



Issued 3 March 2025 — Monthly Summary for Australia — Product Code IDCKGC1AR0

Australia in February 2025

In brief

- The national area-averaged mean temperature in February was 1.64 °C above the 1961–1990 average, the fifth-warmest February on record for Australia since 1910.
- Area-averaged mean temperature was above average for all states and territories.
- Australia's area-averaged mean maximum temperature was 2.08 °C above the 1961–1990 average, the fifth-warmest on record for February since 1910. The national area-averaged mean minimum temperature was 1.19 °C above average, the sixth-warmest on record.
- Both mean maximum and mean minimum temperatures were above average for most of Australia.
- Australia's area-averaged February rainfall total was 2% below the 1961–1990 average.
- February rainfall was average or below average for most of Australia.
- Rainfall in February was above average for parts of the country's east and north-west.

Further information and tables of records for each state and Territory are available in the individual [regional climate summaries](#), published on 5 March 2025.

Temperatures

Australia's area-averaged mean temperature in February was 1.64 °C above the 1961–1990 average, the fifth-warmest February on record for Australia since 1910.

For South Australia, Western Australia and the Northern Territory, the area-averaged mean temperatures were in the top ten warmest on record for the respective state or territory.

Australia's area-averaged mean maximum temperature was 2.08 °C above average, the fifth-warmest February on record. Mean maximum temperatures were above to very much above average (in the highest 10% of all Februarys since 1910) for South Australia, Victoria, Tasmania and most of Western Australia, the Northern Territory, New South Wales and southern and south-western Queensland. Mean maximum temperatures for February were the highest on record for small areas of western New South Wales.

For South Australia, the area-averaged mean maximum temperature was the warmest on record for February, 3.43 °C above average. For all other states and territories except Queensland and Tasmania, the area-averaged mean maximum temperatures were in the top ten warmest on record for the respective state or territory.

Mean maximum temperatures were below to very much below average (in the lowest 10% of all Februarys since 1910) for Queensland's central districts and a small area in the Gulf Country.

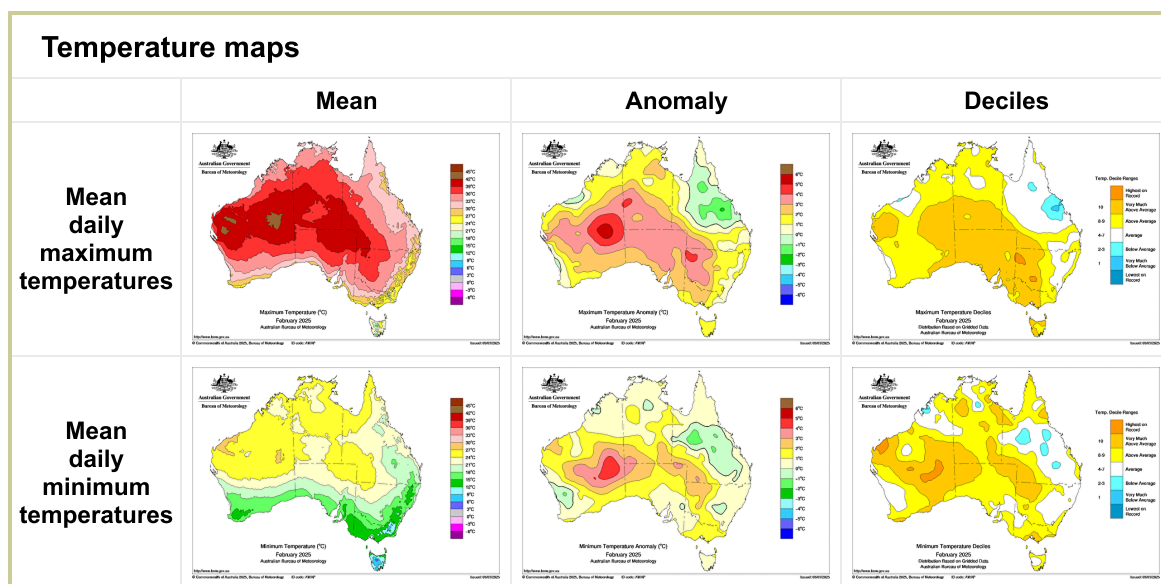
The national area-averaged mean minimum temperature was 1.19 °C above average, the sixth-warmest on record for February. Mean minimum temperatures were above to very much above average for most of Western Australia, the Northern Territory, South Australia and Victoria, and large parts of New South Wales, Queensland and Tasmania. Mean minimum temperatures for February were the highest on record for areas of western and central Western Australia. Some stations in these areas had their record highest mean minimum temperature for February, including some with more than 50 years of data.

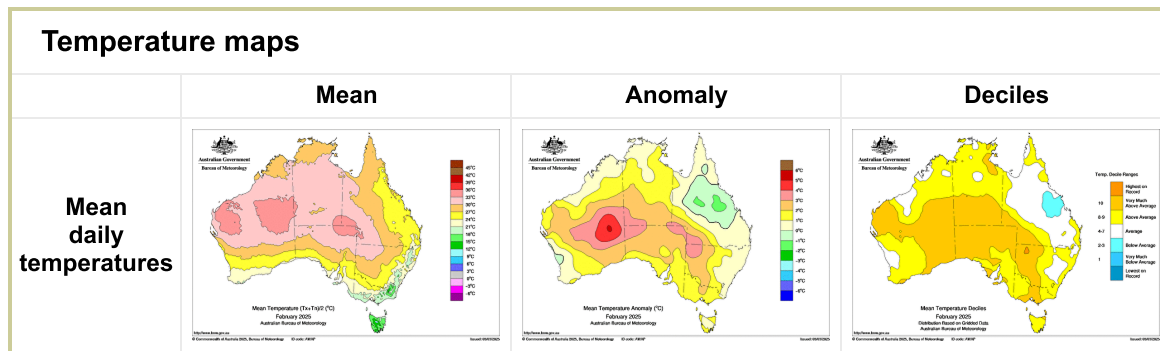
Mean minimum temperatures were below average in small areas of central Queensland, central Northern Territory and north-western Western Australia.

1-month temperature table ending February 2025

Areal average temperatures									
	Maximum Temperature			Minimum Temperature			Mean Temperature		
	Rank (of 116)	Anomaly (°C)	Comment	Rank (of 116)	Anomaly (°C)	Comment	Rank (of 116)	Anomaly (°C)	Comment
Australia	112	+2.08	5th highest	111	+1.19	6th highest	112	+1.64	5th highest
Queensland	85	+0.67		95	+0.76		91	+0.72	
New South Wales	109	+2.37	8th highest	100	+1.30		105	+1.83	
Victoria	107	+1.79	10th highest	97	+1.38		105	+1.59	
Tasmania	101	+1.14		75	+0.08		92	+0.61	
South Australia	116	+3.43	highest (was +3.36 °C in 2007)	106	+1.62		113	+2.53	4th highest (record +2.90 °C in 2007)
Western Australia	107	+2.37	10th highest	112	+1.29	5th highest	110	+1.83	7th highest
Northern Territory	111	+2.31	6th highest	108	+1.20	9th highest	112	+1.76	5th highest; highest since 1986

Rank ranges from 1 (lowest) to 116 (highest). A rank marked with '=' indicates the value is tied for that rank. Anomaly is the departure from the long-term (1961–1990) average.





Rainfall

The national area-averaged February rainfall total was 2% below the 1961–1990 average.

Area-averaged rainfall was below average for all states and territories except Queensland.

February rainfall was below to very much below average (in the lowest 10% of all Februaries since 1900) for most of Tasmania, western Victoria, western and southern South Australia, large parts of western and south-eastern Western Australia, and areas in the Top End in the Northern Territory. February rainfall was also below average for parts of northern and eastern New South Wales, south-eastern Queensland and southern Northern Territory.

Tasmania had its driest February since 2007, with the state area-averaged rainfall total 51% below average.

Rainfall was above to very much above average (in the highest 10% of all Februaries since 1900) for parts of Western Australia's Pilbara, Gascoyne and Interior districts, northern and central Queensland, and eastern Victoria. Rainfall was also above average in areas of south-eastern and central New South Wales and central Western Australia. Parts of Herbert and Lower Burdekin and Northern Goldfields and Upper Flinders districts in Queensland had their highest on record February rainfall. Many stations in this region, including some with more than 100 years of data, had their record highest total rainfall for February.

Significant weather and records

High temperatures across the country

In the absence of the monsoon, clear skies persisted over many days across northern Australia, allowing a build-up of an extremely hot air mass at the end of January and the beginning of February. A near-stationary high pressure system in the Tasman Sea and a low pressure trough close to the western coast circulated hot air southwards across the continent, resulting in maximum and minimum temperatures up to 10 °C above the February average, and up to 15 °C in southern parts of Australia. Daily maximum temperatures exceeded 45.0 °C at many stations across most of the country, with highest temperatures recorded in Western Australia between 1 and 3 February. The national area-averaged daily maximum temperatures on 1 and 2 February 2025 were the highest (39.32 °C) and third-highest (38.81 °C) on record for February respectively (since 1910).

Some of Western Australia's stations had their record highest February maximum temperature including Meekatharra Airport (75 years of data) where 46.9 °C was recorded on 3 February. Gascoyne Junction (50 years of data) had three consecutive days with temperature around 49.0 °C, and on 3 February the station observed 49.2 °C, its record highest daily maximum temperature for any month.

Heavy rainfall over north-eastern Queensland

Heavy rain along Queensland's north-east coast that started late in January, continued into February. A tropical low (13U) embedded into a low pressure trough and enhanced onshore winds, brought moisture from the warm waters of the Coral Sea, resulting in high daily rainfall totals for North Tropical Coast and Tablelands, and Herbert and Lower Burdekin districts. The highest daily rainfall totals were recorded on 2 and 3 February when many stations had daily rainfall totals that exceeded 300.0 mm, with the highest daily total of 745.2 mm at Paluma Ivy Cottage in the 24 hours to 9 am on 3 February. Many stations had their record highest daily rainfall totals for February or for any month (annual) on 2 and 3 February, including some stations with more than 100 years of data.

Several days of heavy rainfall has led to flash and riverine flooding. Major Flood Warnings were issued for several catchments in the region, including the Haughton, Herbert, Cape, Flinders and Upper Burdekin rivers. The flooding led to closure of many roads, preventing transport of supplies.

Monsoon trough

From late January, there was increased tropical activity across parts of northern Australia and monsoon troughs formed over parts of northern Queensland and, briefly, over northern Western Australia bringing showers, rain and thunderstorms. Monsoon onset was observed at Darwin on 7 February, the latest onset at Darwin since records began in the 1957-58 wet season, surpassing the previous latest onset date of 25 January during the 1972-73 wet season. The monsoon onset at Darwin is significant as it is typically one of the first areas in northern Australia to experience monsoonal conditions in the season.

The establishment of the monsoon trough brought heavy rainfall and cooler conditions across the tropical north. Between 9 and 11 February, a tropical low (20U) embedded in the monsoon trough moved over the interior of northern Queensland, from the Gulf of Carpentaria towards the north-east tropical coast bringing heavy to locally intense rainfall to the region. Rainfall eased from 12 February as 20U moved offshore to the Coral Sea, away from the continent, and the monsoon trough weakened. By 18 February, the monsoon trough moved offshore, to the north of the Northern Territory.

Severe Tropical Cyclone Zelia

A tropical low (18U) developed near the northern coast of Western Australia on 8 February. It moved slowly over the warm ocean waters to the south-west, parallel to the coast, while strengthening, reaching a tropical cyclone (TC) strength early on 12 February and was named TC Zelia. TC Zelia rapidly intensified reaching Severe TC intensity (Category 3 system) early on 13 February and by the evening it was a Category 5 system with sustained winds of 205 km/h, wind gusts of 285 km/h and central pressure of 927 hPa. Severe TC Zelia started to move to the south-south-east, towards the Western Australia's Pilbara coast.

Severe TC Zelia made landfall as a Category 4 system at 12.30 pm AWST on 14 February near De Grey River mouth, around 50 km north-east of Port Hedland. De Gray station reported 261.0 mm in the 24 hours to 9 am on 14 February, the record highest daily rainfall total for any month for this station which has 120 years of data. After the landfall, Severe TC Zelia continued to track to the south over inland Pilbara while weakening and on 15 February was downgraded to a tropical low. Ex-TC Zelia brought intense rainfall, flooding and destructive winds to wider area along its path across Pilbara, impacting transport links and isolated communities. It continued to move slowly southwards, bringing tropical humidity and heavy rainfall into the Gascoyne and Goldfields districts. Five-day rainfall totals (ending 9 am on 16 February) exceeded 200.0 mm at some stations in Pilbara, including 678.4 mm at De Gray station, 555.4 mm at Pardoo Station, 263.0 mm at Port Headland Airport, 315.0 mm at Yarrie, and 284.8 mm at Telfer Aero. High rainfall totals resulted in major flooding of the De Gray River which peaked 2 metres above record levels near Marble Bar.

TC Zelia was the 6th tropical cyclone in the Australian region for the 2024–25 season, and the 4th to reach severe strength (Category 3 or above). Severe TC Zelia was the first TC to cross the Australian coast in 2024–25, the latest first crossing since 2016–17 season.

Thunderstorms in parts of south-eastern Australia

A low pressure trough near New South Wales southern and central coast and another one in the state's west, triggered widespread rainfall with severe thunderstorms that impacted parts of New South Wales and Victoria on 9 and 10 February. Rainfall totals of 25 to 50 mm were recorded across eastern Victoria and southern and inland areas of new South Wales in the 24 hours to 9 am on 10 February, with the highest daily total of 110.2 mm at Mount Moornapa (Victoria) and 88.8 mm at Murrumburrah (New South Wales). There were also reports of large hail in Boorowa, Temor and Harden to the north-north-east of Wagga Wagga (New South Wales) on 10 February. On the same day, thunderstorm activity brought high rainfall totals across Greater Sydney, with the highest total of 88.2 mm recorded at Horsely Park while Sydney Observatory Hill had 53.2 mm in the 24 hours to 9 am on 11 February. Flash flooding was reported at several locations.

Warm in central and south-eastern Australia

From 10 February, heat that built up over southern Western Australia extended eastwards across South Australia, southern Northern Territory, Victoria, Tasmania and New South Wales. Heat further intensified due to hot northerly

airflow ahead of a cold front that crossed south-eastern Australia on 13 and 14 February. Maximum temperatures for large parts of central and south-eastern Australia were 6 to 10 °C above average and 12 °C above average for parts of South Australia. Several sites had their record highest February maximum temperature on 12 February. State records for the highest February maximum temperature were observed on 12 February at Oodnadatta Airport (South Australia) with 48.7 °C and Birdsville Airport (Queensland) with 47.5 °C. Some stations had their record highest February minimum temperature on 13 February, including 33.8°C at Bedourie (27 years of data) and 34.3 °C at Birdsville Airport (25 years of data), both in Queensland.

Hot and dry weather with strong, gusty winds ahead of the cold front resulted in high to extreme fire danger conditions for parts of South Australia, Victoria and Tasmania. Strong northerly winds, with maximum daily wind gusts exceeding 80 km/h, made bushfire conditions worse across western Tasmania with multiple fires, that started on 3 February, which continued to burn throughout the month.

Cold in the south-east

A cold front and a low pressure trough crossed south-eastern Australia on 13 and 14 February, followed by a strong southerly airflow with gusty winds and daily maximum and minimum temperatures up to 10 °C below average across south-eastern South Australia, Victoria, Tasmania and southern New South Wales. Associated speckled clouds resulted in generally light to moderate rain and showers for parts of Victoria, Tasmania and south-eastern New South Wales. On 15 February, some stations in Victoria and Tasmania recorded wind gusts of more than 80 km/h, with Wilsons Promontory Lighthouse and Hogan Island (both in Victoria) recording wind gusts of 120 km/h and 119 km/h respectively. A number of stations across Victoria and south-eastern New South Wales observed low minimum temperatures on 16 February including 2.5 °C at Castlemaine (Victoria), the record lowest daily minimum temperature for February at this station (59 years of data), -3.7 °C at Mount Hotham, its second-lowest February minimum temperature (the lowest since February 2008), and -3.1 °C at Mount Ginini AWS (NSW/ACT), its record lowest daily minimum temperature for February. On 17 February, low daily minimum temperatures were observed across eastern New South Wales, including 5.4 °C at Pindal Dam in the state's north-east, the record lowest minimum temperature for February for this site (53 years of data). A dusting of snow was observed on elevated areas of Tasmania and Victoria.

Thunderstorms at Perth Hills

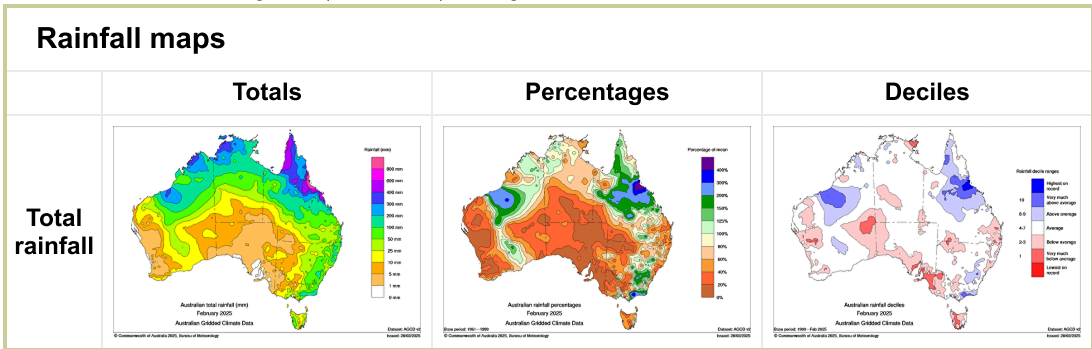
A trough extending along the southern parts of the Western Australian coast produced thunderstorms, some severe, on the evening of 19 February. Thunderstorms moved across the Wheatbelt and brought strong winds through the region, impacting Mt Helena, Stoneville, Mundaring, Gidgegannup, Chidlow, and surrounding areas around the Perth Hills. The strongest wind gust recorded was 91 km/h at Cunderdin Airfield, a February record for this station. There were reports of a microburst around the Perth Hills area. Damage to property was reported at many locations, roads were closed due to fallen trees and thousands of properties were reportedly left without power. The storms were fast-moving, so most stations recorded daily rainfall totals between 2 and 5 mm.

1-month rainfall table ending February 2025

Area-average rainfall				
	Rank (of 126)	Average (mm)	Departure from mean	Comment
Australia	58	75.2	-2%	
Queensland	= 94	154.6	+34%	
New South Wales	49	35.9	-28%	
Victoria	57	27.3	-12%	
Tasmania	14	31.4	-50%	
South Australia	25	4.3	-78%	

Area-average rainfall				
	Rank (of 126)	Average (mm)	Departure from mean	Comment
Western Australia	73	59.4	-5%	
Northern Territory	51	88.9	-28%	
Murray-Darling Basin	47	29.0	-26%	

Rank ranges from 1 (lowest) to 126 (highest). A rank marked with '=' indicates the value is tied for that rank. Departure from mean is relative to the long-term (1961–1990) average.



Australian weather extremes during February 2025

Hottest day	49.2°C	Gascoyne Junction (WA) on the 3rd
Coldest day	2.4°C	Mount Baw Baw (Vic.) on the 15th
Coldest night	-4.2°C	Thredbo AWS (NSW) on the 16th
Warmest night	34.8°C	Leinster Aero (WA) on the 9th
Wettest day	745.2 mm	Paluma Ivy Cottage (Qld.) on the 3rd

Notes

National monthly and seasonal summaries are published on the first working day of the following month, based on information available at 3 pm on the first day of that month.

Long-term averages in this statement and associated tables are for the period 1961 to 1990 unless otherwise specified. Temperature area averages are derived from the ACORN-SAT version 2 dataset and temperature maps are derived from the [AWAP dataset](#). Rainfall area averages and maps, are derived from the [AGCD dataset](#).



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This page was created at **08:39 on Tuesday 04 March 2025**

