

New Zealand weather and climate news

MetService

Wet Wellington weather causing slips, and expected to hit ferries

MetService meteorologist Lisa Murray said there had been 20.6mm of rainfall over the last 8 hours recorded at its observatory in Kelburn and other areas of Wellington had similar rainfall totals.

<https://www.stuff.co.nz/dominion-post/news/106769396/wet-weather-causing-slips-and-expected-to-hit-ferries>

Your weather: Brace for gales, slips, snow, downpours as bitter chill blasts country

It was happening already in Wellington with persistent rain with heavy falls predicted from midday until Tuesday morning, MetService meteorologist Lisa Murray said.

https://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=12118348

Battering continues for North Island southeast

MetService meteorologist Arno Dyason said the situation was similar to that on Tuesday, and was likely to continue for the next few days

<https://www.stuff.co.nz/national/106829067/battering-continues-for-north-island-southeast>

More snow possible for the Desert Road

MetService meteorologist Arno Dyason says the situation was similar to that on Tuesday, and was likely to continue for the next few days.

MetService Meteorologist Stephen Glassey says a slow moving weather system such as the one over the country now was more typical of winter than of spring, "but we are only a few days out of winter, after all".

<https://www.sunlive.co.nz/news/188021-more-snow-possible-desert-road.html>

Hawke's Bay schools evacuate as severe flooding looms

Students from two schools in Hawke's Bay have been sent home as heavy rain threatens road access in parts of the region.

<http://www.scoop.co.nz/stories/HL1809/S00032/hawkes-bay-schools-evacuate-as-severe-flooding-looms.htm>

Heavy rain for Hawke's Bay, southerly gales in Wellington, as wintry storm rolls on

Heavy rain falling in Hawke's Bay overnight is expected to last into early afternoon Thursday, while gale force winds in parts of the southern North Island could continue through to Friday.

<https://www.stuff.co.nz/national/106861052/heavy-rain-for-hawkes-bay-southerly-gales-in-wellington-as-wintery-storm-rolls-on>

South Canterbury skifield may finally open this weekend

After being closed all winter, a popular South Canterbury skifield may finally open this weekend for the 2018 season.

Snowfall patterns in Canterbury this winter had been affected by warmer airflows, meaning Fairlie's Fox Peak Ski Area has been unable to open at all.

<https://www.stuff.co.nz/timaru-herald/news/106849809/south-canterbury-skifield-may-finally-open-this-weekend>

Southlanders prepare for round two as dry summer threatens again

Even before summer has come to Southland, there are worries we have started on the backfoot.

A mild autumn and winter has meant the effects of last summer are still lingering, with aquifers remaining low as it begins to warm up.

<https://www.stuff.co.nz/southland-times/news/106764383/southlanders-prepare-for-round-two-as-dry-summer-threatens-again>

Weatherwatch Claim MetService not operating fairly

Private forecasting company WeatherWatch claims MetService is engaging in "misleading advertising" and has taken the state-owned enterprise to the Commerce Commission.

<https://www.odt.co.nz/news/national/claim-metservice-not-operating-fairly>

Extreme weather (and other news) – Antarctica and offshore islands

Eight tonnes of supplies shipped to Kermadecs



The New Zealand Defence Force has sent offshore patrol vessel HMNZS Wellington to take about eight tonnes of equipment and supplies to the Kermadecs.

Steve Knowles, MetService's Network Observations Manager, says four MetService staff would carry out maintenance work on the automatic weather station on Raoul Island, which reports weather conditions to forecasters based in New Zealand.

<https://www.sunlive.co.nz/news/187991-eight-tonnes-of-supplies-shipped-to-kermadecs.html>

Extreme weather (and other news) – Australia and Pacific

Forecasters predict dry spells for parts of the Pacific

Regional weather forecasters say a number of Pacific regions can expect below normal rainfall over the next three months.

<https://www.radionz.co.nz/international/pacific-news/365665/forecasters-predict-dry-spells-for-parts-of-the-pacific>

Union attacks Bureau of Meteorology plans to end local weather forecasting in most states

The quality and reliability of some weather forecasts would diminish and could put the public at risk under a plan to end local forecasting services in WA and most other states, and move to a centralised unit based in Melbourne and Brisbane, according to the Community and Public Sector Union.

<http://www.abc.net.au/news/2018-09-03/bom-to-end-local-weather-forecasting-in-wa-tasmania/10196358>

Extreme weather (and other news) – Asia and the Middle East, Africa

Japan typhoon leaves destruction in its wake, with at least 11 confirmed dead

One of Japan's busiest airports remained closed indefinitely, a day after the strongest typhoon to hit Japan in 25 years flooded a runway, toppled huge cranes, flipped cars on their side, damaged historic shrines and caused at least 11 deaths as it swept across part of Japan's main island.

<https://www.stuff.co.nz/world/asia/106861009/japan-typhoon-leaves-destruction-in-its-wake-with-at-least-11-confirmed-dead>

Extreme weather (and other news) – Americas and Europe

Hurricane Florence next storm in the pipeline, and more are expected to follow

Though Gordon is making the headlines, the next storm in the pipeline is Hurricane Florence, now spinning more than 2,000 miles out in the central Atlantic Ocean.

<https://www.usatoday.com/story/news/2018/09/04/hurricane-florence-next-two-more-follow/1192525002/>

Anglian Water earmarks £6.5bn to tackle 'extreme weather challenges'

Water companies forced to prepare for repeats of 2018's 'Beast from the East' and record-breaking summer heatwave

Anglian Water has proposed a major £6.5bn investment plan to protect water supplies against the growing threat of extreme weather events, the supplier announced yesterday.

<https://www.businessgreen.com/bg/news/3062040/anglian-water-earmarks-gbp65bn-to-tackle-extreme-weather-challenges>

International news and research

This Pattern in the Tropics Has Some Meteorologists Concerned For the Heart of Hurricane Season

The pattern over the western Atlantic Basin next week is cause for some concern.

High pressure over the eastern U.S. may steer any systems from Africa toward the Caribbean.

These systems then may be steered toward the Gulf of Mexico if the pattern holds.

Another outcome is that those systems may be pulled northward on a similar path to Florence.

It's too soon to determine if any tropical cyclone will threaten the U.S. or Caribbean next week.

<https://weather.com/safety/hurricane/news/2018-09-04-tropical-pattern-concern-mid-september>

What's happening to our weather? The answers are hiding in Arctic air

Dozens of scientists, Helen Czerski among them, are at work in the Arctic, seeking answers to questions that profoundly affect the future of everyone on the planet

<https://www.theguardian.com/environment/2018/sep/01/whats-happening-weather-answers-arctic-air-oden-helen-czerski>

WMO

53rd issue of the TCC News - Japan Meteorological Agency

The Tokyo Climate Center (TCC) of the Japan Meteorological Agency (JMA) has released the [53rd issue of the TCC News](#) on the TCC website.

This issue covers:

- Upgrade of JMA's Supercomputer System
- Primary Factors behind the Heavy Rain Event of July 2018 and the Subsequent Heatwave in Japan from Mid-July Onward
- Sea Ice in the Sea of Okhotsk in the 2017/2018 Winter Season
- Kosa (Aeolian dust) Events over Japan in January–June 2018
- TCC Experts Visit the Philippines

[Read more here](#)

WMO regional office for Asia-Pacific opens in Singapore

World Meteorological Organization's new office for Asia and the South-West Pacific has started operations in Singapore. It will seek to improve coordination on hazards including extreme weather and air pollution and to strengthen meteorological services for rapidly evolving economic sectors such as air and marine transport.

[Read more here](#)

Primary Factors behind the Heavy Rain Event of July 2018 and the Subsequent Heatwave in Japan from Mid-July

Japan experienced significant rainfall particularly from western Japan to the Tokai region mainly in early July (The Heavy Rain Event of July 2018), which caused widespread havoc nationwide. Extremely high temperatures subsequently have persisted throughout most of Japan since mid-July. In this context, the Japan Meteorological Agency held the extraordinary session of the Tokyo Climate Center Advisory Panel on Extreme Climatic Events on 10 August to investigate atmospheric and oceanic conditions considered to have contributed to such climate extremes and related primary factors.

[Read more here](#)

Business development / commodities / infrastructure etc

StormGeo Acquires Nautisk

StormGeo acquires Nautisk to deliver industry-leading planning and navigation digital solutions for the global maritime industry

<https://markets.businessinsider.com/news/stocks/stormgeo-acquires-nautisk-1027505170>

Aviation

Tararua District Council gains international reputation for drone use

The Tararua District Council has gained an international reputation as a "smart city" for its innovative use of drones.

https://www.nzherald.co.nz/the-country/news/article.cfm?c_id=16&objectid=12116827

Communications/social media

Weather presenter Ingrid Hipkiss on what it's like to be in danger during Auckland storm

Ingrid Hipkiss has had a long career with Three, beginning as a political reporter in Wellington more than a decade ago before a brief stint co-hosting The Paul Henry Show following time off to start a family.

Now Hipkiss, a mother of two, presents the daily weather for Newshub Live At 6pm.

<https://www.stuff.co.nz/entertainment/tv-radio/tv-guide/106845050/weather-presenter-ingrid-hipkiss-in-danger-during-auckland-storm>

Energy and Mining

Mexican wave: harnessing the Pacific's blue rollers for green energy

Harvesting energy from waves has long lagged solar and wind - but the technology is gaining ground

<http://news.trust.org/item/20180830104340-2i5hy/>

Innovation and technologies (inc data and new products)

As India adds 100 Smart Cities, one tells a cautionary tale

India's \$7.5 bln plan to turn 100 urban centres into Smart Cities by 2020 does not address structural issues and ignores the needs of low-income and marginalised groups

<http://news.trust.org/item/20180903000001-1ssul/>

Climate change / global warming / sea level rise

With rising sea levels, Bangkok struggles to stay afloat

BANGKOK: As Bangkok prepares to host climate-change talks, the sprawling city of more than 10 million is itself under siege from the environment, with dire forecasts warning it could be partially submerged in just over a decade.

[Read more](#)

Symposium explores challenges of climate change

Attendees at LGNZ's Climate Change Symposium in Wellington on Friday 7 September will discuss the challenges and opportunities of climate change facing New Zealand communities now and in the future.

<http://www.scoop.co.nz/stories/SC1809/S00003/symposium-explores-challenges-of-climate-change.htm>

Climate change will reshape the world's agricultural trade

Ending world hunger is a [central aspiration](#) of modern society. To address this challenge – along with expanding agricultural land and intensifying crop yields – we rely on global agricultural trade to meet the nutritional demands of a growing world population.

[Read more here](#)

Cloud seeding / Geoengineering

Thai govt to perform cloud seeding in several provinces

BANGKOK, 4th September 2018 (NNT) - Farmers in 22 Chao Phraya River provinces have asked officials to perform cloud seeding operations, in order to replenish agricultural zones. Deputy Prime Minister General Chatchai Sarikalya, says that the current average water supply of the nation is quite low. He explained that recent heavy downpours were concentrated in certain areas, leaving many provinces short of water.

<https://news.thaivisa.com/article/25399/thai-govt-to-perform-cloud-seeding-in-several-provinces>

Journals and articles online

The August 2018 edition of the CMOS Bulletin is available / L'édition août 2018 Bulletin SCMO est disponible

<http://bulletin.cmos.ca/cmos-bulletin-scmo-vol-46-no-4-august-2018/>

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Welcome to AMS News You Can Use.

Each week, we send out a sampling of recent news and items of interest in meteorology and related fields, as covered by various media outlets. Searchable archives are [available online](#).

The Cost of Climate Change in Hawaii

Hawaii Business - 09/4/2018

of 27 extreme weather events in 2016, researchers for the American Meteorological Society have correlated 21 of them to human-caused climate

Ice, wind and lightning: How Mount Washington's weather watchers survive

CNET News - 09/4/2018

climate records" — make it valuable for weather forecasting and climate research. Not to mention the meteorologists' willingness to go out,

Hurricane Forecasters Did Not Use 'Potential Tropical Cyclone' To Scare People

F3News - 09/3/2018

expert in weather and climate, was the 2013 President of American Meteorological Society (AMS) and is Director of the University of

With rising sea levels, Bangkok struggles to stay afloat

Raw Story - 09/3/2018

monsoon floods from the north, said Chinvano. "Specialists anticipate more intense storms in this region in the years to come." Narong

[Nature's whims cause water crises. Its infrastructure can stop them](#)

ReliefWeb - 09/3/2018

in helping vulnerable communities to face the double threat of flooding and drought. Research and practise from India over the last 30 years

[How to Prepare for Extreme Weather](#)

Care2 - 09/2/2018

water and gas utilities to the home. Check your homeowner's insurance policy so you know what weather-related damage is covered. Start with

[Climate Change Visualizations](#)

Daily Kos - 09/1/2018

from 1951 to 1980. Created by Antti Lipponen, a research scientist at the Finnish Meteorological Institute.

[These Stunning Designs Show What Our Future on Mars Might Look Like](#)

Space.com - 09/1/2018

Red Planet is harsh, with an extremely thin atmosphere, intense radiation and dust storms that occasionally envelop the planet. [Mars Ice

[Fire Prevention: We Can't Save Everyone, Every Time](#)

Firehouse.com - 09/1/2018

in no small part due to the lessons learned from Hurricane Katrina, the government rolled out the National Preparedness Goal (NPG). The NPG

[Hurricane Harvey Anniversary Serves as Reminder to Include Pets in Disaster Preparation Plans](#)

Times Union - 08/31/2018

In light of both the Hurricane Harvey anniversary and National Disaster Preparedness Month in September, the Texas Veterinary Medical

[Why Colombia's Coffee Industry Can No Longer Rely on Routine Farming](#)

Yahoo! News - 08/31/2018

and other financial services to help farmers weather failed crops or invest in new technologies. Research shows that teaching people to

[The intersection of climate science and hope: A personal story](#)

Phys.org - 08/31/2018

its history, and central Mali has been undergoing severe drought for many years. Research finds that climate change may amplify conflict. A

[The Story Behind The Updated Puerto Rico Death Toll And What We Can Learn From It](#)

The Huffington Post - 08/30/2018

a limited number of deaths being identified as related to Hurricane Maria. Disaster preparedness is lacking The report showed that public

[Hurricane Lane Was The Second-Wettest Tropical Cyclone On Record In The U.S.](#)

Forbes - 08/30/2018

Despite the hurricane never making landfall, the storm's proximity led to several days of intense rains pummeling the islands. Persistent

[K-12 schools ill-prepared for natural disasters, warns CU professor](#)

University of Colorado Boulder - 08/30/2018

"We are experiencing more frequent and more intense climate-related disaster events, including severe storms and floods," she said. "Yet

[Reaction of plants to drought can be seen in the composition of the atmosphere](#)

Phys.org - 08/30/2018

CO₂ in the atmosphere. The analysis of the international research group showed that the drought response of plants affected more than one

[Engineered sand zaps storm water pollutants](#)

Berkeley News - 08/30/2018

and a National Science Foundation Graduate Research Fellowship. RELATED INFORMATION On California, the drought and the 'yuck factor'

[Hurricane season quiet so far, but could be ready to blow](#)

NorthJersey.com - 08/30/2018

has already proved hard to read. Initially, the National Hurricane Center was forecasting an "above-normal" season for tropical formation

[Boulder scientists see more intense El Niño and La Niña episodes with climate change](#)

Boulder DailyCamera.com - 08/29/2018

research published last Wednesday in the Geophysical Research Letters journal. A 2011 heat wave across sections of North America motivated

[University of Texas is getting a \\$60 million supercomputer](#)

CNET News - 08/29/2018

modeling, particle collisions from the Large Hadron Collider, and even hurricane forecasting. NSF previously gave the school a \$30 million

[Boaters and surfers have access to more observations from the ocean with NOAA's latest integration](#)

News4Jax - 08/29/2018

to research how hurricanes grow in strength, which will help make hurricane forecasts more accurate. "The regional associations are at the

[The economic impact of hurricanes \[Opinion\]](#)

Houston Chronicle - 08/29/2018

clear that we need to change the way we think about hurricane preparedness. Storms are increasingly powerful and increasingly expensive.

[Hospital disaster preparedness: best practices learned from Hurricane Irma](#)

Becker's Hospital Review - 08/28/2018

health system professionals say they do not have an emergency preparedness plan in place. After Hurricane Sandy hit the east coast in 2012,

[Seeking the truth in weather forecasts](#)

The Washington Post - 08/28/2018

Bryan Norcross: Facebook and Google have a responsibility during disasters Hurricane forecasts are great — as long as the storms behave It's

[Getting ahead of disaster risks](#)

ReliefWeb - 08/28/2018

information needed to devise index-based flood insurance schemes supported by CGIAR Research Program on Climate Change, Agriculture and Food

[Increasing Frequency of Drought Is Changing the Amazon From Carbon Sink to Source](#)

Pacific Standard - 08/27/2018

the Amazon From Carbon Sink to Source New research finds just one season of drought can reduce the carbon dioxide absorption ability of the

[Millions risk malnutrition as CO2 levels climb: study - att.net](#)

ATT.com - 08/27/2018

prolonged drought, and other forms of extreme weather driven by climate change, earlier research has shown. Impacts include reduced crop

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My latest WeatherEye from John Maunder

<https://www.sunlive.co.nz/blogs/12479-aurang-august-rainfalls-18982018.html>

<https://www.sunlive.co.nz/blogs/12464-the-southern-oscillation-index.html>

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NATURE Magazine for Climate change , September 2018.

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doi:10.1038/s41558-018-0264-0

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[Winds shift El Niño flavour pp766 - 767](#)
Sang-Wook Yeh
doi:10.1038/s41558-018-0261-3

Review Articles

[Re-examining tropical expansion pp768 - 775](#)
Paul W. Staten, Jian Lu, Kevin M. Grise, Sean M. Davis & Thomas Birner
doi:10.1038/s41558-018-0246-2

Research suggests the tropics have widened in recent decades. This Review assesses the rates and drivers of observed and projected tropical expansion, surmising that it is too early to detect anthropogenic signals from natural variability.

Letters

[Climatic and socioeconomic controls of future coastal flood risk in Europe pp776 - 780](#)
Michalis I. Vourdoukas, Lorenzo Mentaschi, Evangelos Voukouvalas, Alessandra Bianchi, Francesco Dottori et al.
doi:10.1038/s41558-018-0260-4

Climate change is the main driver for future coastal flood risk in Europe. However, in the absence of increased flood protection, damages may rise by two to three orders of magnitude by the end of the century.

[Increased human and economic losses from river flooding with anthropogenic warming pp781 - 786](#)

Francesco Dottori, Wojciech Szewczyk, Juan-Carlos Ciscar, Fang Zhao, Lorenzo Alfieri et al. doi:10.1038/s41558-018-0257-z

River floods have severe socio-economic impacts. A multi-model framework reveals river-flood-related human losses may rise by up to 83%, 134% and 265% at 1.5°C, 2°C and 3°C warming, respectively, with economic losses also projected to rise.

[Seasonally dependent responses of subtropical highs and tropical rainfall to anthropogenic warming pp787 - 792](#)

Fengfei Song, L. Ruby Leung, Jian Lu & Lu Dong doi:10.1038/s41558-018-0244-4

Multi-model simulations reveal subtropical highs exhibit a seasonal response to anthropogenic warming, strengthening more during April–June than July–September in the Northern Hemisphere, and resulting from a seasonal delay of monsoon rainfall.

[Pacific contribution to the early twentieth-century warming in the Arctic pp793 - 797](#)

Lea Svendsen, Noel Keenlyside, Ingo Bethke, Yongqi Gao & Nour-Eddine Omrani doi:10.1038/s41558-018-0247-1

In the early twentieth century, the Arctic warmed faster than the global average. Pacific Ocean interdecadal variability, specifically wind-driven sea surface temperatures, drove the Arctic warming through enhanced heat transport.

[Cross-equatorial winds control El Niño diversity and change pp798 - 802](#)

Shineng Hu & Alexey V. Fedorov doi:10.1038/s41558-018-0248-0

In recent years, El Niño sea surface temperature anomalies have weakened and shifted westward. Observational and model analyses reveal these changes can be related to a multidecadal strengthening of cross-equatorial winds, forced both locally and from the tropical Atlantic.

[Detection of continental-scale intensification of hourly rainfall extremes pp803 - 807](#)

Selma B. Guerreiro, Hayley J. Fowler, Renaud Barbero, Seth Westra, Geert Lenderink et al. doi:10.1038/s41558-018-0245-3

Theory predicts that hourly rainfall extremes may increase with anthropogenic warming. Observations from Australia suggest changes two to three times above the Clausius–Clapeyron rate, above that expected from natural variability.

[Projected increases and shifts in rain-on-snow flood risk over western North America pp808 - 812](#)

Keith N. Musselman, Flavio Lehner, Kyoko Ikeda, Martyn P. Clark, Andreas F. Prein et al.
doi:10.1038/s41558-018-0236-4

Rain-on-snow events pose a significant flood risk. High-resolution model simulations reveal that such events will increase in frequency in the higher elevations of western North America, resulting in a 20–200% enhancement of flood risk.

[Climate warming leads to divergent succession of grassland microbial communities pp813 - 818](#)

Xue Guo, Jiajie Feng, Zhou Shi, Xishu Zhou, Mengting Yuan et al.
doi:10.1038/s41558-018-0254-2

Experimental warming at a tall-grass prairie significantly altered bacteria and fungi community structure. Under climate change microbial community composition and structure are projected to be less variable due to warming-driven selection.

[Ecological winners and losers of extreme drought in California pp819 - 824](#)

Laura R. Prugh, Nicolas Deguines, Joshua B. Grinath, Katherine N. Suding, William T. Bean et al.
doi:10.1038/s41558-018-0255-1

California's 2012–2015 drought is shown to have altered community structure (plants, arthropods, birds, reptiles and mammals), indirectly promoting the long-term persistence of rare species by stressing dominant ones.

[Greening of the land surface in the world's cold regions consistent with recent warming pp825 - 828](#)

T. F. Keenan & W. J. Riley
doi:10.1038/s41558-018-0258-y

The period 1982 to 2012 has seen a 16% decline in the area of vegetation limited by temperature. This rapid observed and expected decline in temperature limitation will facilitate further global greening subject to other limitations to growth in cold regions.

Articles

[Strategies in and outcomes of climate change litigation in the United States pp829 - 833](#)

Sabrina McCormick, Robert L. Glicksman, Samuel J. Simmens, LeRoy Paddock, Daniel Kim et al.
doi:10.1038/s41558-018-0240-8

Climate issues are increasingly being presented before the courts, with both pro- and anti-regulation litigants aiming to affect policy outcomes. Analysis of domestic US climate lawsuits and interview data reveals the type of case and the strategies that succeed.

[Impact of anthropogenic CO₂ emissions on global human nutrition pp834 - 839](#)

Matthew R. Smith & Samuel S. Myers
doi:10.1038/s41558-018-0253-3

Elevated atmospheric CO₂ (550?ppm) could cause an additional 175 million people to be zinc deficient and 122 million protein deficient (assuming 2050 population and CO₂ projections) due to the reduced nutritional value of staple food crops.

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