

National Climate Summary – August 2005

Rainfall: Below average in many regions - especially in the east from Hawke's Bay to Otago; above average in the far southwest of the South Island

Temperature: One of the warmest Augusts on record; record breaking temperature extremes

Sunshine: Extremely sunny in the North Island, above average over much of the South Island

August was much drier, warmer, and much sunnier than normal over most of New Zealand. Many northern and eastern regions of the country recorded less than 50 percent (half) of their normal rainfall. This was especially noticeable in the east between Wairarapa and Otago, with record low totals in many places of between about 10 and 15 mm. The weather was also rather settled for the time of year, Hanmer Forest and Timaru Airport recording at least 1.0 mm of rain on only two days during the month. The lack of rainfall has resulted in significant soil moisture deficits for the time of year in northern and eastern Otago and South Canterbury. The month was much warmer than normal with the national average temperature of 9.8 °C being 1.1 °C above normal: the fourth highest for August in reliable records dating back to the mid 1860s. Only August 1893 and 1967 (both 9.9 °C), and August 1987 (10.0 °C) were warmer. Sunshine hours were very much above average throughout the North Island, especially in the west between Auckland and Wellington, and in coastal Otago, where many locations (including Auckland, Hamilton, Tauranga, Taumarunui, Gisborne, New Plymouth, Stratford, and Palmerston North) established new record high totals for August, equivalent to what is normally experienced during October. More anticyclones occurred to the east of the South Island extending west over central New Zealand. This produced more frequent northwesterlies over much of the South Island. The anticyclones combined with the frequent north westerlies, along with the wind and extra sunshine, resulted in August's overall warmth and dryness.

Other Highlights:

The highest temperatures during August 2005 were 25.1 °C recorded at Hanmer Forest on the 30th, and 25.4 °C recorded in Amberley on the 31st. These both exceeded the previous all-time New Zealand maximum temperature record for August.

The lowest temperature for the month was -7.1 °C, recorded at Lake Tekapo on the 11th.

The highest wind gust for the month was 154 km/h from the northwest, recorded at South West Cape on the 19th.

Of the four main centres Dunedin was the driest, while Auckland was the warmest. Rainfall was well below average in all four main centres. Temperatures were above average in all four centres, with near records in Wellington and Dunedin. It was very sunny in all four centres, with near record August sunshine hours in Auckland, Wellington, and Dunedin.

Rainfall: Rainfall was less than 25 percent (quarter) of normal rainfall in much of Canterbury, coastal Otago, Wairarapa and Wellington, less than 50 percent (half) of normal in much of Northland, Auckland, Wanganui, Manawatu, Hawke's Bay, Marlborough, and Nelson. Rainfall was also below average in many other regions. Fiordland was the only region with above average rainfall.

Temperature: Mean temperatures about 1.5 C above average in parts of Wellington, Marlborough, Canterbury, West Otago, and Southland, and 1.0 °C above average in Manawatu, Wairarapa, and Nelson. Temperatures were also above average in Auckland, Hawke's Bay, and the remainder of Otago.

Sunshine: Sunshine hours were at least 125 percent of average throughout the whole of the North Island and in coastal Otago, and more than 110 percent of average over much of the South Island. Sunshine hours were below average in Southland and Fiordland.

For further information, please contact:

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**BELOW AVERAGE RAINFALL IN MANY REGIONS,
ESPECIALLY IN THE EAST, FROM HAWKE'S BAY TO OTAGO**

Rainfall was less than 25 percent (quarter) of normal rainfall in much of Canterbury, coastal Otago, Wairarapa and Wellington, less than 50 percent (half) of normal in much of Northland, Auckland, Wanganui, Manawatu, Hawke's Bay, Marlborough, and Nelson, and 75 percent or less (three quarters) of normal in many other regions. Fiordland was the only region with above average rainfall (at least YY percent of normal). Rainfall was near normal in Westland, the Southern Lakes, and Gisborne and western Bay of Plenty.

Near or record low August rainfall was recorded at:

Location	August Rainfall (mm)	Percentage of normal	Year records began	Comments
Dargaville	31	27	1943	Lowest
Whangarei Airport	54	37	1937	2 nd lowest
Warkworth	43	27	1972	2 nd lowest
Auckland, Henderson	45	28	1986	Lowest
Auckland, Owairaka	46	38	1949	2 nd lowest
Auckland, Mangere	35	30	1959	Lowest
Auckland Airport	38	35	1962	2 nd lowest
Pukekohe	37	34	1970	Lowest
New Plymouth Airport	52	41	1944	Lowest
Waione	25	21	1992	Lowest
East Taratahi	19	21	1972	Lowest
Martinborough	19	23	2001	Lowest
Ngawi	26	22	1989	2 nd lowest
Whakatu	16	28	1983	Equal lowest
Paraparaumu Airport	23	26	1945	2 nd lowest
Wellington, Kelburn	30	24	1862	2 nd equal lowest
Wellington Airport	35	36	1960	Equal lowest
Wallaceville	18	14	1924	Lowest
Farewell Spit	35	25	1874	Well below normal
Stephens Island	20	23	1894	3 rd lowest
Blenheim Research	15	20	1985	Lowest
Blenheim Airport	22	31	1941	3 rd lowest
Awatere Valley	13	18	2001	Lowest
Cape Campbell	10	14	1874	Well below normal
Hanmer Forest	12	10	1905	Lowest
Kaikoura	24	31	1949	Well below normal
Rangiora	8	13	1999	Lowest
Darfield	10	11	1920	3 rd equal lowest
Christchurch Airport	13	20	1944	Well below normal
Christchurch Gardens	11	16	1864	3 rd lowest
Le Bons Bay	11	9	1989	Lowest
Timaru Airport	11	24	1957	Well below normal
Oamaru Airport	8	18	1941	Well below normal
Middlemarch	10	34	1916	Well below normal
Dunedin Airport	10	19	1963	Lowest
Musselburgh	10	15	1918	2 nd lowest
Nugget Point	19	30	1930	3 rd equal lowest

ABOVE AVERAGE TEMPERATURES OVER THE SOUTH ISLAND, AVERAGE OR ABOVE OVER THE NORTH ISLAND

Mean temperatures about 1.5 °C above average in parts of Wellington, Marlborough, Canterbury, West Otago, and Southland, 1.0 °C above average in Manawatu, Wairarapa, and Nelson, and about 0.5 °C above average in Auckland, Hawke's Bay, and the remainder of Otago. They were near average elsewhere.

Near or record high August mean air temperatures were recorded at:

Location	Mean temperature	Departure from average (°C)	Records Began	Comments
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Motu	8.1	+2.5	1992	Highest
Mt. Ruapehu, The Chateau	4.8	+1.6	1932	2 nd highest
Wellington, Kelburn	10.7	+1.5	1862	2 nd highest
Wellington Airport	11.3	+1.4	1962	2 nd equal highest
Farewell Spit	11.2	+1.5	1971	3 rd equal highest
Puysegur Point	10.0	+1.6	1980	Highest
Blenheim Research	10.2	+1.6	1985	Highest
Hanmer Forest	7.7	+2.1	1906	2 nd highest
Kaikoura	10.2	+1.7	1964	2 nd equal highest
Winchmore	8.5	+1.7	1950	3 rd highest
Lincoln	9.3	+2.1	1881	2 nd highest
Dunedin, Musselburgh	8.8	+1.3	1947	2 nd highest
Manapouri Airport	6.7	+1.9	1992	Highest
Queenstown	7.3	+1.5	1872	2 nd highest
Lauder	6.5	+1.8	1981	2 nd highest
Gore	7.4	+1.5	1986	Highest
Invercargill Airport	7.9	+1.5	1948	Highest
Tiwai Point	8.7	+1.5	1970	Highest
Chatham Islands	9.5	+1.0	1957	Equal highest

EXTREMELY SUNNY THROUGHOUT THE NORTH ISLAND

Sunshine hours were at least 125 percent of average throughout the whole of the North Island and in coastal Otago, and more than 110 percent of average over much of the South Island, with new records established in Auckland, Hamilton, Tauranga, Taumarunui, New Plymouth, Stratford, and Palmerston North. In contrast, it was cloudier than normal in Southland and Fiordland.

Near record high August sunshine hours were recorded at:

Location	August sunshine (hours)	Percentage of normal	Year Records began	Comments
Kaitaia	191	125	1985	3 rd highest
Dargaville	180	134	1943	2 nd highest
Auckland	204	144	1910	Highest
Tauranga Airport	216	128	1933	Highest
Hamilton, Ruakura	195	141	1936	Highest
Taumarunui	151	141	1947	Highest
New Plymouth	229	149	1915	Highest
Gisborne Airport	209	135	1906	Highest
Palmerston North	199	171	1931	Highest
Paraparaumu Aiprort	188	129	1953	3 rd highest
Wellington, Kelburn	194	143	1928	2 nd highest 204, highest since 1935
Stratford	193	147	1963	Highest
Blenheim	221	124	1930	2 nd highest
Lake Tekapo	197	131	1928	2 nd equal highest
Dunedin, Musselburgh	156	137	1948	3 rd highest

AUGUST'S CLIMATE IN THE FOUR MAIN CENTRES

Of the four main centres Dunedin was the driest, while Auckland was the warmest. Rainfall was well below average in all four main centres. Temperatures were above average in all four centres, with near records in Wellington and Dunedin. It was very sunny in all four centres, with near or record August sunshine hours in Auckland, Wellington, and Dunedin.

Location	August Mean Temp. (°C)	Dep. from normal (°C)		August rainfall (mm)	% of normal		August Sunshine (hours)	% of Normal	
Auckland	11.9 ^a	+0.4	Above average	45 ^b	37	2 nd lowest	204 ^a	144	Record high
Wellington	10.7	+1.5	2 nd highest	30	24	2 nd equal lowest	194	143	2 nd highest
Christchurch	8.2 ^c	+1.1	Above average	13 ^c	20	Well below average	181	123	Well above Average
Dunedin	8.9	+1.3	Equal highest	10	15	Well below average	156	137	Well above average

a Mangere b Mt Albert c Christchurch Airport

HIGHLIGHTS AND EXTREME EVENTS

Temperature

The highest temperatures during August 2005 were 25.1 °C recorded at Hanmer Forest on the 30th, and 25.4 °C recorded in Amberley on the 31st both exceeding the previous all-time New Zealand maximum temperature record for August. These and other near or record high August maximum temperatures are listed below. Maximum temperatures reached at least 20.0 °C somewhere in Canterbury every day from 19 through 23 August.

Near or record high August maximum air temperatures were recorded at:

Location	Maximum temperature °C	Date of occurrence	Year Records began	Comments
Amberley	25.4	31 st	1973	Highest *New New Zealand record
Hanmer Forest	25.1	30 th	1906	Highest *Exceeded previous New Zealand record
Waipara	23.8	31 st	1973	Highest
Ranfurly	23.0	31 st	1975	Highest
Lauder	22.2	31 st	1987	Highest
Alexandra	22.0	29 th & 30 th	1993	Highest
East Taratahi	21.9	31 st	1972	Highest
Ngawi/Cape Palliser	21.8	31 st	1972	Highest
Waione	21.6	30 th	1993	Highest
Tara Hills	21.6	31 st	1950	Highest
Clyde	21.6	31 st	1983	Highest
Dunedin Airport	21.1	21 st	1963	3 rd highest
Blenheim Airport	21.0	30 th	1941	Highest
Motu	20.9	31 st	1991	Highest
Mt Cook Village	20.9	31 st	1931	Highest

The lowest temperature for the month was -7.1°C, recorded at Lake Tekapo on the 11th.

High winds

The highest wind gust for the month was 154 km/h from the northwest, recorded at South West Cape on the 19th.

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