

New Zealand weather and climate news

Courtesy of MetService Library

MetService mentions

A hot summer is on the way, according to Herman the Tortoise

Stuff.co.nz

Move over MetService, Rotorua's four-legged, weather predicting tortoise has come out of her shell with a message. We're in for a hot summer.

Spring's arrived: Hawke's Bay to be hottest spot in NZ this weekend

New Zealand Herald

... and fine and on Sunday Napier and Hastings will be the hottest in the country with a forecast of 21C, MetService forecaster Gerard Bellam said.

Spring set to bring the heat as Hawke's Bay basks in warm end to winter

New Zealand Herald

MetService meteorologist Thomas Adams said the all-time winter temperature record in Hawke's Bay of 25.1C was recorded on June 10, 2016, while ...

Warm weather in the south expected to make final days of winter feel like summer

Stuff.co.nz

MetService forecaster Gerard Bellam said the flow, which was making its way across the Tasman Sea, was expected to bring warm winds and raise ...

Damaging winds to buffet massive fire

Otago Daily Times

The MetService has issued strong wind warnings for much of the South Island as firefighters battle blazes in the Mackenzie district and near Outram.

Wind watch issued for parts of Canterbury

Otago Daily Times

A MetService spokesman said a strong westerly flow is expected to spread over the South Island on Saturday, with gales in the far south and high ...

Region revels in 20degC temperatures

For the first time in months, Otago residents basked in temperatures around 20degC yesterday.

Temperatures in Southland remained in the mid-teens, but in Dunedin, Cromwell, Otematata and Ranfurly, they reached 19degC; in Alexandra it reached 20.1degC; in Palmerston it reached 21degC; and in Oamaru the mercury topped 22.5degC.

Cold snap and high winds to hit Canterbury on Tuesday, with snow expected inland

Stuff.co.nz

MetService forecaster Paul Ngamanu said snow would arrive on Tuesday for inland areas in Mid-Canterbury and South Canterbury. A severe weather ..

Rain fills Auckland's dams, but hose ban stays

RNZ

The latest update from Watercare shows Aucklanders' water use is well below the 405 million litre daily target set by Watercare during a severe ...

Snow expected in the week ahead

SunLive

The MetService advises that an active front, preceded by strong northwesterlies is expected to move northeast over the South Island during Tuesday, ...

Spring to bring cold and rain to South Canterbury

Stuff.co.nz

MetService has forecast changeable weather for the region this week, with bursts of rain or showers, snow in Mackenzie and the Canterbury Plains, ..

'Bitterly cold' day for South Island with widespread snowfall on first day of spring

Stuff.co.nz

MetService meteorologist Peter Little said South Islanders should expect a “bitterly cold” day as a cold front “significantly” dropped temperatures ...

Widespread southern snowfall on first day of spring heading north

Cold temperatures will hang around the South Island on Wednesday, but there will not be more of the snow that blanketed many southern centres and closed highways on Tuesday.

Weather: Snow expected on Desert Road today

New Zealand Herald

MetService said between midday and 6pm Wednesday, 1 to 3cm of snow may settle near the summit of the road, with lesser amounts down to 800m.

New Zealand pilot wows with 'stunning shot' of lenticular cloud

Stuff.co.nz

Geoffrey Beckett via Storyful. Even the experts at the MetService were left “gasping” at ...

Fire and Emergency services ask Hawke's Bay farmers to think twice before burn-offs

New Zealand Herald

... paired with a lack of rainfall, warns Fire and Emergency New Zealand. Principal Rural Fire Officer Trevor Mitchell said with temperatures expected to ...

Weather forecast looks promising for firefighters battling Lake Pukaki blaze

A "significant" drop in wind speed and temperature is expected to ease concerns for firefighters at the scene of a large blaze burning out of control near Twizel in the Mackenzie District.

Mackenzie fire may take months to extinguish, despite snowfall

It could take months to fully extinguish a scrub fire in the Mackenzie District despite rain bringing some relief to firefighters overnight.

Westpac, MetService confirm cyberattacks

Stuff.co.nz

Westpac and **MetService** have confirmed they were targeted by cyberattacks, joining a growing list of businesses to report attacks in recent days.

MetOcean

Where marine heatwaves will intensify fastest: New analysis

Posted: 28 Aug 2020 07:21 AM PDT

High-resolution ocean modelling has found the world's strongest ocean currents, which play key roles in fisheries and ocean ecosystems, will experience more intense marine heatwaves than the global average over the coming decades.

Further Tsunami Detection Buoys Deployed

Foreign Affairs Minister Winston Peters and Civil Defence Minister Peeni Henare welcome the deployment of five more DART (Deep-ocean Assessment and Reporting of Tsunami) buoys. We are pleased to deliver a lifesaving line of defence, built ...

WMO

WMO Update: 60 percent chance of La Niña

Posted:

There is a 60 percent chance of a weak La Niña event developing during September to November 2020, according to a new El Niño/La Niña update from the World Meteorological Organization. Despite the...

Extreme weather (and other news) – Australia and the Pacific

Boaties in Fiji's Blue Lanes ponder next move as cyclone season looms

Boat owners allowed to enter Fiji's Blue Lanes are urging other countries to adopt a similar initiative amid the Covid-19 pandemic.

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

Typhoon Maysak could become one of South Korea's strongest typhoons on record

The National Hurricane Center is also tracking several Atlantic systems that could develop into tropical cyclones.

Extreme weather (and other news) – Americas and Europe

Storm names for 2020-21 announced

The Met Office, along with partners Met Éireann and KNMI today reveal the list of storm names for the UK, Ireland and Netherlands for the next season.

Hurricane Laura the First Southwest Louisiana Category 4 Landfall on Record With Destructive ...

The Weather Channel

The extreme winds even destroyed the National Weather Service Doppler radar in Lake Charles, in similar fashion as what happened to another NWS ...

Watch These Vivid Views From Space as the Cyclonic Buzzsaw of Hurricane Laura Cut Into the ...

Discover Magazine

The GOES-16 weather satellite captured this infrared view of Hurricane ... animation by the Cooperative Institute for Meteorological Satellite Studies) ...

International news and research

Experts reveal major holes in international ozone treaty

Posted: 26 Aug 2020 05:30 AM PDT

Scientists have revealed major holes in an international treaty designed to help repair the ozone layer, putting human health at risk and affecting climate.

Hurricanes could be up to five times more likely in the Caribbean if tougher targets are missed

Posted: 27 Aug 2020 10:06 AM PDT

Global warming is dramatically increasing the risk of extreme hurricanes in the Caribbean, but meeting more ambitious climate change goals could up to halve the likelihood of such disasters in the region, according to new research.

When Is It Time To Evacuate The Offshore Platform?

Forbes

Often, a professional meteorologist is asked to develop a mock weather ... When a tropical storm develops, meteorologists begin providing daily ..

In 1957, Hurricane Audrey became one of the deadliest storms in US history

KVUE.com

In that era before weather satellites, it was harder to predict where a hurricane would strike and the timing of a storm's arrival. Only ground-based radar ...

Your Turn: Forecasting missed the boat during the Great Hurricane

theday.com

Today's up-to-the-minute **satellite** coverage — **meteorological** specifics ... The U.S. **Weather** Bureau knew there was a tropical system out there; their .

Back to the Future II-style weather forecasts developed by Japanese universities

SoraNews24

While a lot of that didn't come to pass, I'm happy to say we are one big step closer to the kick-ass **weather forecasting** the film depicted. ... Using the latest weather radar **technology** and university supercomputers, they can give an .

Aviation

Air New Zealand pins hopes on more passengers, funds for freight service

More passengers flying again once Auckland's alert level 3 finishes and more financial support for its cargo business will influence how much of a \$900 million loan is drawn down, Air New Zealand's chief finance officer says.

New weather product helps pinpoint icy clouds

AOPA Pilot

The Alaska **Aviation** Cross-section is a NOAA-funded project introduced a year ago but is being made available for pilot demonstration and feedback in ...

By December, 45 airports to use global navigation satellite system for safe landing in poor visibility

Hindustan Times

Installing GNSS is part of a global plan by the International Civil Aviation Organisation to make landings more efficient during adverse **weather**. GNSS, ...

How Airlines Deal With Hurricanes

Simple Flying

Above all, reports from planes are second only to satellite when it comes to **forecasting weather**. Thunderstorm windshear. **Aircraft** operations across the .

SOFIA Returns to Flight Studying Galaxies

NASA

NASA's flying observatory, the Stratospheric Observatory for Infrared ... In June, **SOFIA's** annual deployment to **Christchurch**, New Zealand was ...

JAL in consortium to study drone deliveries in Tokyo

Flightglobal

... as well as **weather forecasting services** provider Weathernews. JAL adds that the Tokyo metropolitan government will support the project financially.

Climate change / global warming

Climate Change Is Impacting Utilities. Here's How New Technology Can Help

Forbes

Digital **technologies** allow for greater flexibility and help create systems that can maintain power during severe **weather** and quickly restore service ...

Natural disasters must be unusual or deadly to prompt local climate policy change

Posted: 28 Aug 2020 05:49 PM PDT

Natural disasters alone are not enough to motivate local communities to engage in climate change mitigation or adaptation, a new study has found. Rather, policy change in response to extreme weather events appears to depend on a combination of factors, including fatalities, sustained media coverage, the unusualness of the event and the political makeup of the community.

Time travelling with a climate scientist

Andrew Lorrey, from NIWA, is a time travelling climate scientist. Dead corals cast up the shore of Aitutaki, in the Cook Islands, provide a window into the marine climate hundreds of years ago, in the period when Polynesians were exploring and settling that part of the Pacific. Andrew also tells Alison Ballance that ancient swamp kauri from New Zealand hold a record of climate going back tens of thousands of years.

Clouds

Atmospheric scientists study fires to resolve ice question in climate models

Posted: 26 Aug 2020 07:16 AM PDT

Black carbon from fires is an important short-term climate driver because it can affect the formation and composition of clouds. Scientists are figuring out how.

Emergency services / preparation

Independent oversight of emergency services communications project - Stuart Nash

Voxy

There will be a new Public Safety Network for **Fire and Emergency New Zealand**, New Zealand Police, St John and Wellington Free Ambulance.

Rob Fyfe to oversee new \$47.8 million emergency communications network rollout

Reseller News

The NGCC will rollout public safety networks for **Fire and Emergency New Zealand**, New Zealand Police, St John and Wellington Free Ambulance.

New Red Cross Red Crescent-UK Met Office guide to 'impact-based forecasting' for early ...

Red Cross Red Crescent Climate Centre

... do could enable early humanitarian action, and a new guide to this 'impact-based forecasting' was issued by the IFRC and the UK **Met Office** today.

History

WATCH: New series on TG4 reveals fascinating and shocking truths about the ancient and ...

Leitrim Observer

This new documentary series produced by Tile Films for **TG4** reveals ... and how extreme **weather** influenced the most critical battle in Irish history.

Innovation and technologies and AI

Redesigned OnePlus Weather app begins rolling out on Play Store beta channel

XDA Developers

The app replaces the 2D **weather graphics** on the home screen with more realistic graphics that denote the current weather conditions and the time of ...

OU launches new AI Institute for weather research

Oklahoman.com

... have been demonstrating that AI can really improve **weather forecasting**," ... overloaded by the tremendous amounts of **data** that's available to them."

New OnePlus Weather App Launches Globally Before Android 11

Android Headlines

Most notably, its flat 2D forecast illustrations made way for a wide range of stylish **weather graphics**. Refer to the screenshots featured above to get a ...

Lightning

Despite technology in place, lightning continues to be a major killer in Nepal

The Kathmandu Post

Even though the country has nine lightning detection centres and a **weather** radar station, they have not been sufficiently utilised for lack of manpower ...

Space weather

NSF and NASA partner to address space weather research and forecasting

Space Ref

"These awards will make sure that recent, extraordinary advances in computer modeling and **data** assimilation techniques are applied to critical ...

South Africa to Build USD266 Million Space Hub: Promises Six Satellites

Space in Africa

This includes R150 million (USD8.8) to upgrade its space **weather** centre, which is now one of a global network and will provide space **weather** data ...

Transport/roading/shipping/freight

Coronavirus lockdown, then bad weather, creates havoc on highways

New Zealand's coronavirus response has claimed another scalp: Road seals on state highways.

The Covid-19 alert level 4 lockdown started in the peak of the summer road sealing season, leaving some highways stripped of seal.

Robot boat to make transatlantic journey from UK to US

Deccan Herald

It will use data from The Weather Company to predict weather phenomena at sea as the weather is a huge variable while sailing. Deccan Herald News ...

Task forces to improve Network Rail's understanding of severe weather and earthworks management

Railway Gazette International

UK: Infrastructure manager Network Rail has launched two independent task forces to improve its understanding of severe weather and help it better manage its earthworks, following the fatal derailment of a ScotRail train near Stonehaven on August 12.

How weather news impacts public transit ridership

Posted: 31 Aug 2020 01:57 PM PDT

Researchers found a correlation between words used in media coverage related to weather or air quality, and transit ridership. It's not enough yet to say that media coverage causes changes in ridership. But it's enough to explore what factors in to a person's decision to ride transit and whether that decision can be nudged.

Odd spot

Beer used as renewable energy to power Australian water treatment plant

The Weather Network US

The Glenelg Wastewater Treatment Plant produced a record 355,200 cubic metres of biogas in May and 320,000 cubic metres in June, sufficient ..

Canadian company creates concrete from carbon dioxide in the air

The Weather Network

... said CarbonCure during an interview with The **Weather Network**. “Every cubic metre of CO2 mineralized produced with CarbonCure reduces carbon ..

Journal and articles online

Norway comes to New Zealand: Edward Kidson, Jørgen Holmboe and the Modernisation of Australasian Meteorology

Ciaran Doolin

Bull. Amer. Meteor. Soc. 1–46.

<https://doi.org/10.1175/BAMS-D-20-0058.1>

Edward Kidson, Director of the Meteorological Service of New Zealand from 1927 until his death in 1939, was an instrumental figure in modernising Australasian meteorology. Throughout the 1920s, Kidson promoted the methods of synoptic analysis emanating from the Bergen School of Meteorology. However, it was not until the 1930s that he began in earnest to apply these methods to weather charts for the Australasian region. This development was aided by two visits he made to Bergen and by a personal correspondence he maintained with Jacob Bjerknes during the 1930s. In 1932, Kidson presented the first Norwegian-style analysis conducted for a Southern Hemisphere region, promptly following this with a more extensive study. However, these analyses were not of a sufficient standard at that stage to be adopted in forecasting practice.

It was the fortuitous visit to New Zealand of Norwegian meteorologist Jørgen Holmboe, in 1934, that finally facilitated the transition. Holmboe was attached to the Lincoln Ellsworth Antarctic Expedition, but damage to their aircraft caused them to spend the winter of 1934 in New Zealand. Holmboe was engaged at the Meteorological Service in Wellington during this period, working with Kidson to apply Norwegian methods to the region. Kidson had hoped to further embed this practice by employing Tor Bergeron in New Zealand during 1938. Bergeron had accepted an offer from Kidson but cancelled at the last minute after contracting rheumatic fever. Nevertheless, shortly after Holmboe’s visit, daily analyses were being conducted along Norwegian lines, bringing Australasian meteorology into the 20th century.

Observation and simulation of mountain wave turbulence above Iceland: Turbulence intensification due to wave interference

Henrike Wilms, Martina Bramberger, Andreas Dörnbrack

Breaking gravity waves can lead to strong turbulence for aircraft. We analyse such a case where a research aircraft experienced strong turbulence above Iceland (at the position of the black dot). It is found that the interference of horizontally propagating mountain waves, which are excited by the two nearby mountains, amplified the turbulence intensity and enlarged the vertical extent of the turbulent region.

Addressing the sensitivity of forecast impact to flight path design for targeted observations of extratropical winter storms: A demonstration in an OSSE framework

A. C. Kren, L. Cucurull, H. Wang

e1942 | First Published: 26 August 2020

Since the 1980s, targeted observing has been employed to improve weather forecasts where data are scarce. The design and implementation of a flight path is key to achieving downstream forecast benefit. Using simulated dropsonde observations from the Global Hawk, the study examines the sensitivity inherent in the forecast impact downstream from varying flight pattern deployments. Small changes in the flight path can play an important role in the outcome of a forecast.

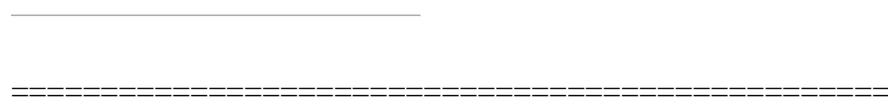
Open Access

Linking weather patterns to regional extreme precipitation for highlighting potential flood events in medium- to long-range forecasts

Doug Richardson, Robert Neal, Rutger Dankers, Ken Mylne, Robert Cowling, Holly Clements, Jonathan Millard

e1931 | First Published: 21 July 2020

The paper explores the potential of using weather patterns (WPs) as a preliminary step in producing forecasts of upper-tail precipitation threshold exceedance probabilities for the UK. WPs associated with higher probabilities of extreme precipitation are shown to have occurred during two well-known flood events: the 2014 Somerset Levels floods in southwest England; and Storm Desmond over the northern UK in December 2015. To illustrate the potential of this WP-based prediction framework, a forecast guidance tool intended for use by hydro-meteorologists in the England and Wales Flood Forecasting Centre (FFC) is introduced.



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.

Hurricane Laura's Rapid Intensification in Satellite Images: Cat 1 to Cat 4 in 24 Hours

The Weather Channel - August 26, 2020

Satellite imagery is giving meteorologists a jaw-dropping view of Laura's growth into a major hurricane.

NASA finds Typhoon Maysak moving near Okinawa, Japan

Phys.org - August 31, 2020

Typhoon Maysak continued to move through the Northwestern Pacific and was closing in on Japan's Okinawa Island when NASA's Terra satellite obtained a visible image of the storm.

The National Hurricane Center's Messaging Likely Saved Lives During Hurricane Laura

Forbes - August 28, 2020

Extreme messaging was appropriate and may have saved lives with Hurricane Laura.

Why hurricane storm surges are so dangerous

National Geographic - August 26, 2020

It's not just winds that make hurricanes a threat; the storms can create walls of water that wash miles inland and cause significant damage.

How weather news impacts public transit ridership

ScienceDaily - August 31, 2020

Researchers found a correlation between words used in media coverage related to weather or air quality, and transit ridership. It's not enough yet to say that media coverage causes changes in ridership. But it's enough to explore what factors in to a person's decision to ride transit and whether that decision can be nudged.

New analysis reveals where marine heatwaves will intensify fastest

EurekAlert! - August 28, 2020

High-resolution ocean models reveal worlds strongest currents will experience an acceleration in marine heatwave events.

Atmospheric scientists study fires to resolve ice question in climate models

National Science Foundation - August 31, 2020

The extent of black carbon's impact on clouds has been the subject of debate for 30 years. A study published in Proceedings of the National Academy of Scientists by Colorado State University atmospheric scientists aims to settle the debate and improve climate models.

Scientists drove radars inside Hurricane Laura's fiercest winds, hoping to unravel their mysteries

The Washington Post - August 30, 2020

The scientists' goal? Capture ultra-detailed radar scans from the inside of Laura, probing the tempest in a way that traditional Doppler radar simply couldn't. The team was particularly interested in Laura's eyewall, the unbroken ring of extreme winds and rain surrounding the storm's eerily calm eye.

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Weather Eye with John Maunder

<https://www.sunlive.co.nz/blogs/14986-tauranga-august-average-afternoon-temperatures-19132020.html>

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