

National Climate Summary – Winter 2008: Very stormy and wet with floods and snow to low levels

- **Rainfall: Well above normal for north and west of North Island and eastern South Island**
- **Temperature: Above average in the north and west, below average in coastal Otago**
- **Sunshine: Above normal for much of the North Island, Fiordland and Southland**

Winter 2008 was very wet and stormy in many areas, with frequent extremes. Significant flood-producing rainfall events occurred in Northland, Coromandel, and the Bay of Plenty, and twice in Marlborough. Wanganui, Manawatu, Marlborough, and parts of the central Plateau and Wellington had their wettest winters on record. Damaging windstorms occurred in the north of the North Island and August snow storms fell to unusually low levels in some places. In contrast, winter was comparatively benign in South Westland and Fiordland.

Winter rainfall was over 200 percent (double) of normal in Marlborough and Canterbury and about 150 percent (one and a half times) normal in Auckland, Waikato, Bay of Plenty, Taranaki, Manawatu, Wellington, northern parts of the Southern Alps, and coastal Otago. Not only were the rainfall totals far above normal for these locations, the number of days with rain was also much higher than average, particularly during July (23 days of rain in Kaitaia and New Plymouth, 22 in Auckland and Pukekohe, and 20 in Wellington). Gisborne, Hawkes Bay and Westland received about normal rainfall for winter, while parts of Fiordland and central Otago received about 75 percent (three quarters) of normal rainfall.

Winter overall was slightly warmer than average in parts of northern New Zealand, central Otago and Fiordland, and below average in eastern Otago and the Wairarapa. The national average temperature of 8.5 °C was 0.2 °C above average for winter. June saw a mild start to winter with much warmer than average conditions in many places especially inland South Canterbury and Otago, with temperatures 1.5 to 2°C above average. Average daily maximum temperatures during June were between 2 and 3 °C above average in these same areas. July was also generally warmer than average overall, and only slightly cooler than June, despite a cold spell which saw frosts as far north as Auckland and -9.1°C in Waiouru (a record low July minimum temperature for this location) in the second week of the month. August temperatures were near average in the North Island but below average in the South Island. The three days from the 9th to the 11th were particularly cold for many locations, with minimum temperatures as low as -5.0°C recorded at Dunedin Airport, -4.0°C at Martinborough and 1.5°C at Kaitaia (all August records). The overall winter climate pattern was dominated by more depressions ('lows') crossing central New Zealand and often centred to the east, with more frequent south easterly flows over the southern South Island, and westerlies over the North Island.

Major Highlights:

- Winter produced several high rainfall/flood-producing events. On 26 July heavy rainfall in Northland and Coromandel (166 mm was recorded in Paeroa, the highest ever 1-day total for July since 1914) caused severe flooding. A few days later on 29 July, heavy rainfall caused more flooding, slips and damage in Thames/Coromandel, Auckland, Nelson and Marlborough, with a North Shore home completely destroyed by a slip and another 14 homes at risk.
- More severe flooding occurred on 26 August, when 126 mm of rain fell in the 24 hours to 9am on the 26th at Kaikoura (the second highest 1-day August rainfall for this location since 1898) resulting in several landslides, damage and death of many livestock.
- The highest temperature during winter 2008 was 23.1°C recorded at Waipara West on the 15th of June. This was only 0.9°C below the record South Island temperature for June of 24.0°C recorded at Kaikoura and Temuka on 2 June 1976.
- The lowest temperature during winter was recorded at Arthurs Pass on the 20th of August, where the minimum temperature was -9.5°C. In July, there were freezing temperatures across the country on the 9th, with negative numbers recorded from Auckland (-1°C) to Queenstown (-4°C). The unusual sight of frost in Auckland was seen for two days in a row on the 8th and 9th.
- Windstorms struck Northland and Auckland on 26 July bringing down powerlines and trees, leaving

53,000 homes without power in the Auckland region.

- There were two major snowfall events in winter. The first occurred on 15 August bringing snow to unusually low levels in the north west of the South Island. Three days later on 18 August, snow fell to very low levels in the North Island, with over 1 m of snow at Ruapehu village.
- Of the five main centres, Auckland was the warmest, Wellington the wettest and sunniest, and Dunedin was the driest. Winter temperatures were near or slightly above average at all five locations. Rainfall was well above normal in Auckland and Christchurch, above normal in Hamilton and Wellington, and near normal in Dunedin. Winter sunshine was near normal everywhere.

Rainfall: Winter rainfall was over 200 percent (double) of normal in Marlborough and Canterbury and about 150 percent (one and a half times) normal in Auckland, Waikato, Bay of Plenty, Taranaki, Manawatu, Wellington, northern parts of the Southern Alps, and coastal Otago. Gisborne, Hawkes Bay and Westland received about normal rainfall for winter, while parts of Fiordland and central Otago received about 75 percent (three quarters) of normal rainfall.

Temperature: Seasonal mean temperatures were about 0.5 °C above average in western parts of Northland, Taranaki and Fiordland and more than 1.0 °C above average in parts of Central Otago. They were below average by about 0.5°C in the southeast of the North Island and eastern Otago.

Sunshine: Winter sunshine hours were at least 110 percent of normal in Northland, Waikato, Bay of Plenty, Gisborne, Hawkes Bay, Wellington and southwestern South Island. In Taranaki, Manawatu, Westland and coastal Otago totals were lower than usual, being 90 percent of normal.

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RAINFALL: WELL ABOVE NORMAL FOR MUCH OF COUNTRY

Winter rainfall was over 200 percent (double) of normal in Marlborough and Canterbury and about 150 percent (one and a half times) normal in Auckland, Waikato, Bay of Plenty, Taranaki, Manawatu, Wellington, northern parts of the Southern Alps, and coastal Otago. Gisborne, Hawkes Bay and Westland received about normal rainfall for winter, while in contrast parts of Fiordland and central Otago received about 75 percent (three quarters) of normal rainfall.

Near or record winter rainfall totals were recorded at:

Location	Winter 2008 rainfall (mm)	Percentage of normal	Year Records began	Comments
Kaitaia Observatory	574	122	1985	4th highest
Warkworth	732	142	1966	2nd highest
Paeroa	717	176	1914	Highest
Auckland Aero	541	149	1959	3rd highest
Pukekohe	649	166	1944	Highest
Whatawhata (Waikato)	879	174	1952	2nd highest
Ruakura	546	148	1905	3rd highest
Taumarunui	622	146	1913	2nd highest
Turangi	714	154	1968	2nd highest
New Plymouth	675	162	1944	3rd highest
Paraparaumu Aero	484	163	1945	2nd highest
Palmerston North	411	164	1928	4th highest
Levin	450	145	1895	Highest
Wallaceville	666	165	1924	Highest
Stratford	870	148	1960	2nd highest
Ohakune	692	181	1961	Highest
Waiouru	556	191	1950	Highest
Wanganui	369	154	1987	2nd highest
Greymouth Aero	817	134	1947	3rd highest
Blenheim Aero	376	174	1927	Highest
Hanmer Forest	691	202	1905	Highest
Kaikoura	550	229	1898	Highest
Culverden	346	194	1921	4th highest
Darfield	362	168	1919	2nd highest
Christchurch Aero	352	177	1863	4th highest
Lumsden	210	103	1982	4th highest
Milford Sound	826	64	1929	4th lowest

TEMPERATURE: ABOVE AVERAGE IN THE NORTH AND WEST OF NORTH ISLAND, FIORDLAND AND CENTRAL OTAGO; BELOW AVERAGE IN EASTERN AREAS

Seasonal mean temperatures were about 0.5 °C above average in western parts of Northland, Taranaki and Fiordland and more than 1.0 °C above average in parts of Central Otago. They were below average by about 0.5°C in the southeast of the North Island and eastern Otago. The national average temperature of 8.5 °C was 0.2 °C above average for winter.

Extreme (high and low) winter mean daily air temperatures were recorded at:

Location	Mean air temperature (°C)	Departure from normal	Year records began	Comments
Kaikohe	12.0	0.8	1973	3rd highest
Dargaville	12.4	0.8	1943	3rd highest
Kumeu (Waitakere)	11.4	0.9	1978	2nd highest
Milford Sound	6.9	1.1	1934	3rd highest
Cromwell	5.7	1.9	1949	Highest
Dannevirke	7.0	-1.1	1951	4th lowest
Balclutha	4.2	-1.7	1964	Lowest

Extreme (high and low) winter mean maximum daily air temperatures were recorded at:

Location	Mean maximum air temperature (°C)	Departure from normal	Year records began	Comments
Kaikohe	14.8	0.7	1973	3rd highest
Waipawa	13.4	0.8	1945	3rd highest
Milford Sound	11.1	1.2	1934	Highest
Appleby	13.9	1.1	1943	2nd highest
Cromwell	10.8	1.9	1949	Highest
Dannevirke	10.7	-1.3	1951	Lowest
Castlepoint	12.3	-0.7	1972	3rd lowest
Balclutha	8.3	-1.7	1964	Lowest

Extreme (high and low) winter mean minimum daily air temperatures were recorded at:

Location	Mean minimum air temperature (°C)	Departure from normal	Year records began	Comments
Kaitaia	9.7	1.0	1967	4th highest
Kaikohe	9.1	0.9	1973	4th highest
Dargaville	9.4	1.9	1943	3rd highest
Kumeu (Waitakere)	7.3	1.4	1978	Highest
Paeroa	7.1	1.8	1947	4th highest
Paraparaumu Aero	6.5	1.2	1953	2nd highest
Hawera	6.2	1.1	1977	3rd highest
Wanganui	7.2	0.9	1987	4th highest
Cape Campbell	7.6	2.9	1953	2nd highest
Darfield	2.8	1.3	1939	Highest
Tara Hills	-1.0	1.1	1949	3rd highest
Cromwell	0.6	1.8	1949	2nd highest
Gore	1.9	0.4	1971	Highest
Dunedin Aero	0.7	0.3	1947	2nd lowest
Balclutha	0.1	-1.5	1964	Lowest

SUNSHINE: ABOVE NORMAL IN NORTH AND EAST OF NORTH ISLAND, FIORDLAND AND SOUTHLAND

Winter sunshine hours were at least 110 percent of normal in Northland, Waikato, Bay of Plenty, Gisborne, Hawkes Bay, Wellington and southwestern South Island. In Taranaki, Manawatu, Westland and coastal Otago totals were lower than usual, being 90 percent of normal.

Extreme (high and low) winter sunshine hours were recorded at:

Location	Winter sunshine (hours)	Percentage of normal	Year records began	Comments
Waipawa	449	120	1945	3rd highest
Cromwell	381	116	1979	3rd highest
Balclutha	334	115	1964	4th highest
Mt Cook	211	83	1930	3rd lowest

WINTER CLIMATE IN THE FIVE MAIN CENTRES

Of the five main centres, Auckland was the warmest, Wellington the wettest and sunniest (just), and Dunedin was the driest. Winter temperatures were near or slightly above average in all five locations. Rainfall was well above normal in Auckland and Christchurch, above normal in Hamilton and Wellington, and near normal in Dunedin. Autumn sunshine was near normal everywhere.

Location	Winter Mean Temp. (°C)	Dep. from normal (°C)		Winter rainfall (mm)	% of normal		Winter Sunshine (hours)	% of normal	
Auckland ^a	11.4	+0.0	Near average	576	150	Well above normal	375	98	Near normal
Hamilton	9.6	+0.6	Above average	536	149	Above normal	368 ^c	102	Near normal
Wellington	9.6	+0.4	Near average	593	146	Above normal	376	107	Near normal
Christchurch ^b	6.5	+0.1	Near average	352	177	Well above normal	361	92	Near normal
Dunedin	7.2	+0.2	Near average	232	112	Normal	315	104	Near normal

^a Mangere ^b Christchurch Airport ^c Ruakura

HIGHLIGHTS AND EXTREME EVENTS

- **High rainfall**

29 June: 40 to 50 mm of rain in Wellington and the Hutt Valley up to 5 pm on the 29th produced some local flooding of roads, with slips closing Paekakariki Hill road.

9 July: The area around Mt Taranaki received 100mm of rain in the 24 hours to 6am on the 9th, and 60mm also fell in Milford Sound. Lower Hutt received 26mm of rain between 4am and 6am on the 9th.

11 July: 32mm of rain fell within a few hours at Nelson airport on the morning of the 11th and even heavier rains may have come down in the surrounding hills. A large slip on Rocks Road, SH6 was cleared enough to allow cars through by the afternoon. The heavy rain and flooding in Nelson caused sewage to overflow into the harbour.

26 July: A river burst its banks on the 26th near the township of Panguru, on the northern side of Hokianga Harbour, and up to 35 people had been evacuated and roads throughout Northland were closed by flooding. The Kauaeranga River in the Coromandel also broke its banks and flooded the highway.

29 July: More than 160mm of rain fell in parts of the Coromandel overnight on the 29th resulting in parts of Hikuai and Pauanui on State Highway 25 being under more than a metre of water. The Karangahake Gorge SH2 between Paeroa and Waihi was flooded with water about 30cm deep, SH25 south of Whitianga was flooded with water 1m deep and unpassable, and Kaihikatea Road Dairy Flat was flooded. Slips and downed trees caused closures of several other roads. One North Shore home has been completely destroyed in a slip, with another 14 homes at risk. Tauranga and the Western Bay of Plenty received approximately 45mm of rain from 9pm on the 29th to 5pm on the 30th. Whakatane received around 22mm of rain and Rotorua received approximately 14mm of rain in that time. A number of roads to the west of Gisborne were closed by surface flooding.

30 July: A state of emergency was declared by Marlborough District Council on the 30th due to extensive surface flooding. The storm knocked out an important water pipeline in Nelson. Picton police and volunteers sandbagged the waterfront in an effort to save the town from flooding. Severe flooding in the small South Island town of Sefton meant that 12 people had to be evacuated and spent the night in the local school hall.

2–3 August: Wellington City had more than 20 slips, causing road closures and property damage.

5 August: Huntly College was closed when the Waikato River flooded the school grounds. School pupils living on East Cape were prevented from travelling to school in Gisborne when storm damage blocked SH35 at Kemps Hill, north of Ruatoria. A temporary road was opened on 13 August.

26 August: Campers at Picton Camping Ground evacuated to spend the night in Queen Charlotte College. Queen Charlotte Drive was closed by numerous slips, and there was surface flooding south of Picton. Slips

closed SH1 from Weld Pass, near Seddon, to Cheviot, and roads around Kaikoura were sandbagged after surface flooding. The main water pipe into Cheviot was broken cutting water supply to the town. Tank water needed for Amberley and other areas of Hurunui District after main supply affected. Mason River, a tributary of the Waiau River, burst its banks, putting the road under 4 m of water and isolating several houses. A raging Eyre River in north Canterbury claimed up to 100 dairy cows when a bridge approach was washed away. The settlement of Peketa, south of Kaikoura, was evacuated after the Kahutara River burst its banks. A road bridge in Blythes Valley, south of Cheviot, was swept away.

28 August: Wairarapa sewerage and storm-water systems affected by severe flooding, and forcing evacuation of homes in Masterton. Many roads in the area closed by flooding. High stock losses expected in new born lambs.

Near record high extreme 1-day rainfall totals for winter were recorded at:

Location	Extreme 1-day rainfall (mm)	Date of extreme rainfall	Year Records began	Comments
Morrinsville	65	Jul 3rd	1978	2nd highest
North Egmont	446	Jul 11th	1981	Highest
Paeroa	166	Jul 26th	1914	2nd highest
Karangahake Gorge	135	Jul 29th	1981	2nd highest
Blenheim Aero	70	Jul 30th	1927	3rd equal highest
Grassmere Salt Works	127	Jul 30th	1943	Highest
Ward, Chancet	131	Jul 30th	1913	2nd highest
Kaikoura Plains	146	Jul 30th	1980	Highest
Waipara	131	Jul 30th	1923	2nd highest
Amberley	122	Jul 30th	1909	3rd highest
Rangiora	99	Jul 30th	1891	Highest
Hanmer Forest	135	Aug 25th	1905	2nd highest

• **Temperature**

The highest temperature during June 2008 was 23.1°C recorded at Waipara West on the 15th, the highest June temperature on record at this location. This is only 0.9 °C below the highest ever South Island June temperature of 24.0 recorded on 2 June 1976 at Kaikoura and Temuka.

The highest temperature during July 2008 was 22.0°C recorded at Kaikoura on the 11th, the second equal highest July temperature on record (since 1964) at this location. The North Shore recorded 20.2°C on the 19th, which was the third highest July temperature at this location.

There were freezing temperatures across the country on the 9th of July, with negative numbers recorded from Auckland (-1°C) to Queenstown (-4°C). The unusual sight of frost in Auckland was seen for two days in a row on the 8th and 9th of July.

The highest temperature during August 2008 was 19.9°C recorded at Haast on the 26th during a strong easterly air flow. The minimum temperature of 12.9°C at Haast on the 25th was also the highest for the country for August. Both of these temperatures were the highest August temperatures (maximum and minimum) at this location since records began in 1949.

The coldest temperature during August was recorded at Arthurs Pass on the 20th, where the minimum temperature was -9.5°C. At lower elevations, Alexandra recorded -8.0°C on the 10th (the middle of three very cold days throughout the country – it got down to -7.0°C at Alexandra on the following day as well). Hanmer Forest also recorded -7.3°C on the 20th.

There were several record or near-record low daily maximum temperatures during August with Clyde only reaching 2.7°C (the maximum temperature for the day) on the 12th and Balclutha only creeping up to 3.0°C on the 16th (both of these were record low daily maxima for August).

Near record high extreme daily maximum air temperatures for winter were recorded at:

Location	Extreme maximum temperature (°C)	Date of extreme temperature	Year Records began	Comments
Grassmere Salt Works	22.4	Jun 9th	1953	3rd highest
Mt Cook	19.0	Jun 15th	1929	4th highest
Waipara West	23.1	Jun 15th	1973	2nd highest
Le Bons Bay	21.2	Jun 15th	1984	Highest
Lake Tekapo	18.5	Jun 15th	1925	2nd equal highest
Wallaceville	19.4	Jun 15th	1939	3rd equal highest
Hawera	17.9	Jun 15th	1977	4th equal highest
Blenheim	21.3	Jun 15th	1941	2nd highest
Te Kuiti	20.0	Jun 16th	1959	3rd equal highest
Turangi	19.4	Jun 16th	1968	Highest
Lower Retaruke	19.6	Jun 16th	1966	3rd highest
Wanganui	20.0	Jun 16th	1987	Highest
Takaka	20.9	Jun 16th	1978	2nd equal highest
Westport Aero	19.0	Jun 16th	1937	Highest
Appleby	20.7	Jun 16th	1943	Highest
Haast	19.9	Aug 26th	1949	Highest
Milford Sound	17.8	Aug 26th	1934	3rd highest
Te Puke	19.8	Aug 27th	1973	4th equal highest
Lake Rotoiti	17.0	Aug 27th	1965	Highest

Near record low extreme daily minimum air temperatures for winter were recorded at:

Location	Extreme minimum temperature (°C)	Date of extreme temperature	Year Records began	Comments
Blenheim Aero	-6.1	Jun 18th	1932	2nd lowest
Cheviot	-6.4	Jun 19th	1982	2nd equal lowest
Grassmere Salt Works	-3.9	Jun 30th	1953	2nd equal lowest
Timaru	-4.6	Jun 30th	1984	2nd lowest
Dunedin Aero	-6.1	Jun 30th	1947	4th lowest
Whakatane Aero	-3.5	Jul 6th	1975	2nd lowest
New Plymouth	-2	Jul 6th	1944	3rd lowest
Waiouru	-9.1	Jul 6th	1962	3rd lowest
Warkworth	-0.3	Aug 9th	1966	2nd equal lowest
Port Taharoa	1.2	Aug 9th	1973	4th equal lowest
Kaitaia Observatory	1.5	Aug 10th	1985	3rd equal lowest
Arthurs Pass	-9.5	Aug 19th	1973	3rd equal lowest
Martinborough	-4	Aug 20th	1986	3rd equal lowest

• **Snowfall**

7 June: Snow fell from Southland to the Kaikoura coast on 7 June, with up to 20 cm lying in the Maniototo, snow flurries in Dunedin, and snow flakes in Christchurch closing the airport for a few hours. Porters Pass road closed.

24 June: Snow fell to 200 metres in Southland on 24 June, with snow and sleety conditions to low levels in the east of the South Island.

28 June: Snow closed roads around Ruapehu including the Desert Road on the 28th, after heavy snow fell on the Central Plateau.

5 July: Snow fell as far north as the Kaimai Ranges in the Waikato on the 5th while hail fell in Wanganui, Taranaki and Auckland on the same day. Sleet was reported in New Plymouth, Palmerston North and Wellington. Snow also fell in Queenstown (up to 18cm), Dunedin, Ashburton and Christchurch. Several roads were closed by snow or ice, including SH3 southeast of Hawera, the Napier-

Taihape Rd, SH49 between Waiouru and Ohakune, SH1 between Rangipo and Waiouru, and several South Island roads including the main road to Akaroa.

26 July: Heavy snow on the 26th closed the Desert Rd and Napier to Taihape road in the central North Island.

31 July: Snow fell to depths of around 20cm in Temuka and elsewhere in inland Canterbury on the 31st.

4-6 August: Early August (4th – 6th) saw a brief but cold system bring snow to low elevations and close most alpine roads in the east and south of the South Island and the central parts of the North Island. Several ski fields recorded new snowfall totals exceeding 1 m over a 48 hour period.

9 August: Christchurch was blanketed in 2–5 cm of snow. This system moved north and closed the Rimutaka Hill road and Desert Road on the 10th.

15 August: A deep low brought heavy snow to the Southern Alps and the western and north western ranges. Arthur's Pass received about 1m of snow, closing the road for 3 days, while Mt Cook Village received about 60 cm. This storm was particularly unique as snow fell to low levels (~100 m) on the western and north western side of the Southern Alps.

18 August: A cold southerly flow brought snow to Christchurch and closed roads on Banks Peninsula. The Rimutaka road out of Wellington was also blocked by snow and the Desert road was closed for several days. During this event over 1m of snow was recorded at Ruapehu village, with 15–20 cm down at the Château at Ruapehu. Snow was also recorded to very low levels in the North Island, with snow observed in Featherston and down to sea level at Paekakariki.

- **High winds and tornadoes**

7 June: High winds affected flights into Queenstown on 7 June, and brought trees down in Central Otago. Westerlies and north westerlies gusted up to 110 km/h at Gore, 120 km/h at Kelburn and 170 km/h at Castlepoint.

18 June: The highest wind gust for the month was 183 km/h at Hicks Bay on the 18th.

22 June: A mini-tornado damaged properties in Papamoa near Tauranga on 22nd June in blustery northerlies, damaging the roofs of three homes in one street.

24-27 June: Strong cold southwesterlies gusted to 124 km/h at Awakino (Taranaki) and 100 km/h in Auckland on the 24th. Very blustery westerlies and southwesterlies produced gusts up to 147 km/h at Awakino on the 26th, 132 km/h at Manukau Heads and 133 km/h at Cape Reinga on the 27th.

29 June: Strong southerlies brought winds gusting as high as 148 km/h in the Wellington region on the 29th, causing 7 m swells in Cook Strait, cancelling interisland ferries and regional flights in and out of Wellington Airport.

6 July: Gale force winds in the Cook Strait led to the cancellation of interisland ferry services on the 6th and strong winds in Christchurch also blew down several power poles.

8 July: Wind gusts along the east coasts of the North and South Islands reached 120 km/hr overnight on the 8th.

22 July: High winds on the 22nd damaged property in the Taranaki region. There were also reports of a small tornado in coastal Taranaki. Along Auckland's west coast gusts reached 105 km/hr.

23 July: Wind gusts of between 100 km/hr and 110 km/hr buffeted both the Hauraki Gulf and Manukau Heads on the 23rd. Further south, at Golden Valley west of Tauranga, gusts of up to 100 km/hr were recorded.

26 July: Northland experienced wind gusts of up to 174 km/hr on the 26th bringing down trees and power lines as the storm made landfall. Thousands of homes were without power in the region. Power was also cut to 53,000 homes in Rodney, Waitakere and the North Shore. There were another 7000 without power in Auckland in Howick, Otara, Clevedon, Mangere and parts of Waiheke Island. Gusts in Auckland Harbour reached 125 km/hr on the 26th. Hundreds of trees were brought down and several roofs were blown off by high winds in Te Aroha, in the eastern Waikato.

30 July: Winds of around 80km/hr hit Tauranga between 4am and 5am on the 30th and a tornado struck Tauranga and Mt Maunganui around 9am lifting roof tiles and smashing windows.

4 August: Property in Kimberley Road, Levin, was severely damaged when a mini-tornado struck in the early hours.

12 August: A double garage in Mt Maunganui lost its roof, and tiles were sheared off houses in several nearby streets.

19 August: A 'twister' east of Opotiki brought down power lines, and electrocuted 16 in-calf cows. Two barns were brought down, hundreds of metres of fencing destroyed, and trees scattered. Nearby properties were also damaged.

Near record high extreme wind gusts for winter were recorded at:

Location	Extreme wind gust speed (km/hr)	Date of extreme gust	Year Records began	Comments
Gore	111	Jun 6th	1987	3rd highest
Castlepoint	170	Jun 7th	1972	Highest
Queenstown Aero	89	Jun 7th	1972	4th equal highest
Hicks Bay	183	Jun 18th	1975	Highest
Turangi	95	Jun 26th	1973	2nd highest
Hamilton	91	Jun 27th	1978	4th highest
Cape Reinga	174	Jul 26th	1974	4th highest
Pukekohe	102	Jul 26th	1986	Highest
Hawera	91	Jul 26th	1986	4th highest
Levin	109	Jul 30th	1971	2nd highest
Nelson	119	Jul 30th	1972	Highest

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