

# A tempestuous month, cool for many and very dry in the eastern North Island.

Temperature	Well below average (< -1.20°C of average) or below average (-1.20°C to -0.50°C of average) temperatures for most of the South Island and south and west North Island. Near average (-0.50°C to +0.50°C of average) temperatures for eastern areas and well above average (>1.20°C of average) for a small number of locations in Hawke's Bay.
Rainfall	Significant dryness in eastern North Island, well below normal rainfall (<50% of normal) in Gisborne, Hawke's Bay and Northland. Above normal (120-149% of normal) or well above normal (>149% of normal) rainfall for West Coast, middle and south-coastal Canterbury, Otago, inland Southland, Wellington and Manawatu-Whanganui.
Soil Moisture	As of 1 February, soil moisture levels were much lower than normal across most of the North Island, particularly in Northland, eastern Waikato, Coromandel, inland Bay of Plenty, East Cape, and Hawke's Bay. Soils were also drier than normal for coastal northern Canterbury. Soils were wetter than normal for the time of year for Tasman, West Coast, Otago and Southland, and near normal soil moisture levels were observed elsewhere.
Sunshine	Near (90-110% of normal) or above normal sunshine (110-125% of normal) in eastern areas of the North Island and for parts of eastern Canterbury. Below normal (75-89% of normal) or well below normal (<75% of normal) sunshine for west and south of both North and South Islands.

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January 2017 climate

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## Overview

January 2017 was characterised by significantly lower mean sea level pressure than normal over and to the south of New Zealand. This atmospheric pressure setup caused more southwesterly winds than normal across the country, which encouraged the passage of storms and low temperatures for much of New Zealand throughout the month.

The prevalence of southwesterly winds across the country during January meant that lower than average temperatures for the time of year were experienced in many places. This was especially notable in the west and south of the South Island (including West Coast, Canterbury, Otago, Southland

and parts of Tasman) and the west and centre of the North Island (including Waikato and Taranaki), where well below average temperatures (< -1.20°C of the January average) were observed. Below average temperatures (-1.20°C to -0.51°C of the January average) were experienced in many regions, including western Northland, Waikato, inland Bay of Plenty, Taranaki, Manawatu-Whanganui, Wellington, and parts of the South Island regions that experienced well below average temperatures also. In contrast, areas that were sheltered from the prevailing southwest winds, such as eastern Northland, coastal Bay of Plenty, Hawke's Bay, Gisborne, Marlborough and coastal northern Canterbury, experienced near average temperatures (-0.50°C to +0.50°C of the January average) and a small number of locations in the Hawke's Bay experienced above average (+0.5°C to +1.20°C of the January average) or well above average temperatures (> +1.20°C of the January average). The nationwide average temperature in January 2017 was 16.4°C (0.7°C below the 1981-2010 January average from NIWA's seven station temperature series which begins in 1909¹). This was the coldest January since 2014.

The dominant southwesterlies also influenced rainfall patterns across New Zealand in January. Some intense storms delivered heavy rain to the South Island and lower North Island. Much of the South Island, particularly along the West Coast, and in middle and south-coastal Canterbury, Otago and inland Southland, recorded above normal (120-149% of the January normal) or well above normal (>149% of the January normal) rainfall. Parts of the south and west North Island also recorded above normal or well above normal rainfall, particularly in Wellington and Manawatu-Whanganui. In stark contrast was the east of the North Island, where record low rainfall was experienced. It was the driest January on record for Gisborne in over 110 years; just 2 mm of rain (3% of the January normal) fell – records began there in 1905. Well below normal (< 50% of the January normal) or below normal rainfall (50-79% of the January normal) was recorded at numerous sites across the eastern half of the North Island from Northland through to the southern Hawke's Bay, with only the occasional site in this part of the country receiving near normal (80-119% of January normal) rainfall.

The pattern of sunshine across the country generally followed the pattern of rainfall. Western areas of the South Island and southwestern North Island generally recorded below normal sunshine hours (75-89% of January normal), with a couple of sites recording well below normal sunshine (<75% of the January normal). Wellington, Palmerston North and Paraparaumu recorded their least sunny January on record. In contrast, the Far North recorded above normal sunshine (110-125% of the January normal). Most sites recorded near normal sunshine for January (90-109% of the January normal).

The significant soil moisture deficits in the north and east of the North Island at the end of 2016 continued to worsen in January. Due to limited rainfall for eastern parts of the North Island during January, soil moisture deficits remained much lower than normal for the time of year. As of 1 February, soil moisture levels were much lower than normal across most of the North Island, particularly in Northland, eastern Waikato, Coromandel, inland Bay of Plenty, East Cape, and Hawke's Bay. Soils were also drier than normal for coastal northern Canterbury. Soils were wetter than normal for the time of year for Tasman, West Coast, Otago and Southland, and near normal soil moisture levels were observed elsewhere.

<sup>&</sup>lt;sup>1</sup> Rounded to 1 decimal place

## **Further Highlights:**

- The highest temperature was 33.6°C, observed at Hastings on 12 January.
- The lowest temperature was -1.7°C, observed at Mt Cook Airport on 5 January.
- The highest 1-day rainfall was 309 mm, recorded at Milford Sound on 31 January.
- The highest wind gust was 170 km/hr, observed at Cape Turnagain on 16 January.
- Of the six main centres in January 2017, Dunedin was the wettest, coldest, and least sunny, Auckland and Tauranga were the driest, and Tauranga was the warmest and sunniest.
- Of the available, regularly reporting sunshine observation sites, the sunniest four locations in 2017 (1 January 31 January) were Gisborne (315 hours), Whakatane (301 hours), Napier (298 hours) and Kaitaia (286 hours).

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# Temperature: Well below average temperatures for the South Island

The frequent southwesterly winds during January brought cold air masses to southern and western parts of New Zealand. Almost the entire South Island and the western and central North Island recorded below average (-1.20°C to -0.51°C of the January average) or well below average (< -1.20°C of the January average) temperatures for the month. Nugget Point and South West Cape recorded their coolest January on record, and many other locations, mainly in the South Island, experienced near-record low mean temperatures for January. Many locations also experienced record or near-record low mean maximum and mean minimum temperatures for the month (tables below).

In contrast, areas that were sheltered from the prevailing southwest winds by mountain ranges, such as Bay of Plenty, Hawke's Bay, Gisborne, Marlborough and coastal northern Canterbury, as well as eastern Northland, Auckland, and Waikato, experienced near average temperatures (-0.50°C to +0.50°C of the January average) and a small number of locations in the Hawke's Bay experienced above average (+0.5°C to +1.20°C of the January average) or well above average temperatures (> +1.20°C of the January average). Some locations in the eastern North Island from Northland to Hawke's Bay, as well as Kaikoura, experienced record or near-record high mean maximum (afternoon) temperatures for January.

The nationwide average temperature in January 2017 was 16.4°C (0.7°C below the 1981-2010 January average from NIWA's seven station temperature series which begins in 1909). This was the coldest January since 2014.

## Record<sup>2</sup> or near-record mean air temperatures for January were recorded at:

Location	Mean air temp. (°C)	Departure from normal (°C)	Year records began	Comments
High records or near-records				
None observed				
Low records or near-records				
Nugget Point	12.0	-2.1	1970	Lowest
South West Cape	11.4	-1.7	1991	Lowest
Te Kuiti	15.8	-2.5	1959	2nd-lowest
Secretary Island	12.9	-1.9	1985	2nd-lowest
Manapouri (Airport)	12.6	-2.1	1963	2nd-lowest
Clyde	15.0	-2.4	1978	2nd-lowest
Port Taharoa	17.5	-1.6	1973	3rd-lowest
Turangi	15.2	-1.9	1968	3rd-lowest
Takaka	15.4	-1.8	1978	3rd-lowest
Arthurs Pass	10.7	-2.6	1973	3rd-lowest
Roxburgh	14.4	-2.0	1950	3rd-lowest
Lower Retaruke	16.0	-1.5	1966	4th-lowest
Greymouth	14.2	-1.9	1947	4th-lowest
Haast	13.0	-1.7	1949	4th-lowest
Appleby	15.6	-1.8	1932	4th-lowest
Wanaka	14.9	-1.9	1955	4th-lowest
Balclutha	13.3	-1.8	1964	4th-lowest
Lake Manapouri (West Arm Jetty)	11.8	-2.5	1962	4th-lowest

## Record or near-record mean maximum air temperatures for January were recorded at:

Location	Mean maximum air temp. (°C)	Departure from normal (°C)	Year records began	Comments			
High records or near-records							
Whitianga	25.6	1.7	1962	Highest			
Hastings	26.7	2.9	1965	Highest			
Wairoa	27.3	2.8	1964	Highest			
Kaikoura (Middle Creek)	22.6	2.2	1963	Highest			
Mahia	23.2	1.4	1990	3rd-highest			
Whangarei	25.6	1.2	1967	4th-highest			
Gisborne	27.0	2.5	1905	4th-highest			
Low records or near-records							
Port Taharoa	19.9	-3.0	1973	Lowest			
Te Kuiti	21.2	-3.0	1959	Lowest			
Secretary Island	15.4	-2.8	1985	Lowest			
South West Cape	13.8	-2.3	1991	Lowest			

<sup>&</sup>lt;sup>2</sup> The rankings (1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>.etc) in all Tables in this summary are relative to climate data from a *group* of nearby stations, some of which may no longer be operating. The current climate value is compared against all values from any member of the group, without any regard for homogeneity between one station's record, and another. This approach is used due to the practical limitations of performing homogeneity checks in real-time.

Lower Retaruke	21.4	-2.4	1966	2nd-lowest
Martinborough	21.9	-1.7	1986	2nd-lowest
Farewell Spit	20.2	-1.5	1971	2nd-lowest
Arthurs Pass	14.5	-3.8	1973	2nd-lowest
Te Anau	17.1	-3.4	1963	2nd-lowest
Nugget Point	15.6	-2.4	1970	2nd-lowest
Taumarunui	22.0	-2.1	1947	3rd-lowest
Turangi	21.4	-1.7	1968	3rd-lowest
Reefton	19.8	-3.1	1960	3rd-lowest
Haast	16.1	-2.3	1949	3rd-lowest
Five Rivers	18.3	-2.3	1982	3rd-lowest
Lake Manapouri (West Arm Jetty)	15.5	-3.5	1996	3rd-lowest
Pukekohe	21.8	-1.5	1969	4th-lowest
New Plymouth	19.4	-2.1	1944	4th-lowest
Arapito	19.0	-2.1	1978	4th-lowest
Roxburgh	19.9	-3.2	1950	4th-lowest

# Record or near-record mean minimum air temperatures for January were recorded at:

Location	Mean minimum air temp. (°C)	Departure from normal (°C)	Year records began	Comments
High records or near-records				
None observed				
Low records or near-records				
Motu	7.1	-3.3	1990	Lowest
Appleby	9.2	-3.2	1932	Lowest
Kaikoura (Middle Creek)	10.0	-3.0	1963	Lowest
Clyde	7.6	-3.2	1978	Lowest
Whangarei	12.5	-2.5	1967	2nd-lowest
Winchmore	8.0	-2.7	1928	2nd-lowest
Alexandra	8.4	-2.5	1929	2nd-lowest
Nugget Point	8.5	-1.7	1970	2nd-lowest
Takaka	9.2	-2.2	1978	3rd-lowest
Le Bons Bay	10.4	-1.3	1984	3rd-lowest
South West Cape	9.0	-1.0	1991	3rd-lowest
Turangi	9.0	-2.2	1968	4th-lowest
Cromwell	8.8	-2.2	1949	4th-lowest

## Rainfall: Record dryness in the eastern North Island, wet in the South Island.

December's dryness continued in January for some parts of the eastern North Island. It was a record dry January for Gisborne, Wairoa and Mahia, with only 3%, 4% and 23% of normal January rainfall recorded, respectively. Gisborne's record is especially notable because the rainfall record there goes back to 1905. Napier recorded its third-driest January (8% of normal) with records going back to 1870. Parts of eastern Northland were also very dry, with just one rain event on 21 January bringing sites there above what could have been a record-breaking month in terms of low rainfall.

Numerous low pressure systems affected the south and west of the country throughout January, bringing heavy rain and high monthly rainfall totals to those areas. Arapito (north of Westport) recorded its wettest January on record (202% of the January normal). Other locations in Canterbury and Otago experienced near-record high rain for January.

## Record or near-record January rainfall totals were recorded at:

Location	Rainfall total (mm)	Percentage of normal	Year records began	Comments
High records or near-records				
Arapito	379	202	1978	Highest
Roxburgh	133	213	1948	3rd-highest
Akaroa	108	215	1977	4th-highest
Balclutha	135	194	1964	4th-highest
Low records or near-records				
Gisborne	2	3	1905	Lowest
Wairoa	4	4	1964	Lowest
Mahia	13	23	1990	Lowest
Napier	5	8	1870	3rd-lowest
Hastings	8	18	1965	3rd-lowest
Whakatu	4	7	1870	3rd-lowest

# Sunshine: A sunny month for eastern areas, cloudy in the south and west.

The pattern of sunshine across the country generally followed the pattern of rainfall. Sunshine was generally near or above normal (>90% of the January normal) in the east and north of the North Island and some eastern parts of the South Island, and below normal or well below normal (<89% of the January normal) in western and southern parts of both Islands.

Paraparaumu, Palmerston North and Wellington recorded their least sunny January on record. Records in Palmerston North go back to 1930 and for Wellington records go back to 1928. In contrast, Gisborne recorded its second-sunniest January on record, with records going back to 1905.

Of the available, regularly reporting sunshine observation sites, the sunniest four locations in 2017 (1 January – 31 January) were Gisborne (315 hours), Whakatane (301 hours), Napier (298 hours) and Kaitaia (286 hours).

## Record or near-record January sunshine hours were recorded at:

Location	Sunshine hours	Percentage of normal	Year records began	Comments		
High records or near-records						
Gisborne	315	126	1905	2nd-highest		
Low records or near-records						
Paraparaumu	149	62	1953	Lowest		
Palmerston North	131	62	1930	Lowest		
Wellington (Kelburn)	173	70	1928	Lowest		
Arapito	128	62	1979	2nd-lowest		
Mt Cook Village	130	72	1930	2nd-lowest		

## January climate in the six main centres

January temperatures were below average for Auckland, Wellington, and Dunedin, well below average for Hamilton, and near average for Tauranga and Christchurch. It was dry in the upper North Island main centres, with Auckland and Hamilton observing below normal rainfall and Tauranga observing well below normal rainfall. In contrast, the South Island main centres were wetter than usual, with well above normal rainfall recorded in Dunedin and above normal rainfall experienced in Christchurch. Wellington rainfall was near normal. Sunshine was near normal for all main centres except for Wellington which experienced its least sunny January on record. Of the six main centres in January 2017, Dunedin was the wettest, coldest, and least sunny, Auckland and Tauranga were the driest, and Tauranga was the warmest and sunniest.

## January 2017 main centre climate statistics:

January 2017 main centre climate statistics:						
Temperature						
Location	Mean temp. (°C)	Departure from normal (°C)	Comments			
Auckland <sup>a</sup>	19.0	-0.6	Below average			
Tauranga <sup>b</sup>	19.5	-0.1	Near average			
Hamilton <sup>c</sup>	17.0	-1.4	Well below average			
Wellington <sup>d</sup>	16.0	-0.9	Below average			
Christchurch <sup>e</sup>	16.8	-0.4	Near average			
Dunedin <sup>f</sup>	14.1	-1.2	Below average			
Rainfall						
Location	Rainfall (mm)	% of normal	Comments			
Auckland <sup>a</sup>	36	59	Below normal			
Tauranga <sup>b</sup>	36	46	Well below normal			
Hamilton <sup>c</sup>	60	73	Below normal			
Wellington <sup>d</sup>	84	111	Near normal			
Christchurch <sup>e</sup>	53	147	Above normal			
Dunedin <sup>f</sup>	134	183	Well above normal			
Sunshine						
Location	Sunshine (hours)	% of normal	Comments			
Auckland <sup>a</sup>	242	104	Near normal			
Tauranga <sup>b</sup>	263	101	Near normal			
Hamilton <sup>g</sup>	207	90	Near normal			
Wellington <sup>d</sup>	173	70	Well below normal (lowest on record)			
Christchurch <sup>e</sup>	247	104	Near normal			
Dunedin <sup>f</sup>	163	90	Near normal			
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<sup>&</sup>lt;sup>a</sup> Mangere <sup>b</sup> Tauranga Airport <sup>c</sup> Hamilton Airport <sup>d</sup> Kelburn <sup>e</sup> Christchurch Airport <sup>f</sup> Musselburgh <sup>g</sup> Ruakura

## Highlights and extreme events

#### Rain and slips

The lack of rain in December and early January led to tinder dry conditions for parts of the North Island. These dry conditions fuelled numerous scrub fires in Northland and the Hawke's Bay. New Year's Eve fireworks near Maitai Bay in the Far North caused a large scrub fire. On 5 January, windy and dry conditions fuelled fires near Hastings. On 7 January, a large scrub fire broke out in Pipiwai, Northland. On 8 January, a house was destroyed and 30 houses were evacuated during a scrub fire at Mahanga Bay in the Mahia Peninsula.

On 18 and 19 January, a 'bomb low' hit central and southern New Zealand. A 'bomb low' is a rapidly deepening low pressure system, which causes very strong winds, strong rain and cool temperatures. The South Island's west coast was affected by heavy rain causing flooding and slips. Very heavy rain near Arthur's Pass caused large slips, some narrowly missing houses and blocking roads. In Otira, a slip moved a shed, destroyed a car and diverted a creek into a house. Numerous roads were closed, including Arthur's Pass, Lewis Pass, SH 6 from Murchison to Westport, and SH 7 from Reefton to Greymouth. Slips caused delays on other West Coast roads.

In mid-late January, the extended dry conditions for Northland meant that some communities were struggling to get water for their households. Water suppliers said they were getting more than a hundred calls a day from people who had run out of water. Mangawhai and other nearby towns were significantly affected by water shortages.

On 21 January, storms hit the North Island and northern South Island. In Golden Bay and other parts of the Tasman District, heavy rain fell resulting in flooding. The Waingaro River and the Anatoki River reached 10-year flood levels, and the Upper Takaka River peaked at flows experienced only eight times over the past 50 years. Some roads in the Golden Bay area were closed due to flooding. On a farm near Takaka, fences were ripped out of the ground by the force of floodwaters, and sheep pens and a shed were damaged. A fence was damaged when the Anatoki River burst its banks. The storm mostly caused wind damage in Auckland (see below) but heavy rain caused flooding in some Auckland garages.

On 22 and 23 January, heavy rain hit Southland and floodwaters cut off the town of Waikaia.

On 25 January, a short-lived storm hit the Hutt Valley. Heavy rain and hail fell, causing surface flooding on streets and in backyards.

On 31 January, dry and windy conditions contributed to two large grass fires in Puketapu and central Hawke's Bay. Late on 31 January, heavy rain caused flooding in some West Coast settlements.

The highest 1-day rainfall recorded in January 2017 was 309 mm observed at Milford Sound on 31 January.

## Record or near-record January extreme 1-day rainfall totals were recorded at:

Location	Extreme 1-day rainfall (mm)	Date of extreme rainfall	Year records began	Comments
Motueka	131	21st	1956	Highest
Arapito	98	18th	1978	2nd-highest
Akaroa	51	22nd	1977	3rd-highest
Reefton	84	18th	1960	4th-highest
Dunedin (Airport)	45	22nd	1962	4th-highest

#### **Temperatures**

The highest temperature was 33.6°C, observed at Hastings on 12 January.

The lowest temperature was -1.7°C, observed at Mt Cook Airport on 5 January.

On 4-5 January, a cold snap affected Canterbury, Otago and Southland, with unseasonably low temperatures. Numerous locations recorded record or near-record low minimum temperatures on the morning of 5 January.

On 19-20 January, the 'bomb low' affecting southern and central New Zealand caused low temperatures for the South Island. Snow fell on many mountains in the Southern Alps, including Cardrona Alpine Resort. Cold overnight low temperatures were experienced for most of the South Island following the passing of the low pressure system, as it brought cool southwesterly winds in its wake. Queenstown recorded an overnight low of just 5°C.

Throughout January, very warm afternoon temperatures (although not record-breaking) were recorded in parts of Northland, Gisborne and the Hawke's Bay. These warm conditions were exacerbated due to the ongoing dryness in those areas, with incoming solar radiation heating the dry ground and heating the air close to the ground rather than solar energy being used to evaporate soil moisture. However, night-time temperatures were relatively cool due to enhanced radiational cooling caused by clear skies.

#### Record or near-record daily maximum air temperatures for January were recorded at:

Location	Extreme maximum (°C)	Date of extreme temperature	Year records began	Comments		
High records or near-records						
Whangarei	31.2	15th	1967	2nd-highest		
Kaikoura (Middle Creek)	32.3	1st	1963	3rd-highest		
Low records or near-records	Low records or near-records					
Secretary Island	11.5	7th	1989	2nd-lowest		
Appleby	15.3	21st	1941	2nd-lowest		
Manapouri	10.7	19th	1973	2nd-lowest		
Farewell Spit	16.1	22nd	1972	Equal 2nd-lowest		
Takaka	14.8	21st	1978	3rd-lowest		
Te Anau	10.8	19th	1973	3rd-lowest		
Five Rivers	10.4	19th	1982	3rd-lowest		

Motueka	16.6	21st	1972	Equal 3rd-lowest
Te Kuiti	17.3	23rd	1959	4th-lowest
Reefton	14.3	21st	1972	4th-lowest
Alexandra	11.6	19th	1930	4th-lowest
Balclutha	11.7	19th	1972	4th-lowest
Franz Josef	12.8	6th	1953	Equal 4th-lowest
Haast	13.5	8th	1949	Equal 4th-lowest
South West Cape	10.6	7th	1991	Equal 4th-lowest

## Record or near-record daily minimum air temperatures for January were recorded at:

Location	Extreme minimum (°C)	Date of extreme temperature	Year records began	Comments
High records or near-records				
Waiau	20.3	12th	1974	4th-highest
Low records or near-records				
Waiau	0.6	5th	1974	Lowest
Kaikoura (Middle Creek)	4.1	26th	1963	Equal lowest
Orari Estate	2.0	5th	1972	Equal lowest
Whangarei	7.1	6th	1967	2nd-lowest
Motu	-0.6	5th	1990	2nd-lowest
Greymouth	4.4	13th	1947	2nd-lowest
Appleby	2.5	5th	1932	2nd-lowest
Blenheim	1.6	5th	1932	2nd-lowest
Winchmore	0.2	5th	1928	2nd-lowest
Le Bons Bay	5.0	5th	1984	Equal 2nd-lowest
Hanmer Forest	-1.5	5th	1906	3rd-lowest
Mt Cook Airport	-1.7	5th	1929	3rd-lowest
Lake Tekapo	-1.5	5th	1925	3rd-lowest
Timaru	1.7	20th	1885	Equal 3rd-lowest
Waione	2.9	21st	1991	4th-lowest
Nugget Point	4.7	5th	1970	4th-lowest
Secretary Island	6.5	5th	1985	Equal 4th-lowest
Waipara West	4.0	6th	1973	Equal 4th-lowest
Tara Hills	-0.3	5th	1949	Equal 4th-lowest

#### Wind

On 1 January, the year started with severe winds in Wellington. A Fiji Airways flight from Nadi was diverted to Auckland after failing to land at Wellington Airport due to the severe weather. The Caltex at Adelaide Road needed its forecourt canopy secured, as did a panel that had come loose at the Whitireia Performing Arts Centre on Vivian St. SH 58 between James Cook Drive and Joseph Banks Drive in Whitby were closed for a time due to debris on the road caused by the high winds, and all harbour ferry sailings in Wellington were cancelled for the day.

On 4 January, high winds in Canterbury and Otago caused a caravan to flip on SH 8 near Omarama. The caravan was destroyed and belongings were scattered across the road.

On 9 January, 'swirling' winds made it difficult for a plane to land at Wellington Airport. The plane initially tried to land from the north, but pulled up before touching down. It then tried from the south but aborted the landing. After diverting to refuel at Palmerston North, the plane successfully landed at Wellington.

On 11 January, the area around Cromwell was affected by up to four mini tornadoes (known as "dust devils"). These are caused by strong convective heating of the near-surface air. Powerlines and fences were blown down, windows were smashed, several trailers were overturned, and building materials were carried up to 500 m away.

On 12 January, Wellington was affected by strong winds. A row of lights fell 15 storeys from the top of New Zealand Post House after being ripped free by a billboard façade that came loose in the wind. A McDonald's billboard was torn loose from the side of Victoria University's Cumberland House. The wind also blew a set of stairs over at Wellington Airport. At the Basin Reserve, camera operators filming cricket had to evacuate from their scaffolding tower due to the wind.

On 15 January, high winds caused chunks of plaster to fall off a Wellington CBD building's façade.

On 17 and 18 January, strong winds fanned a large fire near Whitianga, which burned down at least eight homes and a sustainable farming community. Residents were evacuated.

On 19 January, the 'bomb low' that hit central and southern New Zealand caused damaging high winds in Wellington and parts of the South Island. SH 2 at Rimutaka Hill was closed for a time due to high winds, where gusts of around 150km/hr were recorded. More than 400 households in the Hutt Valley were without power for a time, and power was also cut to parts of Marlborough and the West Coast. Trolley buses were taken off the roads due to the danger of high winds and overhead lines, and all harbour ferry crossings were cancelled. Interislander and Bluebridge ferries were delayed and many flights in and out of Wellington airport were cancelled or delayed. Wind warnings were also in place for SH 1 at the Desert Road and SH 5 from Taupo to Napier. In Invercargill, a line of 25 large pine trees came down during the wind storm.

On 21 January, high winds affected much of the North Island and the northern South Island. Large trees and power lines were toppled, some damaging houses and vehicles in Auckland. Roofs were lifted in the wind and a bouncy castle became tangled in power lines in Kumeu, West Auckland. At the peak of the storm, 15,000 homes in Auckland were without power for a time, and some residents were still without power two days later. Two people were injured when a tree fell on their car as they were driving on the Auckland Southern Motorway. Twelve passengers were evacuated after a tree came down on a train near Papatoetoe. A 250 tonne buoy broke its mooring and washed up on Ngamotu Beach in New Plymouth, and 1500 homes in Taranaki were without power. A gust of wind ripped a wedding reception marquee out of the ground and left it in shreds in south Taranaki. Flights were cancelled in Wellington and part of Vivian Street was closed due to glass falling from a building. In the Hawke's Bay, a car was blown off the road on SH 2 at the Pakipaki roundabout. In Nelson, strong winds forced the cancellation of the final day of the Evolve Festival after the campsite was flattened.

On 22 January, a commuter train in Auckland hit a shipping container that had been blown onto the tracks during the wind storm the day before. Fortunately no passengers were on board at the time.

On 24 January, strong winds around Queenstown caused powerlines to come down, cutting power to more than 500 households. The Queenstown-Glenorchy Road was closed for a time due to the fallen powerlines. In Aoraki/Mt Cook National Park, a campervan and a caravan were blown over by gusts of wind.

On 25 January, a short-lived storm in the Hutt Valley caused winds that took off some tiles from a supermarket.

On 31 January, strong northwest winds generated large swells on Lake Wakatipu, throwing clouds of spray over pedestrians on Queenstown's waterfront as they crashed against the lake wall.

The highest wind gust was 170 km/hr, observed at Cape Turnagain on 16 January.

## Record or near-record January extreme wind gusts were recorded at:

Location	Extreme wind gust (km/hr)	Date of extreme gust	Year records began	Comments
Auckland (Western Springs)	83	21st	1994	Highest
Motu	100	22nd	1991	Highest
Mahia	104	22nd	1991	Highest
Waiouru	124	22nd	1970	Highest
Nelson	115	22nd	1972	Highest
Oamaru	98	19th	1984	Highest
Tara Hills	98	31st	1985	Equal highest
Baring Head	139	19th	1991	2nd-highest
Puysegur Point	159	24th	1986	2nd-highest
Richmond	107	22nd	1972	2nd-highest
Cape Campbell	117	19th	1963	2nd-highest
Blenheim	98	19th	1972	Equal 2nd-highest
Whakatane	85	22nd	1974	3rd-highest
Auckland (Airport)	100	21st	1971	3rd-highest
Pukekohe	70	21st	1986	3rd-highest
Dannevirke	87	22nd	1961	3rd-highest
Hawera	93	22nd	1986	3rd-highest
Farewell Spit	96	22nd	1973	Equal 3rd-highest
Auckland (North Shore)	70	21st	1994	4th-highest
Whakatane	80	22nd	1974	4th-highest
Manapouri (Airport)	80	14th	1991	4th-highest

## Snow and ice

On 3 January, an intense hailstorm passed through Waipara, knocking down fruit and shredding corn cobs. The same cold front caused snow to fall on the Old Man Range near Alexandra, a dusting of snow on the Remarkables Range and hail in Queenstown.

On 13 January, Cardrona Alpine Resort and surrounding mountains received a dusting of snow.

On 19 January, a light dusting of snow was observed on many mountains around the Queenstown-Lakes District.

On 20 January, the Mt Ruapehu ski fields received unseasonable summer snowfall.

On 21 January, the storm that affected the North Island also dumped snow on mountains in the South Island. Cardrona Alpine Resort near Wanaka received over 30 cm of snow, the largest summer snowfall in living memory, according to Cardrona staff.

## For further information, please contact:

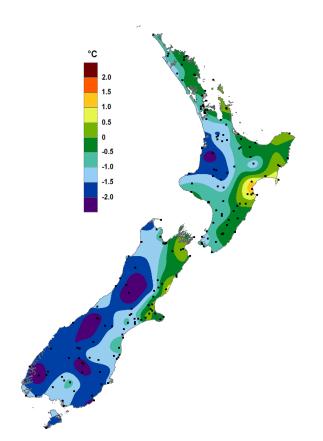
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January 2017 mean temperature, expressed as a departure from the 1981-2010 average.

Mean temperatures were well below average (< -1.2°C of the January average) for most of the South Island and western North Island. Eastern areas generally observed near average temperatures (-0.5°C to +0.5°C of average) and parts of the Hawke's Bay recorded well above average (> +1.2°C of average) temperatures for January.

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