

New Zealand weather and climate news

Courtesy of Met Service

MetService focus

Possible snow for Dunedin hill suburbs

MetService meteorologist Brian Mercer said a front was expected to arrive on the Southland coastline about 1am tomorrow, bringing heavy showers and snow down to 200m as it moved up the South Island.

<https://www.odt.co.nz/news/dunedin/possible-snow-dunedin-hill-suburbs>

Mixed bag of weather to hit country over the week

MetService meteorologist Ravi Kandula said most of the country could expect a dose of sunshine, intercepted with a bit of cloud.

<https://www.newstalkzb.co.nz/news/national/mixed-bag-of-weather-to-hit-country-over-the-week/>

Ferries cancelled as southerly storm bites

Ferry sailings across Cook Strait have been cancelled as rain and gales sweep across much of the country.

<https://www.radionz.co.nz/news/national/368519/ferries-cancelled-as-southerly-storm-bites>

Interview with Mark Crompton

If you're on Facebook you might want to check out the Coaster's Club interview with Mark Crompton. It's about 6 mins long. It should be publicly available but if you have problems come and see me and I'll play it for you

Mark Crompton a Coaster agreed to be interviewed about his life as a weather observer on some of the remote islands south of New Zealand.

This is part one of a 5 part series posted on the 13th of oct 2018 at 8.16am.

<https://www.facebook.com/coastersclub/videos/323072904910290/>

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

Icy delay to Antarctica

Antarctica is dealing her icy hand, delivering a series of storms that have caused the longest delay in decades for the start of the season.

<http://www.scoop.co.nz/stories/SC1810/S00049/icy-delay-to-antarctica.htm>

Extreme weather (and other news) – Australia and Pacific

24 Pacific students gain special climate change resilience training

Twenty four students attended face-to-face training sessions in Suva last week as the final step of an intensive 16-week training programme on climate change adaptation and disaster risk reduction.

<https://asiapacificreport.nz/2018/10/08/24-pacific-students-gain-special-climate-change-resilience-training/>

Pacific Met officers improve communication channels

WEATHER forecasters can not predict with absolute certainty every natural disaster which may take place.

But they can provide accurate information when they work closely with those who will use that data.

<https://www.fijitimes.com/pacific-met-officers-improve-communication-channels/>

Better relaying weather information

SEVERAL Pacific meteorological authorities are changing the way they communicate technical information in order to reach a wider cross section of the community.

<https://www.fijitimes.com/better-relaying-weather-information/>

Tornadoes in Australia getting more attention thanks to storm chasers and social media

While reports of tornadoes in Australia can be met with surprise, there are dozens of reports of tornadoes in the country every year, according to the Bureau of Meteorology.

<http://www.abc.net.au/news/2018-10-12/everything-you-need-to-know-about-tornadoes-in-australia/10370602>

Farmers' climate denial begins to wane as reality bites

Australia has been described as the “front line of the battle for climate change adaptation”, and our farmers are the ones who have to lead the charge. Farmers will have to cope, among other pressures, with longer droughts, more erratic rainfall, higher temperatures, and changes to the timing of seasons.

[Read more here](#)

Why this Pacific Ocean cyclone season might be a 'late bloomer

Despite the South Pacific just experiencing its first September tropical cyclone in more than 70 years, forecasters are predicting a typical but "late-blooming" season.

https://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=12140839

The nexus between climate change, mental health and wellbeing and Pacific peoples

30 SEP 2018

[Jemaima Tiatia-Seath](#), [Yvonne Underhill-Sem](#), [Alistair Woodward](#)

[Pacific Health Dialog](#)

Much of the health research on climate change in the Pacific is dominated by the vulnerability of ecosystems and only recently have mental health impacts of climate change been recognised by public health experts. Although the research is still limited, it is projected that disruption resulting from climate change will have serious damaging effects on mental health worldwide.

<http://apo.org.au/system/files/196651/apo-nid196651-1025596.pdf>

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

Indonesia flash flooding kills at least 21 on Sumatra island

Landslides and flash flooding following heavy rainfall on the Indonesian island of Sumatra have left at least 21 people dead, officials say.

<https://www.radionz.co.nz/news/world/368638/indonesia-flash-flooding-kills-at-least-21-on-sumatra-island>

India lost \$79.5 billion due to natural disasters in 20 years, says UN; 2002, 2015 costliest drought spells in two decades

United Nations: India has suffered economic losses of \$79.5 billion due to natural disasters during the last two decades, according to the United Nations.

<https://www.firstpost.com/india/india-lost-79-5-billion-due-to-natural-disasters-in-20-years-says-un-2002-2015-costliest-drought-spells-in-two-decades-5365401.html>

Japan weather bureau says 70 percent chance of El Nino emerging in autumn

TOKYO (Reuters) - Japan's weather bureau said on Thursday there is a 70 percent chance an El Nino weather pattern could emerge during the Northern Hemisphere autumn.

<http://uk.businessinsider.com/r-japan-weather-bureau-says-70-percent-chance-of-el-nino-emerging-in-autumn-2018-10/?r=AU&IR=T>

Extreme weather (and other news) – Americas and Europe

Farming sector suffers big hit from weather

New figures show sheep population dropping to a five-year low

<https://www.insider.co.uk/news/farming-agriculture-revenue-scotland-nfu-13388421>

Portugal declares red alert as Hurricane Leslie nears; first in 176 years

LISBON, Portugal (AFP) — Portugal placed most of the country on red alert Saturday as Hurricane Leslie barrelled towards its coastline in what could be the fiercest storm to hit the country since 1842.

<http://www.jamaicaobserver.com/latestnews/Portugal-declares-red-alert-as-Hurricane-Leslie-nears;-first-in-176-years?profile=1373>

STORM CALLUM

Storm Callum – Gale-force winds plunge Scots holidaymakers into travel chaos this October break as 80mph gusts leave flights cancelled

The Met Office has currently issued a yellow warning over the storm and warned the West coast is set to be battered - while Glasgow Airport cancelled services

<https://www.thescottishsun.co.uk/news/scottish-news/3341237/storm-callum-scotland-weather-october-break-flights/>

Before and after satellite images of Hurricane Michael damage

The National Oceanic and Atmospheric Administration (NOAA) operates state-of-the-art weather satellites over the United States 24 hours a day. Designed to track weather systems, their cameras captured damage from Hurricane Michael's landfall Oct. 10, 2017. Here are some of the before and after images.

<https://www.al.com/expo/news/err-2018/10/860b6c33432878/before-and-after-satellite-ima.html>

International news and research

WGN meteorologist hand-draws the forecast after weather computer dies

When the WGN Weather Center's graphic computer died Tuesday morning, WGN Meteorologist Morgan Kolkmeyer took matters into her own hands --- complete with paper and a sharpie.

<https://wgntv.com/2018/10/09/wgn-meteorologist-hand-draws-the-forecast-after-weather-computer-dies/>

An Open Letter Thanking The National Hurricane Center For Plenty Of Notice On Michael

The images coming out of the panhandle of Florida are exactly what you would expect from a category 4 storm making landfall with 150+ mph winds. Even Georgia, my home state, experienced major (category 3+) hurricane damage for the first time in over a century. For places like Panama City or Mexico Beach, the combination of wind and storm surge was a significant blow. In the midst of this tragedy and despair, I write this open "thank you" letter to the National Hurricane Center.

<https://www.forbes.com/sites/marshallshepherd/2018/10/11/an-open-letter-thanking-the-national-hurricane-center-for-plenty-of-notice-on-michael/#69baf2147342>

Why Did Hurricane Michael Rev Up to Category 4 So Quickly?

Scientists have made major strides in recent years in understanding why storms rapidly intensify

It was not the news residents of the Florida Panhandle wanted to wake up to: Hurricane Michael had strengthened overnight into a category 4 storm, sporting winds of 140 miles per hour. And it didn't stop there. The hurricane remarkably continued to intensify until it slammed into land Wednesday afternoon with devastating 155 mph winds at its core—just shy of a category 5 designation.

[Read more here](#)

Watch a Meteorologist Fact-Check Weather Movies

In Vulture's video series, Expert Witness, we ask scientists, historians, and other professionals to give Hollywood movies a good old-fashioned fact-check.

From The Wizard of Oz to Geostorm, Hollywood has always seemed to have a fascination with extreme weather. It chases characters, carries away houses, and in some more "creative" cases drops cheeseburgers and frogs from the sky. But how does the movie version of weather look compared to real life? We turned to Weather Channel meteorologist Stephanie Abrams for the answer.

<http://www.vulture.com/2018/10/watch-a-meteorologist-fact-check-weather-movies.html>

ECMWF

ECMWF widens weather forecast product availability

Weather does not change in three- or six-hour time slots. Hourly forecast data thus provide greater accuracy than three- or six-hourly data.

ECMWF is pleased to announce that the hourly data and 06/18 UTC forecast runs from its Boundary Conditions Optional Programme are now available to all users holding a real-time licence, upon request.

<https://www.ecmwf.int/en/about/media-centre/news/2018/ecmwf-widens-weather-forecast-product-availability>

WMO

New report highlights economic cost of disasters

Indonesian Tsunami and Hurricane Michael overshadow International Day for Disaster Reduction

The last twenty years have seen a dramatic rise of 151% in direct economic losses from climate-related disasters, according to a new report released by the UN Office for Disaster Risk Reduction (UNISDR).

[Read more here](#)

Working Across Borders to Improve Early Warnings in South Eastern Europe

A massive storm system brought historic flooding across South Eastern Europe in 2014, causing more than \$2 billion in damages in Bosnia and Herzegovina and shrinking Serbia's economy by

nearly a full percent. Two years later, in August 2016, thunderstorms in the Former Yugoslav Republic (FYR) of Macedonia dropped 93 liters of precipitation per square meter in just a few hours, sparking flash floods in the capital, Skopje, that killed at least 21 people.

[Read more here](#)

WMO and World Bank partner to support sustainable development

The World Meteorological Organization (WMO) and the World Bank are partnering to leverage WMO weather, climate and hydrological expertise to enhance developing countries' resilience to climate change. At the margins of the World Bank Group Annual Meetings, WMO and the World Bank signed a new framework agreement to strengthen and streamline their cooperation in support of Member countries' capacity to apply the best available science for resilient development.

[Read more here](#)

World Bank and WMO announce Hydromet Development Alliance commitment

World Meteorological Organization Secretary-General Petteri Taalas today announced a joint commitment with the World Bank to spearhead the creation of an Alliance for Hydromet Development to boost climate and weather science and information for a resilient world.

[Read more here](#)

Business development / commodities / infrastructure etc

Extreme weather events sparking insurance companies to look at risk-based pricing

Risk-based pricing is already being talked about by some insurance companies, as the possibility of some disaster-prone areas becoming uninsurable grows.

<https://www.tvnz.co.nz/one-news/new-zealand/extreme-weather-events-sparking-insurance-companies-look-risk-based-pricing>

Rethinking the notion that hot weather means increased consumption in wake of Japan's scorching summer

Japan seems to suffer more than its fair share of natural disasters, and this past summer was especially bad. In addition to two earthquakes that resulted in considerable damage, there were strong storms that killed dozens and forced thousands to flee their homes.

<https://www.japantimes.co.jp/news/2018/10/12/business/rethinking-notion-hot-weather-means-increased-consumption-wake-japans-scorching-summer/#.W8Oh87p9ipo>

Aviation

Rocket Lab - big growth plans to go with big new Auckland factory

The future of Kiwi space exploration is being worked on in the most unlikely of places - a factory next to a second-hand car dealer, near New Zealand's biggest mall.

But inside Rocket Lab's gleaming new plant, things suddenly take a very Star Trek turn - and not just because of the presence of opening-day guest William Shatner. Three of the company's Electron launch vehicles (or "rockets", as most people call them) are under construction on the factory floor. Sub-assembly cells feature 3D metal printers. A giant CNC (computer numerical control) unit that can mill components the size of a bus will be operational within weeks.

https://www.nzherald.co.nz/business/news/article.cfm?c_id=3&objectid=12140730

Satellites and radar

Understory Nabs \$6.5M to Expand Network of Weather Tracking Stations

Understory, a Madison, WI-based weather technology startup, has raised more than \$6.5 million in new equity funding from eight investors, according to a [securities filing](#).

<https://www.xconomy.com/wisconsin/2018/10/10/understory-nabs-6-5m-to-expand-network-of-weather-tracking-stations/>

El Nino / La Nina

Predicting El Niño Beyond 1-year Lead: Effect of the Western Hemisphere Warm Pool

Jae-Heung Park,

Jong-Seong Kug,

Tim Li &

Swadhin K. Behera

Scientific Reports volume 8, Article number: 14957 (2018)

Due to the profound impact of El Niño-Southern Oscillation (ENSO) on global climate and weather, extensive research has been devoted to its prediction. However, prediction accuracy based on observation is still insufficient and largely limited to less than one year of lead time. In this study, we demonstrate the possibility that anomalous sea surface temperature (SST) warming (cooling) in the Western Hemisphere Warm Pool (WHWP, a.k.a. Atlantic Warm Pool) near the Intra-Americas Sea (IAS), which is the second largest warm pool on the planet, contributes to the initiation of La Niña (El Niño) with a 17-month lag time. SST anomalies in WHWP in late boreal summer contribute significantly to the emergence of the Pacific meridional mode (PMM) via interaction between the ocean and atmosphere over the subtropical North Pacific during the subsequent winter and spring. Near-equatorial surface wind anomalies associated with the PMM can further trigger ENSO through the dynamics of the equatorial oceanic waves. Thus, this observational analysis presents a clear step-by-step explanation about the influence of WHWP on ENSO development with a 17-month lead time.

https://www.nature.com/articles/s41598-018-33191-7?WT.feed_name=subjects_physical-oceanography

Climate change / global warming / sea level rise

Confronting climate change in the age of denial: a special collection launched in PLOS Biology

People are hard-wired to respond to stories, but climate-denial narratives can be just as compelling as those that convey the facts about global warming. A new collection, "Confronting Climate Change in the Age of Denial," publishing 9 October in the open access journal PLOS Biology, explores the challenges and pitfalls of using stories to communicate scientific evidence around climate change, offering both caveats and potential solutions to telling evidence-based climate change stories that can resonate with the public.

https://www.eurekalert.org/pub_releases/2018-10/p-ccc100118.php

Emergency preparedness / disaster planning / resilience

Proposed National Disaster Resilience Strategy

Have your say about the future of civil defence emergency management in New Zealand. Public consultation on a proposed National Disaster Resilience Strategy for New Zealand is now open.

Closing date for submissions is 7 December 2018

The National Disaster Resilience Strategy sets New Zealand's vision and long-term goals for civil defence emergency management. It has a strong focus on building community and societal disaster resilience to protect New Zealand's prosperity and wellbeing.

<https://www.civildefence.govt.nz/cdem-sector/plans-and-strategies/proposed-national-disaster-resilience-strategy/>

Journal and articles online

Weather

Volume 73, Issue 10

Pages: E1, 306-320, i-iv, 321-336, E2-E3

October 2018

Cover Information

Cover Information

First Published: 09 October 2018

In this issue of Weather

Jim Galvin

Pages: E1 | First Published: 09 October 2018

Weather news

Weather news

Pages: 306 | First Published: 09 October 2018

Research Articles

Arctic sea ice – a driver of the winter NAO?

James L. Warner

Pages: 307-310 | First Published: 09 October 2018

The link between Arctic sea ice and winter NAO variability is well documented in the literature, but the mechanisms are not well understood. This article discusses such mechanisms and investigates whether or not Arctic sea ice is a physical driver of NAO variability.

Numerical modelling of the evolution of the boundary layer during a radiation fog event

D. K. E. Smith, I. A. Renfrew, J. D. Price, S. R. Dorling

Pages: 310-316 | First Published: 09 October 2018

Fog has a large impact on human activity, particularly transport, but still remains a huge challenge for numerical weather prediction models. The stability of the boundary layer often undergoes a transition from stable to weakly unstable during radiation fog events. Through a series of experiments using a single-column model, we have found that this transition is very sensitive to the wind speed and humidity within the residual layer just above the fog.

Book review

Book review

Pages: 319 | First Published: 28 May 2018

Weather images

Pages: 320 | First Published: 09 October 2018

Weather log

August 2018 An early end to the hot summer

Pages: i-iv | First Published: 09 October 2018

Seasonal Weather Summary

UK seasonal weather summary Summer 2018

National Climate Information Centre

Pages: 321 | First Published: 09 October 2018

Research Article

Climate variability and changes in local climate

Dani V, B. K. Pal

Pages: 322-331 | First Published: 04 December 2017

Significant changes in climate have been identified through statistical analysis of climate data from 1901 to 2015. A statistically significant positive trend has been identified in the temperature data: the average minimum and maximum temperatures for 1901 are 20 and 31°C, increasing to 23 and 33°C in 2015. Correlation techniques found a negative correlation between rainfall and temperature. Projections made using the ARIMA model predicted significant changes in temperature and rainfall, indicating the possibility of the continued occurrence of extreme climate events such as heatwaves and drought.

Short Note

[Measuring meteorological variables for studying the climate](#)

Peter Stott, Ian Strangeways, Climate Science Communications Group

Pages: 332 | First Published: 09 October 2018

Research Article

[Snow patches in England and Wales during spring and summer 2018](#)

Iain Cameron

Pages: 333-334 | First Published: 09 October 2018

No snow patches survived in England and Wales into summer except on one hill. The dates of final melting were broadly in line with the mean for the series 2010–2018. The table shows the final melt dates for all snow in England and Wales for the period 2010–2018.

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Tonya Haigh, Vikram Koundinya, Chad Hart, Jenna Klink, Maria Lemos, Amber Saylor Mase, Linda Prokopy, Ajay Singh, Dennis Today, and Melissa Widhalm

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Thanks to MetService Library for these clips

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