

National Climate Summary – January 2006

Temperature: Well below average in the west of the South Island; above average in the east of the North Island

Central Otago heat-wave toward the end of the month

Rainfall: Well above normal in Northland, inland Bay of Plenty, Taupo, and Southland; well below normal in Horowhenua

Soil moisture: Significant deficits in the east of the South Island, and southwest of the North Island

Sunshine: Normal or above throughout New Zealand

Western South Island temperatures plummeted in January, especially noticeable after one of the warmest Decembers on record. Mean January temperatures were as much as 1.5 °C below average in parts of Westland and Fiordland. They were also below average in several other southern and western South Island regions. Temperatures however, were above average in the east of the North Island. The national average temperature was 17.0 °C, the same as the 1971-2000 normal. A heat-wave occurred in Central Otago toward the end of the month, Alexandra recording maximum temperatures of 36 °C for three consecutive days from the 27-29th, unheard of in their historical record, which commenced in 1930. A mixed pattern of rainfall occurred over New Zealand in January, with relatively high totals in parts of Northland, inland Bay of Plenty, Taupo, and Southland, and comparatively low totals in Horowhenua. Significant soil moisture deficits developed in northern and eastern regions of both Islands until a depression of tropical origin produced substantial rainfall in those regions during 24-25 January. However, high rainfall did not affect the southern and eastern South Island, and significant soil moisture deficits persisted in parts of Canterbury and Central Otago, as well as Manawatu, Wellington, and Wairarapa. Sunshine hours were normal or above normal throughout New Zealand. January mean sea level pressures were well below average in the Southern Ocean with frequent troughs of low pressure influencing the South Island. Mean sea level pressures were above average in the north Tasman Sea. These patterns resulted in more frequent westerlies than average over New Zealand.

Other Highlights:

The highest temperature recorded during January 2006 was 36.0 °C recorded at Alexandra on the 27th, 28th, and 29th; the lowest temperature for the month was -1.2 °C at Ranfurly on the 19th.

The highest wind gusts for the month were 165 km/h from the northwest, occurring at Kaukau Top between the 2nd and 4th of January, while gales buffeted Wellington city.

Substantial rainfall occurred in Northland, Coromandel, Waikato, Bay of Plenty, and Nelson over 24-25 January, Rotorua recorded 140 mm over the 24 hour period to 9am on the 25th, and as much as 260 mm was noted in just 14 hours on the Coromandel Peninsula. Gale force easterlies affected Auckland, and Coromandel, with about 7000 homes on the Coromandel Peninsula losing power due to fallen branches or trees. A truck was overturned, and there were dozens of road accidents in Auckland during the hazardous conditions. High rainfall also occurred in the Rotorua/Taupo districts on the 28th, with a severe thunderstorm, and surface flooding.

Of the four main centres Christchurch was the driest, and Auckland the wettest. Auckland had near normal rainfall, temperature, and sunshine. Wellington was drier and sunnier than normal, Christchurch was drier than normal, and Dunedin was sunnier than normal.

Temperature: Mean temperatures were 1.0 to 1.5 °C below average throughout much of Buller, Westland and Fiordland. They were also below average in parts of the eastern South Island from south Canterbury to Southland.

Mean temperatures were above average in the east of the North Island from Gisborne to Wairarapa.

Rainfall: Rainfall was almost 200 percent (twice) of normal in parts of Northland, inland Bay of Plenty, Taupo, and Southland. Rainfall was also above normal in Waikato, Coromandel, western Bay of Plenty, Nelson Lakes, south Westland, Fiordland, Marlborough, south Canterbury, and Southern Lakes. Milford Sound's rainfall exceeded 1000 mm for the month, almost 900 mm occurring within the first two weeks. Totals were 50 percent (half) or less of normal in Horowhenua, and 75 percent (three quarters) or less of normal in Kapiti, along the Kaikoura Coast, north Canterbury, and in Central Otago.

Sunshine: Sunshine hours were almost 120 percent of normal in Westland and coastal Otago. They were also above normal in Wellington, Marlborough, inland south Canterbury, and Southland.

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TEMPERATURES BELOW AVERAGE IN THE SOUTH AND WEST OF THE SOUTH ISLAND, ABOVE AVERAGE IN THE EAST OF THE NORTH ISLAND

Mean temperatures were 1.0 to 1.5 °C below average throughout much of Buller, Westland, and Fiordland, and at least 0.5 °C below average in parts of the eastern South Island from south Canterbury to Southland. Temperatures were at least 0.5 °C above average in the east of the North Island from Gisborne to Wairarapa, and near average elsewhere.

Low January mean air temperatures were recorded at:

Location	Mean temperature	Departure from average (°C)	Records Began	Comments
Hokitika Airport	14.1	-1.5	1963	Well below average
Milford Sound	13.4	-1.3	1934	Well below average
Ettrick	15.6 ^a	-1.5	1986	Well below average

^a to 30 January

RAINFALL WELL ABOVE NORMAL IN NORTHLAND, INLAND BAY OF PLENTY, TAUPO, AND SOUTHLAND; NEAR NORMAL IN MOST OTHER REGIONS

Rainfall was almost 200 percent of normal in parts of Northland, inland Bay of Plenty, Taupo, and Southland, and at least 125 percent of normal in Waikato, Coromandel, western Bay of Plenty, Nelson Lakes, south Westland, Fiordland, Marlborough, south Canterbury, and Southern Lakes. Milford Sound's rainfall exceeded 1000 mm for the month (140 percent of normal), with almost 900 mm occurring within the first two weeks. January totals were 50 percent or less of normal in Horowhenua, and 75 percent or less of normal in Kapiti, along the Kaikoura Coast, north Canterbury, and in Central Otago. Rainfall was near normal elsewhere.

January rainfall highlights were:

Location	January Rainfall (mm)	Percentage of normal	Year records began	Comments
Kaikohe	196	182	1973	Well above average
Rotorua Airport	179	181	1964	Well above average
Taupo Airport	161	210	1962	2 nd highest
Invercargill Airport	208	183	1940	Well above average
Levin	31	36	1928	Well below average

AVERAGE OR ABOVE AVERAGE SUNSHINE THROUGHOUT NEW ZEALAND

Sunshine hours were almost 120 percent of normal in Westland and coastal Otago, and at least 110 percent of normal in Wellington, Marlborough, inland south Canterbury, and Southland. They were near normal elsewhere.

Near record January sunshine hours were recorded at:

Location	January sunshine (hours)	Percentage of normal	Year Records began	Comments
Hokitika	255	121	1964	Equal 2 nd highest
Dunedin, Musselburgh	224	126	1948	2 nd highest

JANUARY'S CLIMATE IN THE FOUR MAIN CENTRES

Of the four main centres Christchurch was the driest, and Auckland the wettest. Rainfall was near average in Auckland and Dunedin, and below average in Wellington and Christchurch. Temperatures were near average in all four main centres. Sunshine hours were near average in Auckland and Christchurch, and above average in Wellington and Dunedin.

Location	Jan. Mean Temp. (°C)	Dep. from normal (°C)		Jan. rainfall (mm)	% of normal		Jan. Sunshine (hours)	% of Normal	
Auckland	19.7	0.0	Average	82	110	Near average	234	102	Near average
Wellington	17.0	+0.1	Near average	58	80	Below average	278	113	Above average
Christchurch	17.1	0.0 ^a	Average	33 ^a	77	Below average	247 ^a	108	Near average
Dunedin	15.4	+0.2	Near average	74	103	Near average	224	126	2 nd highest

^a Christchurch Airport

HIGHLIGHTS AND EXTREME EVENTS

Temperature

The highest temperature recorded during January 2006 was 36 °C * recorded at Alexandra on the 27th, 28th, and 29th. The lowest temperature for the month was -1.2 °C at Ranfurly on the 19th.

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

Location	Maximum Temperature (°C)	Date of occurrence	Records Began	Comments
Hanmer Forest	35.6	30 Jan.	1906	Equal highest for January
Culverden	36 *	30 Jan.	1984	Highest for any month
Tara Hills, Omarama	34.9	27 Jan.	1950	Highest for January
Wanaka Airport	34.3	28 Jan.	1993	Highest for January
Queenstown Airport	32.1	27 Jan.	1969	Highest for January
Lauder	34.3	27 Jan.	1982	Highest for January
Clyde	34.9	27 Jan.	1984	2 nd highest for January
Reefton	33.3	30 Jan.	1961	2 nd highest for January

* measured to the nearest whole number

High winds and rainfall

The highest wind gusts for the month were 165 km/h from the northwest, occurring at Kaukau Top between the 2nd and 4th of January, with mean speeds reaching 115 (violent storm) and 128 km/h (hurricane force) respectively; gales buffeted Wellington city.

A depression of tropical origin produced substantial rainfall in Northland, Coromandel, Waikato, Bay of Plenty, and Nelson over 24-25 January, with at least 50 mm in many areas. Higher rainfall, totalling 140 mm was recorded at Rotorua Airport over the 24 hour period to 9am on the 25th, and reports of 260 mm in 14 hours were noted in the Coromandel Peninsula. Surface flooding, although not severe, occurred throughout these regions, creating hazardous driving conditions for motorists. Gale force easterlies affected Auckland, and Coromandel, with about 7000 homes on the Coromandel Peninsula losing power due to fallen branches or trees. A truck was overturned, and there were dozens of road accidents in Auckland during the hazardous conditions.

Further high rainfall, totalling 74 mm, was recorded at Taupo Airport in the 24 hours to 9am on the 29th. The same weather system produced 66 mm of rainfall in Rotorua in the 3-hours from 9pm, and 32 mm in the hour to 11pm on the 28th, along with a severe thunderstorm, and surface flooding throughout the district.

For further information, please contact:

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