ensure the accuracy of these reports, the results can be considered only preliminary until complete quality control procedures have been carried out. Any major discrepancies will be noted in later issues.

We are keen to ensure that the *Monthly Weather Review* is appropriate to its readers' needs. If you have any comments or suggestions, please contact us:

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Units of measurement

Except where noted, **temperature** is given in degrees Celsius (°C), **rainfall** in millimetres (mm), and **wind speed** in kilometres per hour (km/h).

Observation times and periods

Each station in Australia makes its main observation for the day at 9 am local time. At this time, the precipitation over the past 24 hours is determined, and maximum and minimum thermometers are also read and reset. In this publication, the following conventions are used for assigning dates to the observations made:

Maximum temperatures are for the 24 hours *from* 9 am on the date mentioned. They normally occur in the afternoon of that day.

Minimum temperatures are for the 24 hours *to* 9 am on the date mentioned. They normally occur in the early morning of that day.

Mean temperatures are the average of the daily maximum and daily minimum temperatures.

Daily rainfall is for the 24 hours *to* 9 am on the date mentioned. This means a significant fraction of the rain may have occurred on the previous calendar day.

Monthly rainfall is for the period from 9 am on the last day of the previous month to 9 am on the last day of this month.

Maximum daily wind gusts are in the 24 hours from midnight to midnight.

Climatological values

The climatological averages shown in the text and tables are generally long-term means based on observations from the years 1961–1990. They are not shown for sites with less than 25 years of record in that time, as they cannot then be calculated reliably. Climatological extremes are generally taken from all available years of record; the number of years can vary markedly from site to site.

Records

The tables of records are not exhaustive, as they only show sites with at least 30 years of record. This may exclude locations where a new site has been established; this means even some major cities and towns may not be listed.

Maps

The temperature and rainfall maps are intended to give an overview of the country. There could be discrepancies between the values shown on these maps and those at individual locations, as a result of the way the maps are generated. A wide range of maps of rainfall, temperature and other variables, covering the whole country and smaller regions can be found at www.bom.gov.au/climate/maps.

Accessing data

Tables of daily values for selected sites are included toward the back of the *Monthly Weather Review*. Data from many more sites and for other times are available from www.bom.gov.au/climate/data/.

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Publishing Unit, Bureau of Meteorology, GPO Box 1289, Melbourne VIC 3001

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Cover photograph

Primary and secondary bows visible during a shower at Hallett Cove.

Photograph by Mark Anolak, 16 October 2009. Used with permission.

Overview

- Both days and nights warmer than average across the west, the north and parts of the east coast
- Cooler than average nights for much of southern and central Australia
- Drier than average across much of southern Australia west of Victoria, and northeast Australia
- Wetter than average for Tasmania, parts of northwest Australia and the Northern Territory

The national mean temperature for November was 0.55 °C above average. Mean maximum temperatures were 1.00 °C above average while mean minimum temperatures were slightly above average (+0.10 °C). Most eastern and northern coastal areas, along with large parts of Western Australia recorded above average mean temperatures. Mean temperatures in the warmest decile (highest 10% of historical records) were recorded along most of the northern tropical coastline between Port

Hedland and Bowen, with small regions of highest on record. Above average sea surface temperatures surrounding Australia's west, north and east coasts have contributed to higher than normal land temperatures in these regions.

The Australian mean rainfall total for November was below average (30% below the 1961-1990 mean). Tasmania was the only State or Territory recording above average rainfall. Rainfall for the Northern Territory was near average; with the remaining States and Territories recording rainfall totals at least 17% below average. South Australia recorded its driest November since 1996.

Heavy rainfall across Tasmania between the 12th to the 14th resulted in some sites recording their highest November daily rainfall on record; when combined with already saturated soils the rainfall contributed to flooding in some rivers.

Areal averages in November 2016

	Rainfall anomaly	Mean maximum temperature anomaly	Mean minimum temperature anomaly	Mean temperature anomaly
Australia	-30%	+1.00 °C	+0.10 °C	+0.55 °C
Western Australia	-17%	+1.43 °C	+0.61 °C	+1.02 °C
Northern Territory	-3%	+0.60 °C	-0.06 °C	+0.27 °C
South Australia	-52%	+0.68 °C	-0.84 °C	-0.07 °C
Queensland	-53%	+0.90 °C	+0.32 °C	+0.61 °C
New South Wales	-43%	+1.27 °C	-0.43 °C	+0.42 °C
Victoria	-23%	+0.03 °C	-0.28 °C	-0.12 °C
Tasmania	+29%	-0.61 °C	+0.23 °C	-0.18 °C

Extremes in November 2016

	Hottest day	Coldest night	Wettest day	Warmest overall	Coolest overall	Wettest overall	Strongest wind gust
Australia	45.3 °C at Mandora (WA) on the 6th	-5.5 °C at Mount Hotham (Vic.) on the 1st	204.2 mm at Gray (Dalmaine Rd) (Tas.) on the 13th	34.1 °C at Wyndham Aero (WA)	5.0 °C at Kunanyi (Mount Wellington Pinnacle) (Tas.)	443.8 mm at Mount Read (Tas.)	157 km/h at Brisbane Aero (Qld) on the 13th
Western Australia	45.3 °C at Mandora on the 6th	-2.1 °C at Eyre on the 14th	63.0 mm at Kimberley Downs on the 23rd	34.1 °C at Wyndham Aero	15.5 °C at North Walpole	138.8 mm at Charnley River	104 km/h at Warburton Airfield on the 9th
Northern Territory	44.2 °C at Borroloola Airport on the 6th	9.4 °C at Arltunga on the 16th	136.8 mm at Central Arnhem Plateau on the 26th	33.5 °C at Ngukurr Airport	26.3 °C at Alice Springs Airport and Curtin Springs	335.4 mm at Central Arnhem Plateau	98 km/h at Jabiru Airport on the 2nd
South Australia	43.8 °C at Marree Aero on the 11th	-1.1 °C at Keith (Munkora) on the 24th	48.6 mm at Palmer on the 12th	26.4 °C at Oodnadatta Airport	13.4 °C at Mount Lofty	71.6 mm at Verdun	124 km/h at Moomba Airport on the 10th
Queensland	43.1 °C at Julia Creek Airport on the 11th	2.7 °C at Applethorpe on the 6th	124.0 mm at Upper Cherwell Alert on the 27th	31.9 °C at Lake Julius AWS	17.8 °C at Applethorpe	224.0 mm at Beamesbrook	157 km/h at Brisbane Aero on the 13th
New South Wales	41.3 °C at Pooncarie Mail Agency on the 21st	-5.4 °C at Thredbo AWS on the 1st	59.6 mm at Dubbo (Mentone) on the 12th	25.5 °C at Tibooburra Airport	6.7 °C at Thredbo AWS	159.3 mm at Thredbo Village	128 km/h at Narrabri Airport AWS on the 12th
Victoria	41.1 °C at Walpeup Research on the 21st	-5.5 °C at Mount Hotham on the 1st	57.0 mm at Kinglake West on the 14th	19.8 °C at Mildura Airport	7.1 °C at Mount Hotham	159.2 mm at Mount Baw Baw	120 km/h at Colac (Mount Gellibrand) on the 21st
Tasmania	29.6 °C at Hobart (Ellerslie Road) on the 17th	-2.1 °C at Liawenee on the 9th	204.2 mm at Gray (Dalmaine Rd) on the 13th	14.9 °C at Friendly Beaches	5.0 °C at Kunanyi (Mount Wellington Pinnacle)	443.8 mm at Mount Read	143 km/h at Hogan Island on the 5th

In this table *Hottest day* is the highest daily maximum temperature, *Coldest night* is the lowest daily minimum temperature, *Wettest day* is the highest daily rainfall total, *Warmest overall* is the highest mean monthly temperature, *Coolest overall* is the lowest mean monthly temperature and *Wettest overall* is the highest total monthly precipitation.

Strong winds over Tasmania

A series of cold fronts early in the month brought strong and gusty winds to Tasmania, peaking on the 5th when several gusts over 100 km/h were recorded and Hogan Island in Bass Strait registered a gust to 143 km/h; this continued the pattern seen for the last several months.

Supercell thunderstorms on the 11th cause extensive damage across the southeast, extending to parts of southeast Queensland

Severe weather was experienced between the 10th and 13th as very hot conditions in central Australia gave way to a cold front crossing the southeast. The cold front connected to a surface trough stretching through eastern South Australia to Alice Springs. Severe storms formed in association with the change, producing golf-ball sized hail in some areas, very heavy rain, and strong winds, affecting South Australia, Victoria, New South Wales, and Queensland.

Extensive crop damage occurred around Mildura, including to wine grapes, almonds, stone fruit and wheat, and blackouts affected more than 21 000 premises in the region. A suspected tornado was also observed at Merbein. Property damage was recorded, with the Victorian SES responding to 430 calls for assistance; 380 of which were in the Mildura area. Insured losses were reported at \$115 million, but many crop losses were uninsured so the actual value of losses will be much higher.

The storms also affected the Broken Hill area in far southwestern New South Wales, producing wind gusts of 100 km/h, localised flash flooding, and 5 cm hail. The storm caused widespread damage including downed trees and powerlines, broken windows and skylights, damaged roofs, and dented cars, with over 100 calls to the SES and power outages reported affecting 12 000 premises. This was followed by wind gusts of 128 km/h and 2 cm hail in the Narrabri/Tamworth area on the 12th, with the SES reporting 200 jobs from wind damage in the area.

Thunderstorms developed late in the afternoon of the 10th in the far north of South Australia, where a wind gust in excess of 124 km/h was observed at Moomba during the evening. Thunderstorms developed during the morning of the 11th over the Eyre Peninsula in a warm, moist and unstable airmass east of the surface trough and quickly moved towards the southeast. Thunderstorms reached Adelaide around 4:30 pm CSDT. There were reports of golf-ball sized hail in northern and eastern suburbs including Nailsworth,

Collingswood, Gilberton, Saint Peters, Stepney, Maylands, Beulah Park, Kensington Park and Kensington Gardens, resulting in significant vehicle damage. Hail of around 2 cm was recorded through many other parts of the Adelaide metropolitan area. A damaging wind gust of 93 km/h was recorded at Noarlunga. Short bursts of heavy rainfall accompanied the thunderstorms with 29 mm in 25 minutes falling at Birdwood and Mount Crawford in the Mount Lofty Ranges.

Elsewhere across the State there was widespread thunderstorm activity over central and eastern districts with a focus of severe thunderstorms on and east of the ranges. Left and right moving supercell thunderstorms were evident on radar and satellite imagery. Large hail of around 3 to 6 cm was reported at several locations including Redhill and Undalya in the Mid North, and Overland Corner in the Riverland. A destructive wind gust of 130 km/h was recorded at Lameroo with damaging wind gusts of 91 km/h at Port Augusta, 98 km/h at Renmark and 93 km/h at Yunta. Significant damage to agricultural land was reported through parts of the Riverland with property damage to farm sheds at Taylorville.

Winds continued in southern South Australia on the 12th as the low deepened, intensifying northwest to southwesterly winds wrapping around the northern and western flanks of the low. Naracoorte recorded mean winds of 50 to 60 km/h for much of the day and briefly reached gale force (63 km/h) during the afternoon.

The storms delayed or diverted some flights at Brisbane Airport, while damage was reported around Condamine Plains, west of Toowoomba on the 12th. Damaging wind gusts up to 107 km/h were also observed at Winton in central Queensland on the 11th.

Heavy rain and flooding in Tasmania

A low pressure centre deepened on the line of the front mentioned above, bringing moist tropical air and heavy rain in Tasmania from the 12th to the 14th as the low crossed Bass Strait. Some sites had their highest November daily rainfall on record, many sites recorded over 100 mm, and Gray reported 263.8 mm over the three days to 9 am on the 14th. Play in an international cricket match in Hobart was abandoned on the 13th due to rain, and the Point to Pinnacle half marathon in Hobart was changed to only go halfway to the summit of kunanyi / Mount Wellington. There was moderate to locally major flooding in the South Esk and Macquarie rivers. Two men were rescued from floodwater by helicopter.

Other severe storms

Queensland

Damaging storms also occurred in Queensland on other days in November:

- on the 1st a severe thunderstorm cell in the Noosa region moved through Pomona, Cootharaba, Lake McDonald and Boreen Point, with reports of 2 to 6 cm hail and broken windows, iron roofs damaged, vehicles dented and some structural damage
- on the 8th in the Ipswich area with hail up to 5 cm in diameter
- on the 13th between Rockhampton and the southeast with many pockets of hail reported, including hail up to 4 cm in diameter at Maryborough, reports of a tornado at North Aramara (southwest of Maryborough), and wind gusts of up to 157 km/h at Brisbane Airport, with damage reported to equipment and shipping containers
- on the 26th, producing heavy rainfall along the southeast coastal fringe from about Caboolture to Redland Bay, with the heaviest rainfall occurring from 5 am to 8 am
- on the 28th in the Darling Downs, with reports of hail up to 2 cm in diameter in Warwick, and heavy rainfall at Allora

South Australia

A trough of low pressure and associated front entered western South Australia early on the 21st. Extensive thunderstorm activity developed in the early afternoon in a very hot and unstable airmass ahead of the trough. A wind gust of 91 km/h gust was recorded at Oodnadatta with the passage of the thunderstorms in the late afternoon.

New South Wales

Thunderstorms in western Sydney on the 28th caused some minor damage in the Sackville area, with reports of 2 to 3 cm hail.

Northern Territory

- A severe storm on the 5th which caused widespread vegetation and light structural damage around the Darwin rural region

- A severe dust storm at Alice Springs airport on the 11th, including a 96 km/h wind gust
- Reports of fallen trees in Humpty Doo, outside of Darwin, on the 18th with estimated gusts of 120 to 130 km/h and 64 mm of rain

Bushfires in New South Wales

Several bushfires burned in eastern parts of New South Wales during November. More than 40 fires were burning on the 8th, with fires disrupting traffic near Lake Macquarie. In western Sydney, a 300 ha fire in Llandilo destroyed a home on the 4th and damaged several properties. A 400 ha fire near Londonderry over the 13th to 14th threatened houses and blocked roads as well as injuring a firefighter.

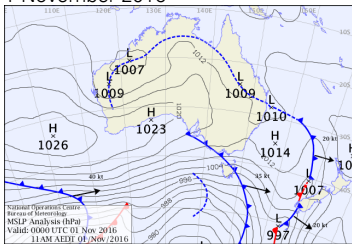
Thunderstorms in Victoria on the 21st, leading to a bushfire near Swan Hill and extreme thunderstorm asthma event in Melbourne

A grassfire of around 350 ha burned on the 21st near Swan Hill in Victoria's northwest, with a number of other small fires ignited by lightning across northern Victoria on the same day. The Swan Hill fire was brought under control just after 9 pm, however a fire truck was severely damaged when it was caught in a burn-over earlier in the day. Fortunately the crew accompanying the truck escaped serious injury. The strong and gusty change following the lightning storms also caused damage across parts of Victoria during the afternoon, with the SES receiving 350 calls for assistance and about 5000 premises in Melbourne's bayside suburbs experiencing blackouts.

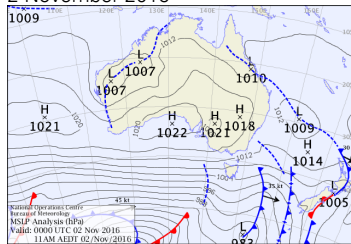
These storms also led to an extreme thunderstorm asthma event in Melbourne during the evening. Hot, dry northerly winds ahead of the change contributed to a high pollen count, mostly from rye grass on the plains to the north and west of Melbourne. Moisture from the storms then caused the pollen grains to break apart into particles small enough to penetrate the lungs, causing the asthmatic reaction. Victorian Department of Health and Human Services spokespeople have attributed eight deaths to the asthma event. More than 8500 people presented at hospitals across Melbourne and there were about 1900 calls for an ambulance between 6 pm and 11 pm, nearly seven times the number typically received for this five-hour period.

Synoptic analyses and summary

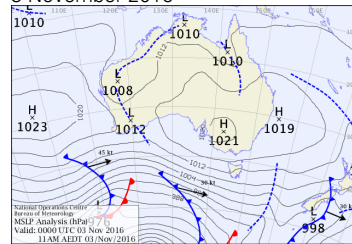
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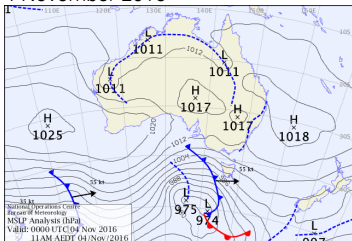
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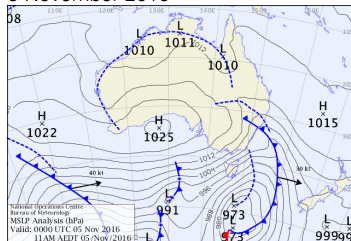
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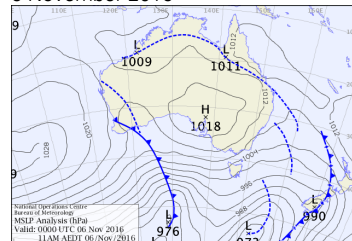
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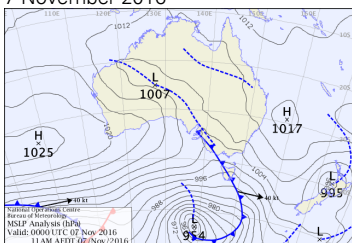
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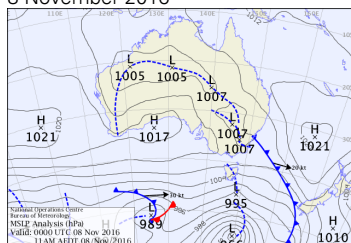
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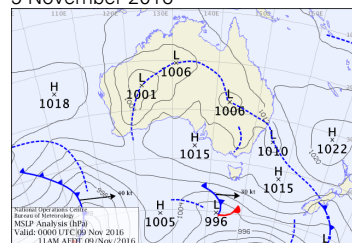
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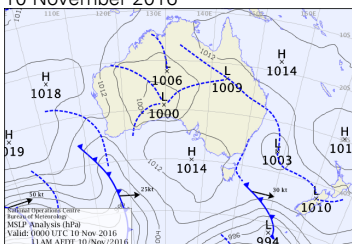
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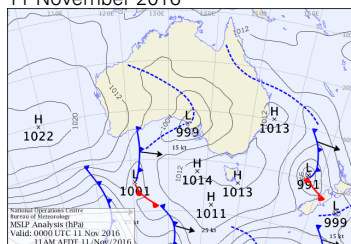
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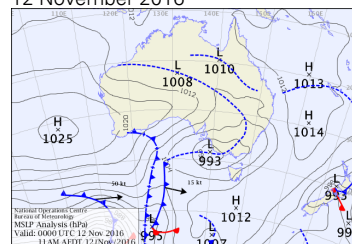
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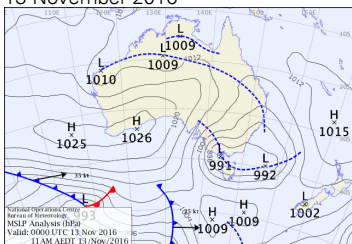
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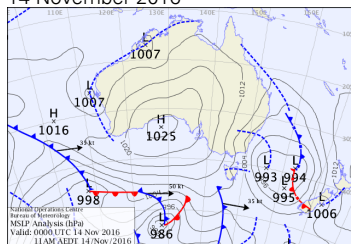
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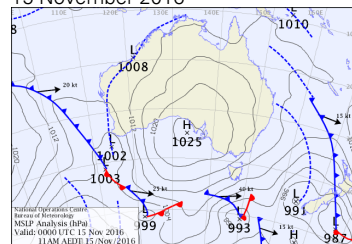
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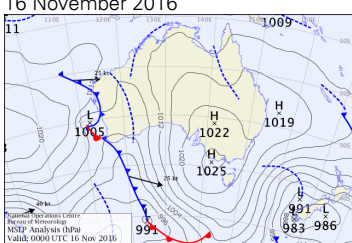
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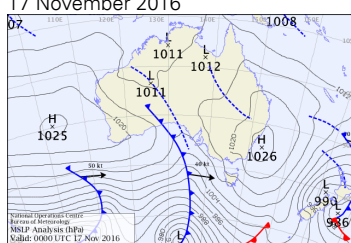
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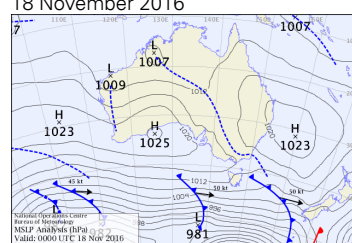
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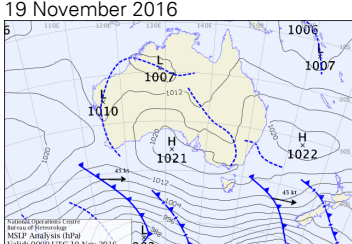
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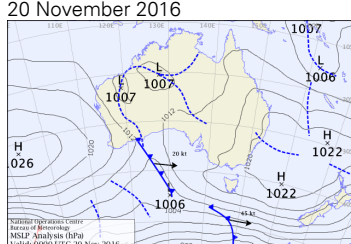
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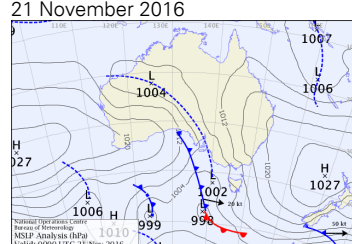
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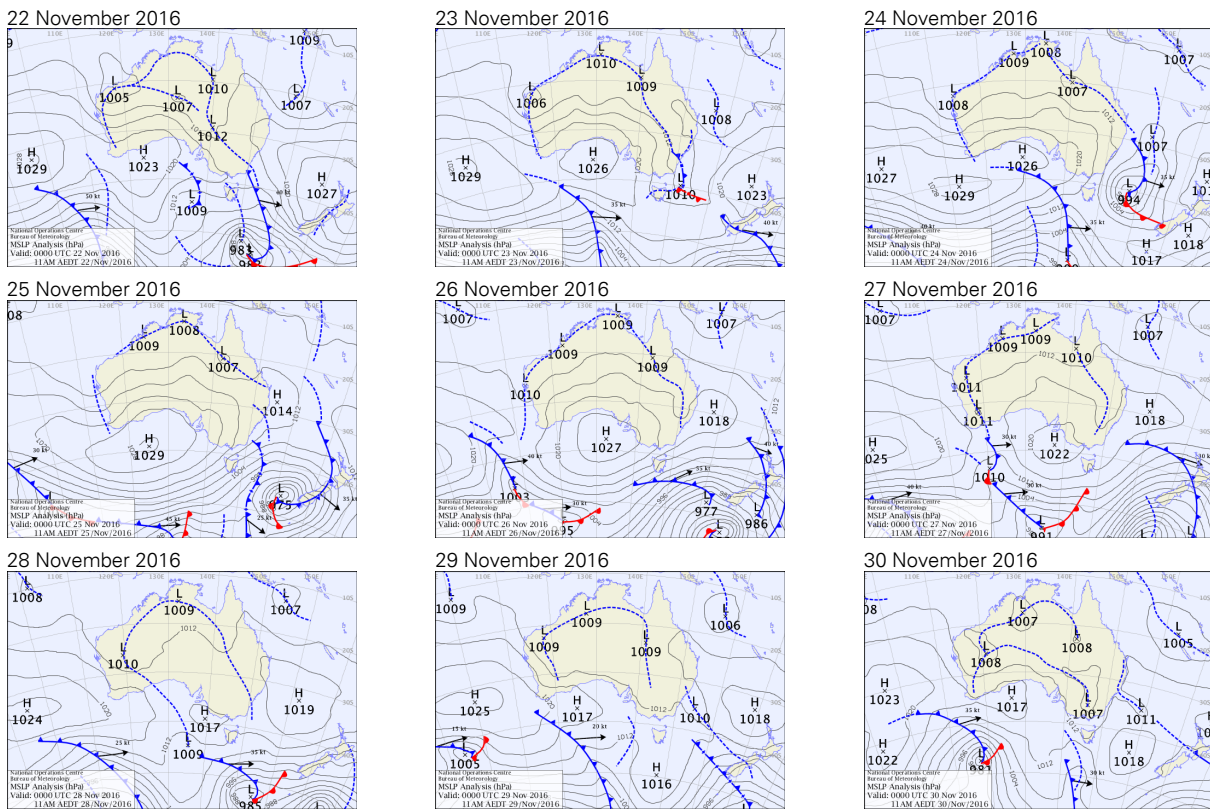


20 November 2016



21 November 2016





Synoptic summary

Weather across southern Australia was dominated by frequent high pressure ridges throughout November, while broad surface troughs influenced western, central and northern parts of the country.

The month began with a ridge of high pressure extending across much of the southern half of the continent. This directed a west to southwesterly airstream across parts of the southeast and Tasmania for the first few days of the November. Meanwhile, areas of cloud and isolated thunderstorm activity occurred along a broad low pressure trough which extended across northern parts of Western Australia, across the Top End of the Northern Territory and into northwest Queensland.

A few days later, convective activity developed over northern parts of South Australia as a trough extended from an inland low pressure system located near the border of Western Australia and South Australia. The

low pressure system and associated trough tracked southeastwards to be located near Kangaroo Island late on the 11th, as a new ridge of high pressure extended into the Great Australian Bight from the southeast Indian Ocean.

The following week saw generally clear conditions under the ridge for southern parts of the continent. By the 18th, an extensive band of middle and high level cloud associated with a broad area of low pressure extended from the northern interior of Western Australia through South Australia and into Victoria, linking to a cold front which tracked into the Tasman Sea on the 23rd. The last week saw a return to mostly clear skies for southern Australia as another high pressure system developed over the Bight before a broad area of low pressure extended from the west coast of Western Australia, through central and northern Australia and into southeast Australia.

Temperatures

November 2016 was generally warm for maximum temperatures, with minimum temperatures close to average. Mean temperatures were above average in most of Western Australia, and around the north and east coasts of mainland Australia, and close to average elsewhere.

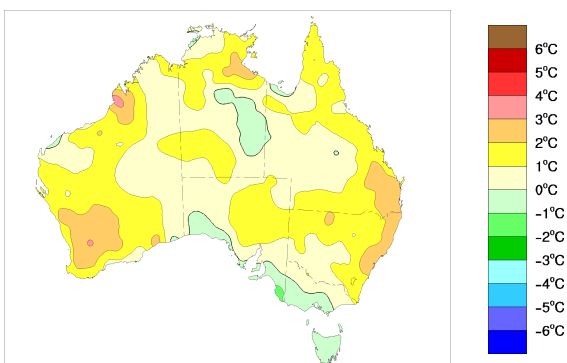
The most pronounced warmth was in Western Australia, particularly in the State's north. Mean temperatures were more than 2 °C above average around Broome and Derby, and at least 1 °C above average over many remaining areas of Western Australia, including coastal and inland areas from Perth and Kalgoorlie northwards, extending into the Pilbara. It was the warmest November on record in parts of the West Kimberley. Other areas where mean temperatures were 1 to 2 °C above average included much of the Top End in the Northern Territory and Cape York Peninsula in Queensland (with records set locally in both regions), and coastal areas of New South Wales and Queensland from Rockhampton southwards.

Mean November temperatures were below average in most of South Australia except northern outback areas, central and western Victoria, and parts of inland New South Wales and Queensland, as well as the southern half of the Northern Territory east of the Stuart Highway.

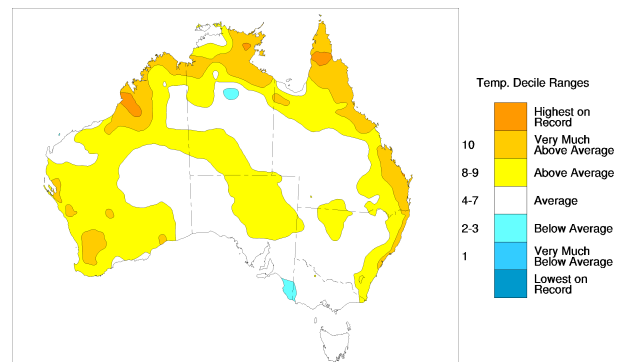
Maximum temperatures

Maximum temperatures were above average over most of mainland Australia. Nationally, mean maximum temperatures were 1.00 °C above average, ranking as the 19th-warmest November since 1910.

Anomalies of mean daily maximum temperature in November 2016



Decile rank of mean daily maximum temperature in November 2016



The most significant warmth was around the east and north coasts, and in the southwest quarter of Western Australia. Maximum temperatures were 2 to 3 °C above average over the coast and adjacent ranges in New South Wales from the Illawarra northwards, and in Queensland south from about Gladstone. Most remaining regions of eastern New South Wales and Queensland were at least 1 °C above average, with similar anomalies also extending inland through the northern half of New South Wales, and adjacent border areas of Queensland, into northeast South Australia.

Temperatures were also 1 °C or more above average through many remaining areas of the northern tropics, including the Cape York Peninsula, the Northern Territory Top End (except around Darwin) and the central and west Kimberley, reaching 3 °C above average around Broome. Monthly records were set locally in various parts of the northern tropics. November maximum temperatures were 2 to 3 °C above average in most of the southwest quarter of Western Australia away from the coastal fringe, and were at least 1 °C above average in most remaining areas of the State except for eastern border areas and parts of the Pilbara.

Maximum temperatures were slightly below average throughout Tasmania. On the mainland, below average maximum temperatures were largely confined to coastal and near-coastal areas in South Australia and central and western Victoria, and parts of the eastern Northern Territory. Areas in the far southeast of South Australia were more than 1 °C below average.

Very hot conditions prevailed in the Kimberley and parts of the Northern Territory from the 5th to the 8th. The highest November daily temperature was 46.2 °C, recorded at West Roebuck (near Broome) on the 5th, whilst in the Northern Territory, record high daily maximum temperatures were set at Borroloola

(44.2 °C) and Lajamanu (44.1 °C). Significant heat returned to the region in the last few days of the month, although no significant records were set.

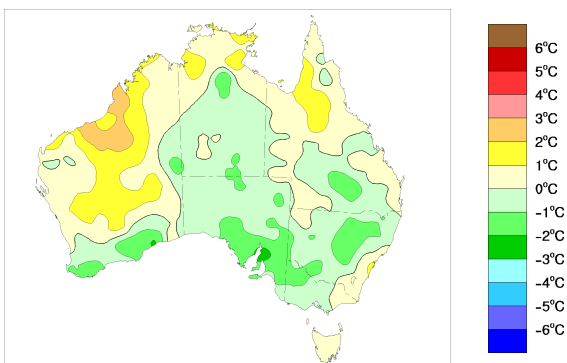
There were two significant episodes of heat in eastern Queensland from the Tropic of Capricorn southwards from the 10th to the 13th, and on the 24th. The later episode was the more significant of the two, with daily records set at a number of locations, including Maryborough (38.6 °C). Hot conditions affected the south of Western Australia, moving progressively eastwards from the 14th to the 16th, whilst temperatures were also well above average in South Australia and Victoria on the 20th and 21st ahead of an approaching cold front.

Whilst below average maximum temperatures prevailed over many parts of coastal southern mainland Australia, and Tasmania, there were few single-day extremes, and no significant records. A sequence of six consecutive days below 18 °C at Melbourne from the 22nd to the 27th, not seen so late in the year since 1964.

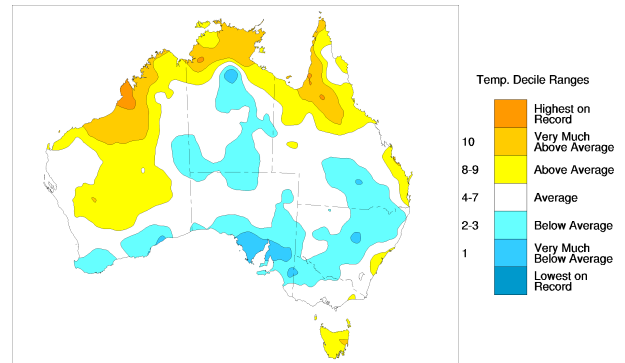
Minimum temperatures

Minimum temperatures averaged across Australia were close to average in November. The national mean value was 0.10 °C above average, and the lowest since November 2010. No State or Territory ranked in the 20 warmest or coolest years, although South Australia (0.84 °C below average) had its coolest November nights since 1999.

Anomalies of mean daily minimum temperature in November 2016



Decile rank of mean daily minimum temperature in November 2016



Western Australia had above average minimum temperatures, except along the southern coast. The largest anomalies were in the west Kimberley, with an area centred on Broome reporting temperatures 2 to 3 °C above average. Northern parts of Queensland and the Northern Territory also had above average minimum temperatures, locally reaching 1 to 2 °C above average in parts of the Northern Territory Top End and Queensland Gulf Country. Mean minimum temperatures were mostly above average along the east coast south of the tropics (except northern New South Wales), and Tasmania.

Minimum temperatures were below average in most of South Australia, central and western Victoria, inland New South Wales, inland Queensland south of the tropics, the southern two-thirds of the Northern Territory, and the south coast of Western Australia. The largest anomalies were in South Australia, with minimum temperatures 2 to 3 °C below average around the northern Spencer Gulf, and at least 1 °C below average in most remaining southern areas of the State except for the Nullarbor and the far southeast.

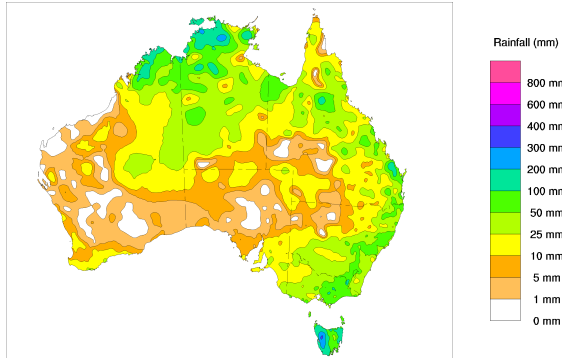
The month had a cold start in the southeast, with temperatures on the 1st falling below freezing as far north as the Central Tablelands of New South Wales, and records set at a number of locations, including Scone SCS (4.5 °C), West Wyalong (2.0 °C) and Condobolin (1.2 °C) in New South Wales, and Arkaroola (4.8 °C) in South Australia. Some significant low minimum temperatures also occurred in the central coast of Queensland on the 15th.

On the 14th, a minimum of -2.1 °C at Eyre set a new Western Australian record for the lowest November temperature, surpassing the -2.0 °C set at the same location on 9 November 1999. Two days later, the maximum temperature there reached 44.0 °C. The change of 46.1 °C in two days is unprecedented in the Australian meteorological record.

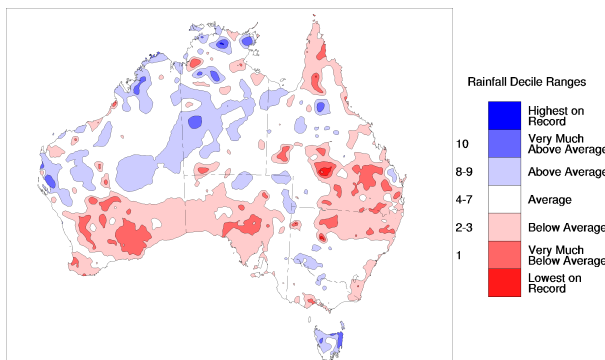
Rainfall

For Australia as a whole, November rainfall was 30% below the 1961-1990 average. All States and Territories, apart from Tasmania, recorded below average rainfall for the month.

Total rainfall in November 2016



Decile rank of total rainfall in November 2016



November rainfall was below average across much of southern Western Australia, extending across the border into the agricultural districts of South Australia, southwestern Victoria, and a small area of East Gippsland. Below average falls were also recorded in much of northeastern New South Wales and along the State's east coast, large parts of southeastern and southern Queensland, and the Cape York Peninsula. Pockets of below average falls were also recorded about the Top End and in the south of the Northern Territory.

Above average rainfall was recorded throughout large parts of the central Northern Territory, along the west coast and in central Western Australia, and northern and eastern Tasmania. Pockets of above average falls were recorded about the Top End, western Queensland, western New South Wales and northern South Australia. Remaining parts of the country reported near-average falls.

At the start of the month, broad areas of low pressure dominated much of northern Australia. Showers and thunderstorms formed in the vicinity of the surface trough, with moderate to locally heavy falls recorded

in the Kimberley region in Western Australia, and in the west and Top End of the Northern Territory. A trough located along the east coast of Queensland triggered showers and thunderstorms with moderate falls recorded in the northern interior, central and southeastern districts of Queensland. A series of vigorous cold fronts tracked across the southeast, with a strong westerly flow producing moderate to heavy falls in western Tasmania during the first week.

By the second week, broad areas of low pressure extended from Western Australia, through central parts and into eastern New South Wales, with moderate falls across some parts of western and southeastern Queensland, and northeastern New South Wales. An upper-level trough over northwestern Queensland provided a focus for showers and thunderstorms with locally heavy falls recorded in the State's northern interior, and southwest.

On the 12th, a broad surface and upper level trough extended from southern parts of the Northern Territory, through southern Queensland, northeastern New South Wales and Victoria, and connected to a low pressure system near Mt Gambier in South Australia. Thunderstorms and showers produced moderate falls, with heavier falls through central New South Wales. As the complex low deepened and tracked across the southeast, the system produced a gusty, southwesterly flow over Victoria and Tasmania. Tasmania in particular recorded heavy falls, with Gray having the wettest day in November, recording 204.2 mm to 9 am on the 13th.

In the days following, a surface trough extended from the Northern Territory through western Queensland to a broad area of low pressure in the southeast. Thunderstorms occurred in the moist and unstable airmass to the north and east of the surface trough, with moderate to heavy falls reported in northern and eastern parts of the Northern Territory, the Gulf Country, the northern interior and the southeast of Queensland. In the south, the complex low located north of Tasmania, and an associated trough, produced a south to southeasterly stream, and moderate falls were recorded in eastern Tasmania, southeastern New South Wales and central and eastern Victoria.

A surface trough located near the north and west coasts of Western Australia and the Top End triggered thunderstorms and showers with moderate to locally heavy falls reported on the 15th and 16th. Mostly fine conditions prevailed across the country until the 20th,

apart from some moderate to heavy falls in the western Top End.

An extensive cloudband and associated surface trough tracked across central and eastern Australia on the 22nd, with a cold front crossing the southeast and producing showers and thunderstorms, and moderate rainfall totals in southern parts of New South Wales, central and eastern Victoria, and Tasmania.

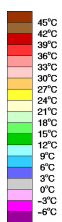
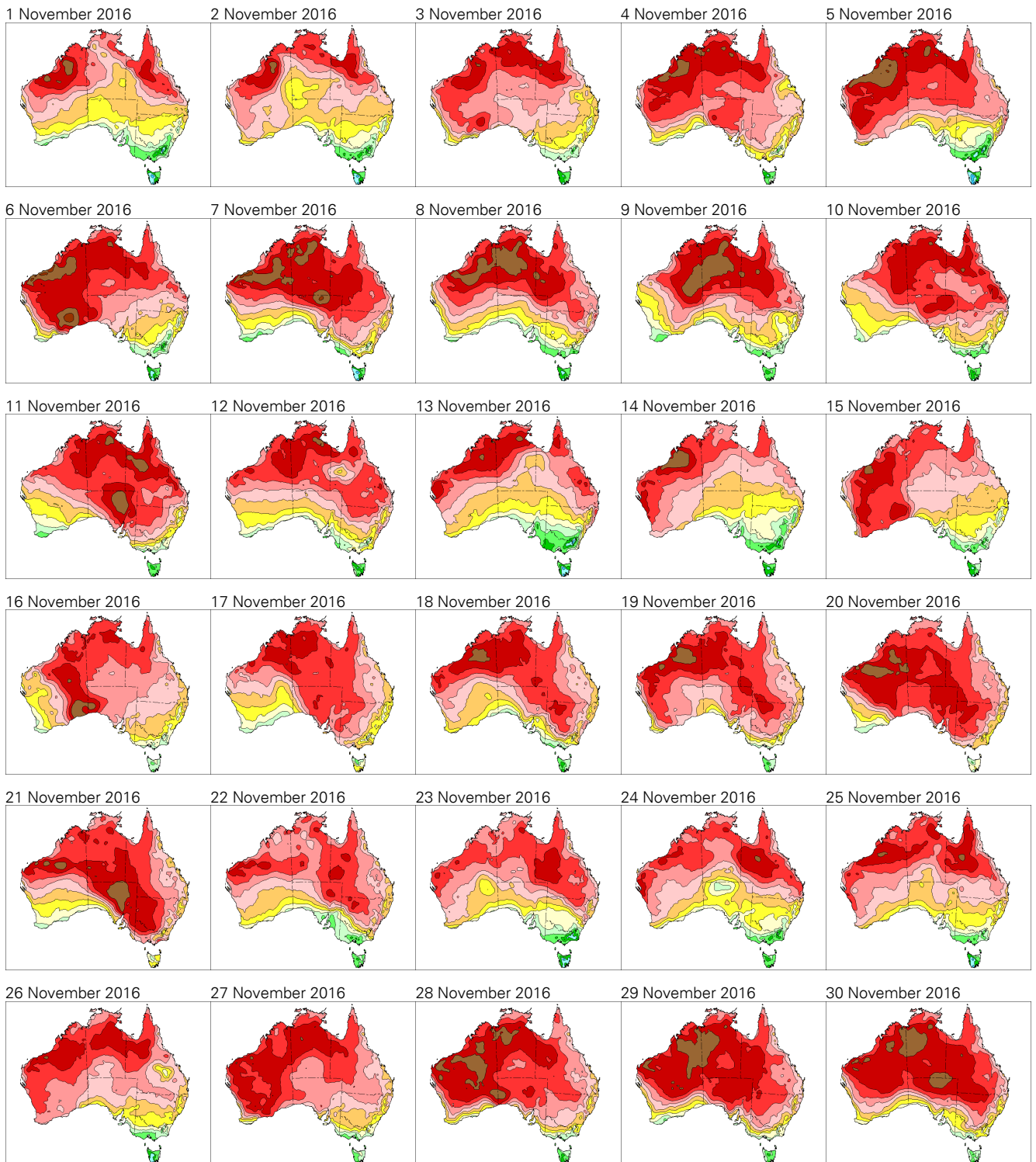
An inland trough extended from the northwest to southeast of Queensland from the 27th, with

thunderstorms and showers developing in the vicinity of the trough. Moderate to locally heavy falls were recorded in southeastern Queensland and about the Gulf Country and Cape York Peninsula.

For the remainder of the month across the north, broad areas of low pressure lingered. Thunderstorms and showers formed in the central and northern parts of the Northern Territory, and in the Kimberley, Pilbara and northern interior of Western Australia, and produced moderate to heavy falls.

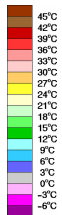
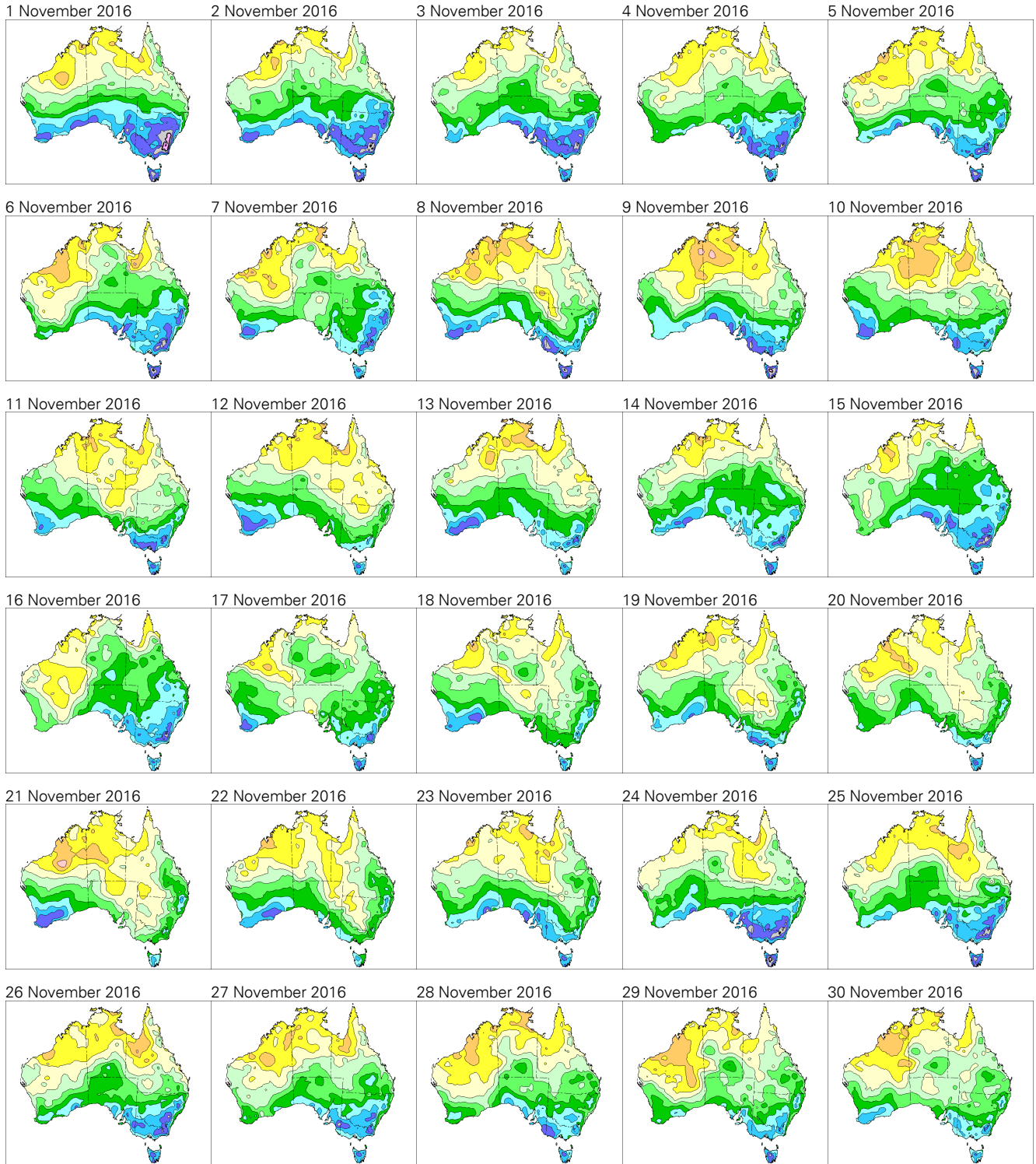
Daily maps

Daily maximum temperature maps



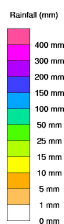
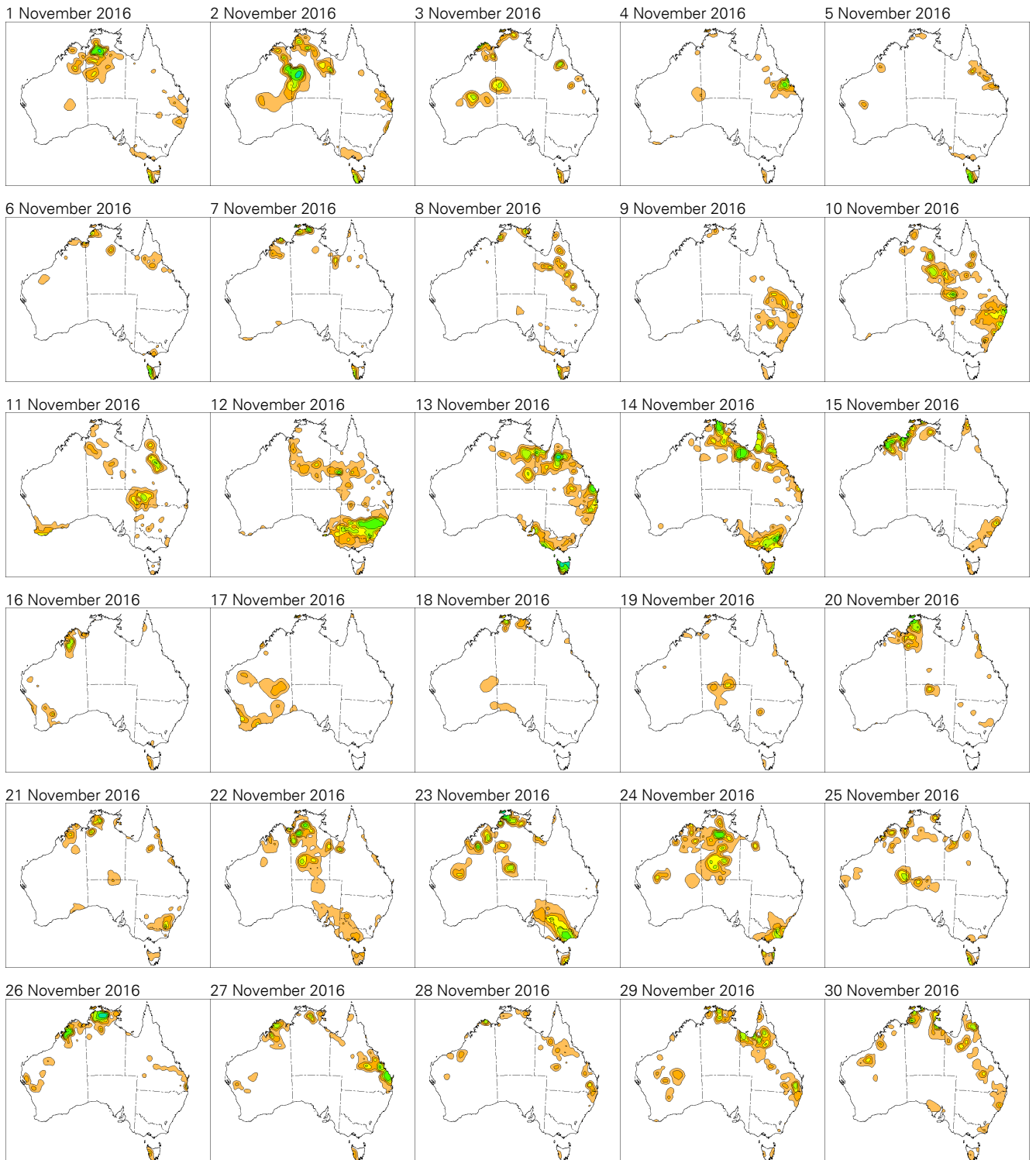
These maps are intended to give an overview of daily maximum temperature across the country. There could be discrepancies between the values shown on these maps and those at individual locations, as a result of the way the maps are generated. A wide range of maps of rainfall, temperature and other variables, covering the whole country and smaller regions can be found at www.bom.gov.au/climate/maps/.

Daily minimum temperature maps



These maps are intended to give an overview of daily minimum temperature across the country. There could be discrepancies between the values shown on these maps and those at individual locations, as a result of the way the maps are generated. A wide range of maps of rainfall, temperature and other variables, covering the whole country and smaller regions can be found at www.bom.gov.au/climate/maps/.

Daily rainfall maps



These maps are intended to give an overview of daily rainfall across the country. There could be discrepancies between the values shown on these maps and those at individual locations, as a result of the way the maps are generated. A wide range of maps of rainfall, temperature and other variables, covering the whole country and smaller regions can be found at www.bom.gov.au/climate/maps/.

Records

Record highest November daily maximum temperature				
		New record	Old record	Years of record
Western Australia				
200284	Cocos Island Airport	31.1 on 30th =	31.1 on 30th in 1968	65
Northern Territory				
014703	Centre Island	39.5 on 12th	39.2 on 20th in 1990	43
Queensland				
039128	Bundaberg Aero	37.1 on 24th	36.3 on 17th in 2014	39
040126	Maryborough	38.6 on 24th	37.5 on 7th in 1994	58

= indicates the new record equals the old one.

Record highest November mean maximum temperature				
		New record	Old record	Years of record
Western Australia				
001007	Troughton Island	33.9	33.7 in 2015	38
Queensland				
039083	Rockhampton Aero	33.4 =	33.4 in 1968	78
039128	Bundaberg Aero	30.5	30.1 in 2011	39
040043	Cape Moreton Lighthouse	26.6 =	26.6 in 2011	107
040211	Archerfield Airport	31.1	30.7 in 2014	41

= indicates the new record equals the old one.

Highest November mean maximum temperature for at least 30 years				
		Observed this month	Most recent higher	
Queensland				
033002	Ayr DPI Research Stn	32.7	32.8 in 1971 *	
039123	Gladstone Radar	32.1	32.7 in 1968	
New South Wales				
058012	Yamba Pilot Station	27.2	27.7 in 1968	
059030	South West Rocks (Smoky Cape Lighthouse)	27.3	27.5 in 1968	

** note: there are gaps in the historical record at this site, so it is possible a higher value has gone unreported.*

Record lowest November daily minimum temperature				
		New record	Old record	Years of record
South Australia				
017099	Arkaroola	4.8 on 1st	6.5 on 3rd in 2014	39
New South Wales				
061089	Scone SCS	4.5 on 1st	5.0 on 10th in 1999	52
063005	Bathurst Agricultural Station	-1.0 on 1st =	-1.0 on 3rd in 2003	51

= indicates the new record equals the old one.

Record lowest November mean minimum temperature				
		New record	Old record	Years of record
South Australia				
023090	Adelaide (Kent Town)	12.1	12.3 in 2001	40
023343	Rosedale (Turretfield Research Centre)	8.6	8.8 in 1996	55
New South Wales				
054003	Barraba Post Office	9.0	9.2 in 1971	51

Lowest November mean minimum temperature for at least 30 years				
		Observed this month	Most recent lower	
South Australia				
018012	Ceduna AMO	11.0	10.5 in 1974	
018044	Kyancutta	8.7	8.0 in 1974	
018069	Elliston	11.9	11.5 in 1974	
018079	Streaky Bay	11.9 =	11.9 in 1971 *	
023013	Parafield Airport	10.8	10.3 in 1974	
023083	Edinburgh RAAF	10.7	10.1 in 1974	
Queensland				
041095	Stanthorpe Leslie Parade	10.0	9.8 in 1971 *	
New South Wales				
056032	Tenterfield (Federation Park)	8.4	8.0 in 1971 *	

** note: there are gaps in the historical record at this site, so it is possible a lower value has gone unreported.
= indicates the new record equals the old one.*

Record highest November daily minimum temperature				
		New record	Old record	Years of record
Western Australia				
003003	Broome Airport	30.1 on 19th	29.6 on 21st in 2014	78
003030	Bidyadanga	29.0 on 19th =	29.0 on 26th in 2006	58
003032	Derby Aero	29.6 on 30th	29.1 on 11th in 2007	32
003057	Cygnnet Bay	29.0 on 5th	28.5 on 26th in 1998	32
009518	Cape Leeuwin	21.5 on 15th	20.7 on 30th in 2010	110
Queensland				
028008	Lockhart River Airport	27.6 on 16th =	27.6 on 26th in 1995	52

= indicates the new record equals the old one.

Record highest November mean minimum temperature				
		New record	Old record	Years of record
Western Australia				
001007	Troughton Island	28.5	28.4 in 2015	38
003003	Broome Airport	27.3	27.1 in 2015	78
003032	Derby Aero	27.2	26.7 in 2014	32
003057	Cygnnet Bay	25.7	25.5 in 1998	32

Record highest November mean temperature				
		New record	Old record	Years of record
Western Australia				
001007	Troughton Island	31.2	31.1 in 2015	38
003003	Broome Airport	31.1	30.8 in 2014	78
003032	Derby Aero	33.3	32.9 in 2014	32
Northern Territory				
014508	Gove Airport	29.5	29.4 in 2008	38
014703	Centre Island	31.8 =	31.8 in 2015	43

= indicates the new record equals the old one.

Highest November mean temperature for at least 30 years			
		Observed this month	Most recent higher
New South Wales			
059030	South West Rocks (Smoky Cape Lighthouse)	22.6	22.7 in 1968

Record highest November daily rainfall				
		New record	Old record	Years of record
Western Australia				
200790	Christmas Island Aero	189.4 on 27th	129.0 on 11th in 1974	44
Northern Territory				
014847	Kidman Springs	88.0 on 1st	70.4 on 21st in 1973	48
Queensland				
035109	Booroondarra	86.0 on 4th	64.0 on 16th in 1991	66
039303	Childers South	105.8 on 27th	92.6 on 21st in 2008	38
040965	Clontarf	117.6 on 26th	64.1 on 16th in 2002	30
New South Wales				
061334	Glen Alice	46.4 on 12th	42.4 on 3rd in 2007	46
Tasmania				
091033	Frankford (Rossville)	75.4 on 13th	74.9 on 7th in 1924	117
091039	Northdown (Hamley)	68.6 on 13th	64.5 on 16th in 1970	108
091041	Hillwood (Hillwoodville)	64.0 on 13th	49.2 on 2nd in 1993	86
091072	Launceston (Kings Meadows)	45.2 on 13th	38.4 on 8th in 1971	87
091095	Windermere (Acacia House)	62.6 on 13th	51.1 on 16th in 1970	74
091173	Tomahawk (Carisbrooke)	81.0 on 13th	42.4 on 19th in 1978	52
091219	Scottsdale (West Minstone Road)	67.6 on 13th	53.4 on 9th in 1990	46
091237	Launceston (Ti Tree Bend)	44.8 on 13th	42.8 on 21st in 2013	37
092011	Gladstone (Old Post Office)	73.0 on 13th	47.8 on 9th in 1947	79
092020	Lewis Hill (St Pauls River)	60.4 on 13th	56.9 on 26th in 1957	88
092024	Mathinna (Fingal Road)	95.0 on 13th	90.2 on 27th in 1889	106
092030	Pioneer (Main Road)	82.6 on 14th	51.6 on 14th in 1968	104
092047	Stonehouse	60.0 on 13th	57.9 on 2nd in 1953	79
092048	South Mount Cameron (Gladstone Road)	78.6 on 13th	63.4 on 18th in 1989	61
092051	Pyengana (Forest Lodge Road)	125.6 on 13th	88.0 on 19th in 1978	55
092079	Tooms Lake (Tooms River)	55.8 on 13th	37.0 on 5th in 1981	43
096046	Miena Dam	40.2 on 13th	36.4 on 9th in 2013	89

Record highest November total rainfall				
		New record	Old record	Years of record
Western Australia				
200790	Christmas Island Aero	611.0	526.5 in 1981	44
Northern Territory				
014090	Middle Point Rangers	300.8	237.6 in 2013	48
014145	Lambell's Lagoon	318.4	309.2 in 1999	39
Queensland				
039251	Hillview	182.2	163.4 in 1978	54
Tasmania				
091173	Tomahawk (Carisbrooke)	118.8	110.9 in 1968	52

Highest November total rainfall for at least 30 years			
		Observed this month	Most recent higher
Western Australia			
003010	Kimberley Downs	130.2	153.6 in 1973 *
Northern Territory			
014847	Kidman Springs	185.2	188.6 in 1974
Tasmania			
097006	Lake Margaret Dam	384.4	406.8 in 1978 *
* note: there are gaps in the historical record at this site, so it is possible a higher value has gone unreported.			

Record lowest November total rainfall				
		New record	Old record	Years of record
Queensland				
040708	Monogorilby - Home	16.8	18.0 in 1994	33
New South Wales				
055319	Upper Manilla (Glenborah)	15.4	25.2 in 2009	30

Lowest November total rainfall for at least 30 years

		Observed this month	Most recent lower
Western Australia			
009805	Walpole Forestry	21.0	17.5 in 1986
010045	Ejanding	0.2	0.0 in 1972
010283	Shackleton	0.8	0.0 in 1961 *
South Australia			
017014	Blinman	1.4	0.0 in 1984 *
Queensland			
032045	Victoria Sugar Mill	2.8	1.3 in 1944
035079	Wharton Creek Station	2.0	0.0 in 1982 *
035135	Hornet Bank Homestead	4.4	3.0 in 1968 *
039168	Woodgate Store	24.0	3.4 in 1982 *
040134	Montville "Clovelly"	7.4	5.5 in 1926 *
040197	Mt Tamborine Fern St	32.8	24.0 in 1982
040269	Karragarra Island	22.0	17.0 in 1982 *
040550	Numinbah	41.4	22.9 in 1967
041040	Greenmount Post Office	19.6	18.5 in 1965 *
041050	Jandowae Post Office	14.2	2.0 in 1982
041082	Pittsworth	17.0	10.4 in 1982
New South Wales			
055023	Gunnedah Pool	5.9	1.8 in 1967 *
055045	Curlewis (Pine Cliff)	11.4	9.6 in 1982 *
055103	Watsons Creek (Tilmunda)	16.8	7.2 in 1982 *
056010	Walcha (Emu Creek)	23.6	6.6 in 1982
056034	Uralla (Dumaresq St)	13.4	9.6 in 1980 *
057011	Jeogla Station	20.0	14.0 in 1967 *
057014	Glen Elgin (Glenbrook)	45.0	35.3 in 1982 *
057022	Wollomombi (Wallamumbi)	26.4	21.0 in 1958 *
057091	Uralla (Blue Nobby)	25.8	13.8 in 1982 *
057103	Kookabookra	19.0	7.1 in 1923 *
059033	Thora Post Office	11.4	5.3 in 1956 *
059113	Leigh (Rolling Acres)	30.6	28.4 in 1980 *
059120	Thumb Creek (Figtree)	31.2	17.0 in 1980 *
060067	Upper Pappinbarra (Hillcrest)	41.0	32.0 in 1964 *
060090	Birdwood	43.4	28.8 in 1982
066078	Lucas Heights (ANSTO)	11.8	9.8 in 1982
Victoria			
084016	Gabo Island Lighthouse	30.4	0.4 in 1982
086213	Rosebud (Country Club)	22.4	17.1 in 1982
087043	Meredith (Darra)	21.6	19.2 in 1982

* *note: there are gaps in the historical record at this site, so it is possible a lower value has gone unreported.*

Selected observations

Daily and mean maximum temperatures for November 2016

Western Australia	Mean Anom	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
001019 Kalumburu	38.0	39.3	37.6	38.8	39.6	38.3	38.2	37.1	36.8	37.6	39.0	38.6	37.6	39.3	37.9	35.9	39.5	40.4	37.4	36.3	37.3	37.5	36.8	36.8	36.8	38.0	37.5	38.9	38.1	37.9	39.2	
002012 Halls Creek Airport	38.9	+0.6	37.1	32.2	37.0	40.2	41.0	40.4	40.9	41.1	40.2	39.1	39.0	41.0	38.3	35.7	38.6	39.0	40.8	40.5	39.8	40.8	36.4	35.6	35.6	37.9	38.4	38.3	37.9	40.8	41.9	41.3
002056 Kununurra Aero	40.7	38.6	37.8	41.6	43.8	43.0	42.4	42.6	42.9	40.9	41.5	40.3	41.2	42.9	40.3	37.8	39.9	41.3	40.3	40.2	38.4	40.7	36.8	36.5	38.8	38.0	38.2	41.8	42.9	42.6	43.8	
003003 Broome Airport	34.8	+1.2	33.3	34.1	34.0	35.6	42.6	34.2	34.8	33.6	32.6	31.4	30.7	32.4	33.5		32.7	32.7	33.5	38.5	37.9	33.1	33.7	33.8	36.4	35.1	38.7	35.7	35.7	36.8	37.2	35.3
003032 Derby Aero	39.4	40.7	39.8	41.9	42.8	42.6	39.1	37.4	38.2	39.4	37.1	35.8	36.3	39.9		44.0	35.4	38.8	39.7	38.6	42.5	37.1	37.9	37.2	38.0	38.8	39.8	39.2	38.8	40.5	43.1	41.4
004032 Port Hedland Airport	37.7	+1.5	38.1	37.4	35.9	40.4	43.4	44.9	44.4	41.0	31.7	33.6	36.6	38.5	35.8	38.3	35.9	31.7	33.7	37.8	39.7		43.4	32.9	34.6	37.4	39.1	40.2	38.5	38.9	35.6	35.1
004083 Karratha Aero	35.9	34.5	32.7	32.7	37.3	41.5	43.5	42.6	31.3	31.5	30.9	34.9	36.9	35.8	35.0	32.3	31.4	33.4	36.3	37.8		34.6	38.5	35.3	30.8	34.4	34.7	38.6	38.3	40.8	39.4	37.8
004106 Marble Bar	41.9	43.5	41.3	41.6	43.5	44.3	44.8	44.8	43.5	38.4	37.5	38.4	40.4	40.7	41.2	44.1	39.0	39.1	41.6	43.3	45.0	43.8	42.0	40.1	40.7	41.1	42.6	42.8	43.9	40.9	43.7	
005007 Learmonth Airport	35.4	33.4	32.7	34.4	36.6	34.5	41.4	38.3	30.8	28.5	29.7	32.4	36.3	34.9	34.7	31.0	29.4	33.3	39.0	38.8	38.0	38.9	39.2	36.8	29.6	33.4	35.0	39.0	41.8	41.7	38.7	
006011 Carnarvon Airport	29.8	+2.4	26.5	27.1	26.3	28.4	29.0	28.0	26.6	25.0	24.7	24.5	25.9	24.3	26.3	31.3	37.3	39.8	25.8	25.5	32.3	37.5	27.9	25.3	30.0	33.6	34.9	38.2	37.5	36.2	31.7	33.1
006044 Denham	28.3	24.5	27.5	23.9	28.0	29.5	28.5	25.5	23.9	24.0	25.0	23.5	27.0	36.5	36.0	27.0	27.0	24.5	30.5	27.0	25.0	25.0	26.0	35.0	39.0	32.0	34.5	33.0	28.0	25.5	25.5	
007176 Newman Aero	38.1	38.1	38.2	38.4	39.8	40.1	41.0	40.4	40.6	36.1	33.4	34.2	35.6	36.0	37.5	40.1	37.8	34.8	37.7	38.7	41.3	38.8	37.1	35.0	34.5	35.8	36.8	39.8	40.9	40.8	41.8	
007185 Paraburdoo Aero	38.4	38.7	38.4	38.3	40.1	41.6	41.7	39.7	39.4	31.2	31.6	32.9	37.1	38.6	39.4	40.9	28.9	32.9	38.3	41.2	41.0	38.6	40.2	38.2	37.8	39.1	39.5	40.2	42.4	42.4	42.1	
007045 Meekatharra Airport	35.0	+1.9	34.9	33.9	37.2	38.9	38.6	39.8	34.8	36.1	27.2	28.0	32.1	31.1	34.4	36.3	39.6	25.5	30.5	34.0	37.6	38.3	32.3	33.1	34.3	33.6	35.4	37.1	40.2	41.5	39.6	38.8
007060 Mount Magnet Aero	34.2	33.2	33.9	36.8	38.8	40.0	39.0	39.2	31.1	26.3	26.2	29.7	33.3	36.6	40.0	28.9	29.1	33.0	38.0	32.6	30.8	31.9	34.4	32.9	34.9	37.1	39.1	39.7	40.9	36.6	37.7	
008296 Morawa Airport	33.4	31.8	35.4	34.5	37.5	41.1	34.7	30.4	30.7	23.6	26.4	25.1	28.3	33.6	39.5	39.0	26.1	27.5	34.0	38.1	29.9	29.1	33.1	35.7	35.3	36.6	39.2	39.5	37.1	33.2	34.8	
008297 Dalwallinu	31.9	29.1	33.8	33.6	35.0	40.2	34.2	27.1	30.5	24.5	25.9	24.3	26.3	31.3	37.3	39.8	25.8	25.5	32.3	37.5	27.9	25.3	30.0	33.6	34.9	38.2	37.5	36.2	31.7	33.1		
008315 Geraldton Airport	29.1	25.9	30.1	23.5	32.2	38.5	26.4	23.6	23.6	22.1	23.2	23.2	28.4	34.7	42.0	27.3	23.9	24.1	30.3	26.2	25.5	24.6	32.0	35.2	38.0	39.7	38.0	31.2	26.1	25.6	26.1	
009021 Perth Airport	28.3	+2.7	26.5	31.0	24.1	27.4	37.2	26.6	23.3	24.0	21.2	22.2	21.2	23.6	31.6	37.1	36.8	21.8	22.5	30.0	26.5	23.6	22.6	28.9	33.1	34.6	35.2	38.2	32.0	29.9	28.3	27.4
009131 Jurian Bay	27.2	28.5	29.5	23.5	23.9	32.4	24.6	23.2	22.4	22.0	22.2	22.4	25.0	33.1	40.0	24.4	23.1	24.5	25.6	24.4	23.8	24.2	24.0	31.0	31.2	36.9	37.0	36.5	27.9	25.0	24.1	24.9
009225 Perth Metro	27.7	25.6	30.8	22.9	26.1	37.0	25.0	22.4	23.6	21.4	21.8	21.2	22.5	31.1	36.9	35.8	21.6	21.8	30.3	25.6	23.5	21.8	28.2	30.0	31.2	38.9	35.4	38.2	31.0	29.5	25.9	26.6
009240 Bickley	26.3	24.6	28.7	23.5	26.3	34.7	24.4	21.6	23.4	21.6	23.7	19.5	18.2	21.8	28.8	33.8	34.5	18.4	20.7	27.6	26.0	21.2	20.8	27.2	30.4	31.6	32.1	35.1	31.9	28.5	28.2	25.5
009518 Cape Leeuwin	21.2	+1.1	18.5	20.1	19.6	20.5	22.0	19.3	18.0	18.0	18.1	18.3	17.9	20.2	23.8	33.3	23.5	19.9	19.1	21.1	21.1	19.9	19.6	21.9	22.0	22.1	27.7	26.9	21.8	21.2	20.0	20.7
009617 Bridgetown	25.3	21.1	23.8	24.6	25.9	31.2	22.9	18.8	21.2	19.7	17.8	17.5	23.1	28.3	32.1	33.4	21.6	22.1	27.4	26.6	20.1	20.1	25.7	29.7	29.6	32.0	34.5	27.5	29.0	20.0	24.7	
009746 Wittliffche	23.1	19.5	24.4	19.7	23.4	29.7	20.7	17.8	19.5	19.8	18.7	18.3	20.2	25.9	32.0	26.5	20.5	19.6	24.3	22.7	19.9	20.6	22.5	25.5	26.4	31.2	34.4	23.5	23.6	20.6	22.0	
009789 Esperance	23.8	17.5	21.6	21.0	19.0	33.5	32.0	18.0	20.0	23.9	19.5	18.3	19.3	22.7	28.5	37.5	25.7	18.6	25.3	34.0	21.0	19.3	20.4	22.3	20.8	23.4	33.2	37.7	19.8	20.0	20.6	
009965 Bunbury	24.5	22.5	25.4	20.5	23.3	31.3	23.2	20.3	22.0	19.4	19.4	19.2	20.9	26.6	32.1	26.4	20.6	19.8	23.8	23.3	22.4	20.2	23.5	28.0	30.8	31.3	32.7	29.4	26.3	26.3	23.0	
009977 Mandurah	25.5	22.8	26.1	21.1	25.6	32.9	23.4	20.9	23.0	20.3	19.7	20.0	22.1	27.4	34.9	25.7	21.3	20.8	23.9	23.5	21.7	21.4	27.3	30.5	32.3	33.1	36.5	28.3	27.1	26.5	24.0	
009999 Albany Airport	22.4	17.3	21.6	23.2	19.8	25.1	21.2	16.4	17.7	17.2	22.1	17.6	18.3	22.4	31.6	38.8	20.4	20.0	24.4	23.9	19.1	20.7	21.5	23.8	22.0	24.7	35.9	21.6	22.9	19.7	22.6	
010007 Bencubbin	31.0	+2.2	28.0	33.1	33.4	33.0	39.1	34.8	25.6	30.1	23.5	25.0	23.2	25.0	30.0	35.0	39.5	26.3	24.7	31.5	36.0	27.4	25.0	29.8	31.8	32.3	33.3	36.2	38.0	35.5	31.3	39.1
010092 Merredin	31.2	+3.1	28.3	32.2	34.4	33.0	38.0	35.5	26.0	29.6	25.0	25.2	23.8	26.3	30.0	35.0	39.5	26.4	25.7	30.2	36.5	28.3	25.5	29.3	32.6	33.3	33.0	36.5	39.2	36.0	32.0	32.3
010286 Cunderdin Airfield	31.7	27.8	33.8	34.1	31.6	39.3	34.7	25.4	29.8	24.8	26.4	24.5	26.6	31.2	36.3	40.0	23.5	25.0	32.5	37.8	27.2	25.5	30.3	32.9	34.4	34.9	38.3	40.2	36.4	31.7	33.1	
010633 Ravensthorpe	25.9	+1.0	20.0	30.0	27.0	23.8	30.5	24.0	17.0	24.0	26.0	25.0	19.8	26.0	33.0	38.0	28.0	20.0	27.2	35.8	20.0	21.0	24.0	27.0	25.0	27.8	35.5	34.0	24.0	20.0	27.0	
010811 Lake Grace	28.1	23.5	30.5	30.9	27.3	34.6	29.6	21.9	26.2	20.3	25.3	20.3	23.3	28.1	33.7	39.2	26.4	22.6	29.0	35.5	22.3	22.8	26.4	30.1	29.8	31.1	35.2	34.0	31.1	23.5	29.2	
010916 Katanning	28.8	21.5	29.5	28.4	25.8	33.0	26.8	20.5	23.7	17.2	22.2	20.7	24.3	29.5	34.6	38.3	21.9	23.5	29.4	32.8	23.9	23.0	27.5	31.6	32.3	33.5	36.3	35.9	32.9	25.4	28.8	
010917 Wandaring	28.5	24.0	30.5	28.4	28.1	36.0	28.6	22.9	26.2	21.0	22.8	20.7	24.3	29.5	34.6	38.3	21.9	23.5	29.4	32.8	23.9	23.0	27.5	31.6	32.3	3						

Daily and mean maximum temperatures for November 2016

New South Wales		Mean Anom	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30					
048027 Cobar MO	30.5	+1.3	24.5	25.2	28.3	31.3	23.0	27.0	34.3	30.8	28.0	31.6	35.3	34.2	23.9	21.9	24.6	29.5	33.9	36.8	37.7	38.2	38.1	36.5	24.1	24.8	28.0	28.4	30.5	33.2	35.1	37.1					
048245 Bourke Airport AWS	33.3		26.1	28.6	29.8	33.6	29.7	29.9	36.6	32.6	27.1	35.5	37.8	37.1	27.3	22.8	27.9	32.0	36.7	38.5	39.3	39.1	38.1	32.9	29.0	30.7	32.3	33.8	36.1	37.9	40.2						
049000 Ivanhoe Aerodrome AWS	30.1		24.6	25.4	28.1	33.3	23.2	27.4	34.4	26.4	29.4	32.7	36.6	30.4	20.8	23.1	25.0	29.1	35.2	37.6	36.1	39.0	39.9	33.3	22.7	24.2	26.0	27.2	29.0	32.9	36.3	33.9					
050052 Condobolin Ag Research Stn	28.6	+0.1	22.2	22.6	26.1	29.4	20.5	24.4	32.0	30.4	26.5	29.8	33.0	31.0	21.4	19.3	23.2	28.1	31.2	34.9	35.2	35.3	36.0	35.1	21.9	24.0	26.1	27.5	29.5	31.7	33.1	36.3					
051039 Nyngan Airport			24.8	26.5	28.8	32.0	23.6	28.2	34.0	33.6	23.8	32.5				35.2	22.0	26.0	30.0	33.5			37.5	37.2	36.5	27.8	25.8			31.5	34.5	35.0	38.0				
052088 Walgett Airport AWS	32.6		26.2	28.1	30.0	32.4	29.6	28.6	34.6	37.2	24.8	32.5	34.7	36.5	30.6	23.7	26.7	31.8	34.0	35.5	37.0	36.9	35.9	35.9	37.6	27.6	29.7	32.7	34.0	36.8	37.5	39.4					
053115 Moree Aero	31.8		25.3	27.1	27.5	31.0	33.0	28.3	33.9	38.0	26.7	31.8	30.5	36.0	32.1	24.0	26.7	30.6	31.7	33.5	34.7	35.1	34.8	34.3	36.3	29.4	30.3	33.0	33.9	33.6	34.0	36.4					
054038 Narrabri Airport AWS	31.3		24.8	26.2	27.4	30.1	30.2	27.6	32.8	36.7	27.3	30.8	31.4	34.5	29.8	21.9	26.1	29.9	31.0	33.4	35.1	35.6	35.0	34.4	36.0	29.2	29.4	32.8	33.8	34.6	35.1	36.2					
055024 Gunnedah Resource Centre	30.6	+2.3	24.1	24.3	27.2	29.1	28.9	25.6	31.6	33.4	27.4	29.2	31.9	32.6	30.1							25.0	28.9	29.8	33.2	34.2	34.8	34.6	34.4	34.5	27.6	27.1	31.9	33.1	33.1	33.9	34.9
055325 Tamworth Airport AWS	29.7		23.4	24.0	25.6	27.7	28.4	25.6	30.3	32.7	27.4	28.9	30.5	30.9	29.9	21.6	24.8	28.3	29.5	32.5	34.3	34.5	34.1	33.7	34.1	27.2	27.7	31.8	32.8	32.0	33.8	33.4					
056242 Inverell (Raglan St)	27.8		22.5	23.0	23.0	26.3	28.5	24.5	29.0	31.0	25.7	27.8	25.7	29.6	28.0	21.4	23.5	26.0	28.5	30.2	32.4	31.2	30.5	31.0	31.0	27.2	26.6	29.0	30.0	30.0	30.4	30.5					
057095 Tabulam (Muirne)	28.1		26.4	25.3	26.0	28.9	30.2	28.3	28.9	31.3	30.3	30.2	28.0	27.1	30.8	23.3	21.7	26.8	24.7	26.6	29.2	29.3	28.9			31.8	29.1	30.5	27.8	27.0	29.1	28.6					
058012 Yamba Pilot Station	27.2	+3.0	24.6	24.0	25.5	27.1	35.9	25.6	28.2	29.2	28.9	25.7	27.1	27.5	34.0	30.1	23.5	26.8	24.5	25.9	27.8	27.3	26.7	26.1	26.8	25.0	26.5	26.6	28.1	27.7	28.1	24.9					
060139 Port Macquarie Airport AWS	27.5		23.6	24.5	24.9	26.4	34.7	24.8	27.4	30.8	28.0	24.9	26.7	31.8	35.5	27.2	23.4	26.5	25.4	27.4	29.5	27.2	28.3	27.4	27.4			25.0	26.4	27.0	28.8	29.5	26.5				
061078 Williamtown RAAF	27.7	+2.4	21.1	22.9	24.7	31.2	31.5	26.6	33.0	36.0	23.2	25.8	24.2	33.5	33.2	24.8	21.2	24.4	23.0	34.2	24.2	25.1	32.6	34.7	34.2	22.3	26.9	26.4	26.3	31.9	26.3	26.7					
061363 Scone Airport AWS	29.7		23.4	24.5	28.1	28.7	27.2	26.0	30.3	34.0	24.9	29.6	30.3	30.4	29.8	22.3	24.4	27.7	28.1	32.3	34.4	31.4	33.8	35.1	34.8	27.5	29.0	31.4	31.5	34.0	33.2	33.5					
062101 Mudgee Airport AWS	26.7		20.7	21.4	24.3	25.6	19.7	22.3	28.4	32.5	21.0	27.0	29.7	29.5	23.5	17.5	22.4	27.1	26.8	30.6	31.6	30.3	31.5	31.5	30.3	29.3	24.9	27.1	29.2	30.1	30.3	31.7					
063005 Bathurst Agricultural Station	24.3	+1.6	17.0	18.2	21.5	23.2	15.2	18.5	26.2	29.8	22.8	24.0	28.0	27.1	19.5	16.5	20.5	24.3	25.5	29.2	29.8	29.6	29.4	29.0	26.7	19.6	21.8	24.8	27.4	27.6	27.2	30.2					
063254 Orange Agricultural Institute			15.2				20.7	16.5	22.4	25.1	21.5	21.4				24.4	12.7	17.2	21.0				26.3	25.5	25.9	22.0	17.2				23.9						
064008 Coonabarabran (Showgrounds)	28.1	+0.7	22.5	25.0	27.0	23.5	23.0	29.0	31.0	23.5	27.4	30.5	30.2	24.8	18.6	23.3	27.2	28.0	31.5	32.3	32.8	32.8	32.4	31.5	24.8	25.3	29.7	31.1	31.6	32.2	33.0						
065070 Dubbo Airport AWS	29.0		22.1	23.3	26.1	28.7	21.1	24.7	31.3	34.5	21.2	29.8	32.8	32.6	24.5	18.4	23.8	28.1	29.9	33.5	34.7	35.3	34.4	34.4	30.5	25.1	26.5	29.1	31.6	33.2	33.5	36.5					
066062 Sydney (Observatory Hill)	26.1	+2.4	24.5	24.1	25.2	30.6	25.7	26.0	28.1	28.3	22.7	24.6	24.3	32.5	30.3	24.4	23.2	25.2	23.9	31.4	24.8	25.1	28.4	31.0	26.2	23.4	25.5	24.4	23.5	26.1	25.3	25.2					
067105 Richmond RAAF	29.9		25.1	27.6	29.6	30.9	25.8	27.2	35.1	32.8	26.0	31.0	28.5	35.1	30.0	26.4	23.9	27.5	28.6	36.1	27.7	30.0	35.6	36.7	35.2	26.6	29.3	31.0	28.1	31.0	29.2	29.6					
068072 Nowra RAN Air Station AWS	25.4		23.1	25.0	24.8	28.9	22.6	24.0	32.3	20.6	18.1	24.3	23.9	22.1	25.5	19.1	21.3	23.3	26.1	35.8	20.0	26.3	31.3	36.8	22.7	22.4	23.3	25.5	26.2	28.8	23.6	24.1					
068115 Jervis Bay (Point Perpendicular)	22.8		19.4	20.8	21.2	27.8	22.0	21.2	28.7	16.9	20.4	20.6	28.7	24.5	19.0	18.9	20.1	25.7	30.5	20.1	24.3	29.1	29.7	20.8	19.4	20.7	21.1	22.8	26.0	21.2	23.9						
068241 Albion Park (Wollongong Airport)	25.6		23.1	24.1	24.9	29.8	23.9	25.4	31.6	24.4	22.1	24.4	23.8	29.3	28.5	23.1	22.4	23.5	26.9	32.8	23.1	25.1	27.8	30.1	25.7	23.4	23.8	24.7	24.2	26.3	25.0	24.7					
069018 Moruya Heads Pilot Station	22.7	+1.8	19.7	20.2	21.4	22.0	23.2	31.2	31.7	20.3	17.5	20.6	20.5	30.5	24.9	21.5	20.9	22.2	20.9	26.3	20.6	21.0	27.3	36.3	18.8	22.4	21.4	20.3	21.4	23.3	20.5	21.6					
070351 Canberra Airport	24.8		18.1	20.6	23.0	24.5	17.6	19.9	25.3	28.6	24.8	24.0	26.1	26.5	18.6	19.8	20.6	25.3	25.5	30.0	31.1	31.1	30.2	31.2	20.4	21.2	24.3	24.7	26.5	27.7	28.0	30.1					
071041 Thredbo Village	17.0		8.5	12.0	14.6	16.0	10.0	12.5	18.3	20.0	18.0	16.0	19.0	17.5	9.0	10.5	14.5	20.0	20.0	20.5	23.4	24.0	24.0	22.5	12.1	11.0	15.5	18.0	21.9	20.0	20.1	21.0					
072150 Wagga Wagga AMO	26.7	+1.0	20.3	20.5	24.0	27.4	19.0	21.6	29.5	24.5	26.5	24.5	26.8	28.9	18.5	21.1	22.3	27.3	29.5	34.3	34.0	33.7	36.2	31.1	21.1	22.5	23.7	26.0	28.3	30.2	30.2	33.3					
072160 Albury Airport AWS	25.6		18.6	19.7	23.0	28.2	18.4	20.9	29.4	24.9	25.9	24.4	26.9	27.1	16.0	20.9	22.9	26.3	29.3	29.9	31.5	32.8	36.2	26.6	21.6	21.6	22.0	24.5	28.1	29.2	29.4	32.2					
072161 Cabramurra SMHEA AWS	15.1		6.7	10.4	12.8	15.0	6.9	9.6	16.7	17.5	15.8	14.0	17.4	15.5	4.9	10.5	12.8	17.1	18.7	20.9	21.3	22.8	22.7	21.1	8.8	10.5	12.8	15.3	18.3	18.1	17.9	20.2					
074258 Deniliquin Airport AWS	27.3		20.3	21.8	25.1	31.4	21.0	24.6	31.2	23.1	26.0	26.6	31.5	25.6	16.7	22.1	24.1	27.7	34.0	35.2	33.5	36.7	39.9	24.5	20.6	23.7	23.2	25.1	27.8	30.5	33.3	31.7					

Mean is the average of the daily maximum temperature for November 2016; it is only shown if there are sufficient days available. Anom is the difference between the mean daily maximum temperature for November 2016 and the long-term average maximum temperature for November. Anomalies are only shown if there are sufficient years of climate record available. The lowest and highest maximum temperature for each site for November 2016 is highlighted. Not all observations are shown here. Data from many more sites and for other times are available at www.bom.gov.au/climate/data/.

Daily and mean minimum temperatures for November 2016

Western Australia	Mean Anom	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
001019 Kalumburu	25.0	25.2	28.0	24.0	24.5	25.7	25.3	21.9	28.8	26.4	25.3	25.3	24.5	25.1	26.8	26.2	26.1	23.0	23.5	24.3	27.0	23.2	23.3	23.3	24.2	25.3	25.3	26.3	24.0	23.7	24.6		
002012 Halls Creek Airport	25.0	+0.7	22.7	22.0	21.5	26.0	25.2	24.5	25.0	28.3	29.4	27.9	25.3	26.3	28.9	26.9	22.9	24.7	22.2	22.3	25.4	26.2	26.5	26.2	22.2	22.1	23.5	23.7	25.9	26.5	28.2		
002056 Kununurra Aero	25.5	26.6	26.0	24.3	26.0	25.3	26.0	25.4	26.5	27.9	27.6	26.6	25.3	25.0	27.6	23.1	23.2	18.6	22.1	24.9	23.1	25.3	26.7	24.7	26.7	26.3	26.1	27.1	27.8	26.4	27.1		
003003 Broome Airport	27.3	+2.1	28.0	28.1	25.9	24.4	27.9	29.4	27.6	28.3	28.0	26.6	26.2	26.2	25.9	23.4	26.9	27.9	30.1	25.9	28.4	28.6	27.9	24.9	27.7	27.2	27.5	28.2	29.7	29.0			
003032 Derby Aero	27.2	26.7	26.6	27.2	27.5	29.3	29.0	29.4	28.7	28.6	26.1	24.3	24.0	23.6	25.4	28.0	26.5	25.2	27.6	25.6	28.9	28.9	28.0	27.9	27.4	27.0	27.1	25.1	29.1	28.7	29.6		
004032 Port Hedland Airport	23.2	+1.9	23.9	23.7	22.3	20.9	25.1	28.7	24.3	23.7	22.7	21.1	18.6	19.8	19.1	19.2	18.8	23.3	24.6	22.0	24.0	25.4	24.1	24.9	23.5	20.8	19.9	25.3	28.3	25.6	28.0	25.5	
004083 Karratha Aero	23.5	24.4	22.5	22.1	23.5	26.5	27.6	27.2	25.0	19.2	20.0	19.3	21.0	20.2	19.4	23.0	22.8	22.2	22.2	22.1	23.9	24.2	24.0	24.9	23.4	21.6	24.0	25.8	27.5	28.0	27.9		
004106 Marble Bar	25.5	26.8	25.3	26.4	25.5	27.4	27.6	30.5	27.5	22.4	19.5	20.4	23.2	21.7	20.6	24.6	24.9	27.1	26.2	28.1	26.2	26.4	24.2	23.8	24.3	25.9	28.9	28.3	27.8	26.7	26.7		
005007 Learmonth Airport	18.4	18.9	17.6	18.9	17.7	18.0	20.7	20.4	17.5	16.5	15.4	15.4	14.8	19.2	17.4	20.3	22.6	15.1	16.2	19.4	19.3	16.4	18.6	19.5	18.9	19.2	18.0	18.7	21.2	22.5	18.7		
006011 Carnarvon Airport	18.9	+0.3	17.8	19.3	19.1	18.8	17.3	20.8	19.2	18.3	18.0	13.7	18.5	16.5	18.3	19.8	19.1	20.2	18.8	17.4	19.9	19.0	17.6	18.4	19.6	21.0	20.4	19.5	18.2	22.3	20.3	19.7	
006044 Denham	18.0	12.5	19.0	19.5	12.5	19.3	20.5	19.1	18.0	18.0	15.5	16.5	15.2	14.2	19.0	19.2	19.0	17.5	16.0	20.9	19.0	12.5	17.2	17.0	20.0	22.2	21.9	23.0	22.5	15.5	17.0		
007176 Newman Aero	21.8	23.4	20.9	22.8	20.0	22.0	25.3	22.7	19.9	23.1	18.1	16.7	18.9	21.5	22.4	17.6	24.0	19.4	17.3	22.4	27.4	22.9	23.1	19.0	19.8	23.7	23.4	23.9	25.7	25.0	22.5		
007185 Paraburdoo Aero	21.5	22.6	19.0	18.5	18.6	23.3	23.8	21.8	18.0	20.0	17.9	19.2	20.1	25.1	18.5	19.2	17.8	18.5	20.5	23.9	22.8	26.5	21.8	25.5	21.0	20.5	21.0	26.0	27.2	24.9			
007045 Meekatharra Airport	20.3	+1.7	19.4	19.7	21.5	24.1	20.3	24.4	20.7	18.3	14.4	14.8	15.6	15.0	19.3	21.0	22.8	20.8	15.4	18.7	21.1	22.9	19.0	18.8	20.6	20.8	22.6	21.5	24.3	25.1	24.4	22.2	
007600 Mount Magnet Aero	18.7	18.4	19.5	21.2	20.0	23.8	23.7	17.0	16.7	12.5	12.6	13.7	13.1	17.5	20.5	21.9	20.1	15.4	17.4	18.5	18.6	17.1	15.1	20.2	19.7	21.3	23.6	20.2	23.1	18.6	20.5		
008296 Morawa Airport	14.1	12.6	14.9	14.4	13.4	19.4	19.2	13.9	10.2	12.3	8.4	10.6	8.5	11.6	14.4	16.0	16.6	11.5	11.2	14.1	14.2	10.7	11.7	14.7	17.0	16.7	18.5	18.3	17.3	14.8	14.8		
008297 Dalwallinu	12.7	9.9	11.3	10.3	12.3	15.1	18.4	14.2	8.0	10.7	8.8	9.1	5.9	10.1	11.9	15.2	16.9	11.5	9.3	12.8	13.5	10.0	10.6	12.3	15.0	15.3	15.8	18.4	17.5	13.2	13.4		
008315 Geraldton Airport	12.2	8.5	10.6	13.0	12.8	13.2	17.5	9.8	15.7	9.6	10.1	7.9	9.1	14.1	14.1	16.9	14.8	9.6	11.1	17.2	12.2	11.9	11.5	12.9	14.6	19.4	15.7	13.2	18.3	16.6			
009021 Perth Airport	12.4	-0.4	11.6	11.5	12.4	15.7	13.6	15.3	10.9	11.1	10.9	6.4	7.9	5.1	9.7	13.1	17.0	18.3	8.2	7.8	9.0	12.7	8.8	12.6	13.2	18.4	16.7	18.9	12.9	13.4	13.2	15.0	
009131 Jurien Bay	13.8	7.9	11.4	13.0	16.7	13.9	13.5	12.8	9.2	15.4	12.0	14.2	11.4	9.5	15.1	17.0	16.7	13.9	10.4	12.8	17.8	10.2	10.4	12.6	15.8	16.7	17.5	18.0	16.5	18.7	13.4		
009225 Perth Metro	13.6	11.2	12.0	13.2	16.0	14.1	18.2	11.5	9.4	13.0	8.2	11.2	8.2	11.6	14.1	17.3	18.6	10.6	9.9	11.8	15.3	10.2	13.0	14.3	18.0	16.7	18.7	17.1	15.2	15.3	15.1		
009240 Bickley	11.9	8.6	9.2	11.3	12.8	14.1	15.5	7.5	8.4	8.6	8.6	9.2	7.5	10.6	14.2	20.0	15.4	7.7	9.4	13.5	12.4	8.5	10.5	13.1	14.2	13.1	17.4	19.0	14.4	11.6	11.7		
009518 Cape Leeuwin	14.7	+0.6	12.8	13.0	13.8	15.6	15.6	15.9	13.6	10.9	12.8	11.2	12.4	14.4	11.9	15.9	21.5	16.0	16.6	11.5	11.2	14.1	14.2	10.7	11.7	14.7	17.0	16.7	18.5	18.3	17.4	18.8	14.8
009617 Bridgetown	7.9	1.6	3.9	5.7	14.3	11.3	11.5	3.9	3.2	10.8	4.7	5.9	6.3	4.3	7.8	10.0	16.4	3.6	4.5	7.3	11.9	2.7	4.6	8.0	11.8	11.4	9.9	9.4	12.6	12.4	5.7		
009746 Whitcliff Aero	10.0	5.8	7.7	8.0	14.7	10.7	13.1	8.5	5.4	9.4	6.8	9.4	5.6	10.4	14.2	15.0	8.8	6.8	8.5	11.8	5.5	7.1	10.8	12.1	11.3	11.2	16.1	12.0	14.6	7.8			
009789 Esperance	12.3	12.8	7.6	15.1	14.0	8.7	13.7	13.3	9.5	12.6	14.7	12.1	12.0	8.0	9.0	16.5	20.8	12.6	8.6	12.1	16.2	12.5	10.2	9.5	11.2	8.6	13.0	17.2	15.7	11.7	10.7		
009965 Bunbury	5.8	5.2	6.9	15.6	13.9	13.7	5.6	8.3	12.4	6.2	7.8	8.7	8.8	15.3	17.3	17.1	3.6	8.4	10.8	10.8	4.1	12.8	13.8	4.1	12.8	13.8	4.1	12.8	13.8	4.1	12.8	13.8	
009977 Mandurah	15.3	11.0	12.5	13.5	15.2	16.9	17.8	11.2	11.8	14.8	10.9	14.2	12.5	13.2	18.1	20.9	18.5	10.8	13.1	15.9	16.2	11.6	14.1	16.8	17.9	17.2	20.5	20.6	18.4	17.2	15.1		
009999 Albany Airport	9.7	9.1	4.7	7.2	13.9	10.9	10.8	9.9	6.4	7.7	3.4	9.5	8.4	5.3	10.1	14.0	14.7	7.6	6.9	9.7	14.8	6.3	6.5	7.9	11.9	12.9	12.9	12.1	14.7	13.5	9.7		
010007 Bencubbin	14.0	+0.8	9.5	12.2	13.5	14.7	17.2	12.0	13.2	11.3	9.9	9.0	8.9	7.7	12.4	14.6	21.9	18.5	12.0	11.5	14.5	14.6	10.4	13.0	13.7	16.4	15.6	17.0	19.0	17.5	13.7	14.1	
010092 Merredin	13.6	+0.7	9.0	11.4	12.2	12.8	16.0	17.2	12.5	10.5	10.9	8.5	9.2	7.3	11.5	15.9	19.0	12.6	12.3	14.2	3.7	9.6	12.8	15.8	15.7	16.8	20.5	17.7	15.4	13.8			
010286 Cunderdin Airfield	11.4	8.8	10.2	10.5	14.0	12.8	16.6	9.5	9.0	8.7	6.3	6.3	2.1	11.2	9.5	16.7	18.5	12.5	6.4	7.9	15.1	9.5	9.6	11.9	14.8	14.4	12.3	12.2	15.2	13.1	12.6		
010633 Ravensthorpe	10.7	-0.1	10.0	6.0	13.0	13.0	7.9	12.5	9.0	7.0	11.0	11.0	9.0	6.5	4.6	10.0	18.0	17.0	10.0	7.5	12.2	13.2	5.0	7.0	11.0	10.0	8.0	12.5	23.0	14.0	13.0	9.0	
010911 Lake Grace	10.3	6.1	6.7	9.9	13.7	10.0	14.7	6.0	5.9	11.1	5.6	8.8	4.6	6.6	12.5	20.4	19.0	8.1	7.5	11.0	14.0	5.3	9.6	9.9	11.8	10.5	12.9	13.1	10.9	13.5	8.7		
010916 Katinan	8.9	3.2	3.9	8.4	12.9	12.1	12.3	4.7	4.3	10.9	5.4	7.8	5.4	6.0	7.3	14.3	16.9	5.3	7.1	9.0	12.9	3.8	7.2	8.6	11.1	10.6	9.4	16.3	10.4	12.4	6.3		
010917 Wandering	8.0	8.8	3.4	5.7	11.1	9.6	11.3	2.3	4.5	11.0	2.9	4.3	0.7	3.7	18.9	16.2	15.6	4.5	5.7	6.7	13.5	3.0	9.7	7.9	9.1	10.5	10.0	9.7	10.2	11.8	8.3		
011003 Eucla	12.4	-1.0	4.7	6.4	9.5	16.0	12.6	8.9	14.5	12.5	8.0	14.4	14.0	11.6	12.3	12.9	8.8	13.4	20.1	13.2	12.5	10.1	14.8	12.8	10.8	13.8	14.0	14.5	12.0	13.7	15.0	15.5	
011052 Forrest	11.3	6.7	8.1	9.2	14.0	10.6	8.6	14.6	7.4	10.3	12.1	13.2	9.3	7.8	7.4	8.8	14.8	20.1	13.1	7.1	11.4	14.0	9.4	7.2	11.7	12.8	11.7	11.6	14.0	17.3	15.5		
012038 Kalgoorlie-Boulder Airport	15.2	+0.9	10.3	12.5	18.5	16.0	15.1	22.4	11.9	11.4	17.0	13.3	13.5	9.8	11.1	15.6	18.8	24.7	14.2	11.0	15.9	17.8	14.0	11.6	13.8	15.2	13.7	16.6	20.5	18.5	19.5	14.3	
012071 Salmon Gums Res. Stn.	8																																

Daily and mean minimum temperatures for November 2016

New South Wales		Mean Anom	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
048027 Cobar MO	15.2	-0.4	7.1	7.6	11.5	13.4	15.2	9.3	14.5	19.9	15.3	15.0	19.1	22.3	15.8	11.1	8.7	11.6	15.2	20.1	23.0	22.1	22.3	22.1	18.0	9.0	8.0	12.0	13.1	15.9	17.6	19.2	
048245 Bourke Airport AWS	16.2		9.8	12.4	15.1	10.8	15.4	8.3	13.3	15.5	17.2	15.1	21.2	27.1	20.3	15.2	10.1	10.7	15.5	17.4	21.5	20.3	21.9	21.4	18.8	13.5	16.6	16.4	16.3	16.9	15.3		
049000 Ivanhoe Aerodrome AWS	13.8		6.5	7.6	8.6	11.6	11.1	8.8	13.2	19.0	11.3	13.0	17.2	19.1	13.7	11.5	9.6	12.0	13.9	18.9	18.9	23.1	20.4	22.2	13.3	7.8	11.9	10.3	11.4	13.5	16.7	17.0	
050052 Condobolin Ag Research Stn	11.7	-1.0	2.3	4.3	5.0	6.0	13.2		8.4	15.6	10.8	10.5	13.5	18.0	11.6	11.1	7.3	8.6	12.3	17.8	17.7	20.5	20.1	21.9	17.6	7.0	7.4	8.5	8.1	8.6	9.9	15.2	
051039 Nyngan Airport	6.0		8.6	11.1	11.5	16.0		8.8	9.7	15.6	14.2	13.0	17.2		12.4	10.0	12.0	14.7	16.5		19.0	17.7	20.0		10.5	11.5							
052088 Walgett Airport AWS	13.4		3.7	6.1	9.0	8.4	11.4	8.0	8.6	15.8	18.3	12.9	17.2	21.7	19.7	11.4	9.9	8.3	12.7	17.4	14.4	19.5	18.0	15.3	20.2	11.9	11.5	11.0	9.8	14.9	16.3	17.6	
053115 Moree Aero	14.7		7.6	8.1	11.4	11.0	13.1	9.1	10.9	16.8	17.6	16.6	17.9	20.2	19.5	11.6	10.9	9.8	16.1	16.7	17.2	18.6	18.6	17.3	18.4	13.3	12.2	13.5	14.3	17.8	16.8	17.6	
054038 Narrabri Airport AWS	13.3		5.1	8.0	9.9	8.5	11.9	8.0	8.3	13.1	19.9	14.0	15.2	19.9	17.1	10.4	9.6	8.1	15.2	12.4	17.1	15.9	17.3	16.5	20.4	12.1	10.5	13.3	10.8	16.8	19.4	13.3	
055024 Gunnedah Resource Centre	14.2	-0.7	6.7	8.2	10.2	10.9	12.5	10.1	10.0	15.6	19.6	12.5	15.5	19.4		12.3	11.8	10.6	14.1	14.4	16.9	18.3	20.9	18.5	18.7	12.2	11.9	12.0	15.0	16.7	17.4	18.3	
055325 Tamworth Airport AWS	10.1		4.7	5.2	6.2	7.4	6.6	5.6	6.2	8.6	14.4	9.0	11.1	16.3	14.0	9.7	8.3	7.6	11.2	10.8	11.6	14.0	12.6	12.2	13.2	8.7	7.1	6.9	11.0	12.8	12.1	13.0	
056242 Inverell (Raglan St)	10.9		10.0	6.9	7.5	8.0	8.2	8.2	8.6	14.5	13.0	14.0	11.5	12.9	15.2	7.2	10.0	11.0	12.0	10.5	11.0	11.5	12.8	13.0	11.0	11.0	9.4	11.8	12.9	12.0	11.7	11.2	
057095 Tabulam (Muirne)	14.9		14.3		13.3	13.4	14.8	13.7	14.2	16.9	19.4	16.2	16.3	17.3	18.4	15.3	11.1	12.9	14.8	13.8	13.7	14.3	14.7	13.8		13.3	15.2	15.7	15.4	14.1	15.4		
058012 Yamba Pilot Station	18.0	+0.8	17.5	17.8	14.9	17.0	17.1	15.8	16.3	19.5	20.8	18.8	18.0	19.8	20.3	19.6	15.7	16.1	18.0	19.6	16.9	17.9	17.8	17.9	17.5	19.3	17.9	19.0	19.5	18.4	16.3	17.7	
060139 Port Macquarie Airport AWS	13.5		11.8	11.6	9.3	11.2	12.2	9.5	8.9	13.2	15.3	14.1	12.7	20.6	17.6	10.7	15.3	9.9	14.7	10.9	13.2	18.4	15.5	15.4	13.2	18.2	10.2	11.1	12.3	18.8	13.1	14.6	
061078 Williamtown RAAF	14.6	+0.4	8.9	11.1	9.8	13.3	12.5	13.7	10.1	13.1	17.6	15.1	15.6	18.8	17.9	15.1	13.8	12.0	16.3	12.8	15.9	17.0	15.8	16.6	15.7	15.2	11.2	13.6	15.1	19.3	17.1	17.3	
061363 Scone Airport AWS	11.2		4.1	5.0	6.5	7.6	9.9	7.6	6.7	9.7	15.2	12.9	13.1	17.5	16.7	13.1	11.7	8.5	11.6	10.1	11.9	14.2	15.0	13.2	13.7	10.5	7.8	8.8	10.9	16.9	11.8	14.6	
062101 Mudgee Airport AWS	9.3		2.6	3.4	4.9	5.0	7.6	3.7	5.5	7.2	10.8	9.6	10.3	17.0	9.9	10.9	9.0	6.8	13.1	9.8	12.1	15.6	16.5	13.4	12.7	7.7	5.1	5.9	6.4	12.8	7.7	15.9	
063005 Bathurst Agricultural Station	7.5	-0.8	-1.0	1.8	2.0	3.5	10.0	5.5	3.3	7.8	10.1	7.5	6.5	14.7	7.0	9.5	7.9	5.3	9.2	8.2	11.5	14.8	15.0	11.9	12.7	4.1	3.8	2.6	4.5	10.4	6.6	11.8	
063254 Orange Agricultural Institute			0.1	4.3	4.7		5.0	6.1	13.1	10.4	10.0	9.5		8.5	4.8	8.0	10.4		12.6	14.9	14.5	4.3	6.0		5.6								
064008 Coonabarabran (Showgrounds)	9.6	-1.4	2.5		4.5	5.5	7.5	6.8	5.4	8.5	13.6	9.0	11.6	17.2	12.5	9.8	9.6	5.6	10.0	9.0	11.0	13.0	13.8	13.0	12.4	9.0	8.0	11.2	8.1	10.2	11.0	10.0	
065070 Dubbo Airport AWS	10.9		3.6	4.2	6.8	7.5	10.2	5.7	6.0	12.1	11.6	10.1	13.5	17.8	10.9	12.2	7.0	7.6	14.3	13.0	15.6	17.5	18.0	16.3	12.9	6.0	8.2	9.4	9.2	15.3	9.7	16.1	
066062 Sydney (Observatory Hill)	17.3	+1.3	12.1	13.0	13.6	15.3	21.0	15.7	14.8	21.2	17.8	16.9	17.8	18.4	18.9	17.4	15.4	14.3	17.3	16.4	19.3	19.1	19.7	21.0	19.8	13.5	14.7	18.1	19.6	20.3	19.3	18.2	
067105 Richmond RAAF	14.4		7.2	6.2	8.2	11.5	15.8	13.2	10.0	14.9	18.0	14.6	15.6	17.8	13.3	16.5	13.1	10.4	15.9	12.3	15.9	18.0	17.7	16.2	18.1	12.9	9.8	14.4	19.3	19.8	17.3	18.1	
068072 Nowra RAN Air Station AWS	13.4		8.3	8.0	8.0	10.8	17.1	13.4	12.0	16.8	13.9	14.4	13.1	16.6	12.2	15.4	11.0	10.3	11.4	14.9	16.8	16.3	16.3	16.8	14.8	8.9	8.3	12.8	16.3	15.6	17.4	13.0	
068115 Jervis Bay (Point Perpendicular)	15.3		10.4	13.9	12.6	13.2	15.7	14.2	15.7	16.5	13.4	13.7	14.7	16.4	16.9	15.3	14.6	12.5	14.8	17.1	17.6	14.8	19.1	20.6	18.4	11.3	13.5	15.5	17.3	16.7	17.6	16.0	
068241 Albion Park (Wollongong Airport)	12.9		8.3	6.3	7.1	8.6	9.5	14.4	10.4	15.6	15.8	13.3	12.9	17.5	10.3	16.6	12.0	8.4	11.5	11.1	14.1	17.1	15.9	14.8	18.5	11.9	8.7	12.2	16.9	16.8	15.8	14.8	
069018 Moruya Heads Pilot Station	13.5	+0.7	8.6	8.5	13.0	13.1	14.3	11.4	11.5	14.1	12.1	13.0	14.1	16.5	13.0	12.4	10.6	10.7	12.0	14.8	15.9	13.6	16.9	19.1	16.1	9.2	11.2	14.9	16.6	16.0	16.8	13.8	
070351 Canberra Airport	8.6	-1.3	4.5	2.5	3.6	11.6	6.6	6.5	7.9	11.7	10.6	8.5	14.5	10.1	7.9	4.0	5.2	11.0	9.1	11.7	13.4	14.4	11.9	13.4	2.5	4.7	7.9	9.2	14.7	7.9	10.4		
071041 Thredbo Village	4.2		0.0	2.5	1.5	1.4	3.0	2.5	5.0	10.0	7.0	4.9	-1.4	7.0	4.4	2.0	-1.5	2.0	0.5	11.9	6.5	5.1	10.5	15.0	9.0	0.0	4.2	1.5	1.5	4.5	2.0	2.8	
072150 Wagga Wagga AMO	10.3	-0.1	4.2	7.1	4.8	6.0	9.4	5.9	8.4	12.5	9.7	7.7	7.4	15.6	10.9	11.9	6.4	8.3	11.2	15.0	14.4	15.4	18.1	22.5	15.8	5.4	7.9	6.6	7.5	8.7	16.7		
072160 Albury Airport AWS	10.8		7.1	7.6	6.9	7.6	9.6	7.9	8.8	11.6	9.7	9.9	7.7	14.1	11.7	11.3	6.9	8.9	11.0	14.0	14.8	14.6	19.2	21.6	14.3	5.9	8.2	7.3	9.3	11.4	10.8	12.9	
072161 Cabramurra SMHEA AWS	6.3		-1.8	1.9	3.3	5.7	0.6	1.0	1.3	9.3	8.5	6.9	6.1	9.5	3.4	2.0	1.4	5.5	8.6	12.0	14.1	13.4	12.4	14.9	7.5	-1.6	2.7	3.8	12.4	9.4	8.6	9.9	
074258 Deniliquin Airport AWS	10.1		5.7	5.5	5.3	8.4	8.6	8.1	14.0	10.8	6.5	7.5	8.9	15.3	11.6	10.9	6.0	8.1	11.1	17.9	11.2	16.7	20.6	17.7	11.9	5.4	6.4	6.3	6.6	9.1	11.5	10.5	

Mean is the average of the daily minimum temperature for November 2016; it is only shown if there are sufficient days available. Anom is the difference between the mean daily minimum temperature for November 2016 and the long-term average minimum temperature for November. Anomalies are only shown if there are sufficient years of climate record available. The lowest and highest minimum temperature for each site for November 2016 is highlighted. Not all observations are shown here. Data from many more sites and for other times are available at www.bom.gov.au/climate/data/.

Daily and total rainfall for November 2016

	Total	Avg	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
Western Australia																																		
001013 Wyndham	50.0		1.0	9.0													22.0	2.0			6.0			2.0		6.0	2.0							
001019 Kalumburu	115.2			20.8					19.8									0.4				7.0	0.2	0.2	12.8	1.0		23.8	29.2					
002012 Halls Creek Airport	29.0	35	15.0														9.0						0.2		4.4	0.4								
002056 Kununurra Aero	24.6											3.0					0.8				5.2		0.6		14.6	0.4								
003003 Broome Airport	0.2	8.9																																
003032 Derby Aero	4.6	8.8																																
004032 Port Hedland Airport	0.4	1.9																				0.4								4.6				
004083 Karratha Aero																																		
004106 Marble Bar	4.2							0.8																								3.4		
005007 Learmonth Airport	0.2	1.9	0.2																															
006011 Carnarvon Airport		5.9																																
006044 Denham	2.4	5.6																1.4												1.0				
007176 Newman Aero	9.6		0.4																1.4						6.2	0.4							1.2	
007185 Paraburdoo Aero	8.6																		6.6								2.0							
007045 Meekatharra Airport	10.6	14		0.4			9.4																								0.8			
007600 Mount Magnet Aero	2.8							1.2				0.2											0.6								0.8			
008296 Morawa Airport	1.2									0.2								0.8	0.2															
008297 Dalwallinu	0.6											0.2											0.4											
008315 Geraldton Airport	5.6											1.2							2.0	2.4														
009021 Perth Airport	5.6	23										0.6								5.0														
009131 Jurien Bay	3.8									0.2				0.2						3.2	0.2													
009225 Perth Metro	14.4											0.4											14.0											
009240 Bickley	15.2											4.4											10.6	0.2										
009518 Cape Leeuwin	15.8	47										1.6	7.8	0.2								6.2												
009617 Bridgetown	10.0				0.2								8.6										1.2											
009746 Witchcliffe	15.4	0.4				0.2						1.6	12.2			0.2						0.8												
009789 Esperance	16.6	0.2			0.4				0.2				10.2	0.2								5.4												
009965 Bunbury	4.8											4.4										0.4												
009977 Mandurah	11.4											1.4	0.8									9.2												
009999 Albany Airport	22.2		0.2	0.2	0.6				0.8			0.8	16.8	1.2								1.6												
010007 Bencubbin		15																																
010092 Merredin	2.0	16																				2.0												
010286 Cunderdin Airfield	2.0																					2.0												
010633 Ravensthorpe	25.1	33			0.2	0.8			0.4			0.2	3.0						4.0	16.5														
010911 Lake Grace	6.2												2.0									4.0											0.2	
010916 Katanning	8.2												5.0									3.0		0.2										
010917 Wandering	15.6												0.4									15.2												
011003 Eucla	4.4	18							0.6	0.2		0.2										2.8	0.6											
011052 Forrest	2.8												0.4									0.4	0.2	1.8										
012038 Kalgoorlie-Boulder Airport	0.2	20																															0.2	
012071 Salmon Gums Res.Stn.	3.4	28							0.2				0.2									2.6	0.2									0.2		
013011 Warburton Airfield	23.6		0.6	1.4	6.2																	7.2	2.4				0.8	5.0						
013012 Wiluna	58.7	14	0.5	0.4	6.0		40.3																											
013017 Giles Meteorological Office	30.8	22		7.4		4.8																												0.2
Northern Territory																																		
014015 Darwin Airport	211.4	131		2.2			26.0	2.2	0.2								0.2	0.6			18.0	11.6	42.4		82.0	0.2	2.8			1.2	21.8			
014198 Jabiru Airport	155.4			0.6	15.0	1.6	11.0		0.8				0.2				73.4	0.2					0.2		10.8	1.0		30.8			9.8			
014932 Tindal RAAF	32.4				0.8																	7.2	3.6	8.0	0.2			12.6						
014508 Gove Airport	0.6																								0.6									
014723 Borroloola Airport	3.6								0.2								0.6											0.4					2.4	
014825 Victoria River Downs	40.8	69	1.2													2.4	0.2					9.6	0.2	25.4	0.2		0.6	1.0						
015135 Tennant Creek Airport	59.0		6.0									27.6		5.4	3.2									0.4	0.6	15.8								
015590 Alice Springs Airport	6.8	27											0.8											0.8		5.2								
015635 Yulara Airport	1.4																									1.4								
015666 Rabbit Flat	56.0		7.6	47.6	0.8																													
South Australia																																		
016001 Woomera Aerodrome	1.4	18			0.2																				1.2									
016098 Tarcoola Aero	1.6								0.2																1.4									
017043 Oodnadatta Airport	10.8								0.2			0.2																						
018012 Ceduna AMO		19																																

Daily and total rainfall for November 2016

New South Wales	Total	Avg	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
046043 Wilcannia (Reid St)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19.4	-	-	0.8	-	-	-	-	-	-	-	
048027 Cobar MO	23.6	32	0.2	-	-	-	-	-	-	-	10.0	13.0	-	-	-	-	-	-	-	-	-	-	-	-	0.4	-	-	-	-	-	-	
048245 Bourke Airport AWS	0.6	-	-	-	-	-	-	-	-	-	-	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
049000 Ivanhoe Aerodrome AWS	55.2	-	-	-	-	-	-	-	-	0.6	-	-	50.0	-	-	-	0.2	-	-	-	-	-	-	-	4.4	-	-	-	-	-	-	
050052 Condobolin Ag Research Stn	40.8	38	-	-	-	-	-	-	-	-	-	-	38.0	-	0.4	-	-	-	-	-	-	0.4	-	-	2.0	-	-	-	-	-	-	
051039 Nyngan Airport	3.6	35	-	-	-	-	-	-	-	-	3.2	0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
052088 Walgett Airport AWS	9.8	-	-	-	-	-	-	-	-	-	-	9.4	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
053115 Moree Aero	23.4	-	-	-	-	-	-	-	-	-	-	19.6	-	-	0.8	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.6	
054038 Narrabri Airport AWS	18.6	-	0.2	-	-	-	-	-	-	-	-	8.4	0.2	4.4	5.0	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
055024 Gunnedah Resource Centre	8.0	59	-	-	-	-	-	-	-	-	6.8	0.8	-	-	-	0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
055325 Tamworth Airport AWS	11.6	-	-	-	-	-	-	-	-	-	2.4	9.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
056242 Inverell (Raglan St)	34.4	2.0	-	-	-	-	-	-	-	-	7.0	8.2	-	2.6	5.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.0	0.4	
057095 Tabulam (Muirie)	46.6	0.4	-	-	-	-	-	-	-	-	-	21.8	-	-	14.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.2	3.6	0.2
058012 Yamba Pilot Station	36.2	110	4.8	-	-	-	-	-	-	-	-	14.6	-	0.2	13.6	0.2	2.0	0.2	-	-	-	-	-	-	-	-	-	-	-	-	0.6	-
060139 Port Macquarie Airport AWS	51.0	-	1.0	12.0	-	-	-	-	-	-	2.6	14.6	-	14.0	1.2	-	0.2	-	-	-	-	-	-	-	0.2	-	-	-	-	-	5.2	
061078 Williamtown RAAF	40.8	79	-	-	-	-	-	-	-	-	3.2	8.0	0.2	22.2	0.6	-	5.0	-	0.2	-	-	-	-	-	-	1.4	-	-	-	-	-	
061363 Scone Airport AWS	50.4	-	-	-	-	-	-	-	-	-	14.6	3.4	-	28.0	-	-	4.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
062101 Mudgee Airport AWS	58.4	0.2	-	-	-	-	-	-	-	-	5.2	2.0	0.2	50.2	0.2	-	-	0.2	-	-	-	-	-	-	-	0.2	-	-	-	-	-	
063005 Bathurst Agricultural Station	44.0	58	-	-	-	-	-	-	-	-	-	-	27.2	-	0.4	-	-	-	-	-	-	-	15.2	-	1.2	-	-	-	-	-	-	
063254 Orange Agricultural Institute	74.4	71	-	-	-	-	-	-	-	-	0.6	1.4	-	»	»	58.0	2.0	-	-	»	»	»	11.8	-	0.6	-	-	-	-	-	-	-
064008 Coonabarabran (Showgrounds)	14.7	69	-	-	-	-	-	-	-	-	1.0	5.5	-	8.0	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
065070 Dubbo Airport AWS	34.0	-	-	-	-	-	-	-	-	-	1.4	4.2	-	26.4	-	-	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
066062 Sydney (Observatory Hill)	27.2	116	-	-	-	-	-	-	-	-	2.0	10.2	-	9.0	-	-	0.6	-	-	-	-	-	-	-	5.4	-	-	-	-	-	-	
067105 Richmond RAAF	40.6	-	-	-	-	-	-	-	-	-	3.8	6.8	-	21.6	0.2	-	4.4	-	-	-	1.8	-	-	-	-	-	-	-	-	1.8	0.2	
068072 Nowra RAN Air Station AWS	29.8	-	-	-	-	-	-	-	-	-	6.2	0.4	-	13.0	-	-	2.2	-	-	-	-	-	-	-	7.0	-	-	-	0.2	-	0.8	
068151 Jervis Bay (Point Perpendicular)	37.0	-	-	-	-	-	-	-	-	-	7.4	1.6	1.2	22.0	-	1.4	-	-	-	-	-	-	-	-	2.4	-	0.6	-	0.4	-	-	
068241 Albion Park (Wollongong Airport)	31.4	-	-	-	-	-	-	-	-	-	9.0	3.8	-	6.6	-	-	6.4	0.2	-	-	-	-	-	0.6	0.2	-	-	-	0.6	2.8	1.2	
069018 Moruya Heads Pilot Station	33.6	104	-	-	-	-	-	-	-	-	2.8	4.4	0.4	7.8	-	-	-	-	-	-	-	-	-	-	17.8	-	-	-	0.4	-	-	
070351 Canberra Airport	56.8	-	-	-	-	-	-	-	-	-	8.4	6.2	-	19.4	-	8.6	0.6	-	-	-	-	-	9.4	-	4.2	-	-	-	-	-	-	
071041 Thredbo Village	159.3	-	0.4	-	-	-	-	-	-	-	4.0	0.1	0.1	40.0	14.3	51.4	2.1	-	-	-	-	-	-	-	11.5	35.2	0.1	-	-	-	0.1	
072150 Wagga Wagga AMO	25.0	41	-	-	-	-	-	-	-	-	-	-	-	»	»	17.2	-	-	-	-	»	»	2.0	-	5.8	-	-	-	-	-	-	
072160 Albury Airport AWS	49.6	-	-	-	-	-	-	-	-	-	-	-	8.0	1.8	18.8	0.8	-	-	-	-	-	-	0.8	-	19.2	0.2	-	-	-	-	-	
072161 Cabramurra SMHEA AWS	96.6	-	-	-	-	-	-	-	-	-	0.6	-	-	14.4	4.4	58.0	1.4	-	-	-	-	-	-	-	2.0	15.8	-	-	-	-	-	
074258 Deniliquin Airport AWS	40.6	-	-	-	-	-	-	-	-	-	-	-	11.0	-	5.0	-	-	-	-	-	-	-	6.8	2.0	15.8	-	-	-	-	-	-	
Victoria	Total	Avg	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
076031 Mildura Airport	51.2	22	-	-	-	-	-	-	-	-	-	-	-	31.4	-	-	-	-	-	-	-	-	0.8	3.6	15.4	-	-	-	-	-	-	
077008 Birchip (Woodlands)	20.4	25	-	-	-	-	-	-	-	-	-	-	-	9.4	-	-	-	-	-	-	-	-	-	-	3.0	8.0	-	-	-	-	-	
078015 Nhill Aerodrome	13.6	-	-	2.2	-	-	-	-	-	-	-	-	8.2	1.0	1.4	-	-	-	-	-	-	-	-	0.8	-	-	-	-	-	-	-	
080023 Kerang	28.2	30	-	-	-	-	-	-	-	0.2	-	-	-	7.0	0.2	4.4	-	-	-	-	-	-	-	1.8	14.6	-	-	-	-	-	-	
081123 Bendigo Airport	37.6	0.2	-	-	-	-	-	-	-	-	-	-	-	6.6	1.8	12.8	-	-	-	-	-	-	-	5.2	11.0	-	-	-	-	-	-	
082039 Rutherglen Research	29.8	42	-	-	-	-	-	-	-	-	-	-	-	3.2	1.2	11.8	-	-	-	-	-	0.8	-	12.6	-	0.2	-	-	-	-	-	
083085 Mount Hotham	124.4	0.2	0.8	3.0	-	-	0.2	0.6	-	-	-	-	-	5.4	16.4	31.2	0.6	0.2	-	-	-	-	1.0	56.2	5.8	2.8	-	-	-	-	-	-
084016 Gabo Island Lighthouse	30.4	86	-	-	-	-	-	-	-	-	2.2	2.2	0.8	0.2	-	9.2	-	-	-	-	-	-	-	2.2	11.2	2.4	-	-	-	-	-	-
084145 Orbost	-	-	1.8	-	-	-	-	-	-	-	0.2	1.0	0.8	-	-	12.0	-	-	-	-	-	-	-	-	15.0	0.8	-	-	-	-	-	
085072 East Sale Airport	53.4	59	-	0.8	-	-	-	-	-	-	-	-	-	0.2	13.8	2.0	-	-	-	-	-	-	-	4.6	28.4	3.2	-	-	-	-	0.4	-
085096 Wilsons Promontory Lighthouse	48.4	66	6.4	2.6	0.2	-	2.4	4.8	-	1.2	-	-	-	1.4	5.8	3.8	1.0	1.2	0.2	-	-	-	-	5.8	9.0	1.2	0.8	0.2	-	0.4	-	-
087031 Laverton RAAF	39.6	49	-	2.0	-	-	-	-	-	0.4	-	-	-	1.8	1.8	11.8	0.2	-	-	-	-	-	-	11.6	5.0	4.0	-	-	-	1.0	-	-
087184 Breakwater (Geelong Racecourse)	14.0	1.2	0.6	-	-	0.8	0.2	0.2	1.0	-	0.2	-	-	0.4	0.4	0.8	0.2	-	-	-	-	-	-	4.6	0.2	1.4	1.8	-	-	-	-	-
089002 Ballarat Aerodrome	34.0	54	1.2	3.0	-	0.2	-	-	-	1.0	0.2	-	-	5.6	2.2	16.2	0.4	-	-	-	-	-	-	2.0	0.4	1.4	0.2	-	-	-	-	-
090015 Cape Otway Lighthouse	38.0	68	5.0	1.8	0.2	-	1.2	1.6	-	4.8	-	-	-	12.2	1.0	-	-	0.4	-	0.2	0.4	-	-	3.2	3.0	0.8	1.4	-	0.6	0.2	-	-
Tasmania	Total	Avg	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
091009 Burnie (Round Hill)	123.6	64	3.8	1.8	-	0.2	6.2	3.2	0.8	5.0	-	-	-	6.4	5.8	-	-	-	-	-	-	-	0.4	3.8	-	28.6	-	-	-	-	-	-
091126 Devonport Airport	86.1	56	2.0	-	-	-	2.0	0.4	0.7	5.0	-	-	-	5.4	5.8	-	-	-	-	-	-	9.4	5.0	-	1.2	-	0.6	-	-	-	-	-
091293 Low Head	94.2	10.2	-	-	-	0.2	-	-	-	4.2	-	-	-	66.4	3.2	-	-	-	-	-	-	-	5.6	4.0	0.2	0.2	-	-	-	-	-	-
091311 Launceston Airport	53.6	-	-	-	-	-	0.2	-	-	2.6	-	-	0.8	0.2	34.8	8.8	-	-	-	-	-	-	2.0	3.4	-	0.8	-	-	-	-	-	-
092045 Larapuna (Eddystone Point)	94.2	69	3.2	1.4	-	-	-	-	-	0.4	-	-	-	47.2	10.6	0.2	-	-	-	-	-	-	4.8	3.2	20.0	-	-	-	-	-	3.2	-
093053 Ross (The Boulevards)	20.2	-	-	0.4	-	1.4	-	-	-	-	-	0.2	2.4	9.2	0.8	-	-	-	-	-	-	-	2.0	1.2	0.8	0.6	-	-	-	-	-	1.2
094010 Cape Bruny Lighthouse	50.2	83	5.2	9.0	0.4	-	11.0	6.6	0.6	2.6	-	-	0.6	2.2	0.2	-	0.4	-	-	-	-	-	-	3.0	-	6.2	0.8	0.8	-	-	-	0.6
094029 Hobart (Ellerslie Road)	65.2	53	0.6	5.4	0.2	-	7.8	0.2	0.2																							